

**Public Participation Summary**

License Amendment Application No. 2

For the

International Uranium (USA) Corporation

White Mesa Uranium Mill

San Juan County, Utah

Prepared By:

The Utah Department of Environmental Quality  
Division of Radiation Control

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## Public Participation Summary

License Amendment Application No. 2

For the

International Uranium (USA) Corporation

White Mesa Uranium Mill

San Juan County, Utah

### Introduction

The purpose of this document is to summarize public comments received by the Utah Division of Radiation Control (DRC) regarding the International Uranium (USA) Corporation Uranium Mill facility at the White Mesa Uranium Mill, near Blanding, Utah. Four sets of written comments were received from the public during the comment period that ended on Friday, January 5, 2005. In addition, verbal public comments during a public hearing held on January 5, 2006 in Blanding Utah are also included. Each of these comments is listed below in italics, followed by a DRC response.

**Note that some of the comments below have been renumbered for ease of reference.**

**Comments from Ms. Sarah Fields on December 8, 2005** (see Attachment 1)

**Comment No. A.1:** *Has the DRC taken the trouble to look at any NRC records pertaining to the FMRI, Inc. (subsidiary of Fansteel set up after the Fansteel bankruptcy to carry out decommissioning of the Muskogee site) facility?*

**DRC Response:** The commenter has not identified any specific document that she believes would be pertinent to this determination; DRC has reviewed NRC documents and has found nothing that would suggest the proposed license approval is not appropriate.

**Comment No. A.2:** *On page 3 of the SER it states that the Fansteel facility processed natural ores from 1960 to 1989. According to NRC records, the facility started processing in 1956. Why the conflicting dates?*

**DRC Response:** The March 8, 2005 license amendment application from IUSA states in Section 2.2, “From 1960 to 1989, Fansteel, Inc. (“Fansteel”) processed natural ores for recovery of tantalum and niobium, at the Muskogee facility.”

The January 15, 2003 Decommissioning Plan for the Fansteel, Inc. Muskogee facility states, “The Fansteel processing facility had been in operation for approximately 33 years until operations ceased in 1990.” This information calculates a date in 1957.

The DRC is unaware of any reason for the discrepancy in the dates, but the discrepancy is not pertinent to the license amendment application.

**Comment No. A.3:** *The FMRI facility processed tin slag from international sources. Is tin slag from the processing of tin ores considered to be a “natural ore”? Based on what?*

**DRC Response:** The SER does not make the statement “tin slag is a natural ore.” However, the DRC does see how this misunderstanding can be made from the text of Section 1.3. Tin slag is not a “natural ore,” however it may still be accepted as an alternate feed under the license. See also DRC Responses to Comments Nos. B.2 and B.8.

**Comment No. A.4:** *On Page 4, it states that the material proposed to be sent consists of ancillary drummed material, pond surrounding soils, and debris. In the IUSA application I find no data pertaining to either the radiological or non-radiological constituents of the drummed material or the soils surrounding the ponds. Why is there no information in the Application and the SER documenting the radiological and chemical constituents of the soils and barreled materials?*

**DRC Response:** Although IUC’s application did describe drummed materials, there are

no drummed materials that are part of the FRMI materials. Drummed materials will therefore not be processed or disposed of at this facility, as specified in an April 28, 2006 letter from the licensee.

Because any overexcavated soils and any other debris materials would have, if anything, lower contaminant concentrations than the tailings samples taken from Ponds 2 and 3, the analysis in the SER is adequate to characterize the risk from those materials.

**Comment No. A.5:** *Ponds 2 and 3 are surrounded by contaminated soils, FMRI will be required to clean up this material. How much of the soils surrounding the ponds will go to White Mesa? What will be the criteria for determining what surrounding material will go to White Mesa and what will not? Since the DRC has no authority over the decommissioning and cleanup of the FMRI facility, how will the DRC assure that any specific criteria will be met?*

**DRC Response:** The license amendment authorizes IUC to accept only material from Ponds 2 and 3 of the FMRI’s Muskogee Facility. As described in DRC Response to Comment No. B.2, all materials disposed of at the site must be byproduct materials. This in turn regulates the materials that may be processed in the Mill. DRC will use NRC guidance (again see DRC Response to Comment No. B.2) to make that judgment. Note that because the Licensee is only permitted to dispose of byproduct material on site (see License Condition 10.1(B)), IUC’s determinations that milling of debris will result in byproduct material is subject to DRC’s oversight.

**Comment No. A.6:** *How will IUSA “process” the debris for its source material content?*

**DRC Response:** Debris that is unsuitable for processing may be separated and then placed directly into the tailings cell. This is standard practice for alternate feed material which contains debris.

**Comment No. A.7:** *On Page 7 of the SER there are two tables. The first refers to Ponds 1 and 2. According to the March 8 IUSA application and the discussion in the SER, the ponds in question are Ponds 2 and 3. Why are they referred to as Ponds 1 and 2 in the SER?*

**DRC Response:** This is a typographical error. The “Pond 1” table in Section 4.1 should be labeled Pond 2. The “Pond 2” table in Section 4.1 should be labeled Pond 3. The correct values can be seen in the tables below.

Pond 2	Gross Alpha	Gross Beta	U-234 (pCi/g)	U-235 (pCi/g)	U-238 (pCi/g)	Th-228 (pCi/g)	Th-230 (pCi/g)	Th-232 (pCi/g)	Ra-228 (pCi/g)	Ra-226 (pCi/g)
Min	2300	920	170	5.3	170	160	420	160	160	138
Max	6700	3100	550	29	580	560	860	560	560	329
Avg.	4478	2091	344	15.2	357	360	697	360	360	233

Pond 3	Gross Alpha	Gross Beta	U-234 (pCi/g)	U-235 (pCi/g)	U-238 (pCi/g)	Th-228 (pCi/g)	Th-230 (pCi/g)	Th-232 (pCi/g)	Ra-228 (pCi/g)	Ra-226 (pCi/g)
Min	840	610	598	12	110	94	210	94	94	142
Max	7600	3800	1770	46	635	680	1200	680	680	400
Avg.	5263	2674	1000	30.2	180	437	766	437	437	144

**Comment No. A.8:** *The table lists the radiological constituents in Pond 2 (actually Pond 3) under U-234 lists the Min as 1770 pCi/g. Then the Max concentration is supposedly 1000 pCi/g. Here the minimum is more than the maximum. If you add 1770 (Min) and 1000 (Max) and divide by 2 you get an average 1350. Most likely there is an extra 0, and the Min should be 177. This gives an average pCi/g of 588 (almost 598, but to get the averages FMRI factored in all the data points). Seems like the IUSA table was copied into the SER but not checked for accuracy.*

**DRC Response:** It is correct that this is a typographical error. The correct minimum concentration is 170 pCi/g. See corrections to the table in Item A.7 above.

**Comment No. A.9:** *The table at the bottom of page 7 of the SER compares the FMRI material with the WR Grace, Heritage, and Maywood materials. The WR Grace material was never shipped to the IUSA mill, nor was the Maywood material. What exactly is the rationale behind comparing the FMRI material with material that will never (WR Grace) and provably will never (Maywood) be received, processed, and disposed of at the mill?*

**DRC Response:** The comparison was between material that had previously been approved for receipt at the Mill by the NRC and material proposed to be approved in the licensing action. This comparison is valid because NRC evaluated the potential health, environmental, and safety impacts of those materials and concluded that the proposed license amendments could be approved because health, environmental, and safety standards were met. Because the materials that are the subject of this license amendment application are similar to those previously-approved alternate feed materials, the analyses performed by NRC is pertinent to this action, regardless of whether the material was ultimately processed at the facility.

**Comment No. A.10:** *IUSA has a Standard Operating Procedure (SOP) for high thorium content material. They supposedly used this procedure for processing the Heritage material. There is no mention in the application or the SER of the use of this SOP. Will IUSA be required to use this procedure? If no, why not?*

**DRC Response:** It is at all times the responsibility of the licensee to determine the appropriate operational procedures. The DRC has oversight of that determination to assure that the operation procedures being used are in compliance with license conditions, e.g., License Condition 9.6.

**Comment No. A.11:** Blank.(sic)

**Comment No. A.12:** *In the application IUSA gives a bit of information regarding the history of Pond 3. However, IUSA and Ms. Tischler fail to mention that the current Pond 3 consists of an old Pond 3 and a Pond 4, which were reconfigured. There is no information in the application regarding what Pond 4 was used for, what happened to the Pond 4 materials, or how much contamination from Pond 4 there will be in the contaminated soils?*

*What exactly went into the current Pond 3? Why was this information about the existence of Pond 4 and the reconfiguration of the ponds left out of the application? Will parts of the old Pond 4 not part of Pond 3 be part of the contaminated soils sent to the IUSA mill? Where exactly was the old Pond 4 located? Don't you think the DRC should have this information?*

*Information re Pond 4: "The original Pond 3 was smaller and occupied approximately the eastern half of its current location. No information was available about whether this pond was lined. The current Pond 3 was expanded in 1979, encompassing most of Pond 4, and a synthetic liner was laid down. The areas of Pond 4 that were not incorporated into the new Pond 3 were filled in with soil. It is not clear whether Pond 4 was lined, or what was done with the waste contained in it."*

*Considering that the greatest groundwater contamination at the FMRI site is down gradient from Pond 3, it is reasonable to conclude that it and Pond 4 were not lined originally.*

**DRC Response:** The licensee is authorized to take only materials from Ponds 2 and 3, which DRC regards as adequately characterized based on sampling. To the extent there is an additional pond that lies beneath Pond 3 and that has not been characterized, this license amendment does not approve taking that material.

**Comment No. A.13:** *How did the DRC determine that there was sufficient data to determine the radiological and not radiological constituents of Pond 2 and Pond 3?*

**DRC Response:** The Executive Secretary has concluded that the sampling done was sufficiently representative to characterize the waste. Pond 2 had 3 boring locations where 3 samples were collected at depths of 0-4, 4-8, 8-12 feet below grade for a total of 9 samples. Pond 3 had 5 boring locations where 3 samples were collected at depths of 0-4, 4-8, 8-12 feet below grade for a total of 15 samples. From these 24 samples, DRC concluded that the sampling locations and depths in both Ponds had adequate spatial distribution to characterize radiological and non-radiological constituents of the material in Pond 2 and Pond 3. Samples beneath and immediately adjacent to the ponds were not sampled so as to prevent puncturing liners and further affecting subsurface soils and groundwater. While these soil materials beneath and immediately adjacent to the ponds

that may have been impacted by Pond 2 and Pond 3 tailings, these impacted soils should have lower than or equal contaminant concentrations than the Pond 2 and Pond 3 tailings samples. The radiological and non-radiological analytical data for these samples are presented in Section 2 of the March 8, 2005 application.

***Comment No. A.14:*** *Does the DRC have any information regarding when and how the sampling was done? What the sampling methodology was? How many samples were taken?*

**DRC Response:** Sampling methodology and the number of samples taken is described in Section 6.1 of the Review and Evaluation of Characterization Data Provided for Fansteel Corporation, Muskogee, Oklahoma, November 15, 2002. In addition, see DRC Response to Comment No. A.13 for the number and location of samples collected.

***Comment No. A.15:*** *Did the DRC request a copy of all information referenced by Ms. Tischler in the March 8, 2005 application?*

**DRC Response:** DRC does not have copies of every document referenced by Ms. Tischler, but does have all information relevant to the characterization of soils – either copies the documents cited by Ms. Tischler, or other sources for that same information.

**Comments from Ms. Sarah Fields for the Glen Canyon Group/Sierra Club,  
received on January 5, 2006 (see Attachment 1)**

**Comment B.1:** *1. The SER (page 1) lists four documents as comprising the IUSA Application. Additional letters and information was submitted to the Division of Radiation Control (DRC). IUSA submitted additional information to the DRC as part of the application process:*

- *September 9, 2005, Memo from Tetra Tech to Harold Roberts, IUC, re Survey of Reference Partition coefficient Values for Trace Heavy Metals, e-mailed to DRC.*
- *September 26, 2005, memo from IUSA to Loren Morton, DRC, re Analysis of Parameters*
- *September 26, 2005 memo re Monitoring Parameters from Tetra Tech EM, Inc. to IUSA, forwarded to DRC*
- *October 4, 2005 IUSA Forwards signed Memoranda dated September 26, 2005, IUC and Tetra Tech EM, Inc.*

*There may be other submittals from the IUSA that were considered in the application review process. Additionally, there was a May 16, 2005, letter from the DRC to IUSA requesting additional information.*

*The SER Should list All documents and electronic correspondence submitted to the DRC by IUSA as part of the application process. The May request for additional information should be listed, too.*

**DRC Response:** All document and electronic correspondence submitted to the DRC by IUC are listed in the references in section 6 in the SER, including the IUC June 22, 2005 response to DRC May 16, 2005 letter request for additional information. The Request for Information and the Licensee's response are part of the administrative record and are available for review at the Division of Radiation Control offices.

**Comment B.2:** *The SER (page 1, paragraph 1) states that "The proposed amendment would allow IUSA to receive and process up to 32,000 tons of alternate feed material from the Muskogee Facility."*

*The question arises of what "alternate feed material" is under statute and regulation. There is no definition of or mention of the term "alternate feed material" in the Atomic Energy Act of 1954 (AEA), as amended. There is no definition of or any mention of "alternate feed material" in the Environmental Protection Agency (EPA) and NRC regulations that were promulgated to implement the Uranium Mill Tailings Radiation Control Act of 1978 (amendment to the AEA). Only in State of Utah statute is there a definition of "alternate feed material." The applicable Utah Code states:*

*Section 19-3-105. Definitions -- Legislative and gubernatorial approval required for radioactive waste license -- Application for new, renewed, or*

amended license.

(1) As used in this section:

(a) "Alternate feed material" has the same definition as provided in Section 59-24-102.

Section 59-24-102. Definitions.

As used in this chapter:

(1) (a) "Alternate feed material" means a natural or native material:

(i) mined for the extraction of its constituents or other matter from which source material may be extracted in a licensed uranium or thorium mill; and

(ii) may be reprocessed for its source material content.

(b) "Alternate feed material" does not include:

(i) material containing hazardous waste listed under 40 C.F.R. Part 261, Subpart D;

(ii) natural or unprocessed ore; or

(iii) naturally occurring radioactive materials containing greater than 15 picocuries per gram of radium-226.

(2) "Byproduct material" is as defined in 42 U.S.C. Sec. 2014(e)(2).

Section 59-24-102 clearly states that "'alternate feed material' does not include . . . naturally occurring radioactive materials containing greater than 15 picocuries per gram of radium-226." The SER contains a table (page 7) that provides data with respect to the radium content of Pond 1 and Pond 2 materials (actually Ponds 2 and 3 of the Muskogee Facility). The radium-226 content ranges from 138 to 400 picocuries per gram (pCi/g).

This is far greater than 15 pCi/g radium-226. Additionally, the table indicates that the radium-228 content is from 94 to 680 pCi/g. Radium-228 (a decay product of thorium-232) and radium-224 (also a decay product of thorium-232) are more highly radioactive than radium-226 (a decay product of uranium-238).

The SER must explain whether the Pond 2 and Pond 3 material from the Muskogee facility meets or does not meet the Utah statutory definition of "alternate feed material," and provide a basis for that determination.

If the FMRI material does not meet the Utah statutory definition of "alternate feed material," the SER must explain what statutory definition it does meet.

The SER must also state and substantiate the federal statutory definitions applicable to the FMRI materials.

**DRC Response:** This comment misapplies the relevant statutes. Utah Code Annot. §§ 19-3-105 and 59-24-102 are intended to define "'radioactive waste facility" only for purposes of that section and statute, respectively. Utah Code Annot. § 19-3-105 defines "radioactive waste facility" exclusively for the requirement of legislative and gubernatorial approval of a permit for a radioactive waste disposal facility. See § 19-3-105 (1) limiting the definition to "As used in this section." Utah Code Annot. § 59-24-

102 defines "radioactive waste facility" only to allow the State Tax Commission to determine if the radioactive waste facility tax is applicable to a facility. See § 59-24-102 which limits the definition to "As used in this chapter."

IUC is receiving the material as feed for processing, not as waste. Further, the material it disposes of, following processing, will have been generated on-site through IUC's milling process. Therefore, IUC is not a radioactive waste disposal facility, for purposes of those sections cited.

There are two primary limitations on the kinds of materials that the licensee may receive as feed material. The first is that the licensee may only dispose of materials on site that meet the definition of "byproduct material" under the federal Atomic Energy Act § 11(e)(2) ("Section 11(e)(2)"). The definition of "byproduct material," in turn constrains the materials that may be milled. The second is that receipt and processing of the materials at the Mill and disposal of the resulting tailings in the Mill tailings impoundments must be done in compliance with applicable regulations and be consistent with environmental assumptions underlying the Mill's license.

