

9/30/2011  
76 FR 60941

# PUBLIC SUBMISSION

8

<b>As of:</b> November 16, 2011
<b>Received:</b> November 14, 2011
<b>Status:</b> Pending_Post
<b>Tracking No.</b> 80f6c4cc
<b>Comments Due:</b> November 14, 2011
<b>Submission Type:</b> Web

**Docket:** NRC-2011-0217

Draft Regulatory Issue Summary Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities

**Comment On:** NRC-2011-0217-0002

Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities; Correction

**Document:** NRC-2011-0217-DRAFT-0003

Comment on FR Doc # 2011-26234

## Submitter Information

**Name:** Sarah

**Address:** P.O. Box 344

**Submitter's Representative:** Sarah Fields

**Organization:** Uranium Watch

RECEIVED  
 NOV 15 11 09:40  
 RULES AND DIRECTIVES  
 DIVISION

## General Comment

See attached file(s)

## Attachments

UW\_EquivalentFeed\_NRC-2011-0217\_comments.111114

SUNSI Review Complete

Template = ADM-013

E-R105 = ADM-03

Add = T. Carter (THCI)

# Uranium Watch

76 South Main Street, # 7 | P. O. Box 344  
Moab, Utah 84532  
435-259-9450

November 14, 2011

Ms. Cindy Bladey, Chief  
Rules, Announcements, and Directives Branch  
Office of Administration  
Mail Stop: TWB-05-B01M  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

RE: Docket ID NRC-2011-0217: Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities. 76 Fed. Reg. 60941-60945 (September 30, 2011)

Dear Ms. Bladey:

Below please find Uranium Watch's comments on the Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities.

## 1. REGULATORY ISSUES SUMMARY RIS 00-23

1.1. The noticed<sup>1</sup> Nuclear Regulation Commission (NRC) Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities states that they NRC will not use the policy developed for the processing of "alternate feed" for the processing of resins and other materials from the cleanup of community water systems and uranium mine water. The Federal Register Notice references various NRC documents and RIS 2000-23 that the NRC says are applicable to the processing of feed material other than natural ore. Therefore, it is appropriate to take a hard look at these guidances and regulatory policy and revisit some of its assumptions and conclusions.

---

<sup>1</sup> 76 Fed. Reg. 60941-60945 (September 30, 2011) and 76 Fed. Reg. 63330-63331 (October 12, 2011).

1.2. NRC is using a regulatory issue summary<sup>2</sup> and policy guidance<sup>3</sup> to amend the Atomic Energy Act of 1954 (AEA), as amended, and NRC and Environmental Protection Agency (EPA) regulations with respect to the definitions of 11e.(2) byproduct material. The AEA and NRC and EPA regulations do not have a definition of "alternate feed." The AEA (42 U.S.C. Section 2014 (e)) and NRC and EPA regulations that apply to the processing of uranium and thorium ores, define the waste from the processing of such ores as 11e.(2) byproduct material:

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. and 10 C.F.R. Section 40.4.]

1.2. RIS 200-23 is based on two guidances developed by the NRC. The proposed "Position and Guidance on the Use of Uranium Mill Feed Materials Other Than Natural Ores" was published in the *Federal Register* for public comment on May 13, 1992 (57 Fed. Reg. 20525-20533). A notice of the "Final Position and Guidance on the Use of Uranium Mill Feed Materials Other Than Natural Ores" was published in the *Federal Register* on September 22, 1995 (60 Fed. Reg. 49296-49297). The November 30, 2000, "Interim Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores" amended the 1995 Final Guidance. It changed the Final Guidance in several important respects; for example, it removed previous prohibitions regarding the receipt and processing of materials subject to regulation under the Toxic Substance Control Act (TSCA) and the Resource Conservation and Recovery Act (RCRA).

1.3. The NRC did not publish the Interim Guidance in the *Federal Register* as a proposed policy guidance for public comment, nor did the NRC publish a notice in the *Federal Register* announcing Interim Guidance as a final policy guidance. The public has not had an opportunity to comment on the Interim Guidance.

