

STAFF ANALYSIS OF PUBLIC COMMENTS  
ON UTAH'S PROPOSED ALTERNATE GROUNDWATER STANDARD

INTRODUCTION:

NRC staff received comments from three commenters in response to the notices NRC published in the Federal Register informing the public that Utah has proposed an alternative standard for implementing its groundwater protection program for 11e.(2) byproduct material. The proposed alternative standard was submitted in support of Utah's application to amend the Section 274 of the Atomic Energy Act of 1954, as amended, (AEA) Agreement with NRC, adding additional authority for 11e.(2) byproduct material. The first notice was published in the Federal Register on August 27, 2003 and a supplemental notice with an extension of the comment period was published on October 24, 2003. The first notice requested comments specifically addressing the question: "Does the Utah alternative standard achieve a level of stabilization and containment of the sites concerned, and a level of protection for public health, safety and the environment from radiological and non-radiological hazards associated with such sites, which is equivalent to, to the extent practicable, or more stringent than the level which would be achieved by standards and requirements adopted and enforced by the Commission for the same purpose and any final standards promulgated by the Administrator of the Environmental Protection Agency in accordance with section 275?"

The Federal Register notice also informed the public that the Commission intends to fulfill both the notice and opportunity for public hearing provisions of Section 274o of the AEA through the Federal Register notice. Due to questions on the electronic availability of two documents that were referenced in the first notice and questions regarding the notice and hearing process requirements, the staff published a clarifying notice on October 24, 2003 and extended the comment period for an additional 30 days.

COMMENTS ON THE PROPOSED ALTERNATIVE STANDARDS FOR GROUNDWATER PROTECTION:

Comments regarding the proposed alternative groundwater standards in Utah are presented below by commenter.

Commenter:  
David C. Fryenlund  
(ML032720676)

Affiliation:  
Vice President and General Counsel, International Uranium (USA) Corporation (IUSA), Operators of the White Mesa Uranium Mill, e-mail dated September 25, 2003.

**Summary of Comments:**

At this time, IUSA is not concerned with the proposed Utah alternative standards as set out in the Utah statutes and regulations. IUSA cannot comment on how these standards will be applied generally, or specifically to the White Mesa mill, until the groundwater discharge permit for the mill has been finalized. IUSA is in the process of working with Utah on their groundwater discharge permit which IUSA understands must be in effect upon Utah becoming an Agreement

State for uranium recovery facilities. IUSA has advised the NRC staff that it may have some future comments on the proposed Utah alternative standard once it has had a chance to review the form of groundwater discharge permit that will be proposed by the State for their mill.

**NRC Staff Response:**

While the State is working with IUSA on the groundwater discharge permit for this mill, the current NRC license including groundwater requirements in license conditions will be transferred to Utah. Utah is required by statute to implement the NRC license requirements until they are specifically modified by Utah. Therefore, the IUSA discharge permit activities and status are independent of the Agreement amendment process.

Commenter:  
Willie R. Taylor  
(ML032820353)

Affiliation:  
Director, Office of Environmental Policy and Compliance, U.S.  
Fish and Wildlife Service (FWS), U.S. Department of Interior,  
letter dated September 26, 2003.

**Summary of Comments:**

The FWS has no comments on the particular issue in that groundwater under direction of Utah Department of Environmental Quality (UDEQ) for uranium mill tailings sites will be regulated in the same manner and under the same standards as groundwater in the remainder of Utah. Therefore, the protection of groundwater should be at least equal to, or better than the protection afforded under NRC standards. Additionally, groundwater protection standards should be equivalent to the Environmental Protection Agency's (EPA) standards for 11e.(2) byproduct material.

The FWS identified other issues: (1) the adequacy of the existing NRC and EPA standards to provide protection for trust resources (such as, migratory birds); (2) loads from discharges are not addressed, only concentrations; and (3) the coordination on issues of concern to FWS under the amended Agreement because Utah is not a Federal partner. FWS stated that these issue can be addressed within the Utah program if Utah consults with FWS when applications for groundwater discharge permits are reviewed for possible impacts on resources.

