



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 13, 1996

Dr. Dianne R. Nielson, Executive Director  
Department of Environmental Quality  
State of Utah  
168 North 1950 West  
Post Office Box 144810  
Salt Lake City, Utah 84114-4810

Dear Dr. Nielson:

I am responding to your September 16, 1996 letter describing recent discussions with the Nuclear Regulatory Commission staff regarding the elimination of dual regulation at uranium mill sites in Utah. The Commission appreciates your interest in simplifying the regulatory oversight of uranium mill and tailings facilities in Utah and in reconciling regulatory differences between the NRC and applicable Utah ground and surface water quality regulations. In retrospect, there seems to have been considerable misunderstanding on the part of both the NRC staff and the State of Utah. I have enclosed specific responses to the six areas of concern that you identified in your letter (Enclosure 1). Nevertheless, I believe it is important to clarify why NRC was not able to undertake all the actions the State of Utah believed were necessary for eliminating dual regulation and to suggest alternative approaches in addressing the concerns you have raised.

As you are aware, the standards contained in NRC regulations conform to standards promulgated by the Environmental Protection Agency (EPA). Judicial reviews by a Federal Court found that the EPA standards met the Federal legislative mandate for protection of groundwater [American Mining Congress v. Thomas, 772 F.2d 640 (10th Cir. 1985); American Mining Congress v. NRC, 902 F.2d 781 (10th Cir. 1990)]. Because NRC's requirements conform to the EPA standards, the NRC requirements also meet the Federal legislative mandate and, therefore, provide adequate protection of public health and safety within the meaning of the Atomic Energy Act.

During the past year of interactions, it became apparent that the State of Utah wanted the NRC to impose State of Utah requirements on NRC licensees. As the NRC staff noted in the meetings between the State of Utah and the NRC, there are many aspects of the State of Utah requirements, such as surface water standards, where the NRC does not have statutory responsibility. In addition, there are many other areas of groundwater protection where the NRC may not need to implement requirements as restrictive as those imposed by the State of Utah to provide adequate protection of public health and safety. Although the NRC was willing to consider implementing some of the State of

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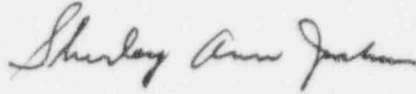
Utah requests, it could do so only if it believed that taking the action was necessary to protect the public health and safety, and it could provide a sound technical and regulatory basis for such action.

One example of the difficulties encountered in trying to resolve the problems is the different approach that NRC and the State of Utah take to contaminated groundwater. In implementing its regulatory program, NRC takes into account the ultimate use of contaminated groundwater. In some cases, groundwater may not be drinking-water quality, and as such, NRC may exercise regulatory discretion regarding what cleanup actions licensees need to take to meet the regulations. The State of Utah, on the other hand, views all groundwater as potential drinking-water, and occasionally may require regulatory actions that go beyond NRC regulations. This different view of the ultimate use of groundwater is one of the major differences between NRC and State of Utah programs. The agreement being advocated by the State of Utah would have NRC implement all the State of Utah requirements. This approach would require NRC to revise its groundwater program, including changes to the NRC regulations. Because the present NRC program provides adequate protection of public health and safety, the staff informed the State of Utah that NRC did not plan to undertake any regulatory actions beyond those currently in the Federal program. NRC encouraged the State of Utah to review the requirements being implemented as part of the Federal program to see if the State could accept this program.

