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 To: Nuclear Regulatory Commission <NRCREP@nrc.gov>  
 Date: Mon, Mar 15, 2004 7:01 PM  
 Subject: 69 Fed. Reg. 7026, February 12, 2004.

*2/2/04*  
*69FR 7026*

*(1)*

Attached please find Comments on State of Utah: NRC Staff Draft Assessment of a Proposed Amendment to Agreement Between the Nuclear Regulatory Commission and the State of Utah, 69 Fed. Reg. 7026, February 12, 2004.

Sarah Fields  
 435-259-4734

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*(DMS4)*

## Sierra Club Glen Canyon Group

P.O. Box 622  
Moab, Utah 84532

March 15, 2004

Mr. Michael T. Lesar, Chief,  
Rules and Directives Branch  
Division of Administrative Services  
Office of Administration,  
Washington, DC 20555-0001

RE: State of Utah: NRC Staff Draft Assessment of a Proposed Amendment to Agreement Between the Nuclear Regulatory Commission and the State of Utah, 69 Fed. Reg. 7026, February 12, 2004.

Dear Mr. Lesar:

Below please find our comments on the UTAH FINAL APPLICATION FOR URANIUM MILLS AND MILL TAILINGS (Final Application), which was submitted to Paul Lohaus, Director, Office of State and Tribal Programs, U.S. Nuclear Regulatory Commission (NRC) in January 2003, from William J. Sinclair, Executive Secretary, Radiation Control Board. This Final Application was subsequently amended by the State of Utah in response to NRC comments in.

### 1. Introduction

As will be shown below, there has never been a directive by Congress granting the NRC authority over the processing of material other than "ore" at licensed uranium and thorium facilities under the Atomic Energy Act of 1946, as subsequently amended. Because Congress has never delegated such responsibility to the NRC, the NRC has no authority to transfer this authority to the State of Utah.

Below, I will quote portions of the final "Final Application" and follow with comments.

### 2. Policy Statement (*Criteria 29 and 35*)

*Final Application: The following policy statement for assuming regulatory authority over byproduct material as defined in Section 11.e.(2) of the Atomic Energy Act for uranium mills and mill tailings has evolved through a discussion process involving*

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*scoping and task force meetings. . . .*

*During the 2000 Utah legislative session, it was determined that it would be beneficial to form an Agreement State/Groundwater Authority task force to examine several issues relating to Agreement State status. The task force was initiated by the Utah Department of Environmental Quality in April 2000. Interested stakeholders that were invited to participate on the task force included licensee representatives, local community representatives, representatives of the Utah Radiation and Water Quality Boards, and a representative of the Utah Mining Association. [Emphasis added.] The task force was jointly sponsored by the Department of Environmental Quality, Divisions of Water Quality and Radiation Control. After several meetings, the task force formulated a paper entitled: "Elements of a Utah Agreement State Program for Uranium Mill Regulation." In July 2000, the task force unanimously supported the Division of Radiation Control in pursuing Agreement State status as established in the Elements paper. [Pages 2-3.]*

In the section quoted above, the State of Utah (State) describes the process whereby the Elements paper was developed as a Policy Statement for assuming regulatory authority. The process described was not a public process. The "interested stakeholders" that were "invited to participate" did not include many interested persons and groups. Many of these excluded persons and groups had shown an interest in the State's assumption of regulatory authority over mill tailings by attending and participating in the earlier scoping meetings held throughout the state by the Department of Environmental Quality (DEQ) and Division of Radiation Control (DRC). It is not apparent that there was proper notice during the scoping meetings that the public participation process would include the formation of a task force in 2000 to develop uranium recovery policy.

The DEQ excluded environmental organizations, tribal members and tribal representatives, and members of the public (except for industry representatives) from the task force.

The only operating uranium mill in Utah sits next to the White Mesa Ute tribal community. The White Mesa Band is part of the Ute Mountain Ute Tribe. No one from the tribe was invited to be on the task force. To the best of my knowledge, no one from the tribe was notified of the task force meetings. To the best of my knowledge, none of the other interested people who had participated in the scoping hearings and left contact information on the sign in sheets were notified of the establishment of the task force and its meetings.

The DEQ limited the participation of "local community representatives." One county government representative from four counties and one from a city government amounts to a very narrow local community representation. Additionally, the local communities of Moab, Monticello, and White Mesa were not represented on the task force.

The DEQ task force was established and completed its work prior to the decision by the Governor of Utah to initiate the amended Agreement State process. The task force did not hold public meetings in the vicinity of the 11e.(2) byproduct material facilities.

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The task force did not provide an opportunity for written or oral public comment on the ensuing "Elements paper." See quote above.

There was no public notice of the activities of the task force in any of the local newspapers near the licensed Utah 11e.(2) byproduct material facilities.

The Elements paper was not the result of a fair, open, and public participatory process. It was the result of planned exclusion, not inclusion, of interested stakeholders.

The State of Utah made very sure that no one would be on the task force who might question or object to the Policy Statement set forth in the Elements paper.

## 2.2 Public Participation

*Final Application: It has been a long-standing policy for the State to seek primacy for environmental programs. In this regard the State believes that a cooperative uranium mills and tailings regulatory program will be of benefit to both the regulated community and Utah citizens. The advantages that the State can offer over the current Nuclear Regulatory Commission program include better communication with and participation of the public in uranium recovery issues . . . . [Page 3.]*

### 2.2.1 Lack of Meaningful Public Participation in Development of Policy

As discussed above, the DEQ has from the start excluded the public from meaningful participation in the development of State policy with respect uranium recovery issues. When the State had a chance to include the public in the development of public policy related to uranium recovery issues, the State chose to exclude the public. There is no indication that the DEQ will make any serious attempt in the future to provide for public participation in the development of uranium recovery policy. Also, see discussion at 1.4.1, below.

### 2.2.2 Need for a State Public Participation Plan

The State believes that "the advantages that the State can offer over the current Nuclear Regulatory Commission program include better communication with and participation of the public in uranium recovery issues." However, the State does not discuss exactly how the better public communication and participation will be accomplished. The State has not developed a public participation plan for uranium recovery issues. The State has not identified "uranium recovery issues."

The State does not discuss the State's past experience with public participation in environmental program for which it has sought and obtained primacy. The State should have included information on past public participation on other environmental policy issues.

The State of Utah, and all Agreement States, should be required to develop and implement a public participation plan—with input from a broad spectrum of the public.

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### 2.2.3 Availability of Licensing Documents

Better communication and public participation is very much dependent upon the public accessibility of all of the pertinent licensing documents and indexes of those documents. The NRC from about 1980 to November 1999 had a document control system that provided the public with free access to indexes of NRC publicly available records. Since November 1999, the NRC has made the images and texts of NRC publicly available records easily accessible via the Internet. For the State of Utah to offer better opportunities for public communication and participation, the State must offer a similar document accessibility program.

At this time the NRC has no requirement that an Agreement State have a document control system that would provide both the Agreement State and the public with a means to keep track of pertinent licensing records.

Without indexes to records being readily available to the public, there is no way for a member of the public to really know what is going on at a licensed facility. Members of the public in Utah should not be required to spend large amounts of money to obtain copies of pertinent applications and other licensing action records or travel to Salt Lake City to review the records.

The State, at the very least, should provide timely access to indexes of licensing documents.