**NRC Staff Response:**

FWS' comments focused on other issues than the Utah proposed alternative groundwater standard. FWS requested that Utah work cooperatively with FWS in issuing their groundwater discharge permits to ensure that Utah's actions will consider possible impacts to endangered species, migratory birds, and compliance with Section 404 of the Clean Water Act. FWS stated that they believe provisions exist in Utah's regulations to address these problems should they arise, especially if a strong degree of coordination continues between UDEQ and the FWS.

Commenter:  
Sarah M. Fields  
(ML033420067)

Affiliation:  
Nuclear Waste Committee, Glen Canyon Group/Sierra Club,  
Moab, Utah, letter dated November 21, 2003.

### **Summary of Comments:**

The commenter provided comments in several areas which will be summarized and responded to for each area of comment.

**Summary of Comment:** Utah's groundwater program requirements, Point of Compliance. The commenter states that NRC implements this requirement at only one location at a site. The commenter stated that, in order to protect the groundwater, more than one "point of compliance" might be necessary, and no potential source of contamination should be ignored. The commenter states that Utah should have a regulatory practice that is more comprehensive and effective than the NRC practice.

### **NRC Staff Response:**

NRC staff believe that both NRC's and the State of Utah's programs address the commenter's concern. Under NRC's regulatory program, several wells are usually used to establish the "point of compliance" at its uranium milling facilities. The Utah regulations and practice in its current discharge permits also implement several wells that make up the "point of compliance" in the same manner as in the NRC program. The NRC implements, as does Utah, the concept of a plane from the ground surface down through the uppermost aquifer that defines the "point of compliance." Each monitoring plan must consider site-specific conditions. The Utah and NRC programs are consistent in definition and in general implementation.

**Summary of Comment:** 10 CFR Part 40, Appendix A, Criterion 5D and 5F, Groundwater Corrective Action Program. The commenter stated that NRC's implementation of these criteria has not been effective in at least one case in Utah. The commenter stated that NRC should not allow Utah to implement these criteria in the same manner, but should require Utah to implement corrective action programs that clean up the contaminated groundwater and prevent further seepage from existing impoundments.

### **NRC Staff Response:**

The NRC expects Utah to implement an effective groundwater corrective action program which includes requirements that limit seepage from impoundments. The specific case cited by the commenter (the Moab Mill site) was a legacy site that experienced groundwater issues prior to the enactment of the Uranium Mill Tailings Radiation Control Act (UMTRCA) and the NRC's current regulations implementing UMTRCA. Therefore, the Moab site should not be used as a measure of effectiveness of these criteria. Groundwater corrective action programs for existing contamination take a considerable amount of time to implement. This process requires limiting the source of contamination (reclaiming the tailings impoundment). Remediation of the Moab Mill site, including groundwater remediation, was in progress when Congress transferred the site to the Department of Energy (DOE), as an UMTRCA Title I site, for final reclamation.

**Summary of Comment:** 10 CFR Part 40, Appendix A, Criterion 7A, Groundwater Detection Monitoring. The commenter refers to NRC's past failures to detect sources of contamination at the Moab Mill and suggests that the State should implement a program that does a better job of detecting sources of groundwater contamination.

**NRC Staff Response:**

As discussed in the response to the previous comment, the Moab mill site is a legacy site that experienced groundwater issues prior to the enactment of UMTRCA and NRC's current regulations. Therefore, the Moab site should not be used as a measure of the effectiveness of Criterion 7A.

Like current NRC regulations addressing groundwater protection standards issued pursuant to UMTRCA which have proven to be effective, the Utah groundwater protection program is designed to detect all sources of contamination whether from impoundments or from other sources on the site.

**Summary of Comment:** 10 CFR Part 40, Appendix A, Criterion 13, Hazardous Constituents. The commenter stated that it should be understood that, when the constituents listed in Criterion 13 were developed, they did not contemplate the receipt, processing, and disposal of wastes from mineral processing facilities (including contaminated soils from other sources) at licensed uranium and thorium mills.