The requirement that the licensee may not dispose of anything other than byproduct material in on-site tailings was previously an implicit part of this license. With this license amendment, the DRC has made that requirement explicit. See License Condition 10.1(B). The basis for this now-explicit license condition is that it is the intention of the State of Utah and of the licensee that the U.S. Department of Energy take title to the licensee's facility after closure. If it is at some point determined that DOE will take title to a site even though some of the material disposed of at the site is not byproduct material, DRC would expect to revisit this requirement.

The Executive Secretary has used applicable NRC guidance in interpreting the definition of "byproduct material" in § 11e(2). That guidance clarifies what material may be accepted as alternate feed material. See NRC Regulatory Issue Summary 2000-23 and materials cited therein.

***Comment B.3:*** *The SER (page 1, paragraph 2) states that "the FMRI materials are residues resulting from processing ores for the extraction of tantalum and niobium." According to the 2003 Fansteel decommissioning plan:*

*The raw materials containing the tantalum and columbium [niobium] oxides that were processed by the Fansteel facility consisted of the following types:*

- *Tin-smelting slag*
- *Natural ores*
- *Chemically or physically upgraded ores and concentrates*

*Unless the DRC considers tin slag to be "ore," the SER should recognize that materials*

other than “ore” were processed at the Muskogee facility.

**DRC Response:** See DRC response to Comment No. A.3.

**Comment B.4:** *The SER should also acknowledge that the DRC does not have complete data on the processing history of the Fansteel Facility. The facility operated from 1956 (or 1958; the accounts differ) to 1967 without a source material license.*

**DRC Response:** The DRC acknowledges that the DRC does not have complete information on the processing history of Fansteel Facility. Given the information DRC does have about the proposed feed material however, e.g., sampling results, there is an adequate basis for issuing this license amendment. See also DRC Responses to Comments Nos. A.13 and B.14.

**Comment B.5:** *The SER (page 1, paragraph 4) states “IUSA is requesting that the material be received and processed for its source material content.”*

*According to the Application, IUSA intends to process the FMRI material for only some of its source material contents, i.e., its uranium content. “Source material” as defined by the Atomic Energy Act of 1954, as amended, and NRC regulation that has been incorporated into State of Utah regulations (R313) defines the type of source material herein as “(1) Uranium or thorium, or any combination thereof, in any physical or chemical form.” See 10 C.F.R. Section 40.4. The FMRI material contains both uranium (U 234, U 235, and U 238) and thorium (Th 228 and Th 232).*

*The SER should state that IUSA intends to process the FMRI material for only part of its source material content. The SER should state that IUSA only intends to extract the source material uranium content and will dispose of its source material thorium content in the tailings disposal impoundment.*

**DRC Response:** The material is being processed for uranium only, as noted in Section 1.2 of the SER. DRC agrees that this does mean natural thorium will be disposed of in the tailings as byproduct material.

**Comment B.6:** *IUSA does not have a license to possess source material thorium (thorium-232 and progeny). IUSA has only a license to possess source material uranium. The FMRI license clearly states that FMRI is licensed to possess both source material uranium and source material thorium.*

*The SER should address the need for IUSA to request a license amendment authorizing it to possess source material thorium if it is to receive and dispose of the FMRI source material thorium.*

**DRC Response:** Because the license amendment application describes the thorium

content of the proposed feed, approval of this license amendment constitutes approval to possess thorium as described, as well as other decay progeny.

**Comment B.7:** *The SER references the NRC Regulatory Issues Summary 2000-23 (RIS 2000-23) and its criteria. Here, the DRC fails to include the title of the NRC policy guidance and fails to mention that this guidance is not a statute or regulation, and does not have the force and effect of law. The SER fails to reference any federal statute or regulation that would provide a basis for the criteria listed in the SER (pages 2 and 3).*

*The SER should reference and discuss any federal statute or regulation that would provide a basis for the criteria listed in the SER (pages 2 and 3).*

**DRC Response:** DRC Response to Comment B.2 and B.8 describes the applicability of the cited NRC guidance. See also new License Conditions Nos. 10.B and 10.C.

**Comment B.8:** *The SER lists three criteria for decision making regarding the acceptance of alternate feed material (also known as feed material other than natural ore, that is, radioactive waste from other mineral processing operations). The first criterion deals with the redefinition of the radioactive waste as “ore.” Neither the NRC RIS 2000-23 nor the decision by the State of Utah to permit the processing of alternate feed materials were decisions that were the subject of public notice and comment. These determinations and documents are not statutes or regulations and lack force and effect.*

*There is no statutory basis for redefining radioactive waste from one mineral processing operation as “ore” in order to facilitate the processing of the waste in another mineral processing operation.*

**DRC Response:** This comment assumes a condition that is not true – that there is a prohibition against acceptance of feed materials other than conventionally mined ores. The Executive Secretary is aware of no such prohibition. The source of the limitation on feed material is described in DRC Response to Comment No. B.2.

For similar reasons, there was no decision to permit the processing of alternate feed material, as the commenter has suggested. There is no statutory or regulatory prohibition against processing alternate feed materials, and, again, a proposal to process such materials is subject to the limitations described in DRC Response to Comment No. B.2.

It should be noted that the limitations and interpretations described in DRC Response to Comment No. B.2 have now been explicitly adopted in the license under License Conditions Nos. 10(B) and 10(C). Because there is no general prohibition against feeding material other than conventionally mined ores, this license condition increases, rather than decreases, restrictions on the licensee.

A technical evaluation of the three criteria from the NRC guidance is found in section

1.2, page 2 in the SER.

**Comment B.9:** *The term “ore” as used in the Atomic Energy Act of 1954 (AEA), as amended, and applicable NRC and EPA regulations only includes material that is natural ore. The Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) that amended the AEA, the NRC and EPA regulations promulgated in response to that statute, and the background generic NRC and EPA Environmental Impact Statements in support of the regulations did not in any manner contemplate the processing the feed materials other than natural ore at uranium recovery facilities. Neither the AEA nor NRC and EPA regulations have been amended to provide for a regulatory program that contemplates the use uranium recovery facilities for the disposal of wastes from the processing of feed materials other than natural ore. There is no programmatic NRC or EPA Environmental Impact Statement that evaluates the environmental impacts of or assesses the risks associated with the use of uranium recovery facilities for the processing and disposal of feed materials other than natural ore.*

*In sum, there is no statutory or regulatory basis for the programmatic use of a uranium mill as a radioactive waste disposal facility or the processing of uranium-bearing radioactive wastes or any other materials other than natural ore.*

**DRC Response:** There is no statutory or regulatory prohibition preventing the processing of materials other than conventionally mined ores. See, DRC response to comments B.2 and B.8. The Executive Secretary has used NRC guidance as to what can be accepted as alternate feed material in interpreting the definition of "byproduct material" in §11e(2). See, NRC Regulatory Issue Summary 2000-23 and material cited therein.

The commenter has cited no authority for her statement that “ore” under the Atomic Energy Act means only natural or conventionally mined ore. There is no definition of ore in the statute, and the definition urged by the commenter has been rejected by the NRC.

DRC agrees that the Mill may not be used as a commercial radioactive waste disposal facility without licensing and approval as provided in Utah Code Annot. § 19-3-105.

DRC also agrees that appropriate environmental analyses must be conducted for materials proposed for milling. DRC does not agree that analysis for this proposed alternate feed is not adequate. See DRC Response to Comment No. B.2 (last paragraph).

**Comment B.10:** *The second criterion deals with whether the feed material contains hazardous waste. In other words, is the waste from the Muskogee Facility mixed radioactive and hazardous waste? The SER states that the FMRI material is tailings from the processing of ore. How the material can be material from the processing of ore and also be “ore” per criteria is not explained.*

*The SER should explain how and when the FMRI will be transformed from “material*

*from the processing of ore” back into “ore.”*

*The SER must explain, with specificity and particularity, what exactly must take place on the ground for this magical transformation to occur.*

*The SER must explain the statutory and regulatory bases for this transformation.*

**DRC Response:** This comment assumes that the licensee is restricted to processing only natural or conventionally mined ore. As described in DRC Responses to Comments Nos. B.2 and B.8, this assumption is incorrect. The remainder of the comment is therefore inapplicable.

**Comment B.11:** *The discussion of whether the FMRI material is hazardous waste contains a statement that the material is not hazardous waste under 40 C.F.R. 261.4(b)(7).*

*The SER does not quote that EPA regulation, nor does the SER discuss all of the provisions of that regulation and how the FMRI does or does not meet the requirements for the exemption. Additionally, the SER does not discuss whether any exemption under Section 261.4(b)(7) is applicable once the FMRI material has been transported to the IUSA mill for storage and processing. The SER does not explain under what authority the DRC is authorized to make a determination of whether a solid waste is or is not a hazardous waste. There is no indication that the DRC has determined which federal and/or state agency has the authority to determine whether the FMRI material contains listed or characteristic hazardous waste. There is no indication in the SER that the DRC has sought an official opinion by any federal or state authority regarding the presence of hazardous waste in the Pond 2 and Pond 3 materials.*

*The SER must contain a full explanation of why the FMRI material is exempted from the definition of hazardous waste.*

*The SER must discuss whether any exemption under Section 261.4(b)(7) is applicable once the FMRI material has been transported to the IUSA mill for storage and processing.*

*The SER must explain under what authority the DRC is authorized to make a determination of whether a solid waste is or is not a hazardous waste.*

**DRC Response:** The basis for the DRC’s determination that there are no listed hazardous wastes is the information provided by the licensee on pages 5-7 of the March 8, 2005 application. That information applies a 1999 protocol developed by IUSA to determine if alternate feed materials proposed for processing at the Mill are listed hazardous wastes. The Utah Division of Solid and Hazardous Waste (DSHW) approved this protocol in a letter of December 7, 1999. IUSA applied this protocol for the FMRI

materials on pages 5, 6, and 7 of the March 8, 2005 application and determined that the materials are not listed hazardous wastes. The DRC determined that the 1999 protocol has been followed.

Although the DRC continues to believe the materials would, if they continued to sit on site, not be solid wastes due to the application of 40 CFR Section 261.4(b)(7), that status is actually not relevant to the materials as they are proposed to be used as alternate feed. As alternate feed, the materials are not waste at all, and are therefore not subject to RCRA.

The Executive Secretary has made the determination that these materials are not RCRA-regulated in the context of assuring that any materials disposed of following processing will be byproduct materials and not mixed waste that could be subject to dual jurisdiction. His determination was made through application of guidance that has been accepted by the agencies responsible for administering hazardous waste laws in Utah, but is not binding on those agencies.

***Comment B.12:*** *The SER (page 3) states that “currently, IUSA has 13 license amendments authorizing the mill to receive and process alternate feed materials from various sites.” The SER fails to provide information on whether it has received or will receive the materials authorized for receipt. Apparently, the materials from the W.R. Grace and the St. Louis facilities have been disposed of at another facility. It also appears that IUSA will not receive any materials from the Maywood, New Jersey, facility.*

*The SER must contain information about what material the mill has received and processed, what material is still being received at the mill, what material receipt will be ongoing over a period of years, and what material was not and will not be received at the mill.*

**DRC Response:** See DRC Response to Comment No. A.9. The commenter has cited no authority for her statement, in the second paragraph of this comment, about the kinds of information that must be contained in the SER. The DRC respectfully disagrees with the assertion.

***Comment B.13:*** *Comment C.1: 1. The SER states (page 3) states that “in IUSA’s March 8, 2005, submittal they state that from 1960 to 1989, Fansteel processed natural ores for recovery of tantalum and niobium (columbium) at the Muskogee Facility.” This statement in the Application is the first of a number of misstatements taken from the Application by the DRC. The 2002 ICF Report states (page 60) “Over the course of Fansteel’s operations from 1956 to 1989 (and between 2000 and 2001), ten holding ponds have been used at the site.” According to the ICF Report, not only did processing begin in 1956, not 1960, but processing occurred in 2000 and 2001. The SER should not contain misstatements of fact.*

**DRC Response:** DRC agrees there is a discrepancy in the dates, but does not agree that the discrepancy is pertinent to the determination regarding the suitability of the FMRI material as an alternate feed.

**Comment B.14:** *The SER (page 3) describes the processes that resulted in the wastes that are in Ponds 2 and 3. There are some pertinent facts that are missing from the discussion.*

*First, there is the assumption that the DRC has been provided with complete information related to the processing history of the materials in Ponds 2 and 3 and the history of the ponds themselves. However, based on the information contained in the ICF Report, the SER and the IUSA application that it relies upon are woefully incomplete with respect the history of Ponds 2 and 3.*

*(a) The ICF Review and Evaluation contains the following statements with respect the history of Pond 2:*

*There are two types of ponds at the Fansteel site. The first type includes those that were used to store process residues. The second type is those that were and are currently used for wastewater treatment. Ponds N and 1 S, 2, 3 and 5 were principally used to hold processing residues (Ponds 2 and 5 also received wastewater at some point). All of these ponds, with the exception of Pond 3, have been filled in. [page 61]*

*Pond 2 was used to store acidic ore processing residue from the ore digestion process, including digested ores and slags and fluids comprised of hydrofluoric and sulfuric acids and containing MIBK, heavy metals, and radioactive waste. . . . The pond was constructed in 1960 and included a clay liner. It was used to hold process residue until Pond 3 was built in 1979. [Page 62.]*

*The SER does not mention or take into consideration that Pond 2 received wastewater, in addition to processing residues.*

*(b) The SER makes no mention of an earlier Pond 3 and a Pond 4. The ICF Report contains the following statements with respect the history of Pond 3:*

*Pond 3 also was used to store acidic processing residue from the ore digestion process, including digested ores and slags and fluids comprised of hydrofluoric and sulfuric acids and containing MIBK, heavy metals, and radioactive waste. . . . The original Pond 3 was smaller and occupied approximately the eastern half of its current location. No information was available about whether this pond was lined. The current Pond 3 was expanded in 1979, encompassing most of Pond 4, and a synthetic liner was laid down. [Page 64.]*

*The areas of Pond 4 that were not incorporated into the new Pond 3 were filled in with soil. It is not clear whether Pond 4 was lined, or what was done with the waste contained*

*in it. However, during the construction of Pond 3, the crews hit the water table in the alluvial soils. As a result, a French drain and sump were set up around the pond. [Page 65.]*

*In general, the type of waste deposited in the ponds over the last 30 years is known. However, it is not clear whether Fansteel kept historical records for all materials placed in the ponds since the beginning of site activity. For example, the history of Ponds N, I S, and 4 is unclear. Another outstanding question is what was done with residues removed from these ponds. [Page 78.]*

*Second, it is assumed that when Pond 4 was removed and combined with the newer Pond 3, that the residue and any liner were also removed. However, there is little information about the history of Pond 4 and the soil where it was located has not been sampled. Please see Section 7 for a complete discussion of recommended further soil sampling. [Page 80.]*

*The SER totally fails to mention the fact that Pond 3 is located where there was a previous Pond 3 and a Pond 4. According to the ICF Report, they have no information regarding the history of Pond 4. In other words, the complete history of the materials in the current Pond 3 is unknown.*

*In order for the DRC to be able to fully and accurately discuss the history of Ponds 2 and 3, the DRC must obtain a copy of the 2002 ICF Report and the 1993 Technical Report Remediation Assessment.*

**DRC Response:** The Executive Secretary's determination is based primarily on sampling information provided with respect to the proposed alternate feed. Historical information is often helpful in drawing up sampling plans and interpreting results, but satisfactory characterization may also be reached without historical information. In this case, the Executive Secretary has determined that the sampling was adequate.

See also DRC Response to Comment No. A.12 regarding Pond 4.

**Comment B.15:** *The SER (page 4) states that "the FMRI materials are comprised of the materials stored in on-site Ponds 2 and 3, ancillary drummed material, pond cover soils, pond surrounding soils, and debris that have been impacted by the proposed alternate feed material."*

*The SER does not contain any data with respect the history and the radiological and non-radiological characteristics of the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris.*

*The SER must include information about the history of and the radiological and non-radiological characteristics of the ancillary drummed material, the pond cover soils,*

pond surrounding soils, and debris.

