December 5, 2001

Peter Maggiore, Cabinet Secretary
Paul Ritzma, General Counsel
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502-6110

SUBJECT: RECENT CHANGES TO URANIUM RECOVERY POLICY

Dear Messrs. Maggiore and Ritzma:

I am responding to your letter of October 5, 2001, to Chairman Meserve, in which you raised a number of concerns related to Commission decisions on uranium recovery activities. You questioned the rationale for the Commission's May 29, 2001, decision electing to update regulatory guidance in lieu of development of the proposed Title 10 of the Code of Federal Regulations, Part 41, and stated that the decision raised a number of important issues regarding the U.S. Nuclear Regulatory Commission's (NRC's) ability to implement the policy changes that would have been codified in the rulemaking.

Specifically, you raised issues concerning: (1) NRC's decision to utilize the guidance process rather than develop a new Part 41; (2) NRC's preemption of state authority to regulate non-radiological constituents associated with Section 11e.(2) byproduct material (the "concurrent jurisdiction" issue); (3) NRC's coordination of regulatory efforts at in-situ leach (ISL) uranium recovery facilities with the Underground Injection Control (UIC) program; (4) designation of all effluents from ISL's as 11e.(2) byproduct material subject to NRC jurisdiction; (5) the sharing of license-derived funding associated with ISL facility UIC programs; (6) the need for future dialogue with non-agreement states in developing the guidance needed to implement these decisions; (7) allowing more flexibility in disposal of non-byproduct material in uranium mill tailings impoundments and in processing alternate feed material; (8) the asserted failure of the Commission's decision on the "concurrent jurisdiction" issue to deal with offsite groundwater contamination; and (9), the spill threshold volume of 10,000 gallons for ISL reporting. Issues 7 through 9 are based on the concerns noted in the December 22, 2000, letter from the New Mexico Environment Department (NMED) to the NRC commenting on the September 11, 2000, Draft Rulemaking Plan.

The NRC staff's responses to your issues are provided in the enclosed list of Issues and Answers. Please note that, as stated in the answer to the first issue, the Commission intends that the policy changes that concern NMED will be addressed through the issuance of Standard Review Plans.

The Commission is committed to seeking to harmonize any overlapping jurisdiction with the affected States to the extent possible. We are also committed to reducing unnecessary regulatory requirements and dual regulation in this and other program areas. We will continue to work with all stakeholders to ensure that our actions are protective of public health and safety and the environment, minimize the potential for and extent of dual regulation, and are cost effective.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS will be accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

***/RA/***

Martin J. Virgilio, Director
Office of Nuclear Material Safety
and Safeguards

Enclosure: Issues and Answers Concerning
Uranium Recovery Policy

## ISSUES AND ANSWERS CONCERNING URANIUM RECOVERY POLICY

**Issue 1** What was the basis for the May 29, 2001 decision electing to update regulatory guidance in lieu of development of the proposed 10 CFR Part 41?

**Answer 1** The Commission decision to incorporate recent uranium recovery policy directives into guidance documents instead of continuing the formal rulemaking process for 10 CFR Part 41 was based on a cost-benefit review considering both NRC staff resources and the regulatory burden, in the form of license fees, that the rulemaking would impose on the decreasing number of Part 40 licensees. The staff determined that updating the guidance document would provide an equivalent level of protection of the public health and safety, and the environment and should take less time than a rulemaking while preserving the opportunity for stakeholders to participate in the development process. In developing the guidance the staff is taking into account the comments submitted on the rulemaking plan. In addition the staff intends to seek comments on the draft guidance. The guidance in the form of Standard Review Plans will be issued after appropriately considering these comments.

**Issue 2** Explain NRC preemption of state authority to regulate non-radiological constituents associated with Section 11e.(2) byproduct material. How does the NRC intend to incorporate preemption of State authority into its regulatory practices, particularly in the oversight of facilities with NRC licenses that do not currently address non-radiological hazards associated with their operations?

**Answer 2** The Commission has long held the view that the Atomic Energy Act (AEA) preempted state regulation of AEA material as codified at 10 CFR 8.4. This position and the various Supreme Court cases which affirmed the preemptive effect for only radiological safety did not focus on the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA). Prior to the Commission's review of the preemption issue for non-radiological hazards under UMTRCA, the staff practice was to share jurisdiction for non-radiological aspects at uranium mill tailings sites with non-Agreement States. The Commission had not previously examined this staff practice.