The State should also have a process whereby pertinent licensing records (that is, licenses, applications, environmental reports, inspection reports, notices of violations, monitoring reports, correspondence, requests for additional information and licensee responses, etc.) are made available to the public electronically.

The availability should be modified such that, beyond public participation, the document control system is compatible with and friendly to, State and federal entity staff, in a timely manner.

The State should seriously consider establishing a document collection in the vicinity of any operating uranium recovery or 11e.(2) byproduct material disposal facility.

The State should not just rely on the Utah Government Records Access and Management Act (GRAMA) (the State's equivalent of the federal Freedom of Information Act) to provide the public with access to licensing documents.

The NRC should make sure that the State has the staff and monetary resources to provide the public with licensing records in a timely manner, convenient for use.

### 2.3 Pre-1978 Uranium Mill Tailings

*Final Application: Following the formulation of the policy in conjunction with discussions with the NRC, it was realized that the current Commission policy related to pre-1978 uranium mill tailings would have to be followed. This does not prevent the State from exercising regulatory authority under its existing rules of such material as naturally occurring radioactive material. [Page 4.]*

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The Final Application does not specifically address the fact that there are two unremediated sites in Utah that contain pre-Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) uranium mill tailings. The NRC or the State does not currently regulate these sites, nor are they under a Department of Energy (DOE) remedial action program.

These uranium mill sites (Fry Canyon and the White Canyon Site at Hite) were licensed by the Atomic Energy Commission (AEC) pursuant to the Atomic Energy Act of 1954 (AEA), as amended. The sites operated to fulfill AEC contracts. The Fry Canyon Site has not been remediated and has been a source of ground and surface water contamination in the vicinity of a riparian area and aquifer that provides potable water.

The 26,000 tons of tailings at Hite are in the Powell Reservoir, but may now be uncovered due to the drop in the water level of the reservoir. There have recently been dramatic changes in the Reservoir due to prolonged drought. At this time, it appears that the tailings are under sediment, but no longer under water. The possibility that this sediment and the tailings may be disturbed warrants the immediate attention of the State.

The tailings at Fry Canyon and Hite have been brought to the attention of the DEQ on a number of occasions, but nothing has been done to investigate the current site circumstances or bring the sites under any regulatory control.

There is also a former ore-buying station near the Happy Jack mine along Utah Highway 95. It, too, may still have contaminated materials that should be removed. There may be other pre-1978 byproduct material sites ("lost sites") that remain outside appropriate regulatory control.

The NRC stated in the NRC Comments that pre-1978 mill tailings (less than 0.05 weight would be NORM) are not under NRC authority under the AEA, therefore, they cannot be included in an agreement between NRC and Utah. Here, the NRC is not addressing whether the pre-1978 mill tailings are more than 0.05 % uranium and/or thorium by weight. If the pre-1978 mill tailings are more than 0.05% uranium and/or thorium by weight, then the tailings should be regulated by the State as source material.

Additionally, the NRC and the State do not address the important question of whether the AEC licenses for the two sites were ever terminated. If the licenses were never terminated by the AEC, then the NRC (and the Agreement State) would still retain regulatory responsibility under the AEA.

Clearly, it was the intent of the AEA, as amended by the UMTRCA, that all uranium mill sites that were licensed by the AEC or the NRC come under the authority of the AEA as Title I or Title II sites. Clearly, it was the intent of Congress that no uranium mill site and uranium mill tailings should fall through a regulatory crack. The NRC, State of Utah, and DOE have improperly allowed these sites to fall out from under the AEA and NRC and Environmental Protection Agency (EPA) regulation.

The State of Utah, in conjunction with the NRC, should thoroughly evaluate these sites. They should determine the licensing status, whether the material on-site qualifies as

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"source material," the extent of the on-site and off-site contamination, the extent of on-site and off-site ground and surface water contamination, the need for a groundwater discharge permit, and the appropriate remedial action plan.

There needs to be a master list of all sites and materials at those sites that the State proposes to assumed responsibility for as an NRC Agreement State. There needs to be a list of sites with pre-1978 11e.(2) byproduct materials and, where these sites have fallen through a regulatory crack, a determination as to the best way to bring these sites within the appropriate regulatory program.

This should be done before the Final Application is approved.

## 2.4 Alternate Feed Material

*Final Application: It is also the intent of the State to follow the guidance affirmed by the Commission for review and decision of receipt of alternate feed materials by uranium mills. Each alternate feed amendment will be considered a major amendment for the purposes of licensing and will follow procedures as described in this final application. The alternate feed guidance as described in NRC Regulatory Issues Summary 2000-23 is included in Appendix L of the application. [Page 4.]*

### 2.4.1 Public Participation in the Formulation of State Policy Guidance

As discussed above, the involvement of the task force in the development of the "Elements paper" and the decision by the State with respect the processing of alternate feed (i.e., wastes from other mineral processing operations, including wastes mixed with contaminated soils and wastes from other sources) was not the result of a public participation process.

In the January 2003 Final Application submitted to the NRC, the State did not identify the guidance that the State would use in reviewing applications for the processing of alternate feed material. The DRC's decision to use the November 2000 NRC Regulatory Issues Summary 2000-23 (RIS 2000-23), Recent Changes To Uranium Recovery Policy, was not a decision that was put out to the public for comment. The decision was not the result of the "participation of the public in uranium recovery issues," which the State claims that it offers

The Final Application does not discuss what guidance, if any, would be used in evaluating applications to dispose of non-11e.(2) byproduct material in 11e.(2) byproduct material impoundments or whether such applications would even be considered by the State. The Final Application should have addressed this matter.

A request was made to the DRC and the Radiation Control Board (RCB) that the question of what guidance should be used for consideration of alternate feed amendment request be a subject of a public decision making process. Attachment A. The DRC determined that the public would have no opportunity to provide meaningful comment on that important public policy question. The RCB went along with that determination.

To the best of my knowledge, the Radiation Control Board never considered what

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guidance would be used in reviewing applications to process materials other than "ore" and applications to dispose of non-11e.(2) byproduct material in 11e.(2) byproduct material impoundments.

We were extremely disappointed and troubled by the DRC's and RCB's brush-off of our concerns regarding the decision-making process related to the use of the NRC's guidance on the processing of feed material other than natural ore.

We request that, in keeping with the State's commitment to "include better communication with and participation of the public in uranium recovery issues," the State open to the public the question of what State policies should apply to the processing on material other than natural ore and the disposal of non-11e.(2) byproduct material.

If this does not happen, the State's claim to "include better communication with and participation of the public in uranium recovery issues" is totally meaningless.

#### 2.4.2 Public Participation in the Formulation of NRC Policy Guidance

The policy guidances incorporated in RIS 2000-23 were not the result of an NRC public participation process. The two guidances: "Interim Guidance on Disposal of Non-Atomic Energy Act of 1954, Section 11e.(2) Byproduct" and "Interim Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores," were never published in the Federal Register as either a draft for public comment, or in its final form. This failure to publish the policy guidances in the Federal Register is contrary to the requirements of 5 U.S.C. Section 552(a)(1).

If the State adopts these guidances, it will show that it is no more interested in involving the public in the development of policy related to uranium recovery issues than the NRC is.