Nevertheless, there are alternative ways that we can work together to eliminate dual regulation. For example, the State of Utah could consider becoming an Agreement State for uranium recovery facilities. This would allow the State of Utah to implement the NRC program as well as any additional State authorized requirements it believed were necessary to regulate groundwater quality. We also have signed Memoranda of Understanding (MOUs) with several States to facilitate interactions. Enclosure 2, for your consideration, is an MOU between NRC and the Utah Department of Environmental Quality (DEQ) that we have drafted that would eliminate dual regulation in Utah. If you would like to pursue this approach, the NRC would be pleased to work with you to implement such an MOU. Another approach to help reduce dual regulation would have Utah licensees voluntarily commit to report on actions or standards satisfying Utah. The NRC could include those voluntary commitments to report in the license. The response to item 6 of your letter (see enclosure 1) discusses some of the considerations NRC uses to determine the appropriateness of including a commitment in the license. In order to include voluntary commitments, the license condition would have to be worded carefully to ensure that NRC would not enforce commitments that go beyond NRC regulatory authority. There also may be an additional issue relating to State reimbursement for NRC implementation of Utah requirements depending on the extent of our involvement relating to the reporting requirements and need for any direct NRC licensing review assistance. Under current Commission policy relating to fees and technical assistance to Agreement States, direct licensing review assistance would be subject to State reimbursement. The NRC staff could work with your staff if you want to pursue this approach.

In closing, I want to assure you that the NRC is committed to working with the State of Utah to resolve these issues. I hope I have clarified NRC's position on these matters and that you will consider one or more of the alternatives that I have proposed. If you have further questions, please contact me.

Sincerely,



Shirley Ann Jackson

Enclosures:

1. Response to State of Utah, dated 9/16/96
2. Memorandum of Understanding

cc: Don Ostler, UDWQ  
Larry Mize, UDWQ  
Bill Sinclair, UDRC  
Peter Heaney, Grand County Council

U.S. NUCLEAR REGULATORY COMMISSION RESPONSE TO  
STATE OF UTAH CONCERNS IN SEPTEMBER 16, 1996,  
LETTER TO CHAIRMAN SHIRLEY JACKSON

Item 1: Narrow Definition of "Hazardous Constituent": Contaminant Detectability

There are actually two issues identified under this item.

1.a) NRC Criterion 5B(2) unduly restricts the definition of a "hazardous constituent."

Response:

The definition comes directly from U.S. Environmental Protection Agency (EPA) standards in 40 CFR Part 192.

1.b) The determination of whether a constituent meets the definition of "hazardous constituent" is made only once, early in a facility's life. Consequently, slow moving constituents, that may contaminate groundwater after the initial determination of "hazardous constituents," are not monitored and could, therefore, be unregulated.

Response:

All uranium mills with contaminated groundwater are currently under a corrective action program (CAP). These CAPs require that licensees monitor the groundwater for constituents that were identified as "hazardous constituents" when the programs were developed in the late 1980s and early 1990s. Requiring routine monitoring of constituents that were not identified as "hazardous constituents" when the CAPs were accepted is not necessary because the CAPs that are currently in place work to reduce groundwater contamination for all constituents that are present, not just those being monitored. Moreover, before terminating the license for a uranium mill site, the NRC staff will require licensees to demonstrate that all constituents found in the tailings are within standards in the groundwater.

Item 2: Missing Non-radiologic Contaminants in Criterion 13

NRC Criterion 13 does not include several non-radiological contaminants, including ammonia, copper, fluoride, manganese, nitrate, pH, total dissolved solids (TDS), vanadium, and zinc, which are regulated by the Utah Ground Water Quality Protection Regulations.

Response:

The NRC has the ability to regulate other constituents beyond those listed in Criterion 13. At the time NRC reviewed the groundwater CAPs, the staff concluded that there was no need to go beyond the list of constituents found in Criterion 13 and in the tailings liquid for most sites. To date, NRC does not have any reason to revisit those earlier decisions. However, as changes

are made to CAPs, or final monitoring is done at the time of license termination, the staff will consider, based on a sound technical and regulatory basis, what, if any, additional constituents should be included.

It should be noted that the State of Utah equates the elimination of dual regulation with its proposal to have NRC assume all responsibility for groundwater protection at uranium mills. During the June 1996 meeting, the staff tried to explain that concurrent jurisdiction is an area where both NRC and the State of Utah share regulation of the same nonradiological constituents. For those constituents regulated solely by the State of Utah, and not in NRC regulations or license conditions, there are no concurrent jurisdictional issues. The State of Utah is the sole regulatory authority. This is the case for constituents that are in the State of Utah standards, but are not in NRC regulations. The State of Utah proposal would do more than eliminate dual regulation. It also would shift the regulation of State of Utah groundwater standards to NRC, and remove the State of Utah from any review or enforcement of its own standards.

