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PROPOSED RULE PR 20  
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Michael H. Gibson  
Vice President

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**Kennecott  
Energy**

7 March 1994

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555  
ATTN: Docketing and Service Branch

Dear Sir:

**SUBJECT: Comments on the Draft Radiological Criteria for Decommissioning**

Kennecott Uranium Company is a uranium recovery licensee in the State of Wyoming. Kennecott Uranium Company is the manager/operator of the Sweetwater Uranium Project, which is owned by the Green Mountain Mining Venture (GMMV). The following are Kennecott Uranium Company's comments on the draft proposed rule on radiological criteria for decommissioning:

**1) Applicability to Uranium Mills**

Kennecott Uranium Company supports the exemption to these proposed regulations for uranium mill tailings sites (the disposal of uranium mill tailings) discussed on page four (4) of the draft. This discussion states that the proposed criteria should not apply to the disposal of uranium mill tailings since mill tailings disposal is already covered under 10 CFR 40 Appendix A. Kennecott Uranium Company believes that this exemption should be extended to the decommissioning of uranium recovery facilities, as well, for the following reasons:

- a) The draft proposed rule states, "*Current regulations do not explicitly address radiological criteria for decommissioning.*" This is not the case as specific radiological criteria are already established in the regulations for uranium recovery licensees. The decommissioning standards for residual radioactivity are already established for uranium recovery sites in Environmental Protection Agency regulations (40 CFR 192). These regulations (specifically 40 CFR 192 Subpart B) establish specific standards for cleanup of land and buildings contaminated with residual radioactive materials from inactive uranium processing sites. In addition to establishing specific standards for cleanup of land and buildings, it also establishes specific allowable residual gamma radiation levels.

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Page 1 of 4

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- b) 40 CFR 192 Subpart B is under Environmental Protection Agency Regulations and should be covered under the Memorandum of Understanding (MOU) between EPA and NRC dated March 16, 1992, which, in the section titled **Principles**, states: "Avoid unnecessary duplicative or piecemeal regulatory requirements for NRC licensees....."
- c) As stated above, uranium recovery sites (in addition to tailings disposal sites) are already covered by specific radiologic decommissioning standards written into 40 CFR 192, which are in turn covered by the Memorandum of Understanding (MOU) between NRC and EPA of March 16, 1992, and as such, additional regulation would be duplicative and would be inconsistent with the remainder of the draft proposed rule which exempts certain facilities already covered under 10 CFR Parts 60 and 61.

2) **EPA/NRC Jurisdiction**

Kennecott Uranium Company supports the statement on page twelve (12) in the draft proposed rule which says, "The EPA efforts could then focus on the site cleanup standards for non-NRC licensed sites, such as DOE and DOD facilities. This is consistent with the principles and procedures set forth in a recent Memorandum of Understanding between the NRC and EPA to guide each agency's actions in areas of mutual regulatory concern." Currently the radiologic standards for decommissioning of uranium recovery sites are incorporated in EPA regulations (40 CFR 192). Kennecott Uranium Company believes that the radiologic cleanup standards for uranium recovery sites already in the EPA regulations (40 CFR 192) should be transferred, unchanged, to existing NRC regulations in 10 CFR Part 40 and uranium recovery sites exempted from any additional regulations in this proposed rule, since radiological decommissioning standards are already in place.

3) **Release for Restricted and Unrestricted Use**

Kennecott Uranium Company supports the use of both restricted and unrestricted use in the proposed rule. This system is similar to the one used for uranium mill tailings disposal sites in which the reclaimed tailings impoundment is transferred to the control of the Department of Energy along with sufficient funds (\$250,000.00 in 1978 dollars) to cover perpetual care once the licensee has completed reclamation and effected the transfer.

4) **Radiological Criteria/Demonstrating Compliance**

The draft proposed rule establishes "a dose limit for release for a site of 15 millirem per year (TEDE) for residual radioactivity distinguishable from background and require that the licensee reduce this residual radioactivity to as close to the goal of indistinguishable from background as reasonably achievable." The draft proposed rule also states "... the Commission would consider that this objective had been met if the cumulative TEDE to the average member of the critical group from all radionuclides that could contribute to the residual radioactivity and are distinguishable from background does not exceed 3 mrem (0.03 mSv) per year".