#### 2.4.3 Guidances Are Not "Interim" Guidances

The November 2000 "interim" guidances are substantive amendments to the 1995 "Final Revised Guidance on Disposal of Non-Atomic Energy Act of 1954, Section 11e.(2) Byproduct Material in Tailings Impoundments" and "Final Position and Guidance on the Use of Uranium Mill Feed Materials Other Than Natural Ores" (60 Fed. Reg. 49296-49297, September 22, 1995). The Interim Position and Guidance is proposed by the State to be used in reviewing applications to use feed material other than natural ore.

The term "interim" was used for the 2000 guidances because there was to be a new set of NRC regulations issued as a Part 41, and somehow the guidances would be related to that issuance. At this time, the NRC no longer intends to issue a Part 41 or substantively revise Part 40. So, there is interim period related to the "interim" guidances.

The interim guidances are, in reality, final guidances that the NRC and the State have informally and improperly adopted.

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### **2.5 Authority over the 11e.(2) Byproduct Material Determinations**

The State and the NRC have not discussed who has the authority to determine whether a material in Utah or a material that will be disposed of in Utah meets the definition of 11e.(2) byproduct material, once the State assumes regulatory responsibility for such material.

This question should be clarified.

### **3. Groundwater Authority (Criteria 29, 33, and 35)**

Final Application: *The Division of Radiation Control administers both groundwater permitting and radioactive material licensing for disposal facilities and uranium mills.* [Page 8.]

*The Division has substituted the Administrative Rules for Ground Water Quality Protection, R317-6 for groundwater standards provided in Appendix A, 10 CFR Part 40 (EPA Rules 40 CFR Part 192).* [Page 9.]

In the February 12 FRN the NRC states that "the alternative groundwater standards were addressed in a separate Commission action (see 68 FR 51516, August 27, 2003, and 68 FR 60885, October 24, 2003) and will be resolved prior to the Commission's final approval of an amendment to the Agreement with Utah."

We object to the fact that the NRC staff and the Commission have not resolved the issue of the State's request to substitute State groundwater protection standards for NRC standards. Whether or not the alternative groundwater standards are acceptable is a question that impacts consideration of the Final Application. The public should have had access to NRC staff responses to the comments on the "NRC Staff Assessment of Utah's Proposed Alternative Standard To Use Utah's Existing Groundwater Regulation in Lieu of the Nuclear Regulatory Commission Regulations" (68 Fed. Reg. 51516; August 27, 2003), staff recommendations to the Commission, and the Commission's decision, prior to the noticing of comment on the Final Application.

We request that the NRC make the comments on the "NRC Staff Assessment of Utah's Proposed Alternative Standard To Use Utah's Existing Groundwater Regulation in Lieu of the Nuclear Regulatory Commission Regulations" (68 Fed. Reg. 51516; August 27, 2003), the staff recommendations to the Commission, and the Commission's decision on the State's use of alternative groundwater standards available to the public and extend the comment period so that the public can submit additional comments on the Final Application.

### **4. Rulemaking (Criteria 29 and 35) and Fundamental Changes to the Atomic Energy Act**

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*Final Application: The Division of Radiation Control has adopted applicable parts of 10 CFR 40 by reference (disclaiming any intent to regulate materials or activities over which the NRC retains jurisdiction) with necessary changes to reflect primacy of the Utah program (e.g., recognition of the Executive Secretary, etc.). With the adoption by reference of the NRC regulatory program, it is recognized that guidance has been published that is intended to provide clarification to the various regulatory elements. The Division will follow the published NRC guidance documents unless doing so will compromise protection of human health and the environment. The DRC recognizes that it cannot make a fundamental change to an Atomic Energy Act provision (e.g., the definition of byproduct material). [Page 18-19.] [Emphasis added.]*

By adopting the NRC "Interim Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores," the State is making fundamental changes to the Atomic Energy Act of 1946, as amended by the Atomic Energy Act of 1954 (as subsequently amended). The State is fundamentally amending the definition of "11e.(2) byproduct material" and the definition of "source material."

The NRC Interim Position and Guidance, the Proposed "Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores" (57 Fed. Reg. 20525; May 13, 1992), and the Final "Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores" (60 Fed. Reg. 49296; September 22, 1995), contain a new definition of the word "ore," as that word is used in the statutory definition of 11e.(2) byproduct material. The Guidances' definition of "ore" (to be used only for the purpose of facilitating the processing of alternate feed) states:

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

This definition is not part of the Atomic Energy Acts of 1946 and 1954, as amended, or any NRC or EPA regulation promulgated in response to the Acts. As will be shown below, a thorough perusal of the legislative and regulatory history makes clear that it was never the intent of Congress or the implementing regulations that "ore" means anything other than a "natural or native matter."

The State of Utah proposes to use the new definition of "ore" (which is not a regulatory definition) as an amendment to the statutory definition of 11e.(2) byproduct material and, by implication, the statutory definition of "source material." We strenuously object to that.

#### 4.1 Definition of "Ore" in the Atomic Energy Act

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UMTRCA, among other things, amended the AEA of 1954 by adding a new definition, the definition of 11e.(2) byproduct material:

Sec. 201. Section 11e. of the Atomic Energy Act of 1954, is amended to read as follows:

"e. The term 'byproduct material' means (1) any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material, and (2) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content." [42 U.S.C. Sec. 2014 (e).]

Since the Atomic Energy Act of 1946, Congress and the Atomic Energy Commission made perfectly clear what "ore" is.

The domestic uranium mining and milling industry was established at the behest of the Manhattan Engineer District and the Atomic Energy Commission ("AEC"). The AEC regulated uranium mines and uranium processing facilities, established ore buying stations, and bought ore. Mining and milling of uranium ore was done under contract to the AEC. AEC purchased uranium ore under the Domestic Uranium Program. Regulations related to the AEC's uranium procurement program were set forth in 10 C.F.R. Part 60. Part 60 was deleted from 10 C.F.R. on March 3, 1975, after the establishment of the NRC.

The AEC published a number of circulars related to their Domestic Uranium Program. The Domestic Uranium Program—Circular No. 3—Guaranteed Three Year Minimum Price—Uranium-Bearing Carnotite-Type or Roscoelite-Type Ores of the Colorado Plateau Area" (April 9, 1948), an amendment to 10 C.F.R. Part 60, states:

§ 60.3 *Guaranteed three years minimum price for uranium-bearing carnotite-type or roscoelite-type ores of the Colorado Plateau—(a) Guarantee.* To stimulate domestic production of uranium-bearing ores of the Colorado Plateau area, commonly known as carnotite-type or roscoelite-type ores, and in the interest of the common defense and security the United States Atomic Energy Commission hereby establishes the guaranteed minimum prices specified in Schedule 1 of this section, for the delivery of such ores to the Commission, at Monticello, Utah, and Durango, Colorado, in accordance with the terms of this section during the three calendar years following its effective date.

*Note:* In §§ 60.1 and 60.2 (Domestic Uranium Program, Circulars No. 1

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and 2), the Commission has established guaranteed prices for other domestic uranium-bearing ores, and mechanical concentrates, and refined uranium products.

*Note:* The term "domestic" in this section, referring to uranium, uranium-bearing ores and mechanical concentrates, means such uranium, ores, and concentrates produced from deposits within the United States, its territories, possessions and the Canal Zone.