**DRC Response:** See DRC Response to Comment No. A.4.

**Comment B.16:** *The SER (page 4) lists 5 purposes that the SER is supposed to serve.*

*One can only wonder how the SER can serve to properly provide information and analysis and address impacts to health and safety and the environment if the DRC does not have all the pertinent information that is publicly available regarding the history and nature of the FMRI materials. If the data is incomplete and misleading, the SER will be incomplete and misleading.*

**DRC Response:** See DRC Responses to Comments Nos. A.13 and B.14.

**Comment B.17:** *First off, the SER (page 7) errs by misidentifying Ponds 2 and 3 as Ponds 1 and 2 in both the text and table of radiological constituents.*

*The SER should correctly identify the ponds in the text and table.*

**DRC Response:** See DRC Response to Comment No. A.7.

**Comment B.18:** *The SER (page 7) includes a table that supposedly identifies the radiological constituents of the material in Ponds 2 and 3 (erroneously identified as Ponds 1 and 2). The SER states that the information came from the March 8 Application. The SER does not provide any information regarding the basis of this data. The SER fails to identify when and how the sampling events that resulted in the data took place. The following questions, among others, have not been asked or answered in the SER:*

- 1. Have historical records been kept for all materials placed into the ponds?*
- 2. Has each pond been classified as impacted or non-impacted?*
- 3. Has each pond been appropriately divided into surface and depth sampling grids?*
- 4. Has a sampling plan been prepared for each pond based on the historical knowledge of materials placed in the pond?*
- 5. Does the sampling plan address all analytes of concern?*
- 6. Does the sampling plan address QA/QC requirements?*
- 7. Has sampling been conducted in each pond according to the sampling plan?*
- 8. Are the number and depths of samples taken known for each pond?*
- 9. Is the number of samples equal to or greater than the minimum that would be calculated using land-based management unit characterization methodology?*
- 10. Are the detection limits for each analytical instrument known for each pond?*
- 11. Has sampling been conducted for each pond using appropriate instrumentation with appropriate sensitivity?*
- 12. Has clean soil or bedrock been found below each pond?*
- 13. Has clean soil been found outside the perimeter of each pond?*

*14. Are all sample results below the action levels.*

*The SER must substantiate any assertion that the table of radionuclides (page 7) is a complete and accurate characterization of the materials in Ponds 2 and 3.*

*The table on page 7 should include the standard deviation for each of the data sets. This information is available on the public records for the Fansteel facility and should not have been excluded from the tables for Ponds 2 and 3.*

**DRC Response:** Characterization of the materials at the Fansteel, Inc. Muskogee facility is being overseen by other regulating agencies. The process they used, and the results seen, are available in public documents. It is reasonable for DRC to rely on that characterization, and the DRC has no information that would suggest it is inadequate.

The Executive Secretary respectfully disagrees with the commenter's assertion that the SER must include information about standard deviation for each data set. As described in DRC Response to Comment No. A.13, the Executive Secretary has determined that the data values as presented in the table on page 7 in the November 2, 2005 SER may be expected to be representative for radiologic and non-radiologic components.

**Comment B.19:** *The discussion of the radiological impacts contains no information regarding the radiological content of the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris. There is no basis for any assumption that these materials are uranium-bearing materials that can be processed for their source material content.*

*The SER must contain an assessment of the radiological contents of the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris, that IUSA proposes to receive and process.*

*The SER must include information about the radiological content of any Pond 4 materials that may be sent to the IUSA mill.*

**DRC Response:** See DRC Responses to Comments Nos. A.4, A.5, and A.12.

**Comment B.20:** *The SER (page 7) states that the FMRI is “radiologically consistent with other ores and alternate feeds that have been processed at the White Mesa Mill.” The SER contains no information that would provide a basis for that statement. There is no explanation of what the term “radiologically consistent” means or what criteria are used to determine whether one type of material is “radiologically consistent” with another. Since the SER provides no information with respect the radiological characterization of the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris, there is no basis for comparing those FMRI materials with any other materials.*

*The SER must substantiate with data any assertions regarding radiological consistency.*

**DRC Response:** DRC evaluated and compared the radioactive constituents in the FMRI materials with radioactive constituents in other ores and alternate feeds and has determined that they are radiologically consistent (see section 4.1, page 7 of the November 2, 2005 SER) Concerning drummed materials, see DRC Response to Comment No. A.4. Concerning the radiological characterization of pond cover soils, pond surrounding soils, and debris see DRC Response to Comment No. A.4.

**Comment B.21:** *The SER (page 7) states that the FMRI materials will be sealed inside a neoprene liner inside a fabric bag. There is no information regarding how the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris will be packaged. Will the debris fit into the fabric bags? Will the drummed material be transferred to fabric bags? There is no information regarding why the neoprene liner will be adequate to protect the integrity of the fabric bags.*

*The SER must provide information regarding the shipping and containment of ALL the FMRI materials. The SER must substantiate any assertion that the neoprene lined fabric bags are appropriate containers for the highly acidic radioactive and hazardous FMRI materials.*

**DRC Response:** With respect to the use of fabric bags for shipment, the United States Department of Transportation has the regulatory authority for the shipment of this material. The DRC does not regulate the material until it enters the IUSA Mill site. It should be noted, however, that the bags proposed by the licensee are USDOT approved shipping containers for materials with low radioactivity.

Once on site, the fabric bags used on site will be part of the engineering controls for the facility. As such, the licensee will be required to ensure their continued integrity, and any failure in that requirement is subject to DRC oversight.

See DRC Response to Comment No. A.4 regarding drummed material and debris.

**Comment B.22:** *The SER (page 7) states that the exposure and dose rates from the estimated 32,000 tons of FMRI material was found to approximately the same as that of an equivalent amount of low-grade Colorado Plateau ore.*

*The SER provides no basis for this statement. There is no comparison of ALL the FMRI materials with Colorado Plateau ore. There is no comparison between the Gross Alpha and Gross Beta levels of the FMRI materials with Gross Alpha and Gross Beta levels of Colorado Plateau ore commonly processed at the IUSA mill. There is no comparison between the total thorium content (thorium-232 and thorium-228) and Colorado Plateau ore. There is no comparison between the radium content (radium-226, radium-228, and*

radium-224) and Colorado Plateau ore. Based on the table of radiological constituents of Pond 2 and 3, there is an appreciable amount of thorium-232 and its progeny thorium-228 (total thorium). Since Colorado Plateau ore is not a source of thorium-232 and its highly radioactive decay products, it is hard to see how the FMRI materials in Ponds 2 and 3 can have exposure and dose rates that are approximately the same as Colorado Plateau ore.

*The SER must substantiate with facts and data the assertion that the dose and exposure rates from the FMRI materials are “approximately the same as that of an equivalent amount of low-grade Colorado Plateau ore.”*

*The SER must include radiological dose and exposure models for the FMRI materials and low-grade Colorado Plateau ore.*

*The SER must include data on the cumulative radioactive dose from the facility after the disposal of the FMRI materials.*

*The SER must include a comparison of the gross alpha and gross beta content of the FMRI materials and low-grade Colorado Plateau ore.*

*The SER must be based on a risk assessment associated with the disposal of materials other than natural ore in license uranium recovery facilities.*

**DRC Response:** DRC evaluated and compared the radioactive constituents in the FMRI materials with radioactive constituents in the low-grade Colorado Plateau ore and have concluded the constituents are approximately the same and therefore the radiological dose is approximately the same (see section 4.1, page 7 in the November 2, 2005 SER).

Information about gross alpha and gross beta content is of extremely limited value when isotopic sources and concentrations are known. For the FMRI materials, sampling has already provided the identity and concentrations of the constituent radioisotopes that would contribute to the alpha and beta content. Hence the specific information is more useful and informative than gross alpha and beta.

See also DRC Responses to Comments Nos. B.25 and B.43 regarding cumulative impacts and thorium and radium concentrations, respectively.

**Comment B.23:** *The SER (page 7) also includes a table comparing various percentages of  $U_3O_8$  and Th-232. The relevance of this information is not indicated in the SER. The data is in the form of a percentage. The SER does not explain the relevance of the comparison of the some of the FMRI material with the W.R. Grace and Maywood material. The W. R. Grace material was disposed of at another site and it is doubtful that the Maywood material will be processed by IUSA. The table does not provide any information regarding the original basis of this information. The table only references*

*the Th-232 concentration, rather than the total thorium (thorium-232 and thorium-228).*

*The SER should explain the relevance of the concentration table, explain the relevance of information related to materials that have not been shipped to the IUSA uranium mill, include data on all of the FMRI material that has been proposed to be shipped, and consider the total thorium content of any materials.*

**DRC Response:** See DRC Response to Comment No. A.9.

**Comment B.24:** *The SER fails to mention that IUSA has a Standard Operating Procedure (SOP) for the handling of high thorium content (thorium-232 plus thorium-228) materials (December 18, 2000). The SER fail to address whether this SOP would be used for the handling of the FMRI materials.*

*The SER should address whether IUSA will use the high thorium content SOP for the handling of the FMRI materials and the basis for that determination.*

**DRC Response:** See DRC Response to Comment No. A.10.

**Comment B.25:** *The SER fails to address cumulative radiological impacts associated with the processing and disposal of the FMRI materials along with the numerous other so-called alternative feed materials whose environmental impacts have never been assessed.*

*The SER must identify and assess and cumulative radiological impacts associated with the processing and disposal of the FMRI materials and ALL of the non-ore materials that have been processed (sic) and disposed of at the IUSA mill.*

**DRC Response:** The term used by the commenter – cumulative radiological impacts – is ambiguous and unclear. Assuming that the commenter is referring to the total amount of radioactivity in the tailings, DRC respectfully disagrees with the apparent assumption that the amount of radioactivity is greater than or different from that contemplated and studied at the time the facility was initially licensed. In addition, the multi-media environmental monitoring program required of the licensee covers soils, air (including radon detection), groundwater, and surface water and is designed to assure that all environmental impacts are minimized. See also DRC Response to Comment No. C.1.

**Comment B.26:** *The SER (page 7) references the Radioactive Material Profile Record. This record contains information about Ponds 2 and 3. There is no information about the non-radiological characteristics of the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris.*

*The SER must include complete and credible information regarding the non-radiological constituents of the ancillary drummed material, the pond cover soils, pond surrounding*

soils, and debris.

*The SER must include information about the non-radiological constituents of any Pond 4 materials that could be sent to the IUSA mill.*

**DRC Response:** See DRC Responses to Comments Nos. A.4, A.12, and A.13.

**Comment B.27:** *The SER (page 8) in the discussion of Resource Conservation and Recovery Act (RCRA) Listed Materials Analysis states that “as stated in Section 1.3, the FMRI material is the result of ore processing, therefore no listed RCRA material is presented because it is exempt under 40 CFR 261.4(b)(7).”*

*The SER does not mention that tin slag was processed at the Muskogee Facility. Additionally, the SER does not discuss whether the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris are the result of ore processing.*

*The SER must address whether the materials in Pond 4 and the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris are exempt under 40 C.F.R. 261.4(b)(7).*

*The SER must consider the information that Pond 2 was possibly used for materials from wastewater treatment.*

**DRC Response:** See DRC Responses to Comments Nos. A.3, A.4, A.5, and B.11.

**Comment B.28:** *The SER (page 8) does not explain exactly what the FMRI material is exempted from. The SER does indicate the authority under which the DRC is authorized to make a determination whether a material is exempted from the definition of hazardous waste under 40 C.F.R. 261.4(b)(7). The SER does not set forth provisions of Section 261.4(b)(7) and explain why the material in Ponds 2 and 3 meet the exemption provisions of this regulation. The SER does not explain why ALL the FMRI materials meet the requirements for the Section 261.4(b)(7) exemption. The SER does not provide any information about how such an exemption (if applicable to the material at the Muskogee Facility) would apply to the FMRI materials should the materials be transferred to the IUSA mill for storage and processing.*

*The SER must document why ALL the FMRI materials are not hazardous waste under the Section 261.4(b)(7) exemption. This must include information regarding 1) whether less than 50 percent of the feed stocks on an annual basis were from secondary sources, 2) Determine where in the sequence of operations beneficiation ends and mineral processing begins (i.e., were the materials the result of beneficiation or a mineral processing operation), and 3) determine whether it is one of the 20 special wastes from mineral processing listed in Section 261.4(b)(7)(ii).*

**DRC Response:** See DRC Responses to Comments Nos. B.2 and B.11. It is not necessary for the licensee to demonstrate that the FMRI materials are not hazardous wastes; because they are being used as feedstock, they are not waste. In addition, because of the concentration of uranium, this proposed alternate feed material is also source material as that term is defined in the Atomic Energy Act, and has been so licensed by the NRC. Source material is specifically exempt from the definition of hazardous waste. See 40 CFR 261.4(a)(4).

**Comment B.29:** *The SER (pages 7 and 8) under provides a list of various non-radiological constituents contained in the FMRI material. Again, there is no information regarding whether this data also applies to the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris. There is no information in the SER regarding exactly where this information came from and why this is complete and credible data with respect the non-radiological constituents of all of the FMRI materials.*

*The SER must explain why the data regarding the non-radiological constituents of the FMRI material is a complete and credible analysis of ALL the FMRI materials.*

**DRC Response:** See DRC Responses to Comments Nos. A.4, A.12, A.13, and A.14.

**Comment B.30:** *In the discussion of Radiological Impacts, above, there is a list of questions regarding the history and sampling of the ponds at the Muskogee Site. These questions are also applicable to non-radiological evaluation of the materials in Ponds 2 and 3 and any additional FMRI materials.*

**DRC Response:** See DRC Response to Comment No. B.18.

**Comment B.31:** *The SER (page 9) states “there must may be some residual methyl isobutyl ketone (MIBK) in the FMRI material.”*

*There is no “may” about it.*

*The ICF Report, Table 26, lists three non-radioactive contaminants in Pond 2: chromium, MIBK, and pH. The table is based on a series of sampling events conducted at the Muskogee Facility and included in the 1993 Technical Report Remediation Assessment. The table indicates that where mixed waste is found, MIBK must be treated to 33 mg/kg (40 C.F.R. 268.48). The table shows the MIBK content of the top, middle, and bottom Pond residues for three borehole samples (P2-1, P2-2, P2-3). The results of the nine Pond 2 samples range from 43 to 490 mg/kg of MIBK. Top level average: 78 mg/kg, middle third average: 240 mg/kg, bottom third average: 313 mg/kg of MIBK.*

*The table for the three levels of the 5 borehole samples of Pond 3 indicates a range of MIBK contamination of from 34 to 1300 mg/kg. Top third average: 275 mg/kg, middle third average: 718 mg/kg, and bottom third average: 566 mg/kg of MIBK.*

*The SER's discussion of the MIBK content of ALL of the FMRI materials should be complete, verifiable, and accurate.*

**DRC Response:** The DRC does not agree with the commenter's suggestion that the discussion of MIBK in the SER is not adequate. As described, there will be ground water monitoring for MEK that will effectively predict any potential impact from MIBK. See also SER at p. 13. In addition, see Appendix 5, Section 4.1.1 of the March 8, 2005 IUSA Application.

**Comment B.32:** *The SER lacks a discussion of the leachable chromium content of the Pond 2 and Pond 3 materials and the Ph. The ICF Report, Table 26 (page 64) and Table 28 (page 67) list the chromium levels in a total of 23 samples. The average for the top third of Pond 2 was 14 mg/l (7.2, 15, and 20 mg/l), which is more than the 5mg/l permitted level. The average chromium level in the top, middle, and bottom thirds of Pond 2 are 8.3, 8.8, and 18 mg/l. The 2002 ICF Consulting report (page 78) states: "The two process residue ponds sampled, Ponds 2 and 3, were found to have radioactivity above NRC regulatory limits. Leachable chromium at levels considered characteristically hazardous indicates that residue from Ponds 2 and 3 will classify as mixed waste (both hazardous and radioactive)."*

*The SER should contain a discussion of the leachable chromium content of Ponds 2 and 3 and the other FMRI materials.*

*The SER should explain why the DRC believes that, even though Ponds 2 and 3 contain leachable chromium at levels considered characteristically hazardous, this does NOT indicate that residue from Ponds 2 and 3 will classify as mixed waste (both hazardous and radioactive).*

**DRC Response:** The material is not a waste because it is being used as a feed stock. See DRC Response to Comment No. B.11. It is also a source material and therefore exempt from RCRA. Finally, it should also be noted that the NRC alternate feed guidance excludes only RCRA listed waste, not RCRA characteristic waste.

Chromium is already a groundwater monitoring parameter in the IUSA Groundwater Discharge Permit (Permit) with enforceable concentration limits. See Table 2 in Part I.C of the March 8, 2005 IUSA Application.

**Comment B.33:** *The SER (page 9) states that the DRC submitted a May 16, 2005, request for additional information. There is a list of information that was submitted by IUSA in response. There is no discussion in the SER of any DRC review of the IUSA response in order to determine whether the IUSA response has a basis in fact and that the DRC agrees with the IUSA statements.*

*The SER should contain an evaluation of the IUSA statements, not just a reiteration of those statements.*

**DRC Response:** A discussion of the July 19, 2005 IUSA response to the DRC May 16, 2005 request for additional information can be found in section 4.1 of the SER. The June 22, 2005 letter referred to in that section was in response to the May 16, 2005 letter referenced in this comment. The DRC agreed with the licensee's analysis.