1.4. Although the NRC considered amending some of their regulations in consideration of the new regulatory program that was established by the 1995 Final Position and Guidance, contrary to the statements in the November 2000 Interim Guidance, the NRC has not amended any regulations in this regard. Although a 1992 Advanced Notice of Proposed Rulemaking (ANPR)<sup>4</sup> mentions it only as a possibility, the Commission has

---

<sup>2</sup> Regulatory Issues Summary RIS 00-23: "Recent Changes to Uranium Recovery Policy."

<sup>3</sup> "Interim Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores," November 30, 2000.

<sup>4</sup> 57 Fed. Reg. 48749, 48750.

assiduously avoided incorporating the new definition of the word "ore" into NRC regulation.

1.5. The NRC did not conduct an environmental analysis under the National Environmental Policy Act to evaluate the environmental impacts of the guidances related the processing of "alternate feed." The law is well settled that an agency such as the NRC cannot rely upon policy statements and guidance to accomplish rulemaking under the Administrative Procedure Act. Significantly, for some of the issues in this case, the agency cannot avoid doing the in-depth environmental analyses that the National Environmental Policy Act mandates. *Limerick Ecology Action v. NRC*, 869 F.2d 719, 733-736 (3d Cir. 1989).

1.6. The Interim Guidance and the accompanying re-definition of "ore," and "11e.(2) byproduct material" has not been finalized as an NRC regulation and is without statutory and regulatory foundation.

1.7. If materials that are not "ore" are processed and disposed of at uranium recovery facilities, the tailings do not meet the definition of 11e.(2) byproduct material. The NRC has gotten around this by re-defining the word "ore" for the sole purpose of facilitating the processing of uranium-bearing wastes from other mineral processing facilities. These wastes have contained contaminated soils, evaporation pond sludge, cement, asphalt, wood, processing waste, non-radioactive hazardous waste, and other materials.

1.8. One basis for the re-definition of "ore" was the assumption that "ore" was not defined by the AEA and NRC regulation. Could that have been because everyone knew what the definition of "ore" was?<sup>5</sup>

1.9. Another assumption in the re-definition of "ore" is that there is no statutory or regulatory basis for limiting its definition. That is not so. The regulatory history of Uranium Mill Tailings Act of 1978 (UMTRCA), found in the two Congressional reports, provide 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), at 11, 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

---

<sup>5</sup> The word, or term, "ore," as defined in several sources:

- Ore—a naturally occurring solid material from which metal or other valuable minerals may be extracted. [*Illustrated Oxford Dictionary*, DK Pub. 1998.]
- Ore—A native mineral containing a precious or useful metal in such quantity and in such chemical combination as to make its extraction profitable. Also applied to minerals mined for their content of non-metals. *The Compact Oxford English Dictionary*, Second Edition, Oxford University Press, 2000, p. 1224:915-916.
- Ore— a. A natural mineral compound of the elements of which one at least is a metal. Applied more loosely to all metaliferous rock, though it contains the metal in a free state, and occasionally to the compounds of nonmetallic substances, as sulfur ore. . . . *Fay* b. A mineral of sufficient value as to quality and quantity that may be mined for profit. *Fay. A Dictionary of Mining, Mineral, and Related Terms*, compiled and edited by Paul W. Thrush and Staff of the Bureau of Mines, U.S. Dept. of Interior, 1968.

