

Proposed NRC Rules Favor Uranium Industry

The Nuclear Regulatory Commission's draft Generic Environmental Impact Statement (GEIS) on uranium *in situ* leach (ISL) mining (NUREG-1910) doesn't register a blip on the national political radar screen. And you won't find the GEIS on anyone's list of the Top 100 public concerns.

But in the areas where ISL mining may start or expand — New Mexico, Wyoming, Nebraska and South Dakota — the GEIS is a big deal for communities and groups on both sides of the uranium issue. It engendered emotionally charged commentary at the public hearings, and several gigabytes (hundreds of pages) of written comments in November 2008.

For the uranium industry and its supporters in mining towns like Grants, New Mexico, the GEIS is welcomed for “expediting” new yellowcake production and the jobs it may bring, by “streamlining” the NRC’s licensing process. Pro-uranium speakers at hearings in Gallup, Grants and Albuquerque in September 2008 — sporting white-on-green buttons saying “SUPPORT MINING NOW FOR THE FUTURE” — repeatedly congratulated the NRC staff for “doing a good job,” even though few evinced any personal knowledge of the contents of the 600-page, two-volume tome (with separate errata booklet).

That industry and pro-uranium forces were *praising* the federal government’s principal regulatory authority over uranium processing is ironic considering that about 28 years ago, industry and many state and local government officials openly and frequently *criticized* NRC for proposing to adopt uranium mill licensing requirements that were “overly stringent,” would “force facilities to close,” and understated the “benefits” of uranium development. The change in tone in 2008 was a red flag for those people who survived many hours of meetings and hearings in 1980 and 1981 listening to industry’s often vitriolic testimonies *opposing* the first comprehensive set of regulations ever adopted for conventional uranium mills and mill tailings management.

NRC officials presiding over the GEIS hearings quickly tried to dispel the notion that the document will be used to limit public participation in site-specific licensing decisions by reducing, or even eliminating, the need to conduct a full-blown environmental impact statement (EIS) for each license application, as has been the agency’s practice in the past.

But statements in the GEIS itself suggest just the opposite. NRC expects more than two dozen applications for licenses for new ISL facilities or major expansions of existing facilities in the next three years:

...the NRC decided to prepare a GEIS to support an efficient and consistent approach to reviewing site-specific license applications for ISL facilities. The NRC staff plans to use the GEIS as a starting point for the National Environmental Policy Act (NEPA) analyses for site-specific applications for new ISL facilities . . . [and] for restart or expansion of existing facilities.”

In slides shown at the September hearings, and again in presentations to the five NRC commissioners at a public meeting on December 11, the NRC officials talked only of conducting an “environmental review” for each site-specific application.

New Mexico officials took exception with NRC’s approach in comments on NRC’s “scoping” process for the GEIS in mid-2007. Governor Bill Richardson told NRC Chairman Dale Klein in a July 31, 2007 letter that “your attempt at efficiency will negatively impact the ability of New Mexico’s citizens to participate in the NRC licensing process for individual facilities.” Congressman (now Senator) Tom Udall said that “attempts to simplify environmental protection measures deny local communities their opportunity to affect the approval process for new mines.” Both Richardson and Udall called on the NRC to prepare an EIS for each new facility application. Yet at no time since commencing the GEIS process has any NRC official committed to preparing an EIS for each license application or acknowledged that public involvement requirements are considerably more limited when a less detailed environmental assessment is prepared.



Edith Hood spoke in opposition to the GEIS at the Grants, NM hearing.

The appearance of streamlining the license process is not the only objection that community groups, environmental organizations, state agencies, and even other federal agencies have with the GEIS. The principal concerns fall into several categories:

A generic, “one-size-fits-all” assessment of impacts from ISL operations ignores the site-specific nature of solution mining.

“Given the unique environmental, geographical, cultural, historical, economic, and regional aspects of New Mexico,” wrote New Mexico Environment Department Secretary Ron Curry in an October letter to NRC, “it is contrary to the goals and purposes of NEPA for the NRC to use a GEIS approach.” The New Mexico Environmental Law Center (NMELC), in written comments submitted on behalf of SRIC, Bluewater Valley Downstream Alliance, and the Haaku Water Office of the Pueblo of Acoma, stated that at least five categories of impacts are, by their very nature, site-specific: groundwater, surface water, socioeconomic, radioactive air emissions, and environmental justice concerns. NMELC cited the Nebraska Department of Environmental Quality’s November 2007 denial of an aquifer exemption for expansion of the Crow Butte ISL facility near Chadron in large part because Cameco Resources’s permit application failed to include site-specific hydrologic data for the area of the proposed expansion.