**Comment B.34:** *The SER provides no information regarding where the data pertaining to the non-radioactive constituents of the materials in Ponds 2 and 3 originated.*

*The DRC should have required IUSA to identify the original source of all data and all information regarding the collection of that data.*

*The SER must identify the original source of all data pertaining to the non-radiological constituents of the materials in Ponds 2 and 3.*

**DRC Response:** Documents containing the data used in the SER for non-radiological constituents of the materials in Ponds 2 and 3 are listed on page 2 in section 1.0 of Attachment 5 of IUSA March 8, 2005 application.

**Comment B.35:** *The SER fails to address cumulative non-radiological impacts associated with the processing and disposal of the FMRI materials along with the numerous other so-called alternative feed materials whose environmental impacts have never been assessed.*

*The SER must identify and assess cumulative non-radiological impacts associated with the processing and disposal of the FMRI materials and ALL of the non-ore materials that have been processed and disposed of at the IUSA mill.*

**DRC Response:** See DRC response to Comment No. B.25.

**Comment B.36:** *The SER discusses the use of fabric bags to ship and store the FMRI materials. There is no discussion of how the debris and barreled materials will be shipped and stored. There is no discussion of the basis for any determination that the fabric bags will be adequate containment of the stored materials. There is no indication of how long the material will be stored at the IUSA facility. There is no discussion of the leachable chromium content of the materials in Ponds 2 and 3 and how the bags and leakage response plan will prevent impacts from the release of materials with a leachable chromium content.*

*The SER must include a more complete assessment of the means of storage, leak detection system, and ability to respond to and adequately address leaks, including the leaks of leachable chromium.*

**DRC Response:** See DRC Response to Comment No. B.21.

Because the IUSA Mill was constructed prior to August 14, 1989, it is classified as an “Existing Facility” (see Utah Administrative Code R317-6-1.14). Therefore, discharge minimization technology (DMT) is applied to the Mill facility (see Utah Administrative Code R317-6-1-6.C.3). Requirements for DMT for the Mill can be seen in Part I.D of the Permit.

IUSA currently monitors chromium levels in the groundwater as detailed by Permit UGW370004, Part I.C.

Finally, License Condition 9.11 now requires IUC to characterize and remediate the storage areas at the time they execute the approved Reclamation Plan.

**Comment B.37:** *The SER fails to identify and address the cumulative impacts to site of the disposal of the tailings from the processing of ALL of the FMRI materials.*

*The SER must identify and evaluate the cumulative environmental impacts from the disposal of the FMRI materials after processing.*

**DRC Response:** See DRC Response to Comment No. B.25.

**Comment B.38:** *The SER (page 12) lists several metals, including niobium and tantalum, that were not required as groundwater monitoring parameters in the IUSA Groundwater Discharge Permit. The SER concludes that, though they have not been quantified in the mill’s tailing cells, all were eliminated for monitoring consideration because of high Kds ranging from 40 to 1500 L/kg (Colsman September 9, 2005). The SER fails to discuss whether any of these contaminants have been identified as dissolved metals down gradient from Ponds 2 and 3 in monitoring wells at the FMRI facility. The presence of any of these dissolved metals would indicate that such metals have dissolved and contaminated groundwater.*

*At the Fansteel site, monitoring well MW-73 S is down gradient from Pond 2 and MW-74 S is down gradient from Pond 3. Columbium (niobium) shows up as 1,400 :g/l in MW-73 S and 1,500 :g/l in MW-74 S. Tantalum shows up as 900 :g/l in MW-73 S and 800 :g/l in MW-74 S. This data appears to indicate that dissolved niobium and tantalum has entered groundwater from the Ponds 2 and 3 materials. This information is contained in the 2002 ICF Consultants Report, cited above.*

*Additionally, the methyl isobutyl ketone (4-methyl 2-pentanone) shows up as 80,500 :g/l in MW-73 S (average of two samples) and 83,000 :g/l in MW-74 S. Has the DRC underestimated the concentration and mobility of MIBK?*

*The SER must address this additional information when determining whether niobium and tantalum from Ponds 2 and 3 are unlikely to show up in groundwater as dissolved metals.*

**DRC Response:** The DRC has reviewed the information cited and the Executive Secretary has determined based on that review that monitoring of the additional chemicals is not warranted. Even with the above-sited concentrations in the Fansteel site monitor wells, the reasons for DRC determining not to require groundwater monitoring for MIBK, niobium, and tantalum are adequately addressed in section 4.3 and Table 1 (Summary of Components in Fansteel Alternate Feed) of the SER.

**Comment B.39:** *The SER does not include any information on the non-radiological constituents of ALL the FMRI materials (including materials in Pond 4 that went into Pond 3).*

*The SER and the DRC staff must consider the chemical constituents in ALL of the FMRI materials, not just the chemical constituents of some of the materials.*

**DRC Response:** See DRC Responses to Comments Nos. A.12, A.13, and A.14.

**Comment B.40:** *The Table 2 “Comparison of Uranium materials Alternate Feeds.” provides no information regarding the basis of the information contained in the table. Additionally, there is no information regarding the constituents in the ancillary drummed material, pond cover soils, pond surrounding soils, and debris from the FMRI site.*

**DRC Response:** The basis for the information found in Table 2 of the March 8, 2005 IUSA application to compare uranium material to tailings and alternate feeds is provided in the “Notes to Table 2” at the bottom of the table. In addition, the IUSA Table 2 values are based on data from Ponds 2 and 3 which is representative or conservative of constituents in the pond cover soils, pond surrounding soils, and debris from the FMRI site. See also DRC Responses to Comments Nos. A.4 and A.5.

**Comment B.41:** *The SER does not refer to the Utah groundwater regulations as a basis for the Groundwater Discharge Permit changes.*

**DRC Response:** The commenter has correctly pointed out the source of authority for the Groundwater Discharge Permit, and the changes to that permit associated with this license amendment. The groundwater protection and DMT at IUC is based on point of compliance wells. Monitoring and additional parameters may be added pursuant to Part IV.N of the Permit as stated in section 4.3, page 10 of the SER.

**Comment B.42:** *The SER (page 14) asserts that, because there are no significant environmental impacts associated with the proposed action, there is no need to identify*

*and evaluate other alternatives. The SER fails to provide any reference to any regulation or policy that states that no alternatives need be considered if there are no significant impacts associated with a proposed action.*

*The SER must include a regulatory basis for exempting this proposed action from any consideration of other alternatives because there appear to be no significant impacts.*

**DRC Response:** DRC agrees that subparagraph UACR313-24-3(1)(a) requires consideration of alternate sites and engineering methods in the analysis of the license amendment request. In the March 8, 2005 Application, IUC identified two alternatives: direct disposal of the Fansteel material or re-cycling for uranium recovery (ibid., Section 4.13). The DRC has also identified three (3) other alternatives that it has considered in the course of this review. Those are:

1. Deny the application,
2. Approve the application unconditionally, or
3. Approve the application with conditions.

In the case of the November 2, 2005 SER and draft License, the Executive Secretary chose to approve the application with the several conditions. The most significant of these included:

1. Additional groundwater monitoring for tin (as per Permit, Table 2 and Part I.E.1);
2. Formal incorporation of the November 30, 2000 NRC alternate feed guidance and the hazardous waste protocol approved by the Utah Division of Solid and Hazardous Waste on December 7, 1999 [as per License Condition 10.1(C)]; and
3. Formal clarification that alternate feeds cannot be received should they cause the facility to exceed the disposal capacity in the Reclamation Plan and authorized under the Mill surety [as per License Condition 10.1(F)].

In summary these changes were added to the License and Permit, in order to better protect the environment and to clarify the criteria against which future alternative feed material proposals will be evaluated by the Executive Secretary.

**Comment B.43:** *The SER states that, “in general, the FMRI material has similar radiological and non-radiological properties to other alternate feeds and natural ores that have already been processed by IUSA.” The SER fails to discuss what “in general” means. The SER fails to identify the criteria that were used by the DRC in determining whether the FMRI materials in Ponds 2 and 3 were “in general,” similar radiologically and non-radiologically to natural ores and alternate feeds already processed by IUSA.*

*There is good reason to believe that for a number of parameters the component of the FMRI materials that the DRC has data for significantly different from other materials processed by IUSA. The SER provides no comparisons of the radiological content of the FMRI Ponds 2 and 3 materials with the other materials processed by IUSA in support of the assertion of similarity. There is no comparison of the gross alpha and gross beta content in the Ponds 2 and 3 materials with the other materials processed at the IUSA uranium mill. The table on page 7 of the SER compares the FMRI with materials that were not processed at the mill. The only other comparisons are with the Heritage materials and Colorado Plateau ore. Only the Heritage materials contained source material thorium. Both the Heritage materials and the FMRI materials are significantly different from all other materials processed by IUSA in that they contain source material thorium. IUSA does not have a license to possess source material thorium.*

*The SER does not contain a comparison of the radium-228 and radium-226 content of the FMRI materials and other materials processed by IUSA.*

*The SER fails to discuss the fact that the thorium-232 decay series is more highly radioactive than the uranium-238 decay series. The SER fails to discuss the fact that the FMRI material contains radium-228 and radium-224 as a result of the decay of thorium-232. The SER fails to discuss the fact that both radium-228 and radium-224 are much more highly radioactive than radium-228, the progeny of uranium-238. The SER fails to discuss the fact that radon-226 from the decay of radium-224 (thorium-232 series) is more highly radioactive than radon-222 from the decay of radium-226 (uranium-238 series).*

*The SER must provide data substantiating the assertion that ALL of the FMRI materials (including the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris) are radiologically similar to all the materials previously processed by IUSA. This must include comparisons of the gross alpha and gross beta amounts. The SER must provide references to any of the data in the comparisons.*

**DRC Response:** For comments concerning gross alpha and beta, see DRC Response to Comment No. B.22. For comments concerning thorium in source material, see DRC Response to Comment No. B.6.

Following is a table that compares the FMRI Ra-226 and Ra-228 concentrations with other material processed at IUSA. The Ra-226 and Ra-228 concentrations in the FMRI materials are lower than for other materials processed at IUSA. See DRC Response to Comment No. A.9.

Material	% U <sub>3</sub> O <sub>8</sub>	% Th -232	Ra-226 pCi/g	Ra-228 pCi/g
FMRI	0.18%	0.358%	<sup>(3)</sup> 189	<sup>(3)</sup> 399
Colorado Plateau Ore	0.15% to 0.30%		<sup>(1)</sup> Typically < 1000	
W.R. Grace		7.27%		<sup>(2)</sup> 7,952
Heritage		1.08%		<sup>(2)</sup> 1,181
Maywood		0.88%		<sup>(2)</sup> 963

Note: calculations for Ra-226 and Ra-228 concentrations assumed secular equilibrium.

(1). Ra-226 concentrations were calculated by multiplying the specific activity of U<sub>3</sub>O<sub>8</sub> (parent) by the concentration % for U<sub>3</sub>O<sub>8</sub> in the materials.

(2). Ra-228 concentrations were calculated by multiplying the specific activity of Th-232 (parent) by the concentration % for Th-232 in the materials.

(3) Ra-226 and Ra-228 values are estimated average concentrations for the FMRI materials (see table in Item 7, page 3 above). The figures are based on 45% of the materials coming from Pond 2 and 55% coming from Pond 3, as estimated in the Licensee’s application.

Finally, please see DRC Responses to Comments Nos. A.4 and A.5 regarding drummed materials and surrounding soils.

***Comment B.44:*** *The table in Section 7.0 of the SER provides a comparison of various non-radiological constituents in some of the FMRI materials and the materials in the tailings impoundments. That table indicates that for a number of constituents the concentration in the tailings will increase dramatically as a result of the processing of the Ponds 2 and 3 FMRI materials. Considering that the current tailings contain a far greater volume than the proposed FMRI materials, this indicates that for these toxic non-radiological constituents, the FMRI materials are far more concentrated than the existing tailings. After the processing, the concentration of barium, beryllium, cadmium, calcium, chromium, fluoride, manganese, molybdenum, silicon, thorium-232, tin, titanium, zirconium, and methyl isobutyl ketone (MIBK) will ALL more than double the previous concentration in the tailings.*

*The data clearly indicates that the non-radiological constituents are not generally similar to materials previously processed.*

*The SER fails to compare the concentration of non-radiological constituents of the Ponds 2 and 3 FMRI materials with the materials previously processed.*

*The SER must provide data substantiating the assertion that ALL of the FMRI materials (including the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris) are non-radiologically similar to all the materials previously processed by IUSA.*

**DRC Response:** The SER states, “In general” and does not state “all” of the FMRI material has similar radiological and non-radiological properties to other alternate feeds

and natural/conventionally mined ores that have already been processed by IUSA. For FMRI radiological and non-radiological materials that may increase Mill tailings after processing are already being monitored for as required in the Ground Water Discharge Permit or not required for monitoring as explained in section 4.3 of the SER.

***Comment B.45:*** *The SER (page 14) addresses surety issues in the event that the IUSA uranium mill would close prior to the processing of the FMRI materials. The SER states that “if this scenario were to happen, the fabric-bagged FMRI material would likely be hauled to the disposal cell and disposed of directly into Tailings Cell 3.” The SER does not mention what would happen to materials not in fabric bags.*

**DRC Response:** The FMRI materials that are not in fabric bags will also be disposed of in Tailings Cell 3.

***Comment B.46:*** *The SER provides no basis for the assumption that the FMRI could, legally, be disposed of in a disposal cell if it is not processed. Here, the SER fails to consider the fact that the Ponds 2 and 3 FMRI materials are characteristic hazardous waste and would, very likely, need to be disposed of at a site that is licensed to dispose of mixed radioactive and hazardous waste. The IUSA mill is not such a mixed waste facility.*

*The SER must consider the cost of the disposal of the FMRI materials at a facility licensed to dispose of mixed radioactive and hazardous waste. The surety must be increased in order to cover the cost of such disposal.*

**DRC Response:** The FMRI materials is source material and is therefore not a hazardous waste or a mixed waste. See DRC Response to Comment No. B.28.

***Comment B.47:*** *The SER fails to address the incompleteness and veracity of the March 8 IUSA Application. The Application contains numerous unsubstantiated assertions that the DRC has not verified. The NRC regulations at 10 C.F.R. Part 40 that have been incorporated into DRC regulation require:*

*Sec. 40.9 Completeness and accuracy of information.*

*(a) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.*

*40 C.F.R. Section 40.10 discusses “deliberate misconduct” by the licensee in submitting incomplete and inaccurate information to the regulating agency.*

**DRC Response:** DRC has no information at this time to suggest that IUSA is in violation of 10 CFR Part 40.9 or 40.10.

**Comment B.48:** *The Application states in Section 4.1 Environment Affected-General that "the Mill is a licensed uranium processing facility that has processed to date approximately 4,000,000 tons of uranium-bearing conventionally mined ores and alternate feed materials primarily from the recovery of uranium, with the resulting tailings being permanently disposed of as [Uranium Mill Tailings Act of 1978, Section] 11e.(2) byproduct material in the Mill's tailings impoundments. Environmental impacts associated with such previously licensed Mill operations have been thoroughly evaluated and documented in the past...." The statement goes on to list the original 1979 Environmental Statement (ES), and various Environmental Assessments. The statement that the "environmental impacts associated with such previously licensed Mill operations have been thoroughly evaluated and documented in the past," is totally false. Most of the alternate feed material processed and disposed of at the facility did not go through any environmental evaluation whatsoever. The processing of alternate feed was not assessed in either the NRC generic Environmental Impact Statement, or in the 1979 site-specific ES, or in any other NRC Environmental Assessment. Only two Environmental Assessments for the processing and disposal of alternate feed material have been conducted. For the other amendments related to authorization to receive alternate feed materials no Environmental Assessment was conducted. Therefore, for most of alternate feed materials received at the IUSA mill the environmental impacts were neither evaluated nor documented. Additionally, there has been no assessment of the cumulative effects of disposing of the alternate feed materials as required by the National Environmental Policy Act.*

**DRC Response:** The materials proposed as alternate feed are sufficiently similar to the materials evaluated in the environmental impact statements and assessments that it is reasonable to rely on the conclusions in those statements and assessments.