*The Oxford English Dictionary* points out that the current usage of the word "ore" goes back several hundred years. *A Dictionary of Mining, Mineral, and Related Terms* lists over 65 compound words using the word "ore," such as ore bin, ore body, ore deposit, ore district, ore geology, ore grader, ore mineral, ore reserve, ore zone. All of these terms incorporate the word "ore" as it relates to the mining of a native mineral. The term "ore," without explanation, has for many years been used in thousands, if not millions, of instances in thousands of mining, milling, geological, mineralogical, radiochemical, engineering, environmental, and regulatory publications. "Ore" like the word "water," is a word of common and extensive usage with a clear and accepted meaning.

are produced as a result of milling operations. These tailings contain many naturally-occurring hazardous substances, both radioactive and 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. In its early years, the uranium milling industry was under the dominant control of the Federal Government. At that time, uranium was being produced under Federal Contracts for the Government's Manhattan Engineering District and Atomic Energy Commission program. . . .

The Atomic Energy Commission and its successor, the Nuclear Regulatory Commission, have retained authority for licensing uranium mills under the Atomic Energy Act since 1954.

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.]

1.10. As indicated above, 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 Title 10 of the Code of Federal Regulations 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 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. . . . [Emphasis added.] [Circular 5, 14 Fed. Reg. 731 (February 18, 1949).]

The AEC was the primary mover in the domestic uranium mining and milling program. Under the Atomic Energy Act of 1946 and 1954, the AEC regulated uranium mining and milling and established a uranium ore-buying program. 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. Yet, thousands of tons of mill wastes have been processed and disposed of as "alternate feed."

1.11. Most of the "alternate feed" was received and processed at the White Mesa Uranium Mill in San Juan County, Utah. Some of this "ore" was washed down with water (because chunks of asphalt and other construction waste could not be put through the mill circuit) and the water was collected and sent through the circuit. Therefore, large amounts of material very dissimilar to the material normally processed at a conventional mill, were processed largely to allow disposal as 11e.(2) byproduct material, so the mill operators could make money from the processing of the waste far in excess of the amount from the sale of the uranium, and so the entities responsible for getting rid of the waste could save money by magically turning it into "ore."

1.12. Much of the feed material contained radioactive isotopes that were different from that found in the ore that is normally processed in uranium mills, for example, thorium-228 and progeny and higher levels of radium. The wastes contained non-radioactive Resource Conservation & Recovery Act (RCRA) hazardous constituents that would normally be disposed of in a mixed waste facility; for example, lead and barium. Only a few of the impacts of the processing and disposal of alternate feed were evaluated. Most of the material was processed under a categorical exclusion, so the NRC did not assess any of the environmental impacts to the environment and integrity of the disposal

cells. The NRC did not evaluate the processing of materials other than naturally mined ore at uranium mills in the *Generic Environmental Impact Statement on Uranium Milling* (NUREG-0706).

1.13. In effect, by re-defining ore as anything under the sun that could be processed for its uranium content, the NRC was changing the definition of 11e.(2) byproduct material. If the NRC wanted to change the definition of 11e.(2) byproduct material so that materials other than "ore" could be processed in uranium mills, it should have gone to Congress to request a change in the definition of 11e.(2) byproduct. Then the NRC and, importantly, the EPA could have proposed changes the definitions in their regulations, and provided an opportunity for public comment on those changes.

1.14. The EPA, which (under the AEA) has the authority to establish the standards applicable to the disposal of 11e.(2) byproduct material, has not in any manner altered their regulatory definition by manipulating, via a policy guidance, the definition of "ore." Therefore, the NRC has an ongoing conflict between its policy regarding the definition of "ore" and EPA standards applicable to the facilities that process materials for the disposal as 11e.(2) byproduct material.

1.15. The policy on the processing of "alternate feed" also conflicts with the 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.

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

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. Section 2014(z).]

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 (January 14, 1961).]

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 were talking about 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 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 fifty years later. These regulatory definitions and exemptions did not change when the NRC was established in 1975 and took on the 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.

1.16. 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." There is no evidence in the regulatory history of UMTRCA that the term "any ore" does not mean "any type of uranium ore" (e.g., ore containing less than .05% uranium and/or thorium and the numerous types of natural uranium-bearing minerals that are mined at uranium mines and milled at uranium mills). There is no evidence in the regulatory history of UMTRCA that Congress intended the term "any ore" to mean anything that the NRC wants it to mean (e.g., "alternate feed" or "equivalent feed."

