

From: "Michael Jensen" <mjensen@amigosbravos.org>
To: <nrcprep@nrc.gov>
Date: Mon, Oct 8, 2007 10:52 PM
Subject: Uranium Recovery GEIS

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[there was a prolonged power outage in the area in Albuquerque where I live, shutting down my wireless internet and draining my computers battery; I am submitting these comments on October 8th, even if it is in the evening of that day. Please accept them as meeting the deadline for comments. Regards, Michael Jensen]

-----BEGIN COMMENTS-----

Michael Jensen
 Grants & Communications
 Amigos Bravos
 PO Box 238
 Taos NM 87571

October 8, 2007

Chief, Rules Review and Directives Branch
 Mail Stop T-6D59
 US Nuclear Regulatory Commission
 Washington DC 20555-0001
 [Submitted via email to nrcprep@nrc.gov]

RE: Uranium Recovery GEIS

I am responding to the U.S. Nuclear Regulatory Commission's Federal Register notice dated July 24, 2007 regarding the scope of the proposed Generic Environmental Impact Statement ("GEIS") for in situ leach ("ISL") uranium mining.

I attended the Public Scoping Meeting held in Albuquerque, New Mexico, on August 9th, 2007, and made a statement during the time allotted for public comments. Below are more extensive comments on the GEIS and ISL.

My comments deal with the following:

- The public scoping process
- The perceived need for new uranium mining and processing
- The rationale for the GEIS
- ISL mining
- Native nation sovereignty

The Public Scoping Process

The NRC must surely have known that the resumption of uranium mining and milling would be a contentious issue. Therefore, it is extremely unfortunate that the NRC chose to have only two public scoping meetings. There are many areas of the country in which uranium leases are being staked and in which uranium mining historically occurred, such as Utah, Arizona, Nebraska, Colorado, and South Dakota. Restricting meetings to Casper, Wyoming, and Albuquerque, New Mexico, is totally inadequate for allowing the public adequate opportunity to hear the NRC's rationale, learn details of the GEIS, and make public comments.

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While the NRC is to be commended for agreeing to a third meeting in Gallup, it should have been a natural decision to schedule a meeting in Crownpoint or some other impacted community in the area, given the historic legacy of uranium mining and processing on the people in that region. The NRC should have carried out additional meetings in each state with current uranium leases or with a legacy of uranium mining and processing.

In addition, the GEIS process did not include scoping on the need for a GEIS in the first place. Rather, the "scope" of the scoping process was only to evaluate options for permitting new mining and processing activities: the "No Action", "Proposed Action" (ISL), and "Alternatives" (conventional uranium mining and other).

The scoping process for the GEIS does not seem intended to evaluate the GEIS, only ISL permitting. This is at best misleading and at worst makes a mockery of the public scoping process.

The NRC should re-start the GEIS scoping process. There should first be a public scoping on broad expansion of uranium mining (especially ISL mining) and associated processing activities. If new uranium mining and processing is deemed necessary – a questionable conclusion (see below) – then a new, expanded round of GEIS scoping meetings should be held.

The Perceived Need for New Uranium Mining and Processing
Presumably, the NRC is writing a GEIS for ISL because there is a perceived need for new and immediate sources of uranium. This is not the case.

The current uranium leasing boom is driven by speculation that there is a shortage of uranium to supply a supposed near-term resumption of nuclear facility construction to meet perceived energy demands and because nuclear energy is held up by some as a viable environmentally-friendly alternative to greenhouse gas-producing energy sources, especially coal.

None of these premises is correct. However, the accuracy of assumptions underlying this boom is beside the point for those doing the speculation. The interest of speculators is, rather, to sell their uranium leases to other firms, reaping a windfall profit. The fact of this speculation is widely discussed in the industry trade publications.

In fact, there is a large amount of uranium available to a revived nuclear energy industry: it is held in strategic reserves by the United States and Russia. A uranium industry trade publication recently commented on the price of uranium, saying that one thing that could drive down the price would be the release – which the publication considered highly improbable – of some of the US reserve. There is also additional uranium available from further dismantling of the existing nuclear weapons stockpile. Independent analysis of the uranium demand-supply relationship concludes that there is sufficient uranium for the next 50 years without resorting to new mining. New nuclear power facilities will take years to get off the ground; in the US, they may never be approved.