**Comment B.49:** *Comment II.3: 3. The Application, in Section 3.3 and in the memorandum from the independent consultant (Jo Ann Tischler) reviewing the chemical contaminants in the FMRI material to determine the potential presence of RCRA characteristic or listed hazardous waste (Attachment 4), provides various reasons why the FMRI material are not subject to RCRA as a hazardous waste. For example, the Memorandum states that the FMRI material is not solid waste because it is source material. This statement is incorrect, because only the uranium and thorium radioactive components in the FMRI materials are source material. The non-radioactive components are solid waste and must be evaluated separately to determine whether or not they contain hazardous waste and are subject to EPA regulation because the material is mixed waste.*

*The SER fails to adequately review and evaluate these assertions related to the question of the presence of hazardous waste in the FMRI materials.*

*The SER fails to address under what authority either the applicant or the DRC is authorized to make legal determinations with respect the implementation of EPA regulations.*

**DRC Response:** We respectfully disagree with the extremely narrow interpretation of the definition of source material this comment suggests. It is clear from the definition itself, from use of the term “source material” in the federal AEA and in regulatory provisions, and from the concentrations of uranium and thorium in the proposed materials that the materials qualify as source materials.

**Comment B.50:** *The Application contains data and information related to Pond 5 at the FMRI site. This data and information is extraneous, misleading, and confusing because no materials from Pond 5 have been proposed to be shipped to the IUSA mill. This data should not have been included and discussed within the Application.*

**DRC Response:** The Executive Secretary agrees that this information was not necessary to include in the SER. The License has been conditioned to limit the alternate feed to Pond 2 and 3 material (see License Condition 10.19).

**Comment B.51:** *The Application addresses incremental impacts associated with the proposed amendment request, but fails to address any of the cumulative impacts associated with the proposed amendment.*

*The SER should have included information on the cumulative impacts associated with the proposed amendment.*

**DRC Response:** See DRC Response to Comment No. B.25. An estimate of impacts associated with the FMRI materials is presented in Table 2 in Attachment 5 of IUSA March 8, 2005 application.

**Comment B.52:** *The Application and its attachments rely on FMRI documents that are insufficiently identified and were not submitted to the DRC. The only basis in Fansteel records for the characterization of the Ponds 2 and 3 materials is the 1993 Technical Report Remediation Assessment. The Application fails to identify that document or that any of the data in the Application originated in that document.*

**DRC Response:** Item 5 in Section 1.0, of Attachment 5 of the IUSA March 8, 2005 application references a “Summary of Waste Chemistry Data for Ponds 2 and 3” provided by FMRI. This is the same waste chemistry data for Ponds 2 and 3 found in 1993 Technical Report Remediation Assessment. In addition, Section 1.0 lists other documents used to evaluate Pond 2 and 3 materials.

**Comment B.53:** *The Application is incomplete because fails to include any information*

*related to the characteristics and history of the ancillary drummed material, the pond cover soils, pond surrounding soils, and debris that are proposed to be processed at the IUSA mill.*

*The DRC should have required the applicant to provide complete and accurate information on all of the materials that IUSA proposes to receive, process, and dispose of.*

**DRC Response:** See DRC Responses to Comments Nos. A.4 and A.5.

**Comment B.54:** *The SER fails to reference any statutory or regulatory basis for uranium mills being able to engage in activities other than the milling of conventionally mined uranium ore.*

**DRC Response:** See DRC Responses to Comments Nos. B.2 and B.8.

**Comment B.55:** *The SER relies on a statement from the State's Final Application for Uranium Mills and Mill Tailings and an NRC policy guidance document, Regulatory Issue Summary 2000-23, and three criteria within RIS as the basis for permitting IUSA to process feed material other than natural ore. The SER fail (sic.) to provide any bases from either NRC or EPA regulation or the Atomic Energy Act of 1954, as amended by the Uranium Mill Tailings Radiation Control Act of 1978, for the proposed licensing activity.*

**DRC Response:** See DRC Responses to Comments Nos. B.2 and B.8.

**Comment B.56:** *Utah statute at Section 19-3-103.7 of the Utah Code (Prohibition of certain radioactive wastes) state*

*No entity may accept in the state or apply for a license to accept in the state for commercial storage, decay in storage, treatment, incineration, or disposal:*

*\*\*\**

*(2) radioactive waste having a higher radionuclide concentration than the highest radionuclide concentration allowed under licenses existing on February 25, 2005, that have met all the requirements of Section 19-3-105.*

*The SER fails to consider whether the radioactive waste that IUSA proposes to receive and dispose of meets the requirements of this statute.*

**DRC Response:** See DRC Response to Comment No. B.2.

**Comment B.57:** *The FMRI facility is licensed to possess source material uranium and source material thorium (thorium-232 and its progeny). However, the IUSA is only licensed to possess source material uranium. If IUSA intends to possess source material thorium, then IUSA's license must be amended to indicate that the type of source material is it permitted to possess includes uranium AND thorium. The Applicant failed*

*to properly request such an amendment to its license.*

**DRC Response:** See DRC Response to Comment No. B.6.

**E-mail Comments from Mr. William E. Love on November 10, 2005 at 11:48**

(see Attachment 1)

**Comment C.1:** *I request a public hearing under Utah Administration Code R313-17-3 for the amendment to IUC's license No. UT1900479 for the processing of alternative feed material from FMRI.*

*The DRC states that the material contains "radiological and non radiological constituents that have the potential to impact public health and the environment." The relationship that this alternative feed has to the critical wildlife habitat for big game next to the IUC Mill will be a major issue at the hearing. This area has been designated by the Utah DWR as critical and high value big game habitat. I will be affected when I hunt near the Mill Site.*

*RCRA, EPA, or other chemical analyses will be an important issue at the hearing.*

*The storage of the material at the IUC mill and possible pollution through wind transportation or water transportation is a major issue for me, the Ute Indian Reservation, and municipalities in the area.*

*The DRC needs to provide the public with all available information about the material from the EPA, IUC, or any other source that will help the public evaluate this license change at least 30 days before the hearing.*

**DRC Response:** A public hearing on this matter was held in Blanding on January 5, 2005.

All pertinent environmental media around the facility will be monitored to ensure that any conditions that could lead to potential impacts to human health or the environment are found and remediated as quickly as possible. Soil and air are monitored at air monitoring stations around the Mill for radioactive particulates pursuant to License Condition 11.2. Vegetation samples are also collected and analyzed. Groundwater and surface water monitoring is performed as mandated in IUSA Groundwater Discharge Permit. For extra protection, relative to potential groundwater contamination, nearby seeps and springs will also be monitored. In addition, radon is monitored and results are reported to Utah Division of Air Quality under its authorities.

Documents relevant to the license amendment request have always been available pursuant to state law. The public comment period was extended an additional month to January 5, 2006.

**Comment C.2:** *Transportation of the material in Southeast Utah is a concern for residents who live near the transportation route and the municipalities through which the material will be transported. Cleanup procedures need to be distributed to all*

*municipalities that may be affected by accident in the area.*

**DRC Response:** The United States Department of Transportation has the regulatory authority for the shipment of this material. The DRC does not regulate the material until it enters the IUSA Mill site.

**E-mail comments from Mr. William E. Love in his 11/10/2005 3:31:48 PM  
email to Loren Morton, Subject: Arsenic in FMRI Waste.  
(See Attachment 1)**

**Comment D.1:** <http://www.nrc.gov/info-finder/decommissioning/complex/fmri-fansteel-inc.html> The website above is from the NRC and gives some of the chemicals in the FMRI site. IUC is not allowed to take many RCRA chemicals and store them in their ponds. This site mentions arsenic as a chemical in the FMRI waste. What is the percent of arsenic, the chemical formulation, and will RCRA allow IUC to store the arsenic in their ponds? This is the type of question that the file in the Moab library will help answer.

**DRC Response:** IUSA is not allowed to take RCRA listed wastes. On November 22, 1999, IUSA finalized a protocol for determining whether alternate feed materials are listed hazardous wastes. On December 7, 1999 the State of Utah Department of Solid and Hazardous Waste approved the protocol. This protocol was used by IUSA in preparation of its 3/8/05 application for the Fansteel material to demonstrate that the proposed materials did not include listed wastes (see Attachment 3 of the March 8, 2005 IUC application). That demonstration that is now approved by the Executive Secretary with the approval of this license amendment. This protocol is now required for alternate feed proposals by License Conditions 10.D.

The particular chemical formulation of arsenic in the FMRI material is less important for evaluating environmental impact than is the total concentration of arsenic and the leachability of the arsenic, measured by TCLP analysis. All of those factors were considered in making determinations under the facility's groundwater permit.

The total concentration of arsenic and TCLP measurements for samples taken of the FMRI material are as follows (see Attachment 2 in the March 8, 2005 IUSA application:

**Total Arsenic Pond 2**

All units are mg/kg (ppm)

P2-1A (0-4) 2/19/93	P2-1B (4-8) 2/19/93	P2-1C (8-12.5) 2/19/93	P2-2A (0-3) 2/19/93	P2-2B (3-6) 2/19/93	P2-2C (6-9) 2/19/93	P2-3A (0-4) 2/19/93	P2-3B (4-8) 2/19/93	P2-3C (8-12) 2/19/93	Ave. Conc.
<36.0	<39.0	<37.0	41.7	<36.0	<35.6	39.4	74.3	<37.0	41.6

**TCLP Arsenic Pond 2 (leachable)**

All units are mg/L (ppm)

P2-1A (0-4) 2/19/93	P2-1B (4-8) 2/19/93	P2-1C (8-12.5) 2/19/93	P2-2A (0-3) 2/19/93	P2-2B (3-6) 2/19/93	P2-2C (6-9) 2/19/93	P2-3A (0-4) 2/19/93	P2-3B (4-8) 2/19/93	P2-3C (8-12) 2/19/93	Ave. Conc.
<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

**Total Arsenic Pond 3**

All units are mg/kg (ppm)

P3-1A (0-5) 2/19/93	P3-1B (5-10) 2/19/93	P3-1C (10-16) 2/19/93	P3-2A (0-5) 2/19/93	P3-2B (5-10) 2/19/93	P3-2C (10-15) 2/19/93	P3-3A (0-5) 2/19/93	P3-3B (5-10) 2/19/93	P3-3C (10-13) 2/19/93
93.6	65.7	83.0	30.7	109	30.4	34.4	19.4	19.3

P3-4A (0-3) 2/19/93	P3-4B (3-6) 2/19/93	P3-4C (6-9) 2/19/93	P3-5A (0-3) 2/19/93	P3-5B (3-6) 2/19/93	P3-5C (6-9) 2/19/93	Ave. Conc.
22.2	18.1	32.6	26.0	9.60	14.0	40.5

**TCLP Arsenic Pond 3 (leachable)**

All units are mg/L (ppm)

P3-1A (0-5) 2/19/93	P3-1B (5-10) 2/19/93	P3-1C (10-16) 2/19/93	P3-2A (0-5) 2/19/93	P3-2B (5-10) 2/19/93	P3-2C (10-15) 2/19/93	P3-3A (0-5) 2/19/93	P3-3B (5-10) 2/19/93	P3-3C (10-13) 2/19/93
<0.10	0.21	0.18	0.1	0.10	0.56	<0.10	<0.10	<0.10

P3-4A (0-3) 2/19/93	P3-4B (3-6) 2/19/93	P3-4C (6-9) 2/19/93	P3-5A (0-3) 2/19/93	P3-5B (3-6) 2/19/93	P3-5C (6-9) 2/19/93	Ave. Conc.
0.15	<0.10	<0.10	<0.10	0.15	<0.10	0.15

**E-mail comments from Mr. William E. Love in his 11/10/2005 1:34:20 PM  
email to Loren Morton,  
Subject: Standing in FMRI Waste to IUC.  
The comment has been summarized.  
(See Attachment 1)**

***Comment E.1:*** *I request standing in the process of approving the amendment to IUC's license NO. UT 1900479 for the processing of FMRI waste from the Muskogee Facility. My health, my family health and part of my livelihood is affected by the operation of the IUC Mill in Blanding.*

**DRC Response:** Standing is an issue only relevant to a formal administrative proceeding to challenge a license. See Utah Code Annot. § 63-46b-3 and Utah Admin. Code § R313-14. Any person may speaking at a public hearing without first demonstrating standing.

For health and environmental issues see DRC Responses to Comments Nos. C.1.

**E-mail comments from William E. Love in his 12/18/2005 10:16:36 AM email to  
Dane Finerfrock, Subject: Extension of Comment Period  
(See Attachment 1)**

***Comment F.1:*** *I requested and paid for GRAMA information from the Utah Department of Environmental Quality on December 12, 2005 concerning the Fansteel Waste from Oklahoma. I have not received any information at this time and will need additional time to review and analyze the information before I can prepare meaningful comments. I request a thirty day extension for the public comment period for the Fansteel Waste coming to Utah due to the delay in the Utah Department of Environmental Quality meeting my information request.*

**DRC Response:** The DRC received your e-mail GRAMA request for records regarding the IUC proposal for alternate feed on November 29, 2005 in a e-mail response on December 6, 2005, DRC requested fees to be paid for copying the record before they could be sent. The fees were received on December 16, 2005, and DRC sent the copies on December 16, 2005. The public comment period was extended an additional month to January 5, 2006.

**E-mail Comments from Mr. Ken Sleight on December 22, 2005**

(see Attachment 1)

**Comment G.1:** *As public comments are due by Thursday, January 5, 2006, regarding the IUC License Amendment, the time is short. I find that the public has not had sufficient time to study important documents – mainly because they are unaware of them. If the public hasn't the publications in hand to study, how is it to respond?*

*As no public hearings are to be conducted in the Navajo or Ute Reservations this is of even greater critical importance. Especially healthwise – as there are many victims from radiological poisonings of past years. We should not discriminate against our Native American peoples and we should do all in our power to see that they are included in the process. Again it's a matter of racial and environmental justice.*

*Especially in this matter of grave importance especially in San Juan County and the Navajo Reservation where distances are long and people are so isolated. In their case, no less than 90 days comment period should be instituted. At least 180 days would be much preferable. I again ask for an extension of time as recently requested.*

*We understand that all comments received will be considered in the formulation of your final determinations. However, does this mean that those who were unaware of the hearing, or those who could not answer due to the unavailability of documents, or those unable to attend the one hearing, or those unable to attend because of illness or probably inclement weather will be penalized because they did not meet the dreadfully short Jan 5 deadline?*

**DRC Response:** The DRC has advertised the proposed license amendment in accordance with Utah Administrative Rules R313-17-2, 3 and 4. The public comment time was set in accordance with Utah Administrative Rules R313-17-2, 3 and 4. The public comment period was extended an additional month to January 5, 2006.

Documents have been available to the public in accordance with state law.

**Comment G.2:** *We request your immediate attention. Please send the literature and information that you have for inspection in your office on this matter to all libraries, schools, chapter houses, government offices, and to all other requesting groups and individuals that reside in our far-flung area.*

*Also too, this same information should also be sent to news outlets spread throughout our region – including the Navajo and Ute Reservations. This should be done without charge. I will be glad to supply you their addresses.*

**DRC Response:** See DRC Response to Comment G.1. Although legally adequate, the Department of Environmental Quality has recognized that better access to information

will improve public participation, particularly in rural areas that are far from the seat of government. The Department is therefore in the process of launching a new program to assure that licensing information is available on the internet in the future.

**Comment G.3:** *Where else are these documents to be presently found? Have copies been placed at libraries or office in Grand County, San Juan County, White Mesa, the Navajo Nation or at the Chapter House at Aneth? If not, please advise.*

**DRC Response:** The documents are available for review at the Division of Radiation Control. See also DRC Response to Comment No. G.2.

## COMMENTS MADE AT PUBLIC HEARING

January 5, 2006

(See Attachment 1)

### **ORAL COMMENT BY SARAH FIELDS**

**Comment No. H.1:** *I didn't mean to be first. I'm Sarah Fields, and I'm here to represent the Nuclear Waste Committee of the Glen Canyon Group of the Sierra Club, which is here in Southeastern Utah. I've submitted written comment, so I just wanted to touch on some of the things that I feel are significant, but are explained a little bit more in my written comments.*

*I do want to say that I was very disappointed in the review of International Uranium's application as exhibited in the Safety Evaluation Report (SER). The SER makes numerous assertions that I feel that are not substantiated, and the SER seems to provide totally on assertions made in IUC's application. And, I feel that the state of Utah should have made an effort to get more information from IUC, or IUSA as it is in their documents, in order to have a firmer basis for their assessment of the application.*

*I think there's been a dearth of information to – readily available to the public. I think that the Division of Radiation Control should have announced receipt of the application back in March, so the public could have been aware back then and would have been able to seek further information from the EPA and the state of Oklahoma under the Nuclear Information – I mean, Nuclear Regulatory Commission, which licenses the Fansteel facility. A number of people I know had a problem with obtaining the application from the DRC through the GRAMA process. The DRC should have made an attempt to post some of the documents on their website. I don't know if they had an electronic version of the application that could have been posted for public use. But, the DRC did not do that.*

*It's pretty obvious that there's a need to place all the White Mesa licensing documents locally for public use. There are, also, people in Moab who wanted to attend the hearing, but were unable to travel to Blanding. A hearing was requested for Moab, but the DRC chose not to respond positively to that request.*

**DRC Response:** The commenter has not provided specific comments about additional information she believes the Executive Secretary should have considered. The Executive Secretary is satisfied that the information provided by IUC and developed by DRC forms a sufficient basis for this determination before issuing the license.