#### 10 C.F.R. Part 60—Domestic Uranium Program at § 60.5(c) states"

Definitions. As used in this section and in § 60.5(a), the term "buyer" refers to the U.S. Atomic Energy Commission, or its authorized purchasing agent. The term "ore" does not include mill tailings or other mill products. . . . [Circular 5, 14 Fed. Reg. 731; February 18, 1949.] [Emphasis added.]

It is plain that the AEC was the primary mover in the domestic uranium mining and milling program. It is plain that under the Atomic Energy Act of 1946 and 1954, the AEC regulated uranium mining and milling and established a uranium ore-buying program. It is clear that from the 1940's to 1975, the regulations in 10 C.F.R. Part 60 clearly stated that "ore" does not include mill tailings or other mill products.

Since it was never the intention of AEA statute and regulation to include tailings or other mill products in the definition of "ore," then the State's adoption of a policy that includes mill tailings and other mill products in the definition of "ore" is contrary to statute. We do not believe that this is a legal action on the part of the State.

#### 4.2 Legislative History of the Uranium Mill Tailings Radiation Control Act of 1978

The legislative history of UMTRCA, found in the two Congressional reports, provides information with respect "uranium mill tailings" and "ore." The Congressional Reports clearly state what was contemplated by Congress (i.e., the intent of Congress) when Congress established a program for the control of "uranium mill tailings" from the processing of "uranium ore" at inactive (Title I of UMTRCA) and active (Title II of UMTRCA) uranium and thorium processing facilities. House Report (Interior and Insular Affairs Committee) No. 95-1480 (I), August 11, 1978, and House Report (Interstate and Foreign Commerce Committee) No. 95-1480 (II), September 30, 1978.

Under "Background and Need," HR No. 95-1480 (I) states:

Uranium mill tailings are the sandy waste produced by the uranium ore milling process. Because only 1 to 5 pounds of useable uranium is extracted from each 2,000 pounds of ore, tremendous quantities of waste are produced as a result of milling operations. These tailings contain many naturally-occurring hazardous substances, both radioactive and

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nonradioactive. . . . As a result of being for all practical purposes, a perpetual hazard, uranium mill tailings present the major threat of the nuclear fuel cycle.

The second House Report, under "Need for a Remedial Action Program" states:

Uranium mills are a part of the nuclear fuel cycle. They extract uranium from ore for eventual use in nuclear weapons and power-plants, leaving radioactive sand-like waste—commonly called uranium mill tailings—in generally unattended piles. HR No. 95-1480 (2) at 25.

The AEA of 1946, as amended in 1954 and 1978, and the legislative history of those statutes, give clear statements regarding what "ore" is. There is no indication whatsoever in the statute or legislative history of the statute that "ore" included mill tailings or other mill product (i.e., wastes from other mineral processing operations, including wastes mixed with contaminated soils and wastes from other sources) even if those material were processed for their source material content.

The State of Utah, by adopting a definition of "ore" that includes mill tailings and other mill products, is fundamentally changing the statutory definition of "ore," as that word is used in Section 11e.(2).

Additionally, the State is adopting a new definition of "ore," as that word is used in the statutory definition of "source material."

#### 4.3 Statutory Definition of Source Material

As will be shown below, the State of Utah, by adopting the Interim Guidance is fundamentally changing the statutory definition of "source material."

The AEA of 1946, under "Control of Materials," Sec. 5 (b), "Source Materials," (1), "Definition," provides the definition of "source material." Section 5(b)(1) states:

Definition. — As used in this Act, the term "source material" means uranium, thorium, or any other material which is determined by the Commission, with the approval of the President, to be peculiarly essential to the production of fissionable materials; but includes ores only if they contain one or more of the foregoing materials in such concentration as the Commission may by regulation determine from time to time. [Emphasis added.]

The AEA of 1954, Chapter 2, Section 11, "Definitions," sets forth the current statutory definition of "source material " at Sec. 11(s):"

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The term "source material" means (1) uranium, thorium, or any other material which is determined by the Commission pursuant to the provisions of section 61 to be source material; or (2) ores containing one or more of the foregoing materials, in such concentrations as the Commission may by regulation determine from time to time. [42 U.S.C. Sec. 2014(z).] [Emphasis added.]

Responsive to this statutory definition, in 1961 the AEC established the following regulatory definition at 10 C.F.R. § 40.4:

Source Material means: (1) Uranium or thorium, or any combination thereof, in any physical or chemical form or (2) ores which contain by weight one-twentieth of one percent (0.05%) or more of: (i) Uranium, (ii) thorium or (iii) any combination thereof. Source material does not include special nuclear material. [26 Fed. Reg. 284 (Jan. 14, 1961).] [Emphasis added.]

Therefore, the AEC made a determination, in accordance with the mandate of the AEA of 1954, that ores containing 0.05% thorium and/or uranium would meet the statutory definition of source material. At the same time that they made that determination, the AEC had a regulation that clearly stated that "ore" does not include mill tailings or other mill products. Surely, the AEC, as the administrator of a uranium ore procurement program and the developer of the uranium mining and milling industry, knew what they meant when they used the term "ore."

Additionally, the AEC set forth certain exemptions to the regulations in 10 C.F.R. Part 40. The proposed rule that was later finalized in January 1961 states, in pertinent part:

The following proposed amendment to Part 40 constitutes an overall revision of 10 CFR Part 40, "Control of Source Material."

With certain specified exceptions, the proposed amendment requires a license for the receipt of title to, and the receipt, possession, use, transfer, import, or export of source material. . . .

Under the proposed amendment, the definition of the term "source material": is revised to bring it into closer conformance with that contained in the Atomic Energy Act of 1954. "Source Material" is defined as (1) uranium or thorium, or any combination thereof, in any physical or chemical form, but does not include special nuclear material, or (2) ores which contain by weight one-twentieth of one percent (0.05 percent) or more of (a) uranium, (b) thorium or (c) any combination thereof. The amendment would exempt from the licensing requirements chemical

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mixtures, compounds, solutions or alloys containing less than 0.05 percent source material by weight. As a result of this exemption, the change in the definition of source material is not expected to have any effect on the licensing program. . . .

Section 62 of the Act prohibits the conduct of certain activities relating to source material "after removal from its place of deposit in nature" unless such activities are authorized by license issued by the Atomic Energy Commission. The Act does not, however, require a license for the mining of source material, and the proposed regulations, as in the case of the current regulations, do not require a license for the conduct of mining activities. Under the present regulation, miners are required to have a license to transfer the source material after it is mined. Under the proposed regulation below, the possession and transfer of unrefined and unprocessed ores containing source material would be exempted. [47 Fed. Reg. 8619 (September 7, 1960).]

Therefore, the AEC established, via a rulemaking, exemptions for source material as defined in Sec. 2014(z)(1) related to mixtures, compounds, solutions, or alloys containing uranium and/or thorium.

(a) Any person is exempt from the regulations in this part and from the requirements for a license set forth in section 62 of the Act to the extent that such person receives, possesses, uses, transfers or delivers source material in any chemical mixture, compound, solution, or alloy in which the source material is by weight less than one-twentieth of 1 percent (0.05 percent) of the mixture, compound, solution or alloy. The exemption contained in this paragraph does not include byproduct material as defined in this part. [10 C.F.R. § 40.13(a), 26 Fed. Reg. 284 (Jan. 14, 1961).]