1.17. Although the AEA exempted "ore" from NRC regulation much of the "alternate feed processed in a uranium mill as "ore" was regulated before processing by the NRC or other regulatory agency as 11e.(2) byproduct material, source material, low level waste, or other mineral processing waste. This directly conflicts with the exemption of ore from NRC or Agreement State regulation.

1.18. In Sum, the NRC must revisit their regulatory program based on the illegal use of a policy guidance to amend the statutory definition of 11e.(2) byproduct material in the AEC and NRC regulation. The NRC must withdraw RIS 2000-23 and the Final Guidance and start over on a firm legal foundation.

## 2. "EQUIVALENT FEED"

2.1. The AEA and NRC and EPA regulation do not have a definition of "equivalent feed." Again, this is a term that the NRC has made up to circumvent the intent of Congress and NRC and EPA regulation with respect uranium processing facilities and the disposal of tailings at those sites.

2.2. Again, the NRC intends to use a policy that is without statutory and regulatory foundation. The AEA, as amended by UMTRCA, does not sanction the processing of feed materials other than natural ores and the disposal of wastes from such processing at licensed uranium and thorium processing facilities and does not give the NRC the broad authority to authorize the processing of feed materials other than natural ores as "ore," or the disposal of wastes from such processing at licensed uranium and thorium processing facilities as "11e.(2) byproduct material. Please review the comments in Section 1 above.

2.3. If the NRC wants uranium recovery operations to be able to process IX resins, then they should do it properly via amendments to the AEA and NRC regulation. EPA regulation must also be amended.

## 3. PROCESSING OF RESIDUALS FROM COMMUNITY WATER SYSTEMS

3.1. The Federal Register Notice (page 60942) states: "However, the NRC staff finds the resin from certain source material operations, such as community water treatment facilities and mine dewatering operations, are equivalent to the resin being used at uranium recovery facilities (e.g. ISRs or conventional mills/heap leach facilities using ion exchange circuits)."

3.2. The NRC should have provided more detailed information regarding the specific types of Community Water System operations that would be the source of residuals to be treated, the exact nature of the residuals, the transportation issues related to the transport of the residuals, the mills that might receive the residuals for processing, the amount that would be involved, and any potential environmental impacts.

3.3. The NRC, via a very brief and inadequate regulatory statement should not give

uranium recovery operations a blanket authorization to receive and process residuals from the clean up of Community Water Systems. Although we do not object to the processing of uranium-loaded wastes from the clean up of water from Community Water Systems at uranium processing facilities, the mill should request an amendment to process such materials and document the receipt of such materials at the mill. At the minimum, any uranium recovery facility should have a license amendment authorizing the receipt and processing of residuals from the cleanup of uranium from Community Water Systems. The application should fully explain the types and potential sources of residuals, amount of residuals, transportation issues, and environmental impacts. The amendment should set limits on the amount of residuals to accept and require annual reports to the NRC on the amount and source of the materials. It is imperative that all aspects of the mill operations be documented, including the amount and source of any materials to be processed.

3.4. No materials should be processed until the NRC changes the AEA and NRC regulation.

#### 4. PROCESSING OF RESIDUALS FROM MINE-WATER CLEANUP

4.1. The NRC should have provided more detailed information all aspects of the processing and disposal of the wastes from the treatment of mine water. The NRC should also discuss the requirements for the processing and disposal of treatment pond sludges and other wastes from the treatment of mine water with barium chloride to remove radium. The NRC failed to include this in the discussion of the processing and disposal of wastes from mine-water clean up.

4.2. The NRC should discuss the fact that mines were sometimes included in the mill license, as with the Velvet Mine and Atlas Uranium Mill in Utah, so that the mine water and treatment residuals could be processed at the mill.