Item 3: Inclusion of Mill Site Facilities in Groundwater Monitoring, Characterization, and Corrective Action

The NRC does not have any standards for cleanup of groundwater contamination from sources other than the tailings.

Response:

The Commission has established standards for the cleanup of groundwater contamination from byproduct material in the tailings impoundment. However, these standards are not applicable to the cleanup of groundwater contamination solely from other activities within the mill site, such as ore storage or yellowcake storage. Groundwater contamination resulting from sources other than the tailings impoundment can be addressed through 10 CFR Part 40, Appendix A, Criterion 5F. Under Criterion 5F, uranium mill licensees would be required to address seepage of contaminants into the groundwater from sources other than byproduct material. Further, Criterion 5F specifies that the cleanup standards for this contamination would be determined on a site-specific basis. The staff informed the State of Utah that it would use the standards in Criterion 5B to help ensure that all groundwater would be cleaned up to comparable standards. The staff has not identified any mill site where there is groundwater contamination that cannot be attributed to the tailings impoundment. Therefore, the staff currently is applying the standards in Criterion 5B to all groundwater cleanup.

Item 4: NRC Lack of Surface Water Quality Standards for Mill Tailings

The NRC does not have standards for the regulation of surface water.

Response:

Although the NRC does not have standards for the regulation of surface water potentially contaminated by leakage from the facility, NRC groundwater standards provide protection of surface water. Each constituent must meet one of three standards at the point of compliance in the groundwater: 1) background concentration; 2) the maximum concentration level established by EPA and identified in Criterion 5C; or 3) an alternate concentration limit



(ACL) established by NRC. If either one of the first two standards is met in the groundwater for a constituent, surface water will be protected. To establish an ACL for a constituent, NRC must consider nine factors relating to potential adverse effects on groundwater quality and nine factors relating to potential adverse effects on hydraulically connected surface water quality. Therefore, although it is technically correct to state that NRC does not have surface water standards, the regulatory framework in Criterion 5 is protective of surface water. Nevertheless, it should be noted that because NRC does not have standards for surface water, there is no concurrent jurisdiction in this area, and thus no dual regulation. The State of Utah is the sole regulator.

Planned discharges to surface waters are regulated under 10 CFR Part 20 for radiological hazards, but the NRC does not have the authority to regulate the chemical hazards of planned discharges to surface water. The State of Utah, through its National Pollutant Discharge Elimination System permit authority, would regulate planned surface water discharges with respect to chemical hazards.

Item 5: NRC Inability to Regulate and Cleanup Groundwater Pollution Pre-dating 1978.

If licensees can show that off-site groundwater contamination occurred prior to 1978, then the NRC does not have any regulatory authority over it.

Response:

The NRC did not have authority over byproduct material until the passage of the Uranium Mill Tailings Radiation Control Act of 1978. As such, licensees do not have to clean up off-site contamination if they can show that all the contamination occurred before 1978. However, if this demonstration cannot be made, and this is usually very difficult to show, NRC will continue to regulate the cleanup of contaminated groundwater beyond the mill site boundary. This is an important distinction that was made to the State of Utah during the June 19, 1996 meeting between NRC and Utah.

Item 6: NRC Refusal to Enforce Voluntary Commitments by a Licensee

The NRC staff refused to enforce voluntary commitments made by licensees.

Response:

Although licensees may propose many commitments in their groundwater CAPs, NRC may not want to include all these commitments in a license condition. Many considerations help determine what commitments should be placed in a license condition. Some of these considerations include: 1) a sound technical basis to include the commitments; 2) consistent and appropriate application of the regulatory program; 3) the ability to conduct effective inspections of the licensee commitment; and 4) the obligation to enforce license conditions, regardless of the basis for the condition.

