

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

November 30, 1996

Michael Weber, Chief  
Low-Level Waste And Decommissioning Projects Branch  
Mail Stop T7D-13  
Division of Waste Management  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Re: Comments of Envirocare of Utah, Inc., on the Draft Environmental Impact Statement--Decommissioning of the Shieldalloy Metallurgical Corporation, Cambridge, Ohio, Facility

Dear Mr. Weber,

Envirocare appreciates the opportunity to submit these comments on the Draft Environmental Impact Statement--Decommissioning of the Shieldalloy Metallurgical Corporation, Cambridge, Ohio, Facility (DEIS). Envirocare owns and operates a low-level radioactive and mixed waste treatment and disposal facility in South Clive, Utah, and is considered as a repository for off-site disposal in the DEIS. As such, although Envirocare has a commercial interest in the outcome of the EIS process, we have a right to expect that NRC will follow the appropriate legal and regulatory process, will correctly identify all short- and long-term costs of on-site disposal, and will appropriately identify off-site disposal costs.

Envirocare believes that when all appropriate costs of on-site and off-site disposal are considered, the appropriate alternative would be off-site disposal at Envirocare's Utah facility. We have invested considerable resources in establishing our state-of-the-art disposal facility in an arid location away from populations. This alternative will allow the site to be returned to the stream of commerce, rather than requiring exemptions that would proliferate disposal sites and prevent the future use of the land.

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<sup>1</sup> Envirocare has previously submitted a binding estimate for the excavation, loading, transport, and disposal of the slag from the east pile to Shieldalloy with copies to NRC staff.

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Page 1-7. Under what circumstances would NRC grant an exemption from the NRC decommissioning requirements that do not allow for land-use restrictions? The DEIS seems to suggest that an exemption is a foregone conclusion. Is there a guarantee of an exemption from the Commission? How long would the process take? What if an exemption from the Commission is not forthcoming?

Page 2-5. Envirocare believes that the alternatives as shown are incomplete. Only the fourth alternative addresses all of the wastes associated with the facility. The total waste streams that need to be addressed are the east and west slag piles, off-site slag, wetland soil, on-site sediment, and off-site sediment. The first, second, third, and fifth alternatives each neglect to describe what happens to the wastes that are not specifically addressed by that particular alternative. As an example, the first alternative (proposed action) addresses only the east and west slag piles and ignores all of the other wastes (off-site slag, wetland soil, on-site sediment, off-site sediment). These wastes should be addressed in all alternatives. If all wastes were addressed in the proposed alternatives, one would expect the costs to go up considerably when compared to off-site disposal.

The on-site cap is not designed to prevent infiltration of water into the east pile. What evidence is there that the slag will remain for hundreds of years in a relatively unleachable form? If there will be leaching, a more appropriately designed cap would increase costs. If the slag needs to be kept dry, then a liner beneath the slag would also be required, with a commensurate cost increase. If the slag composition may change and become more leachable over time, even if kept relatively dry, it would seem that the slag would be, or would become, a mixed waste requiring treatment and/or a different cell design.

Page 3-1. It would seem that the Golden Rule School (Program for Mental Retardation and Developmental Disabilities), which is 230 meters from the east slag pile, should be considered under the environmental justice review.

Page 3-20. The presence of groundwater at or near surface under normal conditions indicates the possibility of movement of water into and out of the slag piles. This shallow groundwater can then serve to transport contaminants from the slag to surface flows (Chapman Run) and may transport contaminants to the bedrock aquifer (page 3-21). Under flood conditions, contaminant transport should increase. In view of this, it seems that cell liners are needed if the slag is to be left on site. There seems to be no

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doubt that contaminants will be transported to the groundwater. The only question is which contaminants and in what quantity.

Page 3-24. Because all private wells and their uses in the site vicinity have not been identified, Envirocare questions the predictions on who might be consuming contaminated water and where.

Page 3-27. Because any groundwater or surface water discharge to Chapman Run eventually discharges to Cambridge Reservoir (Cambridge city water supply), any contaminants can also be transported to the reservoir for city consumption.

Page 3-30. No information is given on whether sample results are for soluble or insoluble constituents. No information is given on sample collection and treatment methodology. It is difficult to assess the validity of the results without more information. The same comments apply to table 3.3.5.

Page 3-44. If the pH fluctuates, the mobility of many of the contaminants, both radiological and non-radiological, may also fluctuate. Thorium, for example, may precipitate at high pH but be very soluble (and transportable) at low pH.