NRC inappropriately excluded impacts from existing and past uranium development in the four states covered by the GEIS, thwarting NEPA’s requirements for analysis of cumulative impacts of proposed federal actions.

“NRC failed to take a ‘hard look’ at the serious environmental and public health harms caused by ISL uranium mining,” the Natural Resources Defense Council (NRDC) said in its November 7 written comments. “Given the environmental record of uranium mining to date, there is no basis for concluding that this Draft GEIS — in lieu of a full blown EIS for each individual site as well as an entirely new and more protective set of regulatory requirements — will be legally sufficient for the vital task of fully identifying and characterizing the prospectively harmful impacts on public health and the environment posed by uranium recovery operations at specific sites.”

NMELC noted that NRC determined that impacts from past uranium milling “are beyond the GEIS’s scope,” and that the GEIS “does not even mention environmental impacts from past mining.” Calling NRC’s rationale for this determination “circular and nonsensical,” NMELC asserted, “it is well established that substantial areas of northwestern New Mexico have been contaminated by past uranium mining and conventional milling operations,” resulting in elevated radiation levels over large areas of land, billions of gallons of contaminated groundwater, and increased death rates and illnesses among former workers and community members.

The GEIS lacks critical information on the environmental performance of the ISL mining industry over the last 30 years, and the absence of a complete and honest assessment of solution recovery of uranium precludes the usefulness of the GEIS in any site-specific license review.

The U.S. Environmental Protection Agency’s Office of Federal Programs commented that the GEIS would benefit from inclusion of information about 1) the locations and extent of excursions of mine fluids from operating ISL mines; 2) concentration levels of radiological and other hazardous constituent in groundwater contaminant plumes; and 3) impacts on aquifers, drinking water wells and community resources. NRDC said NRC should include detailed information on groundwater restoration programs at commercial ISL facilities, citing results of a Texas Commission on Environmental Quality (TCEQ) compilation of original and final restoration values of all ISL facilities in the state: “Of the 42 wellfields that were restored, only five wellfields had an amended restoration value for uranium that was lower than the original value. All others — 92% of the sites — had amended their uranium restoration values to be greater than what was originally mandated.”

The GEIS represents a significant departure from NRC’s own past practices of using a generic or programmatic EIS to analyze the effects of new regulations.

NMELC asserted that NRC violated NEPA by issuing the GEIS without proposing or adopting regulations specific to ISL operations. It noted that NRC has used its 1980 regulations governing conventional uranium milling and tailings disposal to regulate ISL mining in “non-Agreement States” like New Mexico. NMELC also stated that NRC has issued generic or programmatic EISs at least three times in years past, and all three analyzed impacts of proposed regulations on nuclear fuel cycle facilities.

The Energy Minerals Law Center in Durango, Colorado, commenting on behalf of a dozen community and environmental organizations in several Western states, said the GEIS itself is a de facto rule because of NRC's intention to "tier" site-specific licensing decisions to the GEIS. This creates an unpublished regulation that may further NRC's policy objectives,

but is illegal under NEPA and the Council on Environmental Quality's NEPA-implementing regulations.

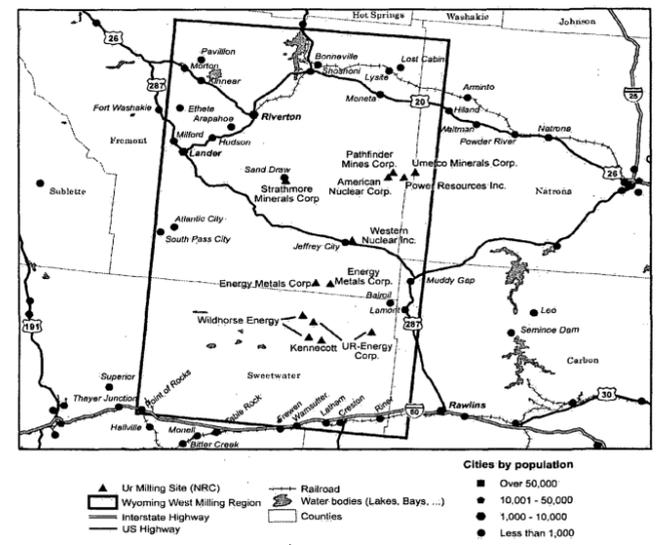
Not so coincidentally, the NRC staff told the Commission in December that it intends to propose groundwater protection rules for ISL recovery facilities by April 2009. The rules would address all elements of potential groundwater impacts from ISL operations, from pre-operational construction and monitoring requirements to groundwater restoration and corrective action mandates. The NRC staff said an objective of the proposed rules is to reduce or eliminate "dual regulation" of ISL operations with USEPA's Underground Injection Control program. The proposed ISL groundwater protection rulemaking would be done on a separate track from the GEIS, and the NRC staff has stated publicly that the two agency actions will have no connection.