NRC has further considered this item and concludes that it could include voluntary reporting commitments in a license. License conditions would have to be written carefully, taking into account the above considerations. Enforcement of commitments that have no basis in NRC regulations could present

problems; therefore, commitments that are needed for compliance with State of Utah standards would be the responsibility of the State to enforce. However, the staff is prepared to work with Utah in this area within the regulatory framework discussed above.

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MEMORANDUM OF UNDERSTANDING  
BETWEEN THE UNITED STATES NUCLEAR REGULATORY COMMISSION  
AND THE STATE OF UTAH  
DEPARTMENT OF ENVIRONMENTAL QUALITY

1. Purpose. This Memorandum of Understanding ("MOU") is intended to provide a framework for voluntary cooperation between the United States Nuclear Regulatory Commission ("NRC") and the State of Utah, Department of Environmental Quality (UDEQ) to minimize or eliminate the dual regulation of groundwater at uranium mills in the State of Utah.

2. Regulatory Authority. The NRC regulates radiological and non-radiological hazards of byproduct material as confined in Section 11e.(2) of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 et seq. The UDEQ administers and enforces Utah's environmental statutes over the radiological hazards of 11e.(2) byproduct material.

3. Designation of Site Coordinators. Within ninety (90) days after execution of this MOU, each agency will designate a site coordinator for each uranium recovery mill or 11e.(2) byproduct disposal site identified in Appendix A. Each agency shall notify the other, in writing, of the name, address, telephone and facsimile numbers of each site coordinator. Any changes in the designation of a coordinator will be communicated in writing to the other agency.

4. Meetings and Conference Calls between the Agencies. At the request of either agency, with reasonable notice, a meeting or conference call will be scheduled between the site coordinators and other agency representatives to discuss coordination of actions related to groundwater restoration work or 11e.(2) byproduct disposal at uranium mills covered by this agreement.

5. Technical and Regulatory Consultation. At the request of either agency, with reasonable notice, representatives of each will be made available to discuss technical or regulatory matters pertaining to groundwater restoration work at the sites covered under this agreement.

6. Meetings with the Public. Except in response to site emergencies, each agency will notify the other, at least two weeks in advance, of any public meeting related to groundwater restoration activities at sites covered by this agreement.

7. Meetings with Other Regulatory Entities. At its discretion, either agency may invite representatives of the other agency to attend meetings with other regulatory entities who share some responsibility for the groundwater restoration at sites covered under this MOU. At a minimum, both parties to this MOU will keep the other informed of such meetings and the results of those meetings. [It should be noted that the NRC has an Open Meeting policy which would require these meetings to be open to the public because they almost always would involve discussions concerning a specific licensee (Open Meeting Statement of NRC Staff Policy, 59 Federal Register 48340, 9/20/94)].

Enclosure 2

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8. Notice of Site Inspections. Each agency will make a good faith effort to coordinate routine site inspections of groundwater restoration activities at sites covered under this agreement by providing two weeks advance notice (when possible) to the other agency.

9. Dissemination of Information to Other Agencies. As necessary to implement oversight of operations, remediation, and decommissioning of sites covered under this agreement effectively, the agencies will coordinate pertinent and appropriate dissemination of information to other Federal, State and local government agencies.

10. Exchange of Information Between Agencies.

A. The agencies will exchange information concerning groundwater restoration of uranium recovery mills and 11e.(2) byproduct disposal sites as follows:

i. Upon request, NRC will make available to UDEQ for review and copying any documents disclosable to the public under the Freedom of Information Act, 5 U.S.C. § 552, NRC regulations in 10 CFR Part 9, Public Records, and in 10 CFR Part 2.750, public inspections, exemptions, requests for withholding, and any other applicable Federal statute, regulation, or policy.

ii. Upon request, UDEQ will make available to the NRC for review and copying any documents disclosable to the public under the [insert appropriate state policy] UDEQ's public information policy, and any other applicable Utah statute, regulation, or policy.