Page 4-20. It seems premature to publish the DEIS before completing the Ecological Risk Assessment or the Remedial Investigation.

Page 4-34. Because there are many radiological and non-radiological contaminants, there should be a discussion of the synergistic or total health effects of these contaminants.

Page 5-19. Because the mitigative measures proposed in 4.8.1 and 4.8.2 have been neither designed nor costed out, how can the costs for on-site versus off-site disposal be compared? On-site disposal costs do not factor in the costs for the measures prescribed in 4.8.1 and 4.8.2 or the costs for capping the east slag pile. It is also difficult to see how the environmental impacts of the various alternatives can be compared when the individual alternatives do not cover all the same wastes. Also, the DEIS does not seem to have evaluated the total health impact and risk for non-radiological contaminants, which are not provided for in the proposed decommissioning rulemaking.

Appendix F. At some sites, NRC requires a year or more of actual environmental data, while here modeling appears to be all that is required. Also, there is apparently no

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information on metal concentration for the east slag pile, so the assumption has been made that it is the same as the west pile.

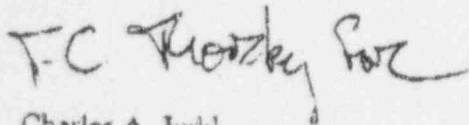
Appendix G. This section reads as if downward movement of contaminants from the slag has not yet begun, when in reality it must have begun when the slag was first deposited in the piles about 40 years or so ago. There should already be an underground plume extending out from the piles. Envirocare suggests that NRC should drill some actual monitoring wells at the hypothetical well location. Presumably this has not been done, or the reporting results from such wells would have been included.

The discussion of contaminant transport by groundwater depends mostly on modeling. The geohydrology section (page 3-20) discusses vertical fractures in the shallow clay/silt layer immediately below the pile and suggests more rapid transport as a result. Because models frequently have trouble handling discontinuous surfaces such as vertical fractures, do the models used in G.3.2.3 take vertical fractures or the absence of the clay/silt layer into consideration? If not, they may be underestimating contaminant transport, including radon.

Page H-4, 2d paragraph. Note that up to four times as much money as estimated in this DEIS may be needed for the maintenance and surveillance programs. This needs to be factored into the cost comparisons.

Envirocare appreciates consideration of its comments. Please let me know if you have any questions.

Sincerely,



Charles A. Judd  
Executive Vice President

**ENVIROCARE OF UTAH, INC.****THE SAFE ALTERNATIVE****FAX COVER SHEET**DATE: 12/02/96TO: KarenCOMPANY: NRC

PHONE: \_\_\_\_\_

FAX: 301-415-5399FROM: Tim BarneyCOMPANY: ENVIROCARE OF UTAHPHONE: (801) 532-1330FAX: (801) 537-7345

RE: \_\_\_\_\_

Number of pages including cover sheet: 5**Message:**

Envirocare comments. Please call if  
you have any questions.

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46 West Broadway, Suite 240, Salt Lake City, Utah 84101  
Clive Facility Fax: (801) 521-9630, Engineering Office Fax: (801) 532-0922

F/11



December 30, 1996

William J. Sinclair, Director  
Division of Radiation Control  
Department of Environmental Quality  
168 North 1950 West  
P.O. Box 144850  
Salt Lake City, UT 84114-4850

SUBJECT: BI-MONTHLY NRC/STATE OF UTAH MEETING/TELECONFERENCE ON  
URANIUM RECOVERY LICENSEES

Dear Mr. Sinclair:

The purpose of this letter is to transmit the enclosed minutes from the bi-monthly Nuclear Regulatory Commission/State of Utah meeting/teleconference on uranium recovery licensees that was conducted on October 8, 1996. If you have any questions concerning this subject, please contact me at (301) 415-6678.