The AEC also established, via a rulemaking, exemptions for source material as defined in Sec. 2014(z)(2) related to "ore":

b) Any person is exempt from the regulations in this part and from the requirements for a license set forth in section 62 of the act to the extent that such person receives, possesses, uses, or transfers unrefined and unprocessed ore containing source material; provided, that, except as authorized in a specific license, such person shall not refine or process such ore. [10 C.F.R. 40.13(b), 26 Fed. Reg. 284 (Jan. 14, 1961).]

The definition of "source material" and the exemptions that are related to those definitions stand today, over forty years later. These regulatory definitions and exemptions did not change when the NRC was established in 1975 and took on the

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regulatory responsibility for "source material." These regulatory definitions and exemptions did not change when the AEA was amended by UMTRCA in 1978. These regulations and definitions did not change when the NRC developed their policy guidances related to the processing of wastes from various mineral processing operations (including the commingled soils and wastes from other sources) at licensed uranium recovery operations. These definitions will not change when the State assumes primacy for 11e.(2) byproduct material.

There is no evidence in the regulatory history of UMTRCA that Congress, in defining "11e.(2) byproduct material" intended to also amend the statutory definition of "source material." The "ore" in the definition of "source material" was clearly the same as the "ore" in the definition of 11e.(2) byproduct material.

However, the new definition of "ore" (proposed to be adopted by the State), in fact, amends the statutory definition of "source material" by changing the long established definition of "ore" that was used in the statute and used by the AEC, NRC, and Agreement States in implementing that statute.

The EPA recognized that the new definition of the word "ore" was a fundamental change in the statutory definition of "source material."

On May 14, 1992, NRC staff sent a letter to the EPA, enclosing a copy of the May 13 proposed guidance and requesting EPA comment on two proposed guidance documents and their associated staff analyses. Letter from Robert M. Bernero, Director, Office of Nuclear Material Safety and Safeguards, NRC, to Sylvia K. Lowrance, Director, Office of Solid Waste, EPA, May 14, 1992.

The EPA did not submit comments on the proposed policy guidances. The only documentation of EPA's response to that request for comment is quoted below and is found in the Commission Paper that forwarded the finalized guidances to the Commission for their approval. The NRC staff Commission Paper states:

There was an issue that delayed finalization of the guidance documents. In an October 1992, mixed waste meeting between the NRC, the EPA, and DOE staff, EPA identified potential inconsistencies in NRC's interpretation of the definition of source material in conjunction with the exclusion of source material from the definition of solid waste in the Resource Conservation and Recovery Act (RCRA). In making its point, EPA cited the May 13, 1992, Federal Register Notice on the disposal of non-11e.(2) byproduct material. The staff had delayed finalization of the uranium recovery policy guidance documents, pending resolution of the source material definition issue. However, the staff has now decided that these two policy guidance documents can be finalized, independent of the source material issue, because the guidance is not dependent on the interpretation of the definition of source material. ["Final 'Revised Guidance on Disposal of Non-Atomic Energy Act of

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1954, Section 11e.(2) Byproduct Material in Tailings Impoundments' and Final Position and Guidance on the Use of Uranium Mill Feed Materials Other Than Natural Ores," SECY-95-221, August 15, 1995.]

The EPA clearly understood the conflict between the new definition of "ore" as it appears in the guidances and the use of the word "ore" in the statutory definition of "source material" and the various exemptions related to "source material."

The Proposed Position and Guidance, the Final Position and Guidance, and the Interim Position and Guidance gave no indication that the NRC was amending, interpreting, or in any manner adjusting the accepted meaning of the term "ore" as that word is used in the statutory and regulatory definition of "source material." Nor was there any discussion in the various guidances related to the processing of material other than natural ore (e.g., tailings and other mill products) of how the exemptions set forth in 10 C.F.R. §40.13(a) and (b) would be impacted by guidance's new definition of "ore."

There is no indication that the "source material definition issue" has ever been appropriately addressed or resolved.

It is clear that the State's use of the term "ore," put forth in the Interim Position and Guidance, fundamentally alters the definition of "source material" established in the Atomic Energy Act of 1954 and alters the exemptions set forth in § 40.13(a) and (b).

The use of the Interim Position and Guidance definition of "ore" by the State would allow the State to claim that materials that are mill tailings and wastes from mineral processing operations (i.e., alternate feed material) are "source material ore," as defined by statute (42 U.S.C. Sec. 2014(z)(2)). This constitutes a fundamental alteration of the statutory definition of source material.

The State and the NRC cannot have it both ways. A material that is "ore" under the definition of 11e.(2) byproduct material, must also be a "ore" under the definition of source material "ore." If the State considers alternate feed material to be "ore," then that fundamentally alters the statutory definition of "source material" and fundamentally alters the exemptions from regulation of source material pursuant to 10 C.F.R. § 40.13.

No statute permits this fundamental alteration of the AEA and NRC regulation.

#### **4.4 Fundamental Changes to NRC and EPA Regulations**

By adopting the NRC "Interim Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores," the State is making fundamental changes to both NRC and EPA regulation.

Both the EPA and the NRC established a regulatory program for uranium milling and the processing of ores. As will shown below, neither the EPA nor the NRC contemplated the processing of materials other than natural "ore." Neither the EPA nor the NRC considered wastes from other mineral processing operations (including contaminated soils and wastes from other sources) in their concept of "ore," and they did

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not address in any manner the processing of such wastes when promulgating their regulatory regimes for active uranium processing facilities. Further, during the various rulemaking proceedings, the public was never informed that wastes from other mineral processing operations (including commingled contaminated soils and wastes from other sources), no matter how they were defined, would be processed at licensed uranium or thorium mills. Therefore the public was given no reasonable opportunity to comment on such processing activities at uranium mills.

The State, by proposing to adopt the new definition of ore, is fundamentally amending both NRC and EPA regulation.

#### 4.4.1 NRC Regulatory Program, 10 C.F.R. Part 40

Responsive to UMTRCA, the NRC incorporated the UMTRCA definition of 11e.(2) byproduct material (with clarification) into their regulations at 10 C.F.R. § 40.4:

"Byproduct Material" means the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface wastes resulting from uranium solution extraction processes. Underground ore bodies depleted by such solution extraction operations do not constitute "byproduct material" within this definition. [44 Fed. Reg. 50012-50014 (August 24, 1979).]

The NRC also explained the need for the new definition:

Section 40.4 of 10 CFR Part 40 is amended to include a new definition of "byproduct material." This amendment, which included uranium and thorium mill tailings as byproduct material licensable by the Commission, is required by the recently enacted Uranium Mill Tailings Radiation Control Act.

The NRC promulgated further regulations amending Part 40, in 1980, 45 Fed. Reg. 65521-65538 (October 3, 1980). In the summary, the NRC states:

The U.S. Nuclear Regulatory Commission is amending its regulations to specify licensing requirements for uranium and thorium milling activities, including tailings and wastes generated from these activities. The amendments to parts 40 and 150 take into account the conclusions reached in a final generic environmental impact statement on uranium milling and the requirements mandated in the Uranium Mill Tailings Radiation Control Act of 1978, as amended, public comments received on a draft generic environmental impact statement on uranium milling, and public comments received on proposed rules published in the Federal Register.

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[Footnotes omitted.]