B. All documents exchanged by the agencies will be addressed to the designated coordinator for the each site.

C. Nothing in this MOU shall be construed as compelling either agency to produce information or documents which the agency deems confidential or privileged.

11. Disclosure of Information to the Public. The right of access by the public to information under Federal and State law, regulation, or policy is not affected by this MOU.

12. Designation of Single Regulator for Groundwater Restoration.

A. It is agreed that the lead agency for developing a regulatory program for groundwater restoration at uranium mills shall be the NRC. The regulations and standards that NRC will use in its regulatory program will be those contained in 10 CFR Part 40, Appendix A.

B. The NRC will be the lead agency for setting standards other than those contained in 10 CFR Part 40, Appendix A. This could include standards for constituents not covered currently in 10 CFR Part 40, Appendix A, as well as background limits or alternate concentration limits for any constituent regulated by NRC under this agreement. It is agreed that the final determination of any limits for groundwater clean up rests with NRC. If the State of Utah does not agree with the NRC's final determination, it can choose to implement its own regulatory program. However, if the State of Utah does not notify NRC in writing within 60 days of the final NRC position, then the

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State of Utah agrees that it will not require any additional clean up by the United States Department of Energy (DOE), if DOE is the long-term care custodian for the site.

C. The evaluation of any groundwater clean up program, or any modification to an already accepted program, will be the responsibility of the NRC. The NRC will be the lead agency for determining the acceptability of any program, or modification. If the State of Utah does not agree with the NRC's final determination, it can choose to implement its own regulatory program, and require additional groundwater corrective actions. However, if the State of Utah does not notify NRC in writing within 60 days of the final NRC position, that Utah plans to undertake its own regulatory program, then the NRC position will be accepted as final by both agencies.

D. On occasion, and when the NRC determines there is a sound technical and regulatory basis to do so, NRC will implement the flexibility provided in 10 CFR Part 40, Appendix A, and will expand the list of constituents contained in 10 CFR Part 40, Appendix A, Criterion 13.

E. The State of Utah agrees that it will not petition to intervene or participate in any hearing on licensing matters before the NRC that are covered by paragraphs 12.B. and C. unless notice was given within 60 days of the NRC final position.

13. Modifications. Any modifications or changes to this MOU shall be effective only if agreed to by the parties and set forth in writing as an amendment of this MOU.

14. Reservation of Rights. Nothing in this MOU shall affect the rights, duties and authority of either agency under the law. The agencies reserve their respective authority and rights to take any enforcement action which they deem necessary to fulfill their duties and responsibilities under the law.

15. Non-binding Memorandum. This memorandum is not intended to and does not create any contractual rights or obligations with respect to the NRC, UDEQ, or any other parties.

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Carl J. Paperiello, Director  
Office of Nuclear Material Safety  
and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C.

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Date

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Diane R. Nielson, Executive Director  
Department of Environmental Quality  
State of Utah  
Salt Lake City, Utah

\_\_\_\_\_  
Date



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September 16, 1996

Dr. Shirley Jackson, Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Re: July 29, 1996 Commission Briefing on the Uranium Recovery Program: **State of Utah Reply.**

Dear Dr. Jackson:

We have reviewed certain comments made by NRC staff before the Commission during a briefing of July 29, 1996 regarding the NRC Uranium Recovery Program (August 19, 1996 NRC transcripts). Some of these statements referred to the State of Utah's Radiation Control Program, and appear to be out of context. Consequently, we would like to share with you our views and experience on these matters.

The transcripts of that meeting state that:

*"... In Utah, we have been working with Utah on mainly the Atlas site. We haven't had as much success there. The state would like us to take over regulation of all the groundwater, including implementation of its groundwater standards, the state groundwater standards and state surface water standards. We couldn't do that.*

*The state didn't feel comfortable, then, with having a double regulator there. We have been continuing to work with the state, continuing a dialogue with the state. We have not had as much success."*

Our purpose from the beginning has been to avoid a dual regulatory situation for the Atlas and other uranium mill tailings facilities in Utah. We believe this is in the best interest of both the uranium industry and the Utah public, providing certain regulatory issues and differences could be resolved.