With respect to the availability of information to the public, please see DRC response to Comments Nos. G.1 and G.2.

**Comment No. H.2:** *One of my concerns about the application and the SER review is the DRC did not get the information from IUC about all Fansteel materials. The only data*

*that I see provided to the DRC was information about the ponds 2 and 3. There's no data about the pond materials, the underlying soils, the cover soils, or the debris that IUC proposed to receive. I don't know why the DRC felt that it could make a proper review when it only had some of the data related to the Fansteel materials.*

**DRC Response:** See DRC Response to Comments Nos. A.4 and A.5.

**Comment No. H.3:** *Within the SER, the Division of Radiation Control, claims that the Fansteel waste is exempt from the definition of hazardous waste. I've looked at that definition exemption is in 40 CFR 261.4(b)(7). The SER doesn't quote that exemption, and where does it give a real reason why the Fansteel materials meet the requirements for that exemption? That exemption requires a determination of whether less than 50% of the feedstocks on an annual basis from Fansteel were from secondary sources. It requires a determination that wastes were from beneficiation operations. And, it, also, requires that the waste come from 20 specific mineral processing operations that are listed in Section 261.4(b)(7)(ii). And, as far as I can determine, that the Fansteel waste in ponds 2 and 3 did not meet that exemption; and that the ponds 2 and 3 materials are indeed mixed waste because of their chromium content. I've looked at some of the NRC records, and they're available publically through the NRC website, and I've recently received a copy – or at least the first 100 pages, of a 1993 Fansteel report. These NRC records indicate that Fansteel and NRC and a subcontractor believe that the materials in ponds 2 and 23 exhibited characteristically hazardous concentration of chromium; and an NCR contractor believed that those materials should be regulated as mixed waste. I don't know why the DRC felt it has the authority to determine whether these materials can be exempted under EPA regulation. I don't see any evidence that the DRC went to either the state of Oklahoma or the EPA to request any determination from those agencies. I think this was an error, because these are – the EPA and the State of Oklahoma are the agencies which regulate hazardous waste in the State of Oklahoma. The DRC does not regulate the Muskogee Facility.*

**DRC Response:** See DRC Response to Comment No. B.11.

**Comment No. H.4:** *Another thing I would request is extension of the comment period. I am awaiting further documentation from the Nuclear Regulatory Commission. I'm, also, awaiting some determinations in response to my correspondence with the Environmental Protection Agency in Dallas in Region VI, which has some responsibility. I'm, also, in communication with the State of Oklahoma. And, I would like to make additional comments when I get further information from these agencies. Had I been informed back in March about this application, I would have had several months over the summer to pursue additional information about the Fansteel materials. So, if I would have known earlier, I wouldn't of had to have this delay. Thank you.*

**DRC Response:** See DRC Response to Comment No. G.1. The public comment period was extended an additional month to January 5, 2006.

## **ORAL COMMENTS BY LORI GOODMAN**

**Comment No. H.5:** *Hi, my name is Lori Goodman, and I'm from the Navajo with the organization Dine Care. And, I just speaking on behalf of people from Aneth, Montezuma Creek. Those people are down wind. There should be a hearing set over there. Why is there not any hearing set on the Navajo Reservation? They're gonna be impacted, because they're down wind.*

**DRC Response:** It is generally the practice of the Division of Radiation Control to have one hearing for each significant license or permit amendment proposed. This is consistent with public notification and participation requirements. See UAC R313-17-2, 3 and 4. For this license action, hearings were requested for many locations. The location of the public hearing for this proposed license amendment was selected because Blanding is centrally located and is in close proximity to the facility.

**Comment No. H.6:** *Another big worry is two years ago there was comments about, you know, the need to do preservation, historical preservation. There's some sacred sites and stuff like that. I believe none has been done, has been given any look at all. So, that needs to be in there as well.*

**DRC Response:** The proposed action does not involve any new land disturbance. This license amendment therefore would not impact any cultural resources.

**Comment No. H.7:** *And, we would like better definition of what goes into the alternative feed. What is in there? And just like the speaker before me asked for to know that. That's another request that we like a breakdown of what alternative feed is and the amount. And we would like to have a clear picture of the total amount, tonnage, that would be going in. That's another one.*

**DRC Response:** The quantity and nature of FMRI materials coming to the Mill is identified in the SER (see section 1.1, page 1 of the November 2, 2005 SER). For additional information, see also DRC Responses to Comments Nos. A.7, B.43 and D.1.

**Comment No. H.8:** *But, as far as the Navajo people being down wind, it was – I mean, it was injustice not to have a hearing. That's environmental racism, and environmental justice needs to be adhered to here. And, so there needs to be public hearings.*

*I guess those are the clear violations that we see: preservation of sacred sites and any consultation with the Navajo Tribe. And, I think that these consultations have to be adhered to under the National Historic Preservation Act. Thank you.*

**DRC Response:** See DRC Response to Comment No. H.5.

## **ORAL COMMENTS BY KEN SLEIGHT**

**Comment No. H.9:** *Thank you for coming down to Blanding. We asked on several occasions that – that you come down to a number of the other communities, especially maybe White Mesa and Aneth and possibly other chapters of the Indian people. You refused to do so. Mr. Dane Finerfrock said – he wrote me a letter and stated that he was not legally required to offer second meetings. A single meeting also meets the requirements of the rules that we have.*

**DRC Response:** See DRC Response to Comment No. H.5.

**Comment No. H.10:** *Are we here to just meet the bare requirements? There's a thing called environmental justice and the need to get the information out to the people. I note tonight that there is no information out on the tables; the application of IUC. This is great time to be able to educate the people, but there's no information here for the people. I don't understand why. I wrote a letter to the Radiation Division of the State of Utah, and I'd like to read part of it. "As public comments are due by Thursday, January 5, regarding the IUC license amendment, the time is short. I find that the public has not had sufficient time to study important documents; mainly because they are unaware of them. If the public hasn't the publications in hand to study, how is it to respond? As no public hearings are to be conducted in the Navajo or Ute Reservations, this is of even greater critical importance, especially health wise as there are many victims from radiological poisons from past years and possibly ongoing. We should not discriminate against our Native American peoples, and we should do all in our power to see that they are included in the process. Again, it's a matter of racial and environmental justice. Especially is this matter of great importance especially in San Juan County and the Navajo Reservation where distance is so long and people are so isolated. In their case, no less than a 90-day comment period should be instituted. At least 180 days would be much preferable."*

**DRC Response:** See DRC Responses to Comments Nos. G.1 and H.5. The public comment period was extended an additional month to January 5, 2006.

**Comment No. H.11:** *I again ask for an extension of time as recently requested. We request your immediate attention. Please send the literature and information you have for inspection in your office on this matter to all libraries, schools, chapter houses, government offices, and to all other requested groups and individuals that reside in our far-flung area. Also, this same information should be sent to news offices spread throughout our region, including the Navajo and Ute Reservations. This should be done without charge. I would be glad to supply you their addresses." And then I ask, "Where else are these documents to be presently found. Have copies been placed in libraries or offices in Grand County, which is very vitally concerned, San Juan County, White Mesa, Navajo Nation, or the chapter houses in Aneth? If not, please advise?" I never got an answer. And then I said, "Please send a copy of each of the related documents, without*

charge, to my office for our own inspection and study.” And I gave you my address. Copies that we desire sent to the above entities include (1) the application by International Uranium for an amendment to its license regarding this matter, and (2) the draft Safety Evaluation Report, and (3) other related documents that are located at your office for public inspection regarding this matter. Thank you for your consideration of this and former requests.” I sent a copy to Mark Maryboy, Navajo Nation Tribal Council. I did get one letter back saying you’ll send the information to me if I pay them \$45 – Forty something dollars for information that ought to be in the public’s hands. I’m not well to do, but I’m certainly much more well to do than a lot of the Navajo and the Ute people. We need more time. And, I ask again that you extend the comment period; that you have informational meetings throughout the Navajo and Ute Reservations before we even consider the application.

*[Mr. Sleight also expressed concern about the hearing’s time limitations.]*

**DRC Response:** See DRC Responses to Comments Nos. G.1 and H.5. The public comment period was extended an additional month to January 5, 2006.

Time limitations at a hearing are necessary to assure that all present have an opportunity to speak within a reasonable period of time. Mr. Sleight and other speakers were given an opportunity to speak again after all requesting speaking time spoke.

**Comment No. H.12:** *With regard to the ore, the nuclear waste. This is not ore. This is nuclear waste coming from Japan. Now coming from Japan. You have loads of that nuclear waste coming from Tonawanda, New York. We saw what it did in Moab. We saw what it did in the traffic coming down from San Juan County.*

**DRC Response:** The FMRI material is not from Japan or New York, as explained in the SER. See DRC Responses to Comments Nos. B.2 and B.8 regarding the legal basis for accepting alternate feed. See comment number C.2 regarding traffic issues.

**Comment No. H.13:** *But, the most important thing; what is it doing to our health. Our health. Not long ago the Salt Lake Tribune wrote an article by Lisa Church about the cases of cancer in the Monticello area. And, for a long time, we have said we need studies before any more of this stuff comes into our county. Me and my kin have come down with – in San Juan County, with cancer. How do we attribute it? I don’t know. Was it the nuclear waste? We don’t know. But, we need independent epidemiological studies before we go any further. This article states two community surveys in 1993 and 2005 of past and present residence have encountered almost 400 hundred cancer cases including 17 cases of leukemia among those who responded. What about all of those who didn’t respond? The Four Corners has a real high incidence of cancer, probably much more than any place in the State of Utah, Colorado, New Mexico or Arizona.*

**DRC Response:** See DRC Response to Comment No. C.1 for comments regarding

impacts to human health and the environment.

***Comment No. H.14:*** *The State of Utah, the radiation people, the Radiation Control Board once stated that shipping this material is sham disposal – sham disposal. Why now do they approve an application by IUC to ship it to us. Then I wonder out in the beginning of the study phase before they approved this shipping it to us.*

**DRC Response:** The commenter is incorrect; the FRMI material was not the subject of any previous action by the Radiation Control Board. The action previously taken by the State of Utah was based on guidance that NRC later revised in NRC RIS 2000-23. It should also be noted that the FRMI material has been licensed as source material due to the high content of uranium.

### **ORAL COMMENTS BY THELMA WHISKERS**

***Comment No. H.15:*** *My name is Thelma Whiskers, and I'm from White Mesa. I'm a Ute, and I'm a tribal member. I'm here to let you people know that we do not want the White Mesa Mill to be close to our reservation. And, the San Juan, here, they just look over us. They don't – they don't say that there's a little reservation here Blanding – between Blanding and Bluff. They just look over us. That's how the San Juan is here. And, they don't count the Ute. They just look over my people. And here they're bringing some kind of chemical to our – close to our reservation, and it hurts. My people are suffering down there. My people are sick, especially the elderlies [sic]. And, I don't know why people are doing this to my people, and we don't want it to be close to our reservation. And, the young ones, they're start having a health problems. And, also, they're hiring the young people, young guys. They don't train them. That's dangerous for the young mans for them to work there. I want them to be safe. I want them to live longer with their families, with their lovely little childrens [sic]. And, look what they're doing to them. And, lot of people, my people, they suffer when they didn't know, when they used to work for the mine. Now, they're all gone. Now, the young ones, they're doing this to the young ones now. They're not training them. They're not telling them what it does – what it will happen to you later on. No. I hear a lot of young ones are telling me that. They ask me if it was safe for them to work there.*

**DRC Response:** The White Mesa Mill was originally licensed by the NRC in 1979 and its continued existence is not an issue raised by this proposed license amendment and is not otherwise before the Executive Secretary.

See DRC Response to Comments Nos. C.1 regarding impacts of the proposed license amendment on health and the environment.

The DRC is responsible for oversight of radiation safety at the Mill. The requirements for radiation safety are specified in R313-15, and the mill is required to provide training to workers under the mill's license. Regarding worker occupational safety issues, it is the

Mine Safety and Health Administration that governs. The Mill's compliance with these regulatory requirements is subject to periodic inspection by both agencies.

**Comment No. H.16:** *And, also, I got ancestors are buried there. It's hurting me what they're doing to my ancestors. Even the babies were buried there. And, you hear the people. They don't think, we're hurting, we're hurting. We got a heart like how they are, too. We got the feelings. And, now I heard they're bringing some kind of chemical that's really dangerous from Japan. And that's what I be telling my people, especially the elderlies [sic]. They want to come to this meeting. I don't have big ride. They're on a wheelchair. They want to say something. They want to come up here and say something. They're crying; they're suffering. Why don't you listen. You go to meetings. You say in front of them, Radiation Board. They always say, "Why don't they listen to you?" Why don't they say, "Okay. Let's close – let's shut it down. Let's take it somewhere else where there is no people." My tribe, they're not that many. Here at White Mesa about two or three hundred people with the little ones. And, also, they're other Natives from Montezuma and Aneth. They don't like it, to be close to that Ute Reservation. They are helping me. I've been fighting this against this. I go to Salt Lake and get in front of their boards. I don't know. Maybe they just laugh about me. I got grandchildren that they come to school to Blanding. Every morning when I get up, I can smell that. Yeah, about three or four months ago, it was nice and good air. But, no; now you can really smell that bad air now. And, and here they start bringing the – I wish you people would listen. I don't wanna it to be close to our reservation. I know the San Juan are just looking over us. The Governor Leavitt was here about three or four years ago. I was in that meeting. He didn't mention White Mesa. All he mentioned is Blanding and Bluff, Mexican Hat, Montezuma, Aneth. He didn't say White Mesa. There's a little Ute Reservation just down here about thirteen, fourteen miles. No, he didn't said that. That's why he really hurt me. That's why I was really feeling bad about that. The San Juans are like that to us, to my people, to my tribe. That's when I went to Towaoc and talked to my council people over there. Then when that had meeting, they all showed up. They talked against it. They said they was gonna come tonight, but they didn't show up. So, I wish you people would listen to me. We don't want it to be close to Ute Reservation. Please write everything down. Send it to Washington or wherever all that paper comes or to the radiation boards. I've been fighting against this so many years. I keep coming out with same old thing, same old words. So, that's how San Juans are. That's how they treated my people. They don't count the Ute Reservation. They don't. They just look over us. So, I wish they would stop and say, "Let's shut it down. Let's move it somewhere else – where they have big city." We don't want it. I don't want it to be close to my reservation. I want my people, the young people, to live longer. They got families, they got little kids. Thank you. That's all I'm going to say.*

**DRC Response:** Regarding cultural resource issues, see DRC Response to Comment No. H.6. Regarding health issues, see DRC Responses to Comments Nos. C.1.

## **ORAL COMMENTS BY MARGARET GOODMAN**

**Comment No. H.17:** *Okay, my concerns are like I've gone to a couple of these meetings, and my concerns are really actually the plants that we Native Americans use for medicine and the animals that we use to eat, the deers, the rabbits, and -I know that there's a couple of ponds over there, and they're, you know, I know that there's a deer that was skinned, and it had green meat. And on the news, I do believe I heard on the news that they had said that the nearest town from the mill was Blanding and Bluff. White Mesa was never mentioned. And all these meetings, you know, that you're having might be simplified for the Native Americans that are not as educated as you guys are, because I did get one of packet that half of it, I really didn't understand because it was just all basically – To me, it was in a different language, and I didn't understand it. Okay. But, those animals drink from that pond. We Native Americans live and breath off of nature. We need all of it. This herbs has to offer us. Like I said, which one of you can raise your hand and say that plant life and animals is a way of your everyday survival. Do you go you, you know, for your sores, for whatever ailments you have, to go pick up the herbs to get yourself better? And, I feel that letters should be sent out to notify people that these meetings are occurring. I've attended these a couple of times. I have not received one single notice of these meetings that have been going on. How many lives are your willing to play with in order to get the money that you might be receiving to keep these mills open? How many lives are you willing to give up to risk to keep this thing open? I know that on the reservation, the slightest footstep you make, there's dust that comes out of it. How much of that dust that's coming out of your mills are people inhaling?*

**DRC Response:** Notice of this meeting was advertised in the Blue Mountain Panorama, the Deseret Morning News, and the Salt Lake Tribune. This exceeds regulatory notice requirements. Notice was also sent to individuals who have requested to be on DRC's email list. Any person who wishes to have his or her name on that mailing list may make that request by following the links for the mail server at <http://www.radiationcontrol.utah.gov>. Those who do not have email may request notice by regular mail by making that request in writing to:

Dane Finerfrock  
Executive Secretary  
Building No. 2, Room 212  
168 North 1950 West  
Box 144850  
Salt Lake City UT 84114-4850

With respect to cultural resources such as plants, please see DRC Responses to Comments Nos. C.1 and H.6. With respect to concerns about environmental and health impacts, please see DRC Response to Comment No. C.1.