The starting point for preemption issues is the statute. In enacting UMTRCA, Congress for the first time explicitly directed that federal jurisdiction under the AEA should encompass non-radiological hazards. Congress provided authority for the Environmental Protection Agency (EPA) to establish standards "for the protection of the public health, safety, and the environment from the radiological and non-radiological hazards associated with processing and with the possession, transfer, disposal of byproduct material...,"42 U.S.C. § 2022(b)(1). And, similarly, Congress directed the NRC to insure management of 11e.(2) byproduct material that both conforms with the EPA standards and serves "to protect the public health and safety and the environment from radiological and non-radiological hazards...," 42 U.S.C.§ 2114(a). Because in this particular instance Congress placed radiological

and non-radiological hazards on the same footing, the Commission concluded that a natural reading of the statute would suggest that Congress intended the same sweeping federal preemption to cover both types of hazards.

This conclusion is reinforced by considering the Congressional purpose. Guided by a review of the statute and the legislative history, the D.C. Circuit has found that UMTRCA was intended "to provide a comprehensive remedial program for the safe stabilization and disposal of uranium and thorium mill tailings." Kerr-McGee Chemical Corp. v. NRC, 903 F.2d 1, 8 (D.C. Cir. 1990). The pervasive nature of the federal scheme of regulation is powerful evidence of preemption. See Pacific Gas & Elec. Co. v. State Energy Resources Conservation and Development Commission, 461 U.S. 190, 204 (1982). Moreover, it was logical for Congress to link radiological and non-radiological hazards together because both hazards arise from the same material and are "inextricably intermixed." See Brown v. Kerr-McGee Chemical Corp., 767 F2d 1234, 1241 (7th Cir. 1985), cert. denied, 475 U.S. 1066 (1986). This fact reinforces the conclusion that radiological and non-radiological hazards should be treated in parallel fashion.

Other aspects of the amendment of the AEA provided by UMTRCA reinforce the same point. Section 84a.(1) of the AEA specifically provides that the NRC shall undertake "due consideration of the economic costs" in exercising its authority over 11e.(2) byproduct material, 42 U.S.C. § 2114 (a) (1). In explaining this language on behalf of the conference committee, Senator Simpson, the floor manager for the bill, stated:

> [T]he Conferees have agreed to include specific references in the appropriate sections of the Atomic Energy Act, directing EPA and NRC, in promulgating such standards and regulations, to consider the risk to public health and safety, and the environment, the economic costs of such standards or regulations....Essentially, we intend by this requirement that these agencies must balance the costs of compliance against the projected benefits to assure that there is a reasonable relationship between the two. 128 Cong. Rec. S13052 (daily ed. Oct 1, 1982); see also id. at 13055.

As a result, the Tenth Circuit has interpreted section 84a.(1) to require the NRC to assure that costs and benefits stand in reasonable relationship to each other. Calvary Mining Company v. NRC, 866 F.2d 1246, 1250-52 (10th Cir. 1989); see also American Mining Congress v. Thomas, 772 F2.d, 630-32 (10th Cir. 1985) (EPA UMTRCA standards must also provide reasonable relationship of costs and benefits). This fundamental obligation bears on the preemption issue because acceptance of concurrent jurisdiction implies that the states have the authority to impose obligations that are in addition to those that have been determined by the NRC to be adequate to protect the public health, safety, and the environment. Because such state-imposed obligations would inevitably entail additional costs, concurrent jurisdiction would serve to frustrate the Congressional purpose of assuring that the management of tailings reflects an appropriate balancing of costs and benefits.

Other aspects of the amendments to the AEA provided by UMTRCA lead to the same conclusion. Section 274, while authorizing Agreement States to assume regulatory jurisdiction over 11e.(2) byproduct material, imposes various conditions and constraints on the exercise of that power. For example, Agreement States are required to provide certain procedures in licensing cases, to undertake notice-and-comment Rulemaking subject to judicial review, and to prepare a written analysis that is akin to a NEPA environmental impact statement.42 U.S.C. § 2021(o). Similarly, Section 274(o). includes an important constraint on the substantive power of Agreement States: it allows Agreement States to adopt alternatives to the requirements established by the NRC only if, "after notice and opportunity for public hearing, the Commission determines that such alternative will achieve... 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, the extent practicable, or more stringent than the level which would be achieved by the standards and requirements adopted and enforced by the Commission for the same purpose..."42 U.S.C. § 2021(o). It would seem anomalous for Congress to require Agreement States to comply with these various requirements and constraints and yet to allow non-Agreement states to regulate non-radiological impacts without any such limitations.

In sum, there is substantial evidence that Congress intended to establish a comprehensive regulatory regime over the non-radiological hazards of mill tailings that is exactly parallel to the NRC's jurisdiction over radiological hazards.

As to non-radiological hazards, non-radiological hazardous constituents are presently addressed in 10 CFR 40 Appendix A and in various NRC Part 40 licenses. Some non-radiological non-hazardous constituents were listed in the licenses at the specific request of the states in which the sites are located. The staff recognizes that it will need to address in its guidance issues associated with non-radiological, non-hazardous constituents that may currently be regulated by the states.