We first brought our concerns to the attention of the NRC staff in a request for a meeting dated March 22, 1995. Later, this meeting was held in Salt Lake City on June 12, 1995. In attendance were Messrs. Joe Holonich, Mike Layton, and Mike Fliegel of the NRC, and staff of the Utah Divisions of Radiation Control (DRC) and Water Quality (DWQ). During this meeting State concerns related to groundwater quality protection and uranium mills were presented to the NRC staff. Central to the discussion were certain regulatory gaps or differences between the State and NRC groundwater requirements, which the State hoped could be filled, resolved, or reconciled; and thereby avoid the need for dual jurisdiction over uranium mill sites. At the conclusion of this meeting, it was our understanding that the NRC staff would evaluate our concerns, confer with legal counsel, and respond to us in a timely manner.



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After nearly a year had passed without feedback from the NRC, Messrs. Holonich and Fliegel were invited to return to Salt Lake City and update us on any progress they had made regarding our earlier concerns. This meeting was held in Salt Lake City on June 4, 1996, in conjunction with a meeting with Atlas Corporation regarding the State's comments on the recent NRC Draft Environmental Impact Statement and Draft Technical Evaluation Report. During this meeting we discovered that our original concerns were largely unsatisfied by the NRC staff. In addition, the NRC staff elaborated on other short-comings of the NRC regulations, which expanded the number of State issues and concerns held. The major State issues identified during the course of both of these meetings with your staff are summarized below.

1. Narrow Definition of "Hazardous Constituent": Contaminant Detectability - NRC Criterion 5B(2) unduly restricts the definition of a "hazardous constituent" by requiring that a uranium mill tailings contaminant:
  - A. Be reasonably expected in the waste, and
  - B. Have been already detected in groundwater at the facility, and
  - C. Be listed in NRC Criterion 13.

Our concern here is that many mill tailings contaminants are retarded during groundwater flow and transport processes. Consequently, if the determination of the presence of a contaminant in groundwater is undertaken only once, early in a facility's life, and then only in monitoring wells at the perimeter of a facility; retarded contaminants could later be released by the facility which would go unregulated by the NRC. Such unregulated and unmonitored release has the potential of causing adverse impact to human health and the environment.

Contrary to the NRC's approach, the State Ground Water Quality Protection Regulations require the facility to define all contaminants in the waste form which could potentially be leached and discharged to groundwater. Thereafter, periodic monitoring of the full suite of tailings contaminants, including retarded species, can be required for the protection of human health and the environment.

During a June 4, 1996 meeting, Mr. Holonich of your staff informed us that this issue would soon be brought to your attention. We anticipate that this issue could easily be resolved by periodic groundwater monitoring for a complete suite of uranium mill tailings contaminants and addition of detected contaminants via license amendment, as necessary. We encourage the Commission to carefully consider and resolve this issue relative to the NRC uranium mill tailings regulations.

2. Missing Non-radiologic Contaminants in NRC Criterion 13 - As described above, the NRC does not regulate groundwater contaminants at uranium mill sites unless they are listed in 10 CFR 40, Appendix A, Criterion 13.

Currently NRC Criterion 13 does not include several non-radiological contaminants of human health concern at uranium mill tailings, which are regulated by the Utah Ground Water Quality Protection (GWQP) Regulations (Utah Administrative Code [UAC], R317-6), including, but not limited to: ammonia, copper, fluoride, manganese, nitrate, nitrite, pH, total dissolved solids

(TDS), vanadium, and zinc. Most of these contaminants are regulated under the State GWQP Regulations by direct groundwater quality standards (copper, nitrate, nitrite, pH, TDS, and zinc, see UAC R317-6-2). State GWQP Regulations also allow the Department of Environmental Quality (DEQ) to set groundwater protection criteria for other contaminants where human health or other environmental criteria are available (ammonia, manganese, and vanadium, see UAC R317-6-2.2). The NRC lack of discrete groundwater protection standards for these non-radiological contaminants appears to be an important missing element in the NRC regulations.

