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Date: Fri, Nov 30, 2007 2:37 PM
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Chief
Rules Review and Directives Branch
Mail Stop T-6D59
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sir/Madam:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the Environmental Protection Agency (EPA) has reviewed the Nuclear Regulatory Commission's (NRC) Notice of Intent (NOI) to Prepare a Generic Environmental Impact Statement (GEIS) for Uranium Milling Facilities.

Because of the increased demand for uranium from developing nations and growing interest in low and zero greenhouse gas-emitting fuels, there has been a renewed interest in uranium mining and extraction. As a result, the NRC is expecting an increased number of license applications for in-situ leach (ISL) uranium milling facilities during the next 2-3 years. These facilities are primarily located in the western United States and the NRC proposes to develop a GEIS that addresses common issues associated with environmental reviews of impacts associated with uranium recovery at milling facilities employing the ISL process in this geographic area. The GEIS will focus on the construction, operation, and decommissioning of ISL mills, and will assess alternative methods of uranium recovery. The current alternatives to be evaluated include:

- **No action:** Not to build or license potential uranium milling facilities. NRC would not approve future license applications.
- **Proposed action:** The construction, operation, and decommissioning of an ISL uranium mill. Implementation of the proposed action would require the issuance of an NRC license under the provisions of 10 CFR Part 40.
- **Alternatives:** The conventional milling process is one alternative. NRC may consider other alternatives identified through the scoping process.

The NOI has identified a tentative list of resource areas/issues to be addressed. They include, but are not limited to: public and occupational health, waste management, land use, transportation, environmental justice, and water, air, and cultural resources. In

general, EPA agrees that the list of issues is appropriate for the proposed action. Further, EPA supports NRC's decision to develop the GEIS to serve as a comprehensive planning framework that can be used as a basis and context for making decisions about more detailed site-specific uranium recovery actions. Based on our experiences with uranium mills operations, we offer the following comments for consideration.

1. NRC prepared a GEIS on uranium milling in September 1980 that focused on conventional uranium milling. There have been significant changes in uranium mill extraction and engineering technologies since 1980; that document can no longer be reliably used to evaluate the environmental impacts of new conventional mills or ISL facilities. In a related matter, it is reasonable to expect that previously licensed facilities will seek licenses to resume or expand their operation of conventional milling facilities. EPA is concerned with the level/intensity of the evaluation of these previously licensed facilities in this GEIS even if its primary focus is on ISL facilities. Furthermore, EPA believes that at a minimum, all reasonable alternatives in the GEIS should address concerns/issues such as: lixiviants dependent upon local mineralogy and other geologic factors; well field restoration methods; transportation modes (e.g., rail, truck) and routes; well field sizes, configurations, and access methods; locations and types of processing facilities; mine mouth or off-site processing or milling; and treatment and disposal of process water.

2. According to the NOI, NRC plans to tier off the GEIS through the development of site-specific environmental assessments (EAs) or environmental impact statements (EISs). Based on discussions/presentations by NRC personnel/officials at public scoping meetings and industry conferences, however, it appears that NRC believes that EAs will be sufficient in most cases to evaluate site-specific impacts. Because of the potentially significant impacts associated with uranium milling and ISLs, EPA recommends that the GEIS include the decision-making criteria for the preparation of an EA versus an EIS. Additionally, we suggest that NRC consider employing an expanded public outreach/involvement process for both EAs and EISs.

3. Because of their potential adverse hazards/effects, EPA would like to stress the importance of evaluating the environmental impacts of heavy metals contamination, both surface and underground. Specifically, the impacts of these contaminants should be evaluated for both conventional milling and ISL operations. Further, EPA recommends that the analysis consider past and existing Superfund mining sites as a point of comparison for the analysis of the impacts of uranium mining operations.

4. NRC recently decided to proceed with the development of a groundwater protection rule for ISL's (SRM-COMSECY-07-0015, dated June 8, 2007). This rule-making process will be in parallel to the development of the GEIS. Where appropriate, EPA recommends that the GEIS discuss how NRC's existing 10 CFR Part 40 regulations (domestic licensing of source material) and the new

groundwater rule will fulfill the requirements of the Uranium Mill Tailings Radiation Control Act (UMTRCA) and EPA's standards (40 CFR Part 192) for mills to demonstrate how water resources inside and outside the license area will be protected.

5. According to the NOI, NRC has identified traditional cultural resources and environmental justice as resource areas to be evaluated. EPA would like to stress that as a result of their geographic location, uranium production facilities have had very specific environmental, health, and cultural impacts to Native American Tribes. The Tribes affected have included Navajo, Sioux, Hopi, Yavapai-Apache, Shoshone, Northern Arapaho, Ute and potentially a number of Pueblo Tribes. In accordance with NRC's Environmental Review Guidance for Licensing Actions Associated with Nuclear Material Safety and Safeguards Programs (NUREG-1748), EPA recommends that these evaluations include water supply, cultural, health (radiation), and other related impacts to Native Americans. It should also describe the process and outcome of government-to-government consultation between NRC and each of the tribal governments within individual project areas, issues that were raised, and how those issues were addressed.

6. Historically, the costs of reclaiming mining sites with insufficient bonds have included tens of millions of dollars or more, and may extend far into the future. With this in mind, EPA recommends that the GEIS include information to analyze the potential costs of site cleanups, and to demonstrate that bonding requirements are adequate to pay for entire site restoration through company default.

7. EPA recommends that the GEIS include discussions of monitoring programs to assess both impacts from the project, and the effectiveness of waste disposal technologies, methods used and any anticipated requirements for disposal and management plans. It should also describe how the monitoring program will ensure that impacts are assessed and appropriately addressed/mitigated once identified. EPA recommends that the GEIS include a thorough discussion on the use of adaptive management that incorporates monitoring protocols for each milling facility's environmental measures that should be adjusted to meet federal, tribal, state, and local laws, regulations, and policy requirements during the life of the facility's license.

8. EPA has a number of statutory authorities under which the Agency has established specific environmental protection standards and requirements that apply to uranium milling and ISL facilities licensed by the NRC. The relevant authorities include UMTRCA, the Safe Drinking Water Act, the Clean Water Act (including Section 404), and the Clean Air Act. The regulations promulgated by EPA implementing these statutes have played a significant role in mitigation of impacts which can result from the licensing and operation of both conventional uranium mills and leaching facilities. In addition, EPA standards have been incorporated into regulations of the NRC, its Agreement States, and the U.S. Department of Energy. With this in mind, please designate EPA as a commenting

agency (as opposed to a cooperating agency) allowing for the review and comment prior to the filings of the draft and final GEISs.

We appreciate the opportunity to review the NOI. We look forward to reviewing both the preliminary draft and draft GEISs related to this project. The staff contact for the review is Marthea Rountree and she can be reached at (202) 564-7141.

Sincerely,

Anne Norton Miller
Director
Office of Federal Activities

From: James Park
To: NRCREP
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