The GEIS, which is being pushed ahead of any mining permits, is furthering the speculative boom in uranium by giving the impression that mining permits are on the way. However, it is not the responsibility of the NRC to further a speculative bubble by greasing the skids for renewed uranium

mining.

The NRC should put the GEIS process on hold until such time that an actual need for new uranium sources begins to emerge and permits for new mining are deemed necessary. That is, the NRC should postpone the GEIS process, carrying out an extensive scoping process on the need for new uranium mining in the first place.

The Rationale for the GEIS

The public scoping on the GEIS was actually framed as a scoping on ISL and possible alternatives. The lack of extensive and effective scoping on the GEIS itself is reflected in the fact that the ISL GEIS as portrayed by the NRC is fatally flawed.

In its general comments at the Albuquerque public scoping meeting, NRC staff said that a GEIS is intended to deal with the "environmental issues common to ISL mining". If that were the case, then the conclusion, based on detailed knowledge of ISL mining in the US, would be that no ISL mining in the US has succeeded in preventing groundwater contamination and no ISL mining activity has succeeded in restoring groundwater to its condition prior to mining.

The case so often cited by industry – ISL mining in Texas – is a "success" only because the standards the company had to reach were constantly altered until the standards met the level of groundwater contamination, rather than the groundwater quality meeting the existing standard. An NRC report prepared by the USGS in January 2007 cited groundwater remediation efforts in Nebraska and Wyoming. In particular, the Wyoming site was said to have been "restored with applicable regulatory requirements". However, the groundwater started with 50mg/L of contamination in 1987; rose to 40,000mg/L at the end of operations; and went down to 3,500mg/L after remediation. The applicable EPA standard for Maximum Contaminant Load is 30mg/L.

Even if one accepted the rationale that a "Generic" EIS prepared by the NRC would deal with the "common" negative environmental consequences of ISL, other statements by NRC staff at the Albuquerque scoping meeting make the existence of a GEIS for ISL highly undesirable. NRC staff repeatedly stated that a GEIS was not a way to bypass stringent site-specific EISs. However, the way this was repeatedly framed was that: "a GEIS will allow for environmental assessment at every site for which an ISL permit is being considered".

NRC staff should be aware that an environmental assessment (EA) is not the same thing as an EIS. Based on the statements made at the Albuquerque scoping meeting, either NRC staff are not knowledgeable about the EIS process – in which case they should postpone the process until they are capable – or they were misleading the public and the intent of the GEIS is to sidetrack site-specific EISs and replace them with the much weaker EA process – in which case, the GEIS should be abandoned altogether.

All mining is determined by site-specific considerations. These include not just the underlying hydrogeology and existing water quality, but specific socio-economics considerations and cultural resources. These cannot be predetermined through a generic EIS process meant to deal with the "common" characteristics of mining – whether it is gold, or copper, or

uranium. These issues can only be evaluated on a site specific basis with a site specific environmental impact statement.

Furthermore, even existing site-specific EIS processes are so badly implemented that the odds of determining whether a proposed mine will pollute the environment are better from flipping a coin than conducting an EIS. Two first-of-a-kind reports, Comparison of Predicted and Actual Water Quality at Hardrock Mines, and Predicting Water Quality Problems at Hardrock Mines: Methods and Models, Uncertainties, and State-of-the-Art, by Jim Kuipers, P.E., and geochemist Ann Maest, Ph.D, showed that predictions of mining's impact on clean water were made without checking the results of past predictions. They also found that predictions were often made using inadequate information, incorrectly applied. Not surprisingly, mitigation measures based on the inaccurate predictions also typically failed to protect clean water.

Given the historical unreliability of the regulatory process using a supposedly rigorous site-specific EIS process, the results from using the less rigorous and EA process are likely to be much worse. Public participation and environmental analysis under National Environmental Policy Act (NEPA) are much less stringent for EAs than for EISs.

Yet another reason to set aside the GEIS process came from an industry spokesperson representing the conventional uranium mining industry. He said his sector had been pressing the NRC for some time to revise the 1980 GEIS for conventional uranium mining, but that the NRC continuously claimed it did not have staff to undertake the process of revising the conventional GEIS. Given the fact that the conventional GEIS has not been revised in over 25 years, it would be unwise for the NRC to commit itself and the public to an ISL GEIS that is likely to remain the NRC guide in the ISL permitting process for decades to come.