During our June 12, 1995 meeting, Mr. Mike Layton of your staff informed us that Criterion 13 provides flexibility for the Commission to determine other "hazardous constituents", as follows (10 CFR 40 Appendix A, Criterion 13 preamble):

*"... The Commission does not consider the following list imposed by 40 CFR Part 192 to be exhaustive and may determine other constituents to be hazardous on a case-by-case basis, independent of those specified by the U.S. Environmental Protection Agency in Part 192."*

However, after compilation of the minutes from our June 12, 1995, the NRC staff made no commitment to the State to evaluate or include the additional non-radiological mill tailings contaminants of interest (see Utah DEQ/NRC June 12, 1995 Meeting Minutes, p.4). This position was reinforced during our June 4, 1996 meeting, wherein Mr. Holonich informed us that the NRC would not evaluate our concerns in this matter; and reiterated that the burden to substantiate any cause for our concerns rested with the State of Utah.

This position appears recalcitrant, inflexible, and feeble in that the U.S. Environmental Protection Agency (EPA) has already established human health and environmental protection standards and criteria for all of these non-radiologic contaminants of concern thru regulations promulgated under the Clean Water and Safe Drinking Water Acts. Furthermore, State surface and ground water quality protection standards and criteria for these contaminants have been derived in large part from existing and applicable EPA standards and requirements. As a result, State ground and surface water quality protection standards are protective of human health and the environment.

3. Inclusion of Mill Site Facilities in Groundwater Monitoring, Characterization, and Corrective Action - State Groundwater Quality Protection Regulations allow regulation of a broad range and types of discharges to groundwater, including areas wherein effluent or leachate has been stored, applied, disposed of, or discharged (UAC R317-6-1.28). This approach to groundwater pollution control allows regulation of both uranium mill tailings embankments and mill site related facilities. Examples of such mill related facilities include: raffinate ponds; ore stockpiles; reagent storage tanks, facilities, and related conveyances; and storm water retention ponds which may receive effluents or reagent spills.

Common sense dictates that these related sources of potential groundwater pollution must also be managed and controlled at uranium mill sites in order to prevent groundwater contamination. Furthermore, in the event of mill closure these related facilities must also be evaluated to assess any adverse impact to groundwater quality possibly caused by historical releases.



During our June 12, 1995 meeting with your staff, Mr. Holonich agreed to consult with NRC General Counsel to investigate the agency's authority to regulate such related mill site facilities. Later, in our June 4, 1996 meeting Mr. Holonich informed us that these related mill facilities could only be included under a NRC cleanup action if they were located immediately above the groundwater flow path or tailings embankment contaminants.

Mr. Holonich also alluded that NRC Criterion 5F could allow investigation of potential groundwater contamination in and around an existing uranium mill site; but that groundwater cleanup standards could not be mandated under the NRC regulations for these related facilities. Mr. Holonich also added that the NRC could look to the requirements of Criterion 5B to address such issues. However, our review of this requirement shows Criterion 5B focuses only on uranium tailings impoundments.

Consequently, we have concluded that the NRC regulations are essentially mute on the issue of groundwater pollution around mill site related facilities; particularly if these potential discharge points are located beyond the influence of the tailings embankment. Based on this situation and information from NRC staff, it appears that State regulation of groundwater under mill site facilities may be necessary to protect State groundwater and surface water resources.

4. NRC Lack of Surface Water Quality Standards for Mill Tailings - During our June 4, 1996 meeting, Mr. Holonich made it clear that the NRC regulations for uranium mill tailings have no water quality standards for the protection of the State's surface water. Our review of the NRC rules found in 10 CFR 40, Appendix A has confirmed this statement. Consequently, it appears that a NRC radioactive materials license cannot impose surface water quality standards for a uranium mill or tailings facility.

