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**To:** <nrcprep@nrc.gov>  
**Date:** Fri, Aug 17, 2007 10:32 PM  
**Subject:** Uranium Recovery GEIS

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15 August 2007

U.S. Nuclear Regulatory Commission  
Washington, DC 20555

RE: Proposed Generic EIS for ISL Uranium Mining in New Mexico

To the NRC,

We strongly oppose in-situ leach uranium mining, especially in New Mexico.

### **Generic EIS**

We join New Mexico Governor Bill Richardson's opposition to a **Generic** EIS (August 1, 2007 Statement). While we understand two site-specific elements will be included (security and supplemental environmental review), this *appears* to be an effort by the NRC to limit public comment and to make an end run around NEPA. According to the "Environmental Impact Areas To Be Analyzed" published in the Federal Register, each resource area identified seems to require consideration in a site-specific way.

The rationale that a Generic EIS will streamline the process indicates the NRC staff is too small, and apparently is more concerned about industry than the public. The current high price of the uranium spot market is what's driving this renewed interest in ISL mining in New Mexico. It seems to be largely a result of speculation. In 2006, though the spot market was about \$50 per pound, the world's largest producer of uranium (Comeco) received only an average of \$21 per pound. In early June, 2007, the uranium spot market hit \$138 per pound, but now has fallen to \$105 per pound. Once permits are issued, the speculation in what may be a bubble will simply expand into the selling and trading of those permits. We do not believe a US Government regulatory agency should contribute to such a market at the expense of the health of its citizens and the degradation of the environment.

A "one size fits all" approach cannot address the complexity of the hydrology, geology, ecology, waste, cumulative effects, and environmental justice issues crucial to a fair assessment of the impacts and advisability of ISL in a part of the country where *water is literally life*.

### **Legacies of the AEC, conventional uranium mining and milling**

The NRC's previous incarnation, the AEC, displayed a dramatic disregard for the health of uranium workers, down-winders and test site workers during the uranium boom of the 1950s and 1960s. This has been well-documented. Legislation finally passed to compensate those harmed (Radiation Exposure Compensation Act, RECA) has to date (July 19, 2007) resulted in payment of \$1,224,087,250.00 in compensation to 18,228 people (Department of Justice website). While the damaging effects of some of these exposures was unknown at the time, the AEC was aware of a great deal of the danger, and chose a misleading public relations approach rather than a more

responsible and humane course. The monetary compensation is ultimately a small apology for the ruined health of so many people and families.

While we hope the NRC is a more responsible agency, present actions do not reassure us.

Many contaminated areas remain in New Mexico, both at mine sites and at former mills. These cumulative effects need to be considered for any future uranium mining and processing. Although the NRC has not and does not regulate conventional mines, it does have oversight of mills and their clean up (almost all of which are now closed). The record of enforcement of health and safety standards at these sites is not encouraging. Therefore, we have a high level of suspicion of any reassurance from the agency regarding new mining, especially for a technology with the potential for great contamination of groundwater.

### **History and Problems with ISL**

It is incumbent on the NRC to address the past performance of ISL mining in this country and globally.

In ISL mining, potential problems exist at essentially every step of the process:

- escape of leaching solutions
- depletion of groundwater to create positive pressure in extraction wells
- other minerals dissolved in addition to uranium
- precipitation of solids that can block flow of solutions, in ground or in pipes
- surface spills
- presence of radionuclides, heavy metals, and other contaminants in the waste solutions reinjected
- radon exposures, especially from evaporation ponds
- increase in contaminate levels in “restored” groundwater through oxidation due to infiltration of oxygen-rich water after restoration

All of these need to be addressed, with particular attention to complying with the Safe Drinking Water Act.

Any EIS, generic or not, must include evidence of specific instances where industry has been able to restore groundwater to pre-mining conditions (without “relaxation” of standards). While simulations of restoration can be useful, we would like hard on-the-ground evidence. In January 2007, the NRC published a report prepared by the USGS that contained figures for groundwater in several “restored” ISL projects. The groundwater at A-Wellfield Highland Uranium Project in Wyoming, for example, showed a pre-mining concentration in 1987 of 50µg/L uranium; after mining, in 1991, it was 40,190µg/L uranium; after eight years of remediation, in 1999, the NRC declared the ground water “restored” at 3,530µg/L uranium. With the EPA Maximum Contaminant Level (MCL) for uranium in potable drinking water at 30µg/L, this is clearly not acceptable.

In light of the uncertainty around groundwater restoration, the NRC should require ISL

companies to post appropriate restoration bonds and to identify the class-of-use of aquifers that might be contaminated. Drinking water aquifers should never be considered for ISL mining.

The Westwater Canyon Aquifer under much of the proposed ISL mining area is a pristine source of drinking water for an area larger than the state of RI. This water is NOT already contaminated, as claimed in previous applications for ISL by Hydro Resource, Inc. (HRI).

Exploration wells (rumored to be 2,000 feet deep west of Mount Taylor) have the potential of connecting contaminated and currently uncontaminated aquifers.

What assurances exist that groundwater can and will be restored after the mining is finished? What assurances exist that surface contamination from spills will be cleaned up? What assurances exist that in the event of contamination the public will be notified in a timely manner? Who is responsible for this notification?

### **Monitoring**

Monitoring wells should be close enough together to provide realistic reflection of what's going on underground. Uranium deposits can be less than 20 feet in width. Monitoring wells 400 feet apart are too disbursed to provide meaningful and timely data.

### **Conventional Mill Standards v. ISL Standards**

The 1980 standards for conventional mills should not be applied to ISL mining/extraction, which is a very different process.

### **Environmental Justice**

While the uranium industry has affected people all over the west, and indeed the world, the Navajo Nation has been inordinately damaged. The Diné Natural Resource Protection Act of 2005 outlawed uranium mining and processing (which includes ISL) on Navajo land. For any uranium mining or processing to proceed, the NRC should commit in writing to consult with the Navajo Nation and nearby Pueblos (including Acoma and Laguna). No evidence so far exists that the NRC has attempted to consult with any Tribe.

Executive Order #12898 requires that all Federal agencies have a process for environmental justice analysis. Whether or not ISL wells and facilities are placed literally on Navajo land, their impact on that land and surrounding communities is incontrovertible, especially regarding contamination of groundwater. Impacts on ranching communities in the areas around ISL operations should also be addressed.

The argument put forward by some that "this will bring much-needed jobs" to an economically depressed area is simply not true. One reason this type of mining is appealing to industry is the limited number of people required to run an ISL operation. A few people and companies will profit. Any damage, however, will remain in the poor communities where the mining and processing will be located.

In conclusion, we believe, as do many other New Mexicans, that the NRC should do more to support the public's need for protection from contamination from the uranium industry, rather than working to diminish public input and grease the way for further mining and processing activities that appear, by substantial evidence, to be unsafe for humans and animals, and damaging to the environment.

Sincerely,

Mary Beath  
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cc: Senator Jeff Bingaman, Rep. Tom Udall, Governor Bill Richardson