4.3. The NRC should investigate the past practice of "old stope leaching," where the mine operator injected or re-injected mine water into mine workings to extract uranium, pumped out the water, and then processed that water at a nearby mill. This turned the conventional uranium mine into an in-situ leach uranium recovery operation. The NRC and the State of New Mexico, where this was practiced, never licensed these mines as ISL operations, monitored the land and ground water in the area around the mines for contamination, or regulated old stope leaching in any way. The NRC should determine what responsibility they have for these past old stope leaching operations.

4.4. Any mill that wishes to treat residuals or wastes associated from the treatment of mine water for the removal of uranium and/or radium should be required to have specific license amendment associated with each applicable mine. The Environmental Impact Statement or Agreement State environmental analysis for the mill should assess the connected and cumulative impacts of the associated mine dewatering and the processing and disposal of residuals and wastes from dewatering systems. A future license

amendment should have an environmental assessment associated with the approval of the processing and/or disposal of mine dewatering residuals and wastes.

4.5. No materials should be processed until the NRC changes the AEA and NRC regulation.

## 5. PROCEDURES FOR ACCEPTING EQUIVALENT FEED

5.1. This section states: "Since the NRC is allowing equivalent feed to be processed at uranium recovery facilities, the wastes associated with processing equivalent feed (i.e., unloaded resin) are considered byproduct material, as defined in Title 10 of the Code of Federal Regulations part 40." However, the AEA and NRC and EPA regulation do not state that "11e.(2) byproduct material is the tailings or wastes produced by the extraction or concentration of uranium or thorium from any material the NRC is allowing to be processed at uranium recovery facilities, for example 'equivalent feed.'"

5.2. The NRC wants to include "equivalent feed"—along with "alternate feed"—in the ever widening definition of "ore." But, in this case, the NRC is not even including this "equivalent feed" material in their new definition of "ore," or requiring a license amendment.

5.3. As with the other redefinition of "ore," the processing of "equivalent feed" flies in the face of the AEA and NRC and EPA regulation.

5.4. What materials will come next in the NRC's ever-widening concept of "ore"?

5.5. If the NRC does amend the AEC and NRC regulation, the procedures for accepting "equivalent feed" should document whether the feed is "chemically and physically essentially the same as the resins processed at the facility." "Essentially the same" is not a very precise term, and the process of determining whether they are "essentially the same" is not stated. It is the NRC or Agreement State, not the licensee that should make these sameness determinations, not the licensee. Similar wording applied to the acceptance of "alternate feed," but waste with higher levels of a number of chemical constituents and was far from chemically and physically similar to ore that comes from uranium mines was accepted for processing.

## 6. FUNDAMENTAL DISHONESTY

6.1. From the time the NRC used policy guidance to permit the processing of a number of waste streams at uranium recovery facilities to the current new definition of "equivalent feed," the NRC has purposefully circumvented the Atomic Energy Act and NRC and EPA regulation. The NRC circumvented the statues and regulations in a dishonest manner. The NRC took these actions at the behest of the National Mining Association and the uranium industry, not at the behest of the public, health and safety, and the environment. There was no analysis of these materials and their environmental

impacts, so that the National Environmental Policy Act was also ignored. This practice of using policies and regulatory issue summaries to amend fundamental provisions of the AEA, as amended by the Uranium Mill Tailings Control Act of 1978, must stop. This practice of using policies and regulatory issue summaries to amend fundamental provisions of 10 C.F. R. Part 40 must also stop.

6.2. Therefore I request that the NRC suspend the development of an RIS for Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities. If the NRC wants to process materials other than ore that is mined and materials associated with in situ leach uranium recovery, the NRC must amend the AEA and NRC regulation. Additionally, EPA regulations must also be amended. Finally, the NRC must assess the environmental impacts of those amendments.

Thank you for providing this opportunity to comment. If you have any questions, please feel free to contact me.

Sarah M. Fields  
Program Director  
[sarah@uraniumwatch.org](mailto:sarah@uraniumwatch.org)