There is no statement in any of the NRC regulations in 10 C.F.R. Part 40 or in any of rulemaking proceedings promulgating those regulations that wastes from other mineral processing operations (including commingled contaminated soils and wastes from other sources) is "ore," under any circumstances, or that, under any circumstances, such wastes would be processed at licensed uranium or thorium mills and the tailings or wastes would be disposed of as 11e.(2) byproduct material in the mill tailings impoundments. The regulations promulgated by the NRC and the EPA did not contemplate that kind of activity. The National Environmental Policy Act ("NEPA") document in support of the promulgation of the NRC regulatory program for uranium mills did not contemplate this kind of activity. In the rulemaking proceedings and NEPA proceeding, the public did not have an opportunity to contemplate and comment on this kind of activity.

#### 4.4.2 The Final Generic Environmental Impact Statement on Uranium Milling

The Final Generic Environmental Impact Statement on Uranium Milling ("GEIS"), NUREG-0706, September 1980, makes a clear statement regarding the scope of the GEIS and its understanding of what uranium milling entails:

As stated in the NRC Federal Register Notice (42 FR 13874) on the proposed scope and outline for this study, conventional uranium milling operations in both Agreement and Non-Agreement States, are evaluated up to the year 2000. Conventional uranium milling as used herein refers to the milling of ore mined primarily for the recovery of uranium. It involves the processes of crushing, grinding, and leaching of the ore, followed by chemical separation and concentration of uranium. Nonconventional recovery processes include in situ extraction of ore bodies, leaching of uranium-rich tailings piles, and extraction of uranium from mine water and wet-process phosphoric acid. These processes are described to a limited extent, for completeness. [GEIS, Volume I, at 3.]

The processing of wastes from mineral processing operations (i.e., the processing of feed material other than ore as that term is used in the GEIS) are not included within the scope of the GEIS.

The GEIS is very clear about what it considers "ore" to be and gives no indication whatsoever that materials other than ore, such as the tailings or waste from mineral processing operations (including commingled contaminated soils and waste materials from other sources) are considered to be "ore."

The GEIS includes a discussion of "Past Production Methods." That discussion

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makes reference to "ore," "ore exploration," "pitchblende ore," "crude ore milling processes," "lower-grade ores," "uranium-bearing gold ores," "high-grade ores," "ore-buying stations," and "ore reserves." GEIS, Volume I, Chapter 2, at 2-1 to 2-2. There is a lengthy discussion of "Uranium Mining and Milling Operations" that provides a description of the commonly and less-commonly "used methods of mining uranium ores." GEIS, Volume II, at B-1 to B-2. Appendix 1.

In Chapter 6, "Environmental Impacts," there is a discussion of "Exposure to Uranium Ore Dust," which states, in part:

Uranium ore dust in crushing and grinding areas of mills contains natural uranium (U-238, U-235, thorium-230, radium-226, lead-210, and polonium-210) as the important radionuclides. [GEIS, Volume I, at 6-41.]

There is also a table giving the "Average Occupational Internal Dose due to Inhalation of Ore Dust." GEIS at 6-41, Table 6.16. Further, the GEIS discusses "Shipment of Ore to the Mill" (GEIS at 7-11), "Sprinkling or Wetting of Ore Stockpile" (GEIS at 8-2), "Ore Storage" and "Ore Crushing and Grinding" (GEIS at 8-6), "Ore Pad and Grinding" (GEIS, Vol. 3, at G-2), "Ore Warehouse (GEIS, Vol. 3, at K-3) and "Alternatives to Control Dust from Ore Handling, Crushing, and Grinding Operations" (GEIS, Vol. III, at K-3 to K-3). In the NRC responses to comments there are discussions of "Average Ore Grade, Uranium Recovery" (GEIS, Vol. II, at A-12 to A-13).

The GEIS did not consider the processing of wastes from mineral processing operations at uranium or thorium mills. The GEIS gives no indication whatsoever that such wastes are "ore," even if they were processed at a uranium or thorium recovery facility for their "source material content." Clearly, the GEIS did not consider that the wastes from the processing of such wastes would meet the definition of 11e.(2) byproduct material.

Therefore, the GEIS did not evaluate, and the public did not have an opportunity to comment upon, any of the possible health, safety, and environmental impacts of the processing of other mineral processing wastes at uranium or thorium processing facilities. There was no evaluation of the transportation issues related to the transportation of such wastes, nor were reasonable alternatives to the transportation, receipt, processing, and disposal of such wastes at uranium or thorium mills ever evaluated.

#### 4.4.3 EPA Regulatory Standards

UMTRCA directed the EPA to establish standards for uranium mill tailings and directed the NRC to implement those standards. That statute, as codified in 42 U.S.C. 2022, states in pertinent part:

Sec. 2022. Health and environmental standards for uranium mill tailings  
(b) Promulgation and revision of rules for protection from hazards at

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processing or disposal site.

(1) As soon as practicable, but not later than October 31, 1982, the Administrator shall, by rule, propose, and within 11 months thereafter promulgate in final form, standards of general application for the protection of the public health, safety, and the environment from radiological and nonradiological hazards associated with the processing and with the possession, transfer, and disposal of byproduct material, as defined in section 2014(e)(2) of this title, at sites at which ores are processed primarily for their source material content or which are used for the disposal of such byproduct material. . . . [Emphasis added.]

Requirements established by the Commission under this chapter with respect to byproduct material as defined in section 2014(e)(2) of this title shall conform to such standards. Any requirements adopted by the Commission respecting such byproduct material before promulgation by the Commission of such standards shall be amended as the Commission deems necessary to conform to such standards in the same manner as provided in subsection (f)(3) of this section. Nothing in this subsection shall be construed to prohibit or suspend the implementation or enforcement by the Commission of any requirement of the Commission respecting byproduct material as defined in section 2014(e)(2) of this title pending promulgation by the Commission of any such standard of general application. In establishing such standards, the Administrator shall consider the risk to the public health, safety, and the environment, the environmental and economic costs of applying such standards, and such other factors as the Administrator determines to be appropriate.

\* \* \*

(d) Federal and State implementation and enforcement of the standards promulgated pursuant to subsection (b) of this section shall be the responsibility of the Commission in the conduct of its licensing activities under this chapter. States exercising authority pursuant to section 2021(b)(2) of this title shall implement and enforce such standards in accordance with subsection (o) of such section. [42 U.S.C. 2022(b) and (d).]

Congress directed the EPA only to establish standards for "sites at which ores are processed primarily for their source material." The EPA, as mandated by UMTRCA, finalized the "Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites" in 1983. 48 Fed. Reg. 45925-45947, October 7, 1983. In the "Summary of Background Information" the EPA provides a discussion of "The Uranium Industry" (i.e., the industry that the regulations apply to):

The major deposits of high-grade uranium ores in the United States are

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located in the Colorado Plateau, the Wyoming Basins, and the Gulf Coast Plain of Texas. Most ore is mined by either underground or open-pit methods. At the mill the ore is first crushed, blended, and ground to proper size for the leaching process which extracts uranium. . . . After uranium is leached from the ore it is concentrated . . . . The depleted ore, in the form of tailings, is pumped to a tailings pile as a slurry mixed with water.

Since the uranium content of ore averages only about 0.15 percent, essentially all the bulk ore mined and processed is contained in the tailings. [48 Fed. Reg. 45925, 45927, October 7, 1983.]