In contrast, Utah DEQ is a primacy state under the EPA National Pollutant Discharge Elimination System (NPDES). Consequently, primary authority for protection of Utah's surface water quality lies with DEQ. Implied in our primacy status is EPA's determination that Utah's surface water quality protection regulations are equivalent to EPA standards and criteria and protective of human health and the environment.

After consideration of the proximity of the Atlas Minerals uranium mill tailings site to the Colorado River, the lack of NRC surface water quality authority and regulations, and the State's primacy status and authority in this area further reinforces the need and obligation for the State to impose its regulations in order to protect human health and the environment.

5. NRC Inability to Regulate and Cleanup Groundwater Pollution Pre-dating 1978 - During our June 4, 1996 meeting, Mr. Holonich informed us that the NRC cannot regulate polluted groundwater at uranium mill tailings embankment, if the licensee can demonstrate this pollution was caused by the disposal facilities or operations prior to 1978, i.e., promulgation of the Uranium Mill Tailings Radiation Control Act (UMTRCA).

At the time UMTRCA was promulgated in 1978, the Atlas Minerals facility near Moab, Utah had been in operation for nearly 22 years. Consequently, there is a significant possibility that ground and surface water pollution exists at the Atlas facility which may have been caused by tailings

leachates discharged to groundwater before 1978. In such a case, the NRC would have no authority to require cleanup of such pre-existing ground and surface water pollution. This apparent NRC impotence further reinforces the need for the State to impose its authority at uranium mill tailings facilities that predated UMTRCA.

6. NRC Refusal to Enforce Voluntary Commitments by a Licensee - During our June 4, 1996 meeting we explored all possible avenues available to the State to avoid dual regulation of the Atlas Minerals facility. One option discussed was a State determination of measures necessary to protect ground and surface water resources near the Atlas facility; followed by an Atlas proposal to the NRC for a license amendment to include all the State determined measures. Thereafter, the NRC would enforce these voluntary commitments during normal administration of the license.

However, after lengthy discussion of this option, Mr. Holonich stated that the NRC would refuse to enforce voluntary license commitments that required licensee activity outside the requirements of 10 CFR 40, Appendix A. Furthermore, Mr. Holonich added that if the licensee, at a later date, proposed revoking any part of their previous voluntary commitments to the State, that the NRC would be obliged to approve such proposals.

This inability of the NRC to incorporate and enforce extra-ordinary licensing measures that could avoid the need for dual State/NRC regulation of this site, further reinforces our determination that State regulation of the Atlas facility is necessary.

Based on our previous meetings and discussions with your staff there appears to be little hope of satisfactory reconciliation of regulatory differences between the NRC and applicable State ground and surface water quality regulations for uranium mill and tailings facilities. As a consequence, DEQ will require three uranium mill facilities in Utah to secure State permits, including Atlas Minerals tailings near Moab, Utah; Energy Fuels Nuclear mill near Blanding, Utah, and the U.S. Energy Corporation mill near Tropic, Utah.

We hope that the above presentation regarding the basis and history of our ground and surface water quality concerns will show that Utah DEQ has made great efforts to avoid dual regulation of the uranium mill industry and establish a regulatory partnership with the NRC. Any suggestion that Utah DEQ has not sought to establish common regulatory efforts with NRC, or to look for innovative regulatory solutions to protect human health and the environment, is without merit or foundation.

Dr. Shirley Jackson, Chairman  
September 16, 1996  
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If you have any questions or comments regarding our ground or surface water quality concerns, or our experience in these matters, please call Mr. Bill Sinclair at the Utah Division of Radiation Control at (801) 536-4250.

Sincerely,



Dianne R. Nielson, Ph.D.  
Executive Director

cc: Commissioner Rogers, NRC  
Commissioner Dicus, NRC  
Don Ostler, UDWQ  
Larry Mize, UDWQ  
John Greeves, NRC  
Joe Holonich, NRC  
Richard Bangart, NRC OSP  
Bill Sinclair, UDRC  
Peter Heaney, Grand County Council

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