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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attn: Docketing and Service Branch

Re: Comments on Timeliness in Decommissioning of  
Materials Facilities (RIN 3150-AD85)

Dear Secretary:

On January 13, 1993, the Nuclear Regulatory Commission (NRC) published a proposed rule that would require timely decontamination and decommissioning of the facilities of nuclear material licensees, including uranium recovery facilities other than waste disposal areas associated therewith. 58 Fed. Reg. 4099, 4101-02. The proposed rule would amend 10 C.F.R. Part 40 and establish specific time periods for decommissioning unused portions of operating uranium recovery facilities and for decommissioning the entire site upon termination of operations. These comments on the proposed rule are submitted by the American Mining Congress (AMC).

AMC is a national trade association representing: (1) producers of most of the United States' metals, uranium, coal, and industrial and agricultural minerals; (2) manufacturers of mining and mineral processing machinery, equipment and supplies; and (3) engineering and consulting firms and financial institutions that serve the mining industry. Many of AMC's member companies will be significantly and directly affected by the proposed rule.

AMC generally supports the idea of reasonable guidelines, and even milestones for certain appropriate decommissioning events. Such guidelines/milestones, if properly developed, can provide the public and NRC licensees with a framework to direct such activities. The time frames and assumptions that underly the current proposal, however, do not adequately address: (1) the detailed and comprehensive requirements applicable to uranium recovery facilities, (2) the nature of the uranium marketplace, (3) the impracticality of piece-meal closure at such facilities, or (4) the realistic likelihood that NRC

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can fulfill its responsibilities in a timely manner based upon the past experience and the proposed closure of the Uranium Recovery Field Office (URFO). AMC, therefore, strongly urges NRC to build more flexibility into the proposed revisions to Part 40 affecting uranium recovery facilities. This flexibility is necessary to allow for consideration of site-specific and/or process-specific conditions. It would reflect a presumption that prolonged "standby status" adequately protects public health and safety, unless NRC makes an affirmative finding to the contrary.

## **I. General Comments.**

AMC recognizes that there is value in setting milestones for decommissioning activities. NRC licensees need to know what is expected of them as they begin to cease operations and prepare to close and decommission their facilities and terminate their licenses. AMC notes that the concept of an explicit time frame for decommissioning with milestones to measure progress toward closure is reflected currently in the context of decommissioning and closure of uranium mill tailings impoundments in both an NRC/Environmental Protection Agency (EPA) Memorandum of Understanding, 56 Fed. Reg. 55434 (October 25, 1991) (MOU), and in a proposed settlement agreement between AMC, EPA and the Environmental Defense Fund (EDF) relating to closure of such sites. 58 Fed. Reg. 17230 (April 1, 1993).

Both of the above referenced documents, however, address uranium mill tailings impoundment closure and decommissioning. The fact that tight time frames were developed for these facilities does not justify a similar, inflexible approach for other facilities. As discussed before, AMC requests that the proposed rule be revised to provide for more flexibility in the time frame for decommissioning. In addition, NRC must recognize that, for many sites, a longer time frame will be required than that which is proposed.

## **II. The Rule Must Provide Flexible and Reasonable Time Frames.**

Radon emissions from uranium mill tailings impoundments have been judged by both NRC and EPA to be the dominant potential threat to public health from uranium recovery operations.<sup>1</sup> Thus, as a result of its concerns about prompt closure of inactive tailings impoundments, EPA supported timeliness criteria. 54

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<sup>1</sup>See NRC Final Generic, Environmental Impact Statement on Uranium Milling ("GEIS"), NUREG-0706, Vol. I at 4, 6-72-74; Vol. II at A-15, 17, 25, 31, 35 (hereinafter "NRC GEIS"); See also, EPA, Final Environmental Impact Statement for Remedial Action Standards for Inactive Uranium Processing Sites, Vol. I at 63 (1982).

Fed. Reg. 51654, 51683 (December 15, 1989).<sup>2</sup> Even the public health risks from inactive tailings facilities are insignificant, however, and the risk from other aspects of uranium recovery operations is considerably smaller. Indeed, there is no suggestion that inactive uranium milling facilities or surface facilities at in situ leach (ISL) sites pose an equivalent public health concern. Therefore, tight time frames for decommissioning are not appropriate or necessary. This is particularly true in light of the multitude of regulatory controls and reporting requirements applicable to such facilities while operating at maximum capacity or on standby--even uranium mill tailings impoundments must meet the 20 pCi/m<sup>2</sup>/sec radon flux limit in 40 C.F.R. Part 61, Subpart W during standby conditions.