These low doses will be difficult, if not impossible, to accurately measure and demonstration of compliance will be problematic. The background dose at the Sweetwater Uranium Project site exhibits marked variations over time and with the change of seasons, especially in regard to ambient radon levels. Given the large variance in radon levels at this site, determining if a dose were related to variations in background or to residual radioactivity at the site would be difficult, if not impossible. In the case of this site, good preoperational radiological data and upwind radon data is available to establish background radiation levels for the site. In the case of many older sites, high quality background data is not available, so it may be difficult, if not impossible, to establish background to the level of precision required by this draft proposed rule.

The draft proposed rule, in Section 15, discusses the problems associated with measuring radon concentrations which will yield radiation doses of a few millirems. It states that "*exposure to radon at decommissioned sites would be controlled by requiring the licensee to reduce the residual concentrations of radon precursors like uranium, thorium, and radium to levels within the limit for unrestricted use and using the ALARA principle, toward levels which are indistinguishable from background levels.*"

In spite of this, it still will be difficult to assess compliance with this proposed standard, especially in areas involving both uranium mining and milling activities. In areas such as these, high ambient airborne levels of radionuclides may exist which are wholly unrelated to the licensed facility which is subject to decommissioning. The dose from the decommissioned facility may become lost in the background "noise".

5) **Finality**

Given the cost of decommissioning, licensees need some assurance that compliance with the regulations would yield final site release and that the decommissioning would not be reopened at some future date. The draft regulation attempts to provide this in 20.1401(c) but the preamble to the proposed rule states, "*...the NRC recognizes that there may be legitimate needs for additional remedial actions in the future if significant additional contamination is discovered at a site or if the technical basis on which the criteria are founded changes significantly...*" This statement concerning "*...the technical basis on which the criteria are founded...*" opens the door for revisitation of the decommissioning of sites and erodes the finality of license termination upon satisfactory decommissioning. The proposed regulation requires changes to allow finality of license termination upon decommissioning.

6) **Waste Disposal**

These proposed standards will result in the generation of large amounts of radioactive wastes of all kinds, such as low level wastes and 11(e)2 material (depending upon the type of facility being decommissioned), which must be placed for disposal in an appropriate disposal site. New disposal sites have been difficult to site due to a variety of reasons, including the reaction of local communities. The

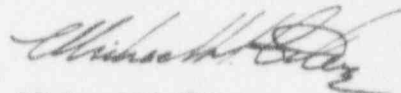
existing disposal capacity in this nation is limited. In order for these regulations to be effective, sites must be available to place the large volumes of waste generated by these more stringent criteria specifically the requirement to remove "...all readily removable residual radioactivity...", or proliferation of numerous small sites will result. The statement that this requirement "...also does not include removal and transport of soil except in those instances where small discreet areas of contamination can be removed by digging up a few shovels full of soil" helps reduce somewhat the large volumes of material which could potentially be generated. Including previously buried materials on site in the category of residual radioactivity, potentially forcing their exhumation and disposal elsewhere adds to the amounts of radioactive waste material requiring disposal at a licensed waste facility.

7) **Radioactive Materials Previously Disposed of at the Site**

Kennecott Uranium Company believes that the decision to include previously disposed of materials at the site in the decommissioning is unfair to the licensee. When these materials were disposed of at the site, the licensee believed that this disposal was a final act and that the problems related to these materials were addressed. The licensee is now being forced to revisit the disposal of these materials. This issue relates directly to the finality of any action related to an NRC or agreement state license.

Kennecott Uranium Company thanks the Nuclear Regulatory Commission for the opportunity to comment on these draft proposed regulations. If you have any questions please do not hesitate to contact me.

Sincerely yours,



Michael H. Gibson  
Vice-President

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cc: Lyle Randen  
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