**Issue 3** Describe NRC's coordination of regulatory efforts at in-situ leach (ISL) uranium recovery facilities with the Underground Injection Control (UIC) program.

**Answer 3** Dual regulation in well fields stems, in part, from overlapping authorities granted by two separate Federal laws -- the Atomic Energy Act, which gives authority to the NRC, and the Safe Drinking Water Act, which gives authority to the U.S. Environmental Protection Agency (EPA) and the EPA-authorized States. The NRC has been and intends to continue working with EPA and those States acting under an EPA-authorized program to lessen the likelihood and extent of dual regulation.

**Issue 4** What is the rationale for designation of all effluents from ISL's as 11e.(2) byproduct material subject to NRC jurisdiction?

**Answer 4** The decision to classify ISL effluents as 11e.(2) byproduct material focuses on the fact that an ISL operation is an integrated set of related activities. To create a distinction between waste streams seen to be directly involved with uranium

extraction and those that are not, creates a complex, burdensome, and technically suspect regulatory scheme. The Commission decision clarifies the NRC's regulatory authority over various aspects and phases of ISL activities in an unambiguous way and should help to bring stability to this area of regulatory activity.

**Issue 5** Is there a need for an MOU between NRC and EPA or EPA-authorized states to provide for the sharing of license-derived funding associated with ISL facility UIC programs?

**Answer 5** The NRC receives no license-derived funding associated with ISL facility UIC programs operated by the EPA or EPA-authorized states.

**Issue 6** Does the NRC agree there is the need for future dialogue with non-agreement states in developing the guidance needed to implement these decisions?

**Answer 6** The Commission is committed to seeking to harmonize any overlapping jurisdiction with the affected States to the extent possible; it is also committed to reducing unnecessary regulatory requirements and dual regulation in this and other program areas. The Commission will continue to work with all stakeholders to ensure that its actions are protective of public health and safety and the environment, minimize the potential for and extent of dual regulation, and are cost-effective.

**Issue 7** The New Mexico Environment Department (NMED) October 5th letter requested written responses to the concerns noted in the December 22, 2000, letter to the NRC commenting on the September 11, 2000, Draft Rulemaking Plan. This NMED letter raised additional issues concerning the allowance of more flexibility in disposal of non-byproduct material in uranium mill tailings impoundments, as well as, processing alternate feed material. NMED expressed a concern that serious environmental and legal problems might emerge with allowing more flexibility in processing alternate feed material because of conflicts with Resource Conservation and Recovery Act (RCRA).

**Answer 7** The Commission, in the Staff Requirements Memorandum (SRM) SECY-99-012, chose to allow more flexibility in permitting non-11e.(2) material to be disposed of in tailings impoundments, as well as, processing alternate feed material. The revised guidance was incorporated as Attachments to Regulatory Issue Summary 2000-23. As noted in the revised guidance, RCRA hazardous wastes are allowed only if approved by the appropriate regulatory authority (EPA or delegated state). Since this guidance calls for approval from the appropriate regulatory authorities, if any RCRA hazardous waste is involved, there should not be a conflict with RCRA. The revised guidance eliminates any inquiry into the licensee's economic motives for processing alternate feed material, but seeks approval of the EPA or the State, and a commitment from the long-term custodian to accept the tailings after site closure if the proposed alternate feed material could be subject to RCRA recycling restrictions.

**Issue 8** Address the apparent failure of the concurrent jurisdiction decision to deal with off-site groundwater contamination.

**Answer 8** The NRC has responsibility for regulation of groundwater contamination derived from the tailings pile fluids, both within the site or restricted area boundaries and outside the boundaries. This is not a new interpretation of the governing regulations (10 CFR 40), which do not discriminate between on-site and off-site contamination. Regarding the Homestake site in New Mexico in particular, the NRC's regulatory authority and requirements concerning off-site groundwater contamination were stated in our November 2, 2000, letter to Mr. George Schuman of NMED, and discussed in the NMED/EPA/NRC meeting with Homestake on June 27, 2001.

**Issue 9** Clarify the spill threshold volume of 10,000 gallons for ISL reporting.

**Answer 9** The NRC has removed the spill threshold volume of 10,000 gallons for ISL reporting. NRC intends to adopt the reporting requirements of local, state, or other Federal agencies, which should adequately address these events to provide NRC with information it needs regarding spills.

The Commission is committed to seeking to harmonize any overlapping jurisdiction with the affected States to the extent possible. We are also committed to reducing unnecessary regulatory requirements and dual regulation in this and other program areas. We will continue to work with all stakeholders to ensure that our actions are protective of public health and safety and the environment, minimize the potential for and extent of dual regulation, and are cost effective.

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Sincerely,

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Martin J. Virgilio, Director
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