**Comment No. H.18:** *Well, I was wondering how many of your workers are certified. We know a couple of them that aren't certified to work with hazardous waste. We do know an employee that got burned from cleaning your drums, your barrels with acid was only given two weeks workman comp. Do you have any certifications in your employees or are they just from the community and none of us have their certification.*

**DRC Response:** Regarding worker safety issues, see DRC Response to Comment No. H.15.

**Comment No. H.19:** *I for one, I'm against it, because we live off of that land. You, I don't think you guys do live off the land. You guys sit in your houses. You guys have your meat processed, but we don't. We have to dry our meat sometimes outside in the fresh air to keep it, to preserve it to eat it. We have to dry out our herbs. And, what is in the air? The dust. So, me, from where I stand, I don't believe, and I don't think it should be left open considering – All of you should consider all the people that live in White Mesa on down to Aneth. And, a couple of these people are right. Have you notified the Navajo Nation or a chapter house near there or the chapter house here in Blanding? How many notifications have you sent. I haven't received anything. And, I know that this board or whoever is trying to keep this open has my address. I have to hear from hearsay that these meetings are going on. Thank you for your time.*

**DRC Response:** Concerning the continued existence of the White Mesa Mill, please see DRC Response to Comment No. H.15. Concerning health matters, please see DRC Response to Comment No. C.1. Concerning the public notice and public hearings, please see DRC Response to Comment No. G.1.

Environmental monitoring for air, soil, vegetation, surface water and groundwater and a summary of the results is required under Condition 11.2 of the IUSA Radioactive Materials License. See DRC Response to Comment No. C.1.

### ***ORAL COMMENTS OF ANNA FRAZIER***

**Comment No. H.20:** *Good evening. I am from the Navajo Nation, Dine, from Delcon [sic], Arizona. I'm gonna be speaking opposing the IUC's application for amendment to receive the waste from FMRI from Oklahoma for the White Mesa Mill. I was here about a year ago in January when you had that hearing to take the waste from Moab. And, some of us, the Native people that are here, I remember seeing them here too, that we opposed the removal of that waste to here. You know, we didn't want the White Mesa to be a part of the – one of the alternative facility to take the waste. The reason for not wanting the waste here and not wanting anymore amendments or anymore to receive any type of alternative feed material into this facility is because of our long, hard fight against the facility here, the White Mesa Uranium Mill.*

*I remember that from way back from the late 70's, some members of the Ute Tribe and Navajo Nation have stood against the facilities all those years. And, unfortunately, some of the people that have stood up against the mill are not here with us today.*

**DRC Response:** Concerning the continued existence of the White Mesa Mill, please see DRC Response to Comment No. H.15.

**Comment No. H.21:** *When the Safety Evaluation Report that you put out does not really address or define the material that is gonna be received here, the alternative feed material. It doesn't really describe what type of material it's gonna be. That's a big concern to us, because we don't know whether it's gonna be full of high radio-active material.*

**DRC Response:** The information provided and documents referenced in the SER are sufficient to define the FMRI materials.

**Comment No. H.22:** *I guess you probably have read in the paper about the Navajo Nation making a decision. Our government has made the decision to not open any more mines, uranium mines, here on the reservation because of the history of our people have been – most of them, mine workers that worked in the uranium mines back from the 1930's are no longer with our people. And it has affected the young people now and the family members. So, that's a long history of – of elimination of those – of our people. The strain is still there. Our young people, our children are being born deformed, and there's a lot of studies that were made, and there are results from what happened. And so to continue to have a mill here at White Mesa that is – The elevation is higher here, and it is down by the river where our people live, where the Navajo people live, where Montezuma and, also, Aneth; and then where White Mesa Utes live. It's down river, and there is no way that you can say the radiation or any type of contaminants is not gonna run down that way. It has to. It has to. And, there's no way that you can say that the ponds here are safe. It's not safe. A lot of these linings – I, also, participated in the tour that we took about two or three years ago at the mill. And, they told us that the lining of the pond – the life of the lining is only like from twenty to thirty years. And, how long has it been since it was installed. You know, those are some things that concern us. And, so, you know, like the scientists and the engineers, you know, they say that there's no way – that there's no danger for the people that live in this area, but there is.*

**DRC Response:** Concerning the health effects resulting from this license amendment, please see DRC Responses to Comments Nos. C.1. Concerning issues related to worker safety, please see DRC Response to Comment No. H.15.

**Comment No. H.23:** *We have requested to have the hearings in Aneth and, also, in White Mesa before, and we have – we have been here before, you know, talking against the mill. We have talked against bringing in more waste to here. But, the meetings that we requested to be put out in the White Mesa and the Aneth, Utah was not acknowledged*

*or I don't know if it's gonna be scheduled there. But, to ignore the requests of the native people that live here in this area is a civil rights violation. To ignore the people here who have lived here for generations before – before the white man came. They're the ones that know where their cultural ancestors and the burial grounds and all that, where those existed. And, I understand that there some underneath the facility where the White Mesa Mill was built. And, so, there's a lot of violations that the town of, I'm not sure, the town of Blanding, I understand is in support of that, the mill itself. So, what needs to happen, I think, is to have acknowledged the people who are your neighbors. They are constituents of the State of Utah just as well as those people who live in Salt Lake City and those people who live in Ogden, Utah. So, they should be given that right to speak and to have hearings held there where it could be interpreted into their language. And, we, also, would like to request an extension of this hearings be extended so that the information could be given to our Navajo people and our Ute people in their own language so that they understand what is happening within their community and within the air that they breathe, within the – they live down wind from here, and they live down river, so they have a right to know. Thank you.*

**DRC Response:** Concerning public notice, public hearings, and public participation requirements generally, please see DRC Responses to Comments Nos. G.1 and H.5. Concerning the potential impact on cultural resources, please see DRC Response to Comment No. H.6.

#### **ORAL COMMENTS BY BRADLEY ANGEL**

**Comment No. H.24:** *Yeah. Good evening. My name is Bradley Angel, and I'm the director of the Green Action for Help in Environmental Justice. I'm here tonight at the request of our constituents who live in the White Mesa Ute community, who live in Blanding, and, also, in Moab. And, I, also, speak as someone who lives right up the street from where I can see radioactive waste trucked down to White Mesa. And, we're here in opposition to IUC's request. And, I urge you and I challenge you – dare you to somehow try to come up with a legal and scientifically valid response to all the good points the people have raised tonight, including Sara Fields extensive written comments that were submitted, because I don't know how you could possibly address those points and still issue this permission.*

*But, I want to address some other points as well, and I think it just happened a few minutes ago here is really great and very distressing illustration of the biases, the prejudice, and the favoritism shown to IUC. When I came in tonight, there was a sign-up sheet, and you are calling everybody in order. Mr. Hochstein of IUC, I believe was the second person, but mysteriously, out of process, in some non-described process, you've allowed him to speak last. I requested to speak last, and I've been called to the microphone before him, even though I signed up after him. Now, it may seem like a little thing, but it's not, because this favoritism and side deals are happening not just, I believe, who gets to speak in what order. But, it sure leave a questions about what other*

*agreements have been made with IUC. In my opinion, this hearing is a joke from the order of speakers to the fact that there was not one drop of information. So, I'd like to ask Mr. Morton right now if you can tell me why Mr. Hochstein was allowed to speak after everybody else, and why he gets preference over other members of the public. Is there some secret regulation ongoing or not-so-secret regulation that I'm not aware of that allows a company to speak out of order? I don't think there is. And, so, I challenge this whole hearing and the propriety of it.*

**DRC Response:** Mr. Hochstein of IUC asked to speak last, and the DRC representative agreed to that request. Any speaker may ask to have his or her turn delayed during a public hearing. If two or more speakers ask to speak last, the matter will be resolved by coin toss or similar means.

**Comment No. H.25:** *Next, I've been coming to meetings, and our organization has been attending meetings for years about this facility, including speaking before your agency. And, like other speakers have said, you have my address; you have my email. Yet, I have to find out about this hearing not from the State, but, thankfully, to Sara Fields. That is improper. I then requested, because I noticed a lot of residents in Moab and Grand County were requesting that a hearing be held there. The state's from Mr. Finerfrock was, "Well, that's not required." But, it certainly wasn't prohibited, yet he chose not to do it. But, I think, even more importantly, I then set an email saying there should also be, and we request on behalf of our constituents from the White Mesa Ute community, that a hearing be held at White Mesa on the reservation. And, the response was that it was – the state said, "Well, our policy is to have it in the community closest to a facility." Well, guess what? The White Mesa Ute community is the closest community to the IUC mill, not Blanding. And, we do believe the hearing should be in Blanding. It should have also been at the White Mesa Ute Community, the nearby Navajo communities, and in Moab. But the state's policy was to have it in the closest community and then ignore the existence of the White Mesa Ute community is continually a pattern of racism and discrimination that is just so insulting to people. We, also, believe it's illegal.*

*About two years ago – Let me, also, say that this afternoon, just because I wanted to check, I called the Ute Tribe's Environmental Department. They told me that hadn't received notice of this hearing either from your agency. How is that possible? And, it's completely improper.*

**DRC Response:** Concerning requesting to be on the DRC's mailing list for this facility, please see DRC Response to Comment No. H.17. Concerning the public participation process and the public hearing, please see DRC Responses to Comments Nos. G.1 and H.5.

**Comment No. H.26:** *Now, two years ago, approximately, I joined another resident from Moab and many members of the White Mesa Ute community in traveling to Salt Lake City and joining them in a presentation before this very agency. And, at that time, we put*

*on the desk volumes of archeological studies done at the time this facility was about to be built. And, they showed destruction of sacred sites, destruction of precious, not just archeological sites, but culturally and spiritually significant religious sites. And, we put you on notice, and tribal members put you on notice at that time, and said, “Don’t come back and pretend that you didn’t know about this.” And, that is exactly what your agency is doing: pretending that it doesn’t exist. You know it does, and you haven’t addressed it.*

**DRC Response:** Please see DRC Response to Comment No. H.6 regarding cultural resources.

**Comment No. H.27:** *In the so-called Safety Evaluation Report, where did you address the impacts the tribal members talked about tonight? Where did you address the – the potential impacts on people who do substance hunting and gathering for use of medicinal herbs? Where did you address the, what appears to be new information about high rates of cancer in the area. I don’t think you have.*

*What is going on, and I reminded your agency two years ago, and I do it again tonight. We live in a country of the United States of America, and whether your agency likes it or not, you’re part of that. And, whether you like it or not, you’re subject to its laws. And, whether you like it or not, there’s something called the United States Civil Rights Act, and under Title VI of that Civil Rights Act, as I’ve told you before, it states that entities like yours that receive federal funding are prohibited from taking actions that have discriminatory or disproportionate impacts on people of color and low-income communities. And, that includes the White Mesa Ute community; and that includes nearby Navajo communities. You haven’t notified people; you have no information in any language, and we certainly support the request that there be information in the native languages, because some of the people are monolingual.*

**DRC Response:** Please see DRC Response to Comment No. C.1 regarding health and environmental impacts. The DRC respectfully disagrees that there has been a violation of the Civil Rights Act, or that issuing the proposed license amendment would violate that Act. Please see DRC Responses to Comments Nos. G.1 and H.5 regarding public participation.

**Comment No. H.28:** *You’re cutting deals with the company to let them have the last word, improperly. You refuse to even recognize the existence of the White Mesa Ute community as the closest community in complete violation of stated policy as we have had in writing from your agency. You fail to evaluate the cultural and special health impacts. This stuff isn’t honest. And the claim that somehow there’s not even a potential significant impact would laughable if it wasn’t so serious.*

*And, so I challenge the State, I challenge IUC. How would you like it, and I know you wouldn’t; how would you like radioactive waste dumped or treated, whatever you want to call it, where your ancestors lived. I don’t think you would like it one bid, Mr. Hochstein.*

*I don't think you'd like it one bit. And, I don't think the State would like it one bit, but that is what's precious what's happening. You can justify it; you can rationalize it; you can smirk; but that is exactly what is happening everyday that plant is open. I know that IUC didn't build the plant there. We understand that. But, everyday that plant is open and material, poisonous material is placed there, as we've heard from the Native people who live here and whose accessorial lands are here and whose ancestors are buried there, it is desecration. And it is a very, very serious thing. And, it's illegal, we believe, for the State to continue to allow this. So, deny this application, start doing proper notice, treat the citizens of this country as we are entitled to be treated, and don't have a double standard, one that allows the company to sign up second, but get to have the last word. Lastly, we request an extension of the comment period, public hearings in the places; and I want to come back after Mr. Hochstein speaks.*

**DRC Response:** Please see DRC Response to Comment No. H.24 regarding speaker order. Please see DRC Response to Comment No. H.5 regarding public hearing. Please see DRC Response to Comment No. H.6 regarding impacts to cultural resources. Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment. Please see DRC Response to Comment No. H.15 regarding the nature of the decision before the agency.

#### ***ORAL COMMENTS OF HELEN ARCHIE***

**Comment No. H.29:** *Good evening. My name is Helen Archie, and I'm with the Dine Care. If you treat me right, I'll treat you right, too. Tonight I'm here on behalf of my people, and I'm a resident of Aneth community. I'm here on behalf of my people. And, I'm also one of the concerned citizens. Straight out, I'm gonna tell you that I am in opposition to the proposal of IUC, because we have a lot of reasons for us Native people to be concerned and to proposal and the ongoing energy resources, because, do to the fact that our community people are being impacted. Their livelihoods are being impacted and, also, along with our water, our soil, and our air are being impacted. Tonight I was gonna bring each one of you a bottle of the water that we drink in Aneth, which is contaminated. I don't know if you would have accepted it or not. I know that you wouldn't want to take a sip of it. But, that's what we drink daily. Our little children, the infants, we use that water. We utilize that water to feed our little children. And, we put that water into the formula.*

*And, I agree with what Bradley had just said and Thelma, and I am— A hundred percent behind them. I strongly feel that our community of Aneth is going to be impacted by this the energy people proposal of the ICU.*

**DRC Response:** Please see DRC Response to Comment No. H.5 regarding public hearing. Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment.

**Comment No. H.30:** *My people down there in the Aneth area, they have no knowledge at all of this meeting. No one has ever been informed, and if your newsletters had went out, or maybe you could have put it on the air, then you wouldn't sitting at empty chairs, because all of our people, the Ute Tribes, the Navajo Tribes, they are in opposition of these proposals. And, tonight I would like to request that you take this hearing down to Aneth Chapter. And, when this hearing is taking place, I request that there be a Navajo speaking translator there, because most of my people do not speak fluently English nor understand. And so tonight I request that you take this hearing down there. And, our tribal leadership are not aware that these proposals are being proposed. So, tonight I feel disappointed because of the violation against my native people. I see that their civil rights are being violated. And, it is really sad to see the people the way they live and voicing their concerns especially to here tonight what they have to say. Some of the things that I never knew of, they're talking about: their food, the burial sites. And, it saddens your heart to hear your people to speak of these things. We, the native people, we do not step into your territory and ruin your land, your food, your water, your air, your soil. But, you do. And, it's so upsetting. I'm not even going to say I apologize to you guys that I'm upset tonight. And, so, I'm gonna request tonight that you take this hearing down to Aneth Chapter. And, what Bradley just had said, as he was speaking and I was standing out there, he was told that this is not the time to debate. I thought we're all here to debate tonight. So, you're here to hear our concerns, and you called this meeting to hear the people's concerns. Therefore, I think we should debate on these issues, because you're killing our people. You're contaminating every lives of the Navajo people, the Ute tribes, even the Anglo people that live here in Blanding. And, so, tonight I'm gonna tell you that I am one-hundred percent opposed against this energy resources that are being proposed. I don't think you should bring anymore projects into the native lands, the reservation of the Navajos and the Ute tribes. If you want to get rich, do it on your own land. And, maybe you can drink some of those contaminated waters, because our underground water is being contaminated, the aquifers are. You know, you've taken everything that's in the earth. The natural spring waters are all contaminated. You can visually see the dirty air. We shouldn't live like that. We native people, we also have a heart. We also have feelings just like each one of you that are here tonight. We all want to live peacefully just like the way you want to. We all like to have a good sleep at night instead of dealing with these nightmares, what we're gonna face again the next day.*

*So, you have two minutes. [Statement in response to two minute warning by hearing chair.] But we never gave you the time when you're drilling into the earth, we never said that your time is up. We let you drill and take out whatever you want. Whatever minerals you want, you took out. So, I think that you shouldn't give us time limits. I mean, what's three minutes; what's two minutes? You're not gonna even hear what you want to hear from the native people. There's a lot of things that we have to say, and it's your fault. You called this meeting to hear our concerns. So, I would ask when you come down to Aneth Chapter, don't go by time. If we're gonna have to keep you at our chapter maybe a day and a half, we will have to. And, this is all I have to say.*

**DRC Response:** Please see DRC Response to Comment No. H.5 regarding the request for public hearing. Please see DRC Response to Comment No. H.6 regarding impacts to cultural resources. Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment. Please see DRC Response to Comment No. H.15 regarding the nature of the decision before the agency.