Both the EPA/NRC MOU and the proposed settlement agreement recognize the need for flexibility due to site specific conditions, including those beyond the control of the licensee. These documents provide licensees with protection with respect to meeting milestones or completing final closure when circumstances beyond a licensee's control affect its capability to comply in a timely fashion. The proposed settlement agreement even provides the licensees with the flexibility to keep portions of the tailings pile open to receive waste for an essentially open-ended time frame, so long as compliance with the flux limit is demonstrated. Thus, NRC and EPA have demonstrated more apparent flexibility towards closure of inactive tailings impoundments (which pose a greater potential risk), than the NRC does in the proposal related to decommissioning the related, but less risky, uranium recovery facilities.

Additionally, section 84(c) of the Uranium Mill Tailings Radiation Control Act (UMTRCA) explicitly provides licensees with the right to propose alternatives based on site specific factors (such as local or regional conditions, including geology, topography, hydrology and meteorology).<sup>3</sup> This kind of flexibility is necessary as site-specific and/or process-specific conditions may not fit neatly with generic requirements and assumptions. AMC believes that the NRC's proposed rule does not provide the necessary flexibility for uranium recovery licensees.

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<sup>2</sup>Although, as NRC has noted, even the potential radiation exposure to the public from uranium mill tailings piles presents no acute health hazard because "long and sustained exposure to radioactivity in the tailings pile would be required to produce any significant chance of adverse effect." NRC GEIS Vol. I at 12-31.

<sup>3</sup>"The NRC is obligated to consider site specific alternatives proposed by licensees by law and agency rules." See Memorandum from Herzel Plaine, General Counsel, USNRC, to the NRC Commissioners re: Uranium Mill Tailings--Jurisdictional Bases for EPA's standards, SECY-85-125 (April 10, 1985).

By fashioning timetables that do not take into account site-specific circumstances, factors beyond the control of the licensee, and the problematic nature of the international market place for the sale of uranium, the proposed rule as presently drafted could undermine the energy security of the United States. Forcing premature decommissioning of uranium production facilities which may be required in the future to provide uranium for electric power generation would be both unwise and unnecessary.

The proposed rule acknowledges the Commission may grant an extension to the 18-month time limit for decommissioning because of the problems with the availability of waste disposal facilities, reductions in dose or waste volume due to radioactive decay, technical feasibility of decommissioning, regulatory requirements of other government agencies, lawsuits, groundwater treatment activities, or monitored natural groundwater restoration. 58 Fed. Reg. at 4101. AMC believes that this time frame is wholly inadequate for application to uranium recovery facilities. Closure and final decommissioning of uranium milling facilities, or portions thereof, may necessarily have to await completion of certain tailings impoundment closure activities before they can be properly and appropriately accomplished. Portions of the milling facility may be necessary for groundwater remediation, and tailings closure (to include burying portions of the dismantled mill) generally has to wait for proper physical conditions. These events alone can take several years. Similarly, at ISL sites, surface facilities are necessary for groundwater restoration that can take years. Thus, a much more reasonable time frame is needed for uranium recovery facilities.

AMC also believes that whatever more reasonable time frame is adopted for uranium recovery facilities, the regulations still need to explicitly provide for flexibility in meeting timetables for any factors beyond the control of the licensee. Assuming the licensee is undertaking good faith efforts to achieve compliance, factors that should allow for delay in schedules include the following:

- site-specific physical conditions;
- inclement weather or climatic conditions (including an act of God);
- a judicial or administrative order or decision; or change to the statutory, regulatory, or other legal requirements applicable to the licensee's facility that would preclude or delay the performance of activities required for compliance;
- labor disturbances;
- any modification, cessation or delay ordered by state, federal or local agencies;

- delays that result from NRC failure to take final action after the licensee has made a good faith, timely effort to submit legally sufficient applications, responses to requests (including relevant data requested by NRC), or other information, including approval of the closure plan by NRC or the affected Agreement state; and
- an act or omission of any third party over whom the licensee has no control.

The regulations should make clear that the Commission will grant extensions of time for decommissioning schedules because of the above listed factors.

UMTRCA already provides the uranium recovery licensees with the right to propose alternatives, but the regulations for all licensees should explicitly provide for licensee-proposed alternative timetables that allow for site-specific and/or process-specific considerations and market fluctuations. Alternative timetables should be acceptable provided the licensee is substantially in compliance with 10 C.F.R. Part 20 and other parts applicable to the type of license held by the facility and the facility represents no significant potential hazard to employees, the public or the environment.

### III. Stand-By Situations and the Nature of the Uranium Marketplace Must Be Considered.

The proposed rule states that "with respect to making business decisions on further use of inactive facilities, the Commission considers a period of approximately 24 months to be reasonable." 58 Fed. Reg. 4101. The 24-month period, however, is entirely inadequate for the uranium production industry, and it does not represent a reasonable business cycle for virtually any kind of mining.