The entire rationale for an ISL GEIS is highly questionable:

- The NRC clearly lacks staff time to deal with the ISL GEIS, since it hasn't the staff to revise the already existing and badly outdated conventional uranium mining GEIS;
- The NRC's own experience should have shown it that the "common" environmental consequences of ISL are devastating to groundwater resources;
- The EIS process for the hardrock mining industry in general shows how poor even that system is; replacing that process with a GEIS that seems designed to bypass the EIS process with a much weaker EA process is inexcusable;

The NRC should stop the GEIS process now, and use its limited staff resources to reviewing the actual environmental consequences of ISL uranium mining, learning from the failures of mining oversight in general, and rewriting in-house policy in such a way that scoping meetings and permitting processes are designed up-front to encourage broad and informed public participation, especially from among impacted communities and the input of substantial independent analysis (the spirit of the NEPA process).

ISL Mining

ISL mining will unavoidably contaminate and diminish groundwater resources.

The chemicals injected into uranium-bearing strata liberate not only uranium, but many other minerals and metals. These will contaminate the water. Uranium and other radionuclides liberated, but not completely withdrawn will also contaminate groundwater. Monitoring wells are spaced widely enough – and underlying hydrogeology is always imprecise enough – that contaminated water will migrate past the established boundary for “acceptable water contamination. In the arid Southwest, all water resources are critical: ISL will not only contaminate high-quality aquifers, it will reduce the water quantity as well, since the process depends on the constant removal of water to draw liberated uranium into production wells for removal.

It is irresponsible to promote a mining process that will surely contaminate and diminish a water source important to the public health and economic development of a region; the NRC should not only withdraw the idea of an ISL GEIS, but discount ISL as a viable alternative for uranium mining.

Native Nation Sovereignty

By long-established legal precedent and the force of ethical and moral grounds, all organized Native peoples are sovereign nations. On April 29, 2005, the Navajo Nation passed the Dine Natural Resources Protection Act prohibiting future uranium mining and processing – both conventional and ISL – on Navajo Indian Country. The concept of “Indian Country” may be foreign to the NRC and the general public, but it is a relatively easy concept to grasp and one which has been upheld in federal court on numerous occasions. Indian Country means the lands traditionally held by native peoples to be a part of their world, places which hold spiritual, cultural, or resource value for them. Indian Country often extends well beyond “reservation” boundaries and – given the way Native peoples were forcibly removed and moved around – can often be outside areas contiguous to current tribal boundaries.

Many of the proposed sites for uranium recovery in New Mexico overlap Navajo Indian Country and are subject to both tribal and federal review. Some proposed sites, such as Mount Taylor near Grants, New Mexico, are areas of cultural (or religious) significance for several tribal nations. In New Mexico, issues regarding or affecting Native peoples require that a “Tribal Consultation” process be completed with the involved parties before any decision-making takes place. The NRC needs to appreciate that in the uranium GEIS and permitting process, there are many tribes in New Mexico, with a variety of governmental practices and timeframes, that require separate and appropriate Tribal Consultation before any decisions are made.

The NRC has a responsibility, as part of the Federal Trust responsibility towards Native peoples, to ensure that Native Nation Sovereignty is respected. This is especially important now, given the legacy of uranium mining for Native peoples in the Southwest and elsewhere and given the abject and tragic failure of the US government to fulfill its Trust responsibilities towards Native peoples everywhere.

The NRC cannot go forward with the GEIS or with uranium permits for mining of any kind, or processing permits until it has completed Tribal Consultation and been given Tribal permission to move forward with uranium leasing, permitting, and EIS processes.

Closing

Thank you for the opportunity to submit my comments on this matter. I would like to be kept informed of developments with regard to the GEIS and NRC's uranium mining and processing (and reprocessing) permitting and related activities.

Sincerely,

Michael Jensen

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Michael Jensen
Grants & Communication
Amigos Bravos
PO Box 238
Taos NM 87571
505.362.1063 (cell)
505.758.3874 (office)
www.amigosbravos.org

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