Sincerely,

[original signed by:]

Harold E. Lefevre, Project Manager  
Uranium Recovery Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: As stated

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E/12

Enclosure

CONVERSATION RECORD

NRC HEADQUARTERS STAFF MEMBERS INVOLVED: Joe Holonich (NMSS/DWM)  
Dan Gillen (NMSS/DWM)  
Mike Fliege<sup>1</sup> (NMSS/DWM)  
Harold Lefevre (NMSS/DWM)  
James Park (NMSS/DWM)

DATE: October 8, 1996 (2:00 p.m. EDT)  
Meeting/Teleconference Location: NRC Headquarters  
Two White Flint North, Conference Room T7B-1

<u>PERSONS IN CONTACT</u>	<u>ORGANIZATIONS</u>	<u>TELEPHONE NUMBERS</u>
Charles Cain <sup>1</sup>	NRC/DNMS (REG-IV)	(817) 860-8186
Ross Scarano <sup>1</sup>	NRC/DNMS (REG-IV)	(817) 860-8106
William Sinclair	Utah/DEQ	(801) 536-4250
Dane Finerfrock <sup>2</sup>	Utah/DEQ	(801) 536-4250
Loren Morton <sup>2</sup>	Utah/DEQ	(801) 536-4250

<sup>1</sup>participated in meeting via telephone from Region IV offices, Arlington, TX

<sup>2</sup>Participated in meeting via telephone from Salt Lake City, Utah

SUBJECT: BI-MONTHLY NRC/STATE OF UTAH MEETING/TELECONFERENCE ON URANIUM  
RECOVERY LICENSEES

SUMMARY:

The following narrative provides a summary of the items discussed during the October 8, 1996, meeting/teleconference. See Attachment 1 for the list of agenda items.

Energy Fuels Nuclear, Inc. (EFN), White Mesa

The NRC discussed the following topics (identified in the attached agenda) in varying detail: (1) EFN's request for authorization to process alternate feed material (U-bearing potassium diurate in KOH/KF solution), (2) scheduling of the NRC's inspection during the week of October 21, and (3) description of the nature of the enforcement action (Severity Level III) taken against the mill foreman both by the NRC and by the White Mesa management. The NRC indicated that it is ready to close the issue.

The State described its policy for requesting that the licensee seek a groundwater discharge permit indicating that a November 8, 1996, meeting with EFN has been scheduled to clarify the State's policy on the matter. The State indicated that new facilities need a groundwater discharge permit automatically, but is a bit more lenient with respect to existing facilities.

#### Atlas, Moab

The NRC discussed the following topics in varying detail: (1) the reasons underlying cancellation of the Moab, Utah meeting (originally scheduled for mid-September) with the Department of the Interior, (2) indicated that a meeting of Atlas management and the NMSS Director had taken place, (3) indicated that 11 of the 30 TER open issues had been closed with the engineering details of the Reclamation Plan remaining. A copy of the letter to Atlas summarizing the status of the TER open items has been provided to the State. The NRC hopes to issue a final TER by the end of this calendar year, and (4) indicated that the NRC Chairman has acknowledged receipt of the State's letter of Sept. 16, 1996, regarding comments made by NRC staff at the Commission briefing of July 29, 1996.

Among other topics the State described the nature of the meeting with Atlas management during the previous week.

#### Plateau Resources Limited (PRL), Shootaring Canyon

The NRC discussed several matters, including the NRC's receipt of the initial draft detailed site reclamation plan and the commencement of the review of the document by NRC's contractor. On this subject, the NRC indicated that if PRL voluntarily raised its surety to cover the costs outlined in the reclamation plan and the NRC approved the costs, PRL could resume mill operations while the NRC conducts its detailed technical review of the plan. The NRC also noted that it had conducted the annual site inspection in June and found no violations as indicated in the July 31, 1996, inspection report.

The State discussed a number of matters including: (1) a summary of its activities relative to the restart of the mill indicating that it had some concerns including, but not limited to: (a) the low TDS in the ground water indicating the presence of a Class I aquifer, and (b) an estimate indicating that perhaps 15 gpm is being lost from the impoundment to the aquifer, questioning the design of the clay liner and suggesting that perhaps there may be a need for a leak detection system, and (2) its schedule for visiting the site in mid-October.

#### Rio Algom, Lisbon

The NRC (Region IV) indicated that an inspection was conducted on September 3 and 4, 1996, with the inspection report issued on October 3, 1996. There were no violations.

The State reported that due to low combined water flow (due either to the loss of a well or pump) the licensee applied to the State to drill and install another well in order to recover the site's pumping capacity.

#### Envirocare of Utah, Inc., Clive

The NRC discussed: (1) the results of its July 8-11, 1996, inspection as stated in its report of July 31 finding Envirocare in violation (Severity Level IV) of its license by failing to notify the NRC of exceedances of its uranium constituent background limit in Compliance Well GW-28, (2) Envirocare's letter



of September 11, 1996, denying that a violation had occurred, and (3) a NRC/Envirocare teleconference of October 3, 1996, in order to discuss NRC's views on the licensee's bases for denial of the violation. The staff indicated to Envirocare that it will prepare and transmit a letter to Envirocare within the next several weeks indicating that the violation stands.