**NRC Staff Response:**

The basis for the Criterion 13 list was a result of EPA's rulemaking in 1983 as required by Section 275 of the AEA and it is a comprehensive standard. Criterion 13 included the entire list of hazardous constituents in EPA's hazardous waste regulations at that time. The EPA included these constituents because it believed that, if any of these hazardous constituents were present in the ore or added as a result of the processing of the ore for its source material content, the constituents should meet the same standard as a hazardous waste disposal site. The groundwater protection standard issued by EPA uses either the drinking water standard or the hazardous waste environmental standards which are independent of the source of the hazardous material.

**Summary of Comment:** Conclusion by Commenter. The effective protection of the groundwater from activities at uranium and thorium recovery facilities is greatly dependent upon agency practice. For the State to have a program that successfully implements NRC or alternative groundwater standards, it must develop agency practices that are far more effective than previous NRC agency practices.

**NRC Staff Response:** The commenter does not raise any comments on the Utah alternative groundwater standards, but commented that Utah needs to do a better job of implementing groundwater standards than NRC has done. The State of Utah plans to work with the current licensees to limit future seepage from existing and new sites and to complete the remediation of any current groundwater contamination.

Other Comments Not Directly on the Utah Alternative Groundwater Standards:

**Summary of Comment:** (Page 1 and 17 of November 21, 2003 letter) Although the commenter provided the above comments on Utah's Alternative Groundwater Standards, the commenter believes that the NRC has not properly established procedures for providing a

“public hearing” and has not provided an opportunity for a “public hearing” in accordance with the alternative standards provision in Section 274o of the Act.

**NRC Staff Response:**

The staff proposed and the Commission approved the notice and comment process (a 10 CFR Part 2, Subpart H-like process) as meeting the Section 274o notice and opportunity for public hearing requirement. The staff proposed this process as one which meets the requirement in Section 274o of the AEA based on the fact that alternative standards (either generic or site-specific) must go through a public hearing process in the respective Agreement State under its administrative process that requires a public hearing addressing the basic health, safety and environmental concern with the State standard. The issue to be addressed in the public hearing specified in Section 274o is whether the State’s proposed alternative standard is equivalent to or more stringent than the NRC regulations which implement EPA standards as required by UMTRCA. The staff believes that the notice and public comment process appropriately accomplishes these requirements.

Procedural Comments on the Alternative Standards Hearing Process:

**Summary of Comment:** (Page 2 of November 21, 2003 letter) The commenter sent several submittals to the Commission (September 8, 2003, ML032720672; September 24, 2003, ML032750048 ; and October 28, 2003, ML033140034) in response to the Federal Register notice of August 27, 2003 (68 FR 51516). The initial submittal plus the two supplements were requests for a 10 CFR 2.808 Motion or a 10 CFR 2.802 Petition. The commenter asserts that she has not received a response to the motion/petition. The October 24, 2003 Federal Register notice (68 FR 60885) addressed a few of the issues brought to the Secretary’s attention in the September submittals; however, there was no statement in the October 24 notice indicating that it was in any way connected to or responsive to the September submittals. On October 26, 2003, the commenter sent an e-mail to the Contact included in the September 24 Federal Register notice asking for further information. The commenter remarked that she had not received a response by the November 21, 2003 date; therefore, those comments are included in the November 21, 2003 submittal.

The commenter stated that NRC is purposefully and illegally circumventing the provisions of the Administrative Procedures Act by not issuing a rule, regulation, or order announcing the establishment of procedures implementing the alternative standards provision of Section 274o and by not providing an opportunity for the public to comment on the notice of such rule, regulation, or order. The commenter asserted that this causes public trust in the NRC to go down another notch.

**NRC Staff Response:**

The staff addressed the specific questions listed in Section 1.2 of the commenter’s November 21, 2003 letter in our December 19, 2003 response to her October 29, 2003 e-mail to Dennis Sollenberger (ML040560195).

The staff proposed and the Commission approved the use of a 10 CFR Part 2, Subpart H-like process (notice and comment) to collect the public’s view on the adequacy of a State’s

proposed alternative standard. The Commission's determination required in Section 274o of the Act is a rulemaking-like approval. Since the Subpart H process is a public hearing process and the determination to be made is a rulemaking like decision, no change to the existing rule was necessary to accomplish this action. The NRC staff separately addressed the issues of the 2.802 Petition and the 2.808 Motion and sent the commenter a letter dated June 21, 2004 (ML041770014).