Clearly, when the EPA developed its standards for uranium and thorium mills, they stated, with specificity and particularity, what uranium ore was, what uranium milling consisted of, and what uranium mill tailings consisted of. EPA clearly stated that the standards applied to the processing of uranium and thorium ores at uranium and thorium mills. There is no reasonable evidence that would indicate that the standards promulgated by the EPA applied to the processing of wastes from other mineral processing operations at uranium and thorium mills.

In the various rulemaking proceedings that have taken place in the establishment of the EPA standards, the public was given no opportunity to consider or comment on the possibility that the EPA standards would also apply to the processing of wastes from other mineral processing operations (including commingled soils and waste materials from other sources) at uranium and thorium mills.

Additionally, the EPA incorporated UMTRCA's definition of 11e.(2) byproduct material, as clarified by the NRC in 10 C.F.R. 40.4, into their standards at 40 C.F.R. Subpart D, § 192.31(b). Since that time the EPA has not amended their definition of 11e.(2) byproduct material in a rulemaking proceeding, nor have they amended their definition via policy guidance. The EPA has not, in any manner, widened the use of the words "any ore" to include mineral processing wastes. As was discussed above, the EPA did not sanction the NRC's policy guidance with respect to new definitions of "ore" and 11e.(2) byproduct material.

Clearly, the EPA, as directed by Congress, has not in any manner contemplated the processing of wastes from other mineral extraction operations at uranium or thorium mills when establishing the "Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites."

Furthermore, 10 C.F.R. Part 40, Appendix A, Criterion 8, states in part:

Uranium and thorium byproduct materials must be managed so as to conform to the applicable provisions of Title 40 of the Code of Federal Regulations, Part 440, "Ore Mining and Dressing Point Source Category: Effluent Limitations Guidelines and New Source Performance Standards,

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Subpart C, Uranium, Radium, and Vanadium Ores Subcategory," as codified on January 1, 1983.

There has never been any indication that it was the intent of the EPA that the "ore" should have one meaning in the definition of 11e.(2) byproduct material, another meaning in Part 440.

There is no indication that the regulation in 40 C.F.R. Part 440 (and the enabling statute) has in any manner been amended or altered by subsequent NRC policy guidance. Therefore, any shift in the usage of the word "ore" by the State would conflict with these statutory and regulatory authorities with respect this regulation.

#### 4.4.4 EPA Final Environmental Impact Statement for Standards for the Control of Byproduct Materials from Uranium Ore Processing

##### 4.4.4.1 Introduction. The 1983 EPA FEIS provides a statement in the "Introduction":

In the Uranium Mill Tailings Radiation Control Act of 1978, Public Law 95-604, 42 USC 7901 (henceforth designated as "the Act"), Congress directed the Environmental Protection Agency (EPA to "promulgate standards of general application for the protection of the public health, safety, and the environment from radiological and non-radiological hazards associated with the processing and with the possession, transfer, and disposal of byproduct material at sites at which ores are processed primarily for their source material content or which are used for the disposal of such byproduct material." The term "byproduct material" as defined by the Act means, for these sites, " . . . the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content." The Act assigns the responsibility for implementation and enforcement of these standards to the Nuclear Regulatory Commission and its Agreement States through their licensing activities.

There is no indication that the EPA ever issued a policy statement, guidance, or regulation that changed the EPA's regulatory definition of "byproduct material," as defined by the Act. The EPA did not adopt NRC 1995 and 2000 Guidances related to the processing of materials other than natural ore. There is no evidence that the EPA issued any written statement in support of the establishment of those NRC Guidances.

The EPA never did an environmental assessment of the regulatory program that includes the processing of alternate feed material, as proposed by the State.

The State is not authorized to adopt a policy that permits a regulatory program that were never contemplated and evaluated when the EPA promulgated their standards pursuant to UMTRCA.

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4.4.4.2. Scope of Standards. The FEIS provides information on the scope of the standards at 1.1 (page 1-1 to 1-2). The Scope of Standards section states in part:

Only conventional uranium mills, heap-leaching operations, and above-ground wastes from solution mining are covered by these proposed standards. . . . The Act was directed primarily toward the solution of environmental problems from the radioactive tailings piles resulting from conventional milling operations.

The conventional and non-conventional uranium milling operations that the EPA and the AEA considered did not include the processing of wastes from other mineral processing operations.

4.4.4.3 Conventional Milling Processes. The FEIS goes on to describe conventional milling processes in Section 2.2 (pages 2-2 to 2-5). Conventional Milling Processes section states, in part:

In the uranium milling process, uranium is extracted from the crude ore and concentrated into an intermediate semirefined product called "yellowcake."

The EPA standards only addressed the processing "crude ore." Congress did not direct the EPA to establish standards for the processing of materials other than natural (crude) ore. The AEA did not authorize an Agreement State to develop regulatory programs under the AEA that rely on EPA standards that were not established contemplating such regulatory programs.

4.4.4.4 The FEIS primarily addressed conventional uranium milling. The "nonconventional" methods of uranium production that were assessed were solution mining and heap-leaching operations for the recovery of uranium. There is no discussion of the processing of wastes from mineral processing operations (i.e., the processing of feed material other than ore, as "ore" is used in the FEIS). The FEIS did not consider the processing of wastes from other mineral processing operations (materials other than "natural ore") as a type of conventional or nonconventional milling operation.

The FEIS did not consider the processing of wastes from mineral processing operations at uranium or thorium mills. The FEIS was very clear about what it considered "ore" to be and gave no indication whatsoever that materials other than ore, such as the tailings or waste from mineral processing (alternate feed material) are considered to be "ore." The FEIS gave no indication whatsoever that such wastes are

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"ore," even if they were processed at a uranium or thorium recovery facility for their "source material content."

The FEIS does not evaluate the radiological and non-radiological constituents of materials other than "natural ore." No data related to the radiological and non-radiological characteristics of such materials was presented in the FEIS. The FEIS did not evaluate, and the public did not have an opportunity to comment upon, any of the possible health, safety, and environmental impacts of the processing and disposal of materials other than "natural ore" at uranium or thorium processing facilities.

There is no evidence that the FEIS addressed uranium recovery from materials other than "natural ore." There is no environmental analysis of the processing of materials other than "natural ore" found within the generic impact analysis conducted by EPA in promulgating their standards and requirements. The nonconventional uranium recovery activities contemplated by the State (relying upon the Interim Position and Guidance) were not within the scope of the FEIS.

Neither the NRC, nor State is authorized to disregard the EPA FEIS.

#### 4.5 In Sum

It is plain from the Atomic Energy Act of 1946 and the legislative history of the AEA of 1954 and the Uranium Mill Tailings Radiation Control Act of 1978, that the State's use of the term "ore" goes far beyond the accepted meaning of that term and the clear intent of Congress.

The plain language of the Act and the history of the implementation of the Atomic Energy Act of 1946, as amended by the Atomic Energy Act of 1954 and the Uranium Mill Tailings Act of 1978, is all that is needed to determine what "ore" or "any ore" is. As discussed above, clearly the legislative and regulatory history of the AEA and Titles 10 and 40 of the Code of Federal Regulations make plain the meaning of the term "ore" and the term "any ore."