As a general matter, the mining industry is very cyclic. Mineral production from beginning to end can be a lengthy process. Many deposits that are being mined may have been under development for years before production began. Often, development and production are put on "standby" due to economic conditions in the international commodity marketplace where most minerals are traded. Market prices over which the mine operator has no control ultimately drive the pace of development and production until the mineral resource is exhausted, at which time reclamation begins. It is not at all unusual for a mining operation to be inactive for five to ten years and then resume operations when the market cycle allows a return to profitability. With respect to the uranium industry, the depressed nature of the market has been exacerbated by the changes in the Commonwealth of Independent States and the subsequent effects of its product in the United States market.



Licensees must be given the option to wait out down-turns in the market by "idling" the facilities and placing them on standby under an appropriate care and maintenance program until such time as operations can profitably be restarted. Uranium mills and ISL facilities represent large investments. The proposed rule could threaten operators' ability to recover necessary and appropriate returns on such investments. If NRC determines that a facility (or even portions thereof) must be decommissioned within 24 months, it essentially could result in NRC controlling and dictating the fate of the domestic uranium production industry.<sup>4</sup> Given the nature of the uranium production industry and in particular its current "nonviability," the proposed regulations should allow for a longer period than 24 months to commence decommissioning for a uranium production facility that is on standby.

Whatever the time frame that is ultimately promulgated for such facilities, there should be an explicit provision for uranium recovery licensees to, in effect, get an automatic renewal or extension for an equivalent time frame upon application to NRC, unless NRC makes an affirmative finding that a licensee's standby operation poses a threat to public health. The current emphasis in the proposal on licensees demonstrating that extensions would not be "detrimental to the public health and safety" and are "otherwise in the public interest" does not reflect reality. If such facilities do not protect public health and safety and the public interest, then they should not be licensed in the first place. Since they are licensed and subject to comprehensive controls, whether operating at maximum capacity or on standby, the presumption should be that NRC has acted appropriately in the public interest by licensing such facilities initially. Unless NRC finds to the contrary that as a result of changed circumstances, its initial licensing decision is no longer valid, the presumption should be that such facilities can remain on standby indefinitely.

Incorporating this kind of flexibility for uranium production facilities would not pose a hazard to employees, the public, or the environment. The proposed rule suggests that "[i]f decommissioning is delayed for long periods following cessation of operations, there is a risk that safety practices at the inactive facility or the inactive portion of the operating facility may become lax as key personnel relocate and management interest wanes." 58 Fed. Reg. 4100. The Commission further expresses concern that bankruptcy may further delay commissioning. These concerns are unfounded. As noted above, uranium production facilities must be bonded for decommissioning, and NRC

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<sup>4</sup>See the comments of the Rio ALGOM Mining Corp. and Quivera Mining Company on the "Timeliness in Decommissioning of Material Facilities" for discussion on the effects of the proposed rule on the Quivera Mining Company's Ambrosia Lake, New Mexico facility and the Smith Ranch Wyoming facility.

licensed facilities are heavily monitored and regulated by the NRC. Thus, renewal of a facility license on standby can be conditioned on ongoing protection of public health.

Facilities on standby are subject to the same rules and regulations as operating ones. To illustrate, these facilities are:

- (1) inspected by the NRC or Agreement State;
- (2) bonded and have adequate surety in place;
- (3) subject to reporting requirements including environmental reporting, ALARA reporting, land use reporting, annual surety updates, corrective action program reviews, and updates to environmental reports;
- (4) required to request license amendments for even minor changes in operations;
- (5) subject to environmental monitoring requirements including groundwater monitoring, air particulate monitoring, upwind and downwind radon gas monitoring, maintenance of a meteorological station, and ambient gamma radiation monitoring;
- (6) subject to health physics monitoring requirements including bioassay (urinalysis) programs for specific employees, workplace gamma radiation monitoring, workplace alpha radiation monitoring, workplace radon gas monitoring, workplace dust sampling, and employee personal breathing zone sampling;
- (7) subject to other health physics requirements such as issuance of radiation work permits for special or non-routine work by employees within specific areas of the facility and radiation training for employees; and
- (8) subject to EPA radon gas emission limits.

These requirements and regulations more than adequately ensure that an idle facility will not pose a threat to human health or the environment. It is not necessary to require automatic reclamation of any facility because of a lack of a "principal activity" when the facility does not present a danger to the public and is in compliance with the applicable regulations. Therefore, it is appropriate to allow facilities to propose their own alternative time schedules and to seek renewal as economic circumstances dictate with a presumption that such renewal will be granted.

#### IV. The End-of-Use Concept Is Inappropriate for Many Facilities.

The practicality of the "end-of-use" decommissioning concept has major problematic implications at uranium recovery facilities. The proposed regulations focus on end-of-use as a trigger point for decommissioning. Defining end-of-use, however, and applying it in practical terms is often very difficult. At many facilities it is not possible to decontaminate certain buildings or outdoor areas because everything is thoroughly interconnected. Piecemeal decommissioning in all cases of "end-of-use" may not be possible if final decommissioning is to be accomplished. For example, if a uranium mill is on standby then by definition, its crushing, leaching, and solvent extraction circuits are not in use. If these portions of the mill must be decommissioned for that reason, it essentially means the entire mill must be decommissioned, as a mill cannot function without these circuits.