Additionally, the NRC indicated that: (1) a routine inspection is tentatively scheduled for the week of November 18, 1996, and (2) the staff was notified by telephone on October 1, 1996, that there may be arsenic exceedances in a number of wells, subject to confirmation by Envirocare's consultant.

The State indicated that, because of recent exceedances in a number of constituents for State-licensed portions of the site, it was in the process of reevaluating its standards for both the LAWR and 11e.(2) operations.

#### Other Item

The State indicated that Envirocare of Utah, Inc. has announced its intention to locate a facility similar to its Tooele County, Utah in Andrews County, Texas near Lubbock. The facility would not accept 11e.(2) materials and would be limited by its license to wastes originating from the cleanup of U.S. Department of Energy sites and those of the military.

#### Next Bi-Monthly Teleconference

The next bi-monthly teleconference will be on December 3, 1996, at 3:00 p.m. EST.

#### FOLLOW-UP RESPONSIBILITY:

Harold Lefevre will coordinate the next teleconference, to include the agenda. He can be reached at (301) 415-6678.

TELEPHONE CONVERSATION/MEETING OF OCTOBER 8, 1996, DOCUMENTED BY HAROLD E. LEFEVRE

NRC/STATE OF UTAH MEETING/TELECONFERENCE AGENDA ITEMS

Tuesday, October 8, 1996  
Two White Flint, Conference Room T7B-1, 2:00 p.m.

1. **WHITE MESA - Energy Fuels Nuclear, Inc. (EFN) (PM - Jim Park)**

- Alternate feed amount request received on Sept. 24, 1996 (NRC)
- U-bearing potassium diurate ( $K_2U_2O_7$ ) in KOH/KF solution - from Allied Signal Inc. (NRC)
- Inspection to be conducted during latter part of October (NRC - Region IV)
- Enforcement action (Severity Level III) issued on Sept. 6, 1996, against mill foreman (NRC - Region IV)
- State requesting licensee seek a groundwater discharge permit for non-radiologics (State)

2. **MOAB - Atlas (PM - Mike Fliegel)**

- Meetings in Moab 9/17-19 cancelled (NRC)
- Atlas management meeting with NMSS Director (NRC)
- Letter to Atlas summarizing status of TER open issues (NRC)
- Letter to Utah - groundwater monitoring of all constituents found in tailings (NRC)
- Status of State letter of Sept. 16, 1996, to Chairman Jackson regarding comments made by NRC staff at the Commission briefing of July 29, 1996 (State)

3. **SHOOTARING CANYON - Plateau Resources Limited (PM - Jim Park)**

- Receipt of initial portions of detailed site reclamation plan on Sept. 10, 1996. Contractor conducting review. (NRC)
- Annual inspection conducted June 17-18, 1996; inspection report issued on July 31 with no violation. (NRC - Region IV)
- NRC staff requests a State briefing on activities being conducted by any State agency relative to the mill's restart (NRC)
- Planned site visit by State and a summary of State activities to date (State)

4. LISBON - Rio Algom (PM - Mike Fliegel)

- FY 96 inspection conducted during the week of Sept. 3, 1996. (NRC Region IV)

5. CLIVE - Envirocare (PM - Harold Lefevre)

- Report of NRC's July 8-11 inspection issued on July 31, 1996; Severity Level IV violation issued because of failure to notify NRC of uranium exceedance of background limit in Compliance Well GW-28 (NRC - Region IV)
- Licensee's letter of Sept. 11, 1996, denies Severity Level IV violation for not reporting Uranium background concentration exceedances (NRC)
- Teleconference held on October 3 with Vernon Andrews, Envirocare RSO, to discuss NRC's views on the licensee's bases for denial of license condition violation related to Uranium background concentration exceedances (NRC - Region IV)
- Routine inspection tentatively scheduled for November, 1996 (NRC - Region IV)
- NRC notified by telephone on October 1, 1996, of arsenic possibly exceeding background concentration levels at a number of wells (NRC)

6. OTHER

- None identified.

IMPORTANT

To access teleconference, perform the following: 1) dial (301) 415-7605; 2) listen for "stutter" dial tone; then 3) dial access code "432-1789"