NRC plans to issue a final version of the GEIS in June 2009. The entire document can be viewed at www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1910.

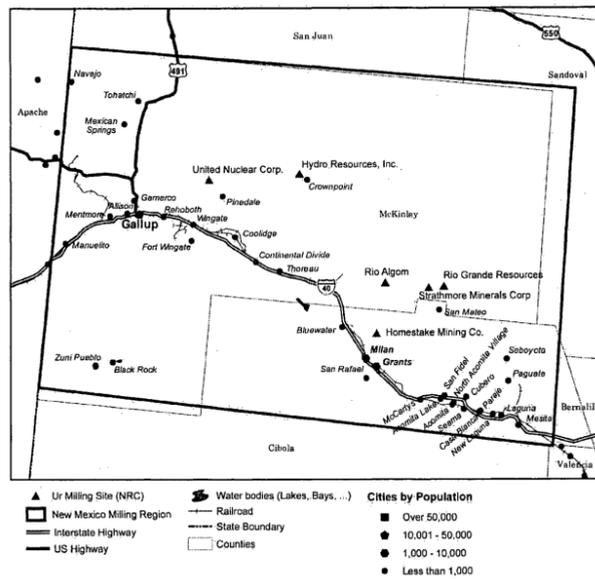
Nebraska / South Dakota / Wyoming Uranium Milling Region with Current and Potential ISL Milling Sites



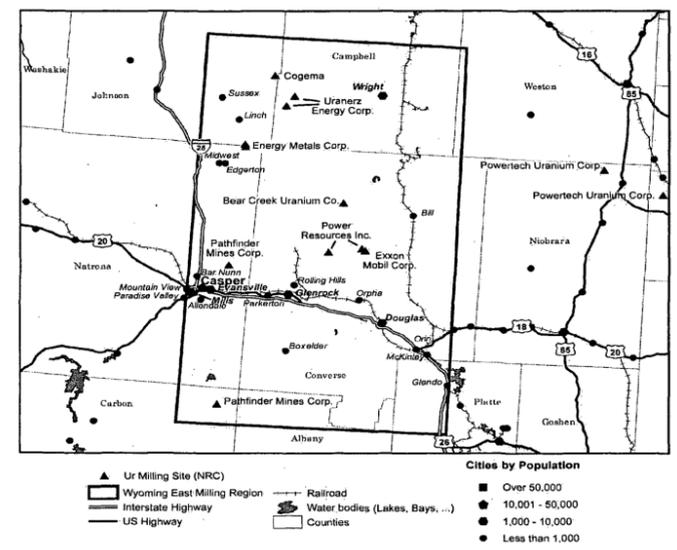
Wyoming West Uranium Milling Region with Current and Potential ISL Milling Sites



New Mexico Uranium Milling Region with Current and Potential ISL Milling Sites



Wyoming East Uranium Milling Region with Current and Potential ISL Milling Sites



IS THERE A NEED FOR New Uranium Mines in the U.S.? Continued from page 5

WHY IS THE NRC PREPARING FOR 28 APPLICATIONS?

The NRC has apparently not considered any of the world market conditions data in its projections of "expected" uranium production sites and encouragement of Letter of Notices of Intent. The agency's acceptance of such unsubstantiated notices also allows applicants to avoid having to demonstrate whether they have the \$5-10 million investment necessary to produce a complete application. As a result, NRC has given credibility to firms that have not shown that they have adequate funding for the multi-year work plans necessary to complete an application, much less the financial resources to build and operate a mine or mill.

Giving further support to these unsubstantiated uranium development claims, the NRC has invested its staff time in a *Generic Environmental Impact Statement on Uranium Recovery by In-Situ Methods* (GEIS), which largely ignores the legacy of or

potential problems with conventional mines and mills. NRC's GEIS program therefore avoids issues associated with the half of the "expected" applications that are described as for conventional or heap leach facilities. Most of the "expected" *in situ* proposals are renewal or expansion, rather than "new" project application. (For more information about the GEIS, see the accompanying article.)

NRC also fails to provide a nationwide view of "expected" uranium license applications by ignoring the projected applications in "agreement states." Failing to list facilities in Utah (home to the single U.S. operating uranium mill), Colorado, and Texas, NRC ignores a major segment of uranium licensing activity. That activity, while outside NRC's jurisdiction, is certainly part of the