It is true that the EPA and the NRC, in establishing their regulatory program, contemplated the processing of ores at uranium and thorium mills. However, as shown above, processing of wastes from other mineral processing operations (material other than natural ore) at uranium and thorium mills is beyond the scope of the regulatory program established by the NRC and the EPA in response to UMTRCA.

The regulatory history of UMTRCA makes clear that the term "any ore" means any type of uranium or thorium ore (e.g., ore containing less than .05% uranium and/or thorium and the numerous types of natural uranium or thorium bearing minerals that are mined at uranium or thorium mines and milled at uranium or thorium mills). There is no evidence in the regulatory history of UMTRCA that Congress intended the term "any ore" to mean anything that the NRC or IUSA wants it to mean (e.g., the wastes from mineral processing operations, including wastes mixed with soils and commingled with the wastes from other sources, even if those wastes are processed for their source material content at a uranium or thorium mill).

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The applicability of various environmental regulations to a great degree depends upon definitions. Congress, in their legislative function, often specifically defines words or phrases related to the application of a statute to a particular material or circumstances—when there is a need for explanation. However, when using words or terms with a common and long accepted meaning, such as groundwater, mill, tailings, or "ore," no explanation or definition is necessary.

The State of Utah and the NRC is not authorized to shift these accepted definitions at will as an expression of their "regulatory flexibility." This is especially so when such shifts result in direct conflicts with the enabling statutes and regulations, as is the case with the use of the newly defined term "ore."

No federal or State agency can use a policy guidance to expand upon and substantively alter the explicit will of Congress when that will is explicitly set forth in a statute or statutes. The State of Utah does not have the discretion to use a policy guidance to substantively alter the statutory definition of "source material" or the statutory definition of 11e.(2) byproduct material.

The State is not authorized to shift definitions at will when such shifts directly conflict with the statutory authority and regulations of another federal agency, in this case, the EPA.

No federal or State agency is authorized to develop a whole new regulatory program, based solely upon a suspect redefinition in a policy statement, where there has never been a directive from Congress establishing such regulatory program.

## **5. Suggested State Legislation-Model State Act (Criterion 31)**

### **5.1 Environmental Impacts**

*Final Application: The Utah Radiation Control Rules will be modified to include consideration of environmental impacts (including radiological or non-radiological impacts, surface and groundwater impacts, consideration of alternatives to the licensed activities, and longterm impacts of licensed activities) for new licenses and major license amendments. The analysis will be included in the safety evaluation report for new licenses and in a statement of basis for major license amendments. New licenses and major license amendments will be available for public comment at least 30 days following the publication of notice. [Page 24-25.]*

The State should have made clear that environmental impacts include cumulative impacts of licensed activities. The NRC has, in the past, ignored the requirement to consider cumulative impacts of licensed activities at uranium recovery facilities in environmental assessments.

The State should evaluate all the alternatives to the proposed licensed activities.

The State should also evaluate environmental justice impacts, including impacts

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*inspection: Lisbon (Rio Algom), White Mesa (International Uranium), Shootaring Canyon (Plateau Resources), and Clive (Envirocare of Utah). [Page 29.]*

The State and the NRC appear to have allowed the Velvet Mine Water Treatment Facility to drop out of the uranium recovery regulatory picture. The Velvet Mine has been licensed in the past as part of the Moab Mill (Docket No. 40-3453), then the White Mesa Mill (Docket No. 40-8681), and lastly the Shootaring Canyon Mill (Docket No. 8698). To the best of my knowledge, 11e.(2) byproduct material is disposed of at that site, the site has not been reclaimed, and the NRC inexplicably no longer licenses the site.

The status of the Velvet Mine and the 11e.(2) byproduct material at that site should be addressed by the State.

## 7. Summary

*Final Application: The State is committed to full administrative support to the Agreement State program and has demonstrated its competency in control of radiation as evidenced by the adequate and compatible rating achieved during the last Integrated Material Performance Evaluation Program review. [Page 36.]*

*The Department of Environmental Quality remains committed to its mission of safeguarding human health and quality of life through the protection and enhancement of the environment. The Utah Division of Radiation Control will continue to protect Utah citizens and the environment from sources of radiation that constitute a significant health hazard through its radiation control programs. The State of Utah is prepared and qualifies to assume the responsibilities that would be transferred to the State upon amendment of Section 274 Agreement to include regulation of byproduct material as defined in Section 11e(2) of the Atomic Act. [Page 37.]*

### 7.1 Lessons Learned

Over the past twenty eight years the NRC has regulated uranium processing facilities and 11e.(2) byproduct material impoundments in Utah. The State, during that time has had an oversight responsibility on behalf of the citizens of Utah. The State has also had responsibility related to the ground and surface water at the sites. During those years, both the NRC and the State have learned some lessons because, despite their efforts, mistakes and failures have occurred.

The Moab Uranium Mill is the best example of mistakes and failures in the NRC's regulatory program. There was not enough surety funds to carry out even on-site reclamation, groundwater contamination from the mill went undetected for years, seepage into the Colorado River was impacting endangered fish species, contaminated materials were disposed of willy-nilly outside of the impoundment, there was a complete lack of an effective groundwater remediation plan, documents that should have been made publicly available in a timely manner (at least 775 of them) were withheld from the public for years, and so on.

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Yet, it does not appear that the NRC and the State, at this important juncture, have stopped to examine the many mistakes and failures and develop a list of lessons to be learned from them. The NRC and the State have not taken a good look at the situation to make sure that these mistakes and failures will not just be repeated under State regulatory control.

In the Final Application, the State should have specifically identified past mistakes and failures in the NRC regulatory program and specifically identified how they would go about implementing a more comprehensive and effective program.

We request that the State and NRC make a serious and comprehensive effort to identify past regulatory program mistakes and failures in Utah, identify reasons for these mistakes and failures, and propose solutions so that future regulatory programs do not lead to another incomplete and ineffective regulatory regime.

## **7.2 Outside the Authority of the AEA**

As was shown above, Congress has never delegated to the EPA or the NRC the authority to regulate the processing of material other than "ore" at licensed uranium and thorium facilities under the Atomic Energy Act of 1946, as subsequently amended. Because Congress has never delegated such responsibility to the NRC or the EPA, the NRC has no authority to transfer to the State of Utah the regulation of this type of uranium mill operation activity.

The informal adoption of a policy by the State is not a means whereby the State can assume responsibility outside of the directives of Congress and outside of EPA and NRC regulation.

## **7.3 Request for Remedy**

We request that the State submit an amended application that recognizes that the State has no authority over the processing of materials other than natural ore at licensed uranium or thorium processing facilities.

We request that the public promptly be provided with an opportunity to comment on an amended Final Application after the NRC responds to these comments.

We request that the public also be provided an opportunity to comment on the Final Application after the NRC responds to the "NRC Staff Assessment of Utah's Proposed Alternative Standard To Use Utah's Existing Groundwater Regulation in Lieu of the Nuclear Regulatory Commission Regulations" (68 Fed. Reg. 51516; August 27, 2003), the staff recommendations to the Commission, and the Commission's decision.

Thank you for providing this opportunity to submit comments.

Comments on 69 Fed. Reg. 7026, February 12, 2004  
March 15, 2004

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Sarah M. Fields  
Nuclear Waste Committee  
Glen Canyon Group Sierra Club

Attachment: As stated