### ***ADDITIONAL ORAL COMMENTS BY SARAH FIELDS***

**Comment No. H.31:** *I did want to state that we are opposed to the IUC proposal to process the Fansteel material. And, I believe in general, opposition is based on the fact that processing and disposing of this material would be in violation of the Atomic Energy Act and NRC, EPA, and state of Utah regulation.*

*I think I have reviewed more licensing documents related to uranium mills, both the IUC mill and the Moab Mill than most people. And I was truly shocked at the poor quality of the Division of Radiation Control's review of the IUC application. I'm not often shocked by the quality of the work of a regulatory agency. People here in Utah had the idea that when the State of Utah took over from the NRC the regulatory responsibility for the uranium mills that the State of Utah would do a better job than the NRC was doing. And, I thought that would be true. I now do not feel that that's true. I do not feel that the Division of Radiation Control is doing a good job. I think one of the problems with the Safety Evaluation Report is that there really is no guidance document, no State of Utah guidance document that lays out which should go into a Safety Evaluation Report. As was – has been discussed, one thing that is sorely lacking is any mention of environmental justice issues of the impacts to the plants and animals that are used by the native community surround White Mesa. So, maybe before the State of Utah goes forward, they should come up with a guidance document and put that out for public comment so the public can have input on the types of material that should go into a Safety Evaluation Report.*

**DRC Response:** Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment. The DRC uses NRC guidance in preparing a Safety Evaluation Report. The commenter's other comments are not specific enough to allow a response.

**Comment No. H.32:** *Another thing that I felt was confusing in the SER was the SER kept stating over and over again that the FMRI material was alternate feed material. But, then when I went to the State of Utah statutory definition of alternate feed material (It's in Section 59-24-1 and 2 of the Utah Code), it states that alternate feed material does not include, this is a quote, naturally occurring radioactive materials containing greater than 15 picocuries per gram of radium 226. Now, the radium 226 content of ponds 2 and 3 of the FMRI material ranges from 138 to 400 picocuries per gram of radium 226. It, also, contains large amounts of radium 228, which is not really addressed in the SER. But 128 to 400 is a great deal more than 15 picocuries per gram. In November I addressed a*

*question to Dane Finerfrock, but I have still not gotten an response. So, I really don't see how this pond 2 and 3 material meets the State of Utah's definition of alternate feed material. It, in fact, really doesn't meet any other – any statutory or regulatory definition except for the definition of mixed waste. The State of Utah thinks it meets the definition of ore, but that's only a policy guidance. That is not a statute. That is not a regulation, and it does not have any force and effect of law. I do not believe the State of Utah can use a policy guidance even though the policy guidance was developed by the NRC to, in effect, amend statute and amend regulation. One of the things that was totally lacking in the SER was any reference to any statutes and regulations that were being implemented in the review of the IUC application. I will say that the State of Utah and IUC should expect continued opposition to the this proposal.*

**DRC Response:** Please see DRC Responses to Comments Nos. B.2 and B.8.

**Comment No. H.33:** *Oh, also, here's the surety. The SER indicated that IUSA does not have to increase the surety to cover the costs of disposing of the FMRI materials should IUC should close before the materials are processed, because they assume that they would be able to dispose of the materials in the tailings impoundment. I don't know if they can legally do that, because the material is mixed hazardous and radioactive waste. IUC is not a mixed waste facility. It is not authorized to receive and dispose of mixed waste. So, the surety should be increased to cover the cost of disposal of those materials at a mixed waste facility. It is interesting that Fansteel and the NRC at the beginning of the Fansteel decommissioning process assumed that ponds 2 and 3 materials would be disposed at the Envirocare facility as mixed waste.*

**DRC Response:** Please see DRC Response to Comment No. B.46.

**Comment No. H.34:** *Thank you for the opportunity to comment. I hope that the DRC will provide an opportunity for extended comment and will also provide an opportunity at Aneth and White Mesa for the Ute and Navajo communities to make oral public comment and do a better job in providing of relevant information to the community. Thank you.*

**DRC Response:** Please see DRC Response to Comment No. H.5. The public comment period was extended an additional month to January 5, 2006.

#### ***ADDITIONAL ORAL COMMENTS BY KEN SLEIGHT***

**Comment No. H.35:** *I won't take that long. I want to know, since the State once said this was sham disposal, defacto nuclear waste dump built in each an amendment is approved, it becomes even much more hazardous for the community. As I stated, health is our big concern. In my past concerns, I often wondered the contributions of nuclear waste dump to our community. It's bothered me a lot that looking into it, we do get some tax money from it. We do get some employment from it for the county. We've always asked one question that's never been answered. Along with this processing of this uranium ores,*

*sort of speak, and all the other chemicals that's in there, IUC not only gets paid for processing, but they also get a tremendous hunk of money off on the side to accept this stuff. I often wondered how much that was, minerals coming to San Juan County. We're asked to accept the so-called ore, all these wastes from Japan, Tonawanda, New York, and god only knows where else. Who's paying for our health costs? I often wondered just how much IUC is paying of those million dollars they're collecting on the side for taking this waste that's not coming into the coffers of San Juan County. I think this is a legitimate question. What is the total amount that IUC is collecting. Maybe the State has that information. I don't know. Maybe it's privileged. I don't know. But, it keeps coming up. We're asked to shoulder the hazards, and they dump it on our land. The Navajo and the Ute people denied the State, "We don't want this stuff in the first place." Again, I ask you to take back to the board. We need information. We need you to go to all these various areas we talked about previously, educate us on what in the world is going on here.*

**DRC Response:** Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment.

DRC does not have information about IUC's financial arrangements with respect to the FMRI material. Please see also DRC Response to Comment No. H.14 regarding sham disposal.

#### ***ADDITIONAL ORAL COMMENTS BY BRADLEY ANGEL***

**Comment No. H.36:** *Again, my name is Bradley Angel. In your response to comments, of course, we hope you decide to actually comply with the laws of the land and your mandates and including protecting, you know, public health and the environment from what could be a potential serious risk and thus turning down this application.*

**DRC Response:** Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment.

**Comment No. H.37:** *And, I also look forward to seeing the response about in terms of compliance or violation with Title VI of the Civil Rights Act. And, we'll all be watching to see if the State Division of Radiation Control would be deciding and realizing, "Yes, indeed, we are, Utah is part of the United States, and we are subject to its laws, and as a State agency, responsible for actually implementing those laws and abiding by those," or if you decide to grant IUC's application, I guess somehow you're gonna have to explain either that Congress that we weren't watching in the last few days has got rid of the Civil Rights Act or Utah seceded from the Union. Since I don't think either of those are gonna happen, I don't think you're gonna have much of a choice, because, you know, I'm half joking, but most seriously, there is clearly a discriminatory and disproportionate impact on the native communities in this area that are the closest areas to IUC, both from your agency's regulatory and permitting process as well as from the activities of that facility.*

**DRC Response:** DRC followed NRC regulations and DRC rules in evaluating IUC's proposal to receive the FMRI materials at the Mill and concluded that there will not be a significant adverse effect on public health and the environment resulting from the IUSA proposal. See also DRC Responses to Comments Nos. C.1 and H.27.

**Comment No. H.38:** *The last thing I wanted to say is since the State seems to not be able to find people's contact information of the many people who have come to meetings over the years, I want it put into the record my contact information so you can't state you didn't have it. My email is: [bradley@greenaction.org](mailto:bradley@greenaction.org). And, as I requested before, my mailing address is P.O. Box 1078, Moab, Utah 84532. And, I look forward to receiving not just the response to comments but your denial of this application, and at a minimum, the scheduling of the appropriate hearings with appropriate notice and appropriate information in the appropriate languages. Thanks.*

**DRC Response:** Please see DRC Responses to Comments Nos. H.17 and H.25. The public hearing on this matter was held in Blanding, Utah on January 5, 2006. Adjudicative hearings are scheduled only in response to a Request for Agency Action, as described in the Utah Administrative Procedures Act, and Utah Code Annot. § R313-17-6.

#### ***ADDITIONAL ORAL COMMENTS BY MARGARET GOODMAN***

**Comment No. H.39:** *All I want to say is I have a solution. I'd like to ask this gentlemen where he's from. This guy right here [motion to Mr. Hochstein]. Where are you from? (No response.) Then where are you from [motion to Mr. Morton]? (No response.) Is that, I mean, you're not willing to wolf out that information? (No response.) Well, my solution is that if you two or if you people want to keep the Mill open, I suggest that if you really, really, really persist on keeping it open, put it ten miles from your home.*

**DRC Response:** This is a statement of opinion and requires no response. See also DRC Response to Comment No. H.15.

#### ***ADDITIONAL ORAL COMMENTS BY ANNA FRAZIER***

**Comment No. H.40:** *I just want, you know, to make a statement to them, to the State of Utah, that we're watching them since they took over this – the facility to oversee, to be the oversight people. It used to be under NRC, but it's no longer under NRC, so it's Utah now. There's other places in the State where there's a lot of controversy to do with uranium. I think it was, yeah, uranium issues, you know, bringing in uranium waste and whatnot. And, with the uranium production, the price is going up again. What I'm thinking is that if this amendment is approved by the State of Utah, that it will open up doors for a lot of other waste to come in, not only from Texas, but there's probably gonna be other States. Because, in the past, the experience is learned from companies like this,*

*from companies that are – that want to make money for economic development, you know, they want to make money, and they do things, bring stuff from the backdoor, which sometimes like, for instance, you know, we're talking about the type of waste that's gonna come in. It's not really defined in the report what kind it's gonna be. And, so those kinds of things happen. If this is approved, then we don't know what kind of waste is gonna come in, and also where else are they gonna bring more waste, and we know it's gonna probably higher in radiation, radioactive materials. And, we also heard that there's waste coming in from Japan. That was in the newspapers we read before Christmas. So, for all we know, they might even bring more from other – other countries for overseas. So, for us, that's kind of a flag going up, you know, it's not good for our people here. I really would like to hear from the people from Blanding; the people that live here, you know. What do they think. How do they feel about this, about their children and the schools and all that, the future of their people. How do they feel? You know, just – You've heard comments that our people, you know, we are so – I mean, we are the kind of people that don't move, move around, you know. We can't, if there's contamination here in our area, we can't just pick up our baggage or whatever and move to New York City. We don't do that. The reason why we don't do that is because of our relationship to our homeland, our relationship to the earth, our relationship to the environment, because that's what was taught to us from our people, our elders, our ancestors. So, we just don't do that. You know the person here, he did not want to say where he was from, and our ancestors or our people have always told us that those people don't have kinship. You know, they just go from town to town. But for us, you know, we have extended families. We're very family oriented, and we're very close to the environment where we are, who we are. That's who we are. So, to bring in things like this that's gonna destroy, that's endangering our – the health of our people, our generation. All that is, I mean, it's not good. And, as long as we're here, you'll always hear from us, whomever, you know, is gonna bring in more, more dangerous, hazardous contaminants like this on to or even near our land, you know. This is our ancestral land here in the Blanding area all the way down even to north of the river, down towards Page and up to in Colorado. That's our ancestral land. That's where our history comes from. So, that's the reason why we speak like the way we do, to protect who we are. Thank you.*

**DRC Response:** The license amendment will not open the door to other alternate feeds. The License Condition that allows IUC to accept this material is very narrow and specific, allowing them to accept only FMRI material from Ponds 2 and 3. In addition, new License Condition No. 10.1(C) explicitly prohibits IUC from accepting new alternate feed material until approved by DRC.

Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment.

#### ***ADDITIONAL COMMENTS BY LORI GOODMAN***

**Comment No. H.41:** *Lori Goodman. Yes. I just want to say more thing on the alternate*

*feed. Because this is not defined, so, you know, I would like some assurance that should this be radioactive waste, nuclear waste coming in, should that be coming in, who ultimately is responsible? Is this body that the Radiation Board of Utah, are they gonna have the funding to clean up that mess if that's what it becomes? And, it's very hard even try and imagine what we are talking about when, you know, when it says alternate waste, because in our experience, say the State of New Mexico, has special wastes and those are red flags that mean that those are something that – they are not defined for a reason – legally. And, so we need alternate feed defined, so we know what we're talking about. We want to know the health risks that's being proposed for us. I just wanted to add that and that a definition or explanation from the Utah Radiation Board saying that they, should that alternate be – turn out to be nuclear radioactive waste, that the State of Utah will ultimately be responsible for paying damages on that. Thank you.*

**DRC Response:** Reclamation, decommissioning, and decontamination of the White Mesa facility is addressed in section 4.5 of the SER. While IUSA owns and operates the facility, they bear the responsibility for environmental damage and liability. They are also required to demonstrate financial assurance that the facility will be closed properly. Please see DRC Response to Comment No. C.1 regarding impacts to human health and the environment.

## **Explanation of Changes to License Amendments Proposed in the November 2, 2005 Safety Evaluation Report.**

After review of public comments received and further discussions with IUC, certain changes were made to the November 2, 2005 draft license. Each of these changes is described below:

1. License Condition 9.11: In the November 2, 2005 draft license the previous wording in this condition allowed the IUC SERP panel to evaluate if adequate capacity was available for new alternate feed material. This was removed in order to allow the Executive Secretary the ability to review and approve this matter. The DRC considered this license condition change minor because it gave the DRC the ability to provide more regulatory oversight and would result in more protection of human health and the environment.
2. License Condition 10.1(B): This license condition from the November 2, 2005 draft license is now renumbered as 10.1(D). New wording in Condition 10.1(B) now mandates that IUC may not dispose of any material that is not “byproduct material”. The DRC considered this license condition change minor in that it clarified the type of material that could be disposed at the mill facility.
3. License Condition 10.1.C: This License Condition from the November 2, 2005 draft license has been removed. New wording in Condition 10.1(C) now mandates that IUC may not receive or process any alternate feed material without first applying for and obtaining approval of a license amendment and demonstrate that it will comply with condition 10.1(B) and provide conformance with the NRC alternate feed guidance and, the Utah DSHW approved protocol for determination of listed hazardous wastes. The DRC considered this license condition change minor in that it formally incorporates both the NRC guidelines for alternate feed materials, and the State protocol for identifying listed hazardous waste. These new requirements should afford better protection of the environment.
4. License Condition 10.1(D): As stated above, this new condition was renumbered from former condition 10.1(B) in the November 2, 2005 draft license. New wording at 10.1 (D) constitutes a performance standard that mandates that any feed material (alternate or natural) stored at the mill shall not exceed the storage quantity approved in the mill surety. The November 2, 2005 draft license was linked to alternate feed quantities in IUC’s 2005 approved annual surety (approved, August 10, 2005). The DRC is in the process in approving the 2006 annual surety that limits alternate feed and/or conventional ore inventory by the amount covered by the surety. This surety quantity is less than the quantity amount approved in the 2005 surety. Therefore, DRC considered this license condition change minor in that it is equal or more protective of the environment.

5. License Condition 10.1(E): This new condition constitutes a performance standard that mandates IUC cannot receive alternate feed materials or other natural ores in excess of the capacity approved in the Reclamation Plan, and/or the storage volume funded by the mill surety. The DRC considered this license condition change to be minor in that it will formulize a performance standard that was previously implied and therefore it should afford more protection to the environment.
6. License Condition 10.19: In response to public comment, wording was added to the November 2, 2005 draft license that would limit IUC to receive and process materials only from Ponds 2 and 3 at the FMRI's Muskogee facility. In this license condition a reference to the April 28, 2006 IUC letter was added to reflect the License's commitment not to receive drummed materials from the FMRI's Muskogee facility operation. The DRC considered this license condition change to be minor in that it ensures that feed received at the mill is the same material characterized in the March 8, 2005 application (Ponds 2 and 3) material that is approved to come to the mill from FMRI's Muskogee Facility.
7. License Condition 12.2: In the November 2, 2005 draft license there was a typographical error that was corrected by removing "NRC" and replaced it with the "Executive Secretary".
8. Pagination and Minor Editorial Changes: The license was repaginated at various locations to reflect license condition changes. This also included some font changes.