#### Environmental Analysis:

**Summary of Comment:** (starting on page 4 and running through page 13) The commenter focused on the references used in the Federal Register notice and their applicability to the proposed alternative groundwater standards proposed by Utah. The question raised is whether the generic environmental analyses contemplate the type of activities at licensed uranium recovery facilities that the State of Utah proposes to regulate under the proposed alternative groundwater standards. The commenter went on to discuss in detail issues with processing alternate feed material at licensee uranium mills.

#### **NRC Staff Response:**

The NRC considers alternate feed material to be a type of ore and, as such, when it is processed primarily for its source material content, that process produces 11e.(2) byproduct material. The NRC and the EPA evaluated the processing of any ore for its source material content in their respective Generic Environmental Impact Statements (GEISs). The evaluations were based on the safe levels of contaminants that uranium mills could release from their operations. The NRC approval of alternate feed material requires the uranium mills to maintain their compliance with the limits established based on these analyses. There is no alternative standard being applied when alternate feed material is approved for processing at a uranium mill.

**Summary of Comment:** (Page 13, Section 2.7) The commenter stated that the State of Utah intends to consider requests to permit the processing of alternate feed materials other than "natural ores" on a site-specific basis. The commenter stated that approval of such activities would constitute the application of site-specific "alternate standards" and would require an NRC notice and opportunity for public hearing under the alternative standards provisions of Section 274o.

#### **NRC Staff Response:**

Utah has proposed to conduct its regulatory program consistent with the current NRC program with the exception of the proposal to apply alternative groundwater standards. Whether Utah approves alternate feed material or not is a policy determination by the State of Utah. In either case, Utah's program would be subject to the same standards. The case-specific approval practice is currently being used by NRC to determine that the material being processed will not cause the site to violate the license requirements and to determine the adequacy of the monitoring program given the change in the ore to be processed. Utah has stated that they intend to treat the approval of alternate feed material as a major amendment under Utah's licensing procedures. Amendments to approve alternate feed material are not considered by NRC as an alternative standards action and, therefore, are not subject to the Section 274o

notice and public hearing provision. The issue of alternate feed material is discussed further in the comments on Utah's amendment to its Agreement.

**Summary of Comment:** (Page 14, Section 2.8) The commenter refers to issues raised in an EPA letter which addressed the disposal of materials not physically, chemically, and radiologically similar to the mill tailings in the impoundments.

**NRC Staff Response:**

The issues in the EPA letter were addressed by the NRC staff in the development of the final Regulatory Issue Summary 2000-23. The Utah alternative groundwater standards include the current list of hazardous constituents as promulgated by EPA, and, therefore, Utah in its alternative standard will require consideration of any of these constituents in the implementation of the groundwater monitoring, corrective actions, and compliance with their standards. Utah is requiring approval of each proposal to process alternate feed material. Such proposals would be approved of as a major amendment which requires an environmental assessment.

**Summary of Comment:** (Page 15, Section 3) The commenter discusses the State of Utah process that was used to develop the "Description of the proposed Utah Groundwater Program for uranium mills and tailings" which was included in the Final Application. The commenter stated that important "stakeholders" were not invited to participate in the task force that developed the uranium milling program documents. There were no citizen members, environmental group representatives, representatives of the town of Bluff, and no members of the tribal communities near the uranium milling sites. Meetings of the task force were all held in Salt Lake City, not near any of the uranium mills or the disposal site. There were not any local notices about the task force meetings and the task force did not seek community input on the questions before it. It was not a fair process. The task force was not an appropriate vehicle for public participation in the establishment of Utah's Agreement State uranium milling program.

**NRC Staff Response:**

The NRC does not have any specific criteria relating to how States develop general policy statements. The process used by a State in developing its program and policies should be conducted in accordance with that State's procedures. The minutes for the task force meetings and the progress of the task force were tracked by Utah's Radiation Control Board (see Board agendas) as reflected by the postings on Utah's Division of Radiation Control web site. The meetings were all open to the public.