Also as noted above, it is possible at a conventional mill or ISL site to use facilities that are not technically in production, and which may therefore fall within the end-of-use definition, to remediate groundwater. Indeed, at ISL sites, it is also possible to be producing from some well fields and restoring others at the same time. In reality, it would be enormously expensive, time consuming, burdensome, impractical (and maybe even impossible) to decommission certain of these nonproducing facilities or portions thereof.

The proposed rules should be modified to reflect reality at many of the uranium recovery facilities potentially subject to the proposed regulations. The 56-month proposed time frame for completing the decommissioning process is unrealistic for some uranium milling facilities as well as ISL facilities. Groundwater restoration (which requires the ongoing operation of surface processing facilities) is the major decommissioning element for in-situ facilities and can often take seven to ten years to complete. Groundwater corrective action at conventional milling facilities can often require equal or greater time frames. The proposed regulations should be revised to address these concerns.

#### V. Specific Comments

##### A. Redundant Regulations.

Redundant requirements should be carefully charted and removed. For example, the proposed rule requires a decommissioning plan to be submitted to NRC 12 months prior to cessation of principal activities. This requirement, however, is already contained in existing regulations and is generally included as a license condition.



B. Section 40.42(d)(3) and (4).

As noted in the above discussion, the 24 month time frame is not realistic for mineral recovery activities and, in particular, for the domestic uranium industry in light of its "nonviability." In light of the limited risk associated with such facilities and the comprehensive regulatory oversight applicable to them, ongoing "standby" status should be presumptively extended unless NRC affirmatively makes a finding otherwise in light of the limited risks associated with such facilities and the comprehensive regulatory oversight applicable to them.

C. Section 40.42(e).

For the reasons set forth in A above, the Commission should presumptively grant extensions to uranium recovery facilities.

D. Section 40.42(e).

This section should be rewritten to explicitly provide that uranium recovery licensees have a right to propose alternative schedules for decommissioning in accordance with section 83(c) of UMTRCA and that the Commission will presume that such alternatives will protect "public health and safety" and are "otherwise in the public interest" absent an affirmative finding to the contrary.

E. Section 40.42(f)(4)(vi).

Eighteen months is generally not sufficient to complete decommissioning of uranium recovery facilities and portions thereof. This provision should be modified to state that decommissioning will be completed as soon as practicable after a final decision to cease operations. Specific milestones can be added to facility licenses according to site-specific realities.

F. Section 40.42 g(1) and (2).

See comments on D above.

G. Section 40.42(h).

See comments on C, D & E above.

H. Section 40.42(k).

This provision allegedly exempts "waste disposal areas at uranium recovery facilities" because of the applicability of the provisions of Criterion 9 of Appendix A to 10 C.F.R. Part 40 and the requirements of Subpart T of 40 C.F.R. Part 61. 58 Fed. Reg. at 4101. However, as written, it exempts "specific licenses for uranium milling." Id. at 4107. This discrepancy would not cover waste disposal areas at ISL sites and in any event is too limited for the reasons set forth above.

## I. Commission Review Period.

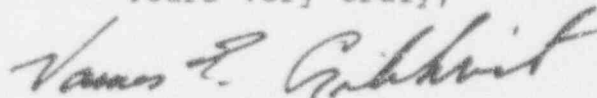
The proposal indicates that Commission review and approval of decommissioning plans is estimated to be six months or less. 58 Fed. Reg. 4101. This assumption appears wildly optimistic in view of industry history, including NRC's failure to approve reclamation plans for time frames in excess of five years. NRC's ability to timely address decommissioning plans from uranium recovery facilities would appear to be in jeopardy in light of the Commission's proposed closure of URFO.

## VI. Conclusion.

For all the above reasons, AMC respectfully requests that NRC revise the proposed rule to: (1) explicitly provide for licensee proposed alternative timetables; (2) explicitly allow for the extensions of time for decommissioning schedules for factors beyond the control of the licensee; (3) provide for enough time for restoration of groundwater at in-situ sites; (4) re-define "end-of-use" to recognize that in some situations the facility or area at issue cannot practically be decommissioned because it is so interconnected with the rest of the area or rest of the process; and (5) make the specific changes set forth above.

If you have any questions or would like AMC to provide additional material, please contact me at 202/861-2876 or AMC's counsel on this matter, Anthony J. Thompson of Perkins Coie, at 202/628-6600.

Yours very truly,



James E. Gilchrist  
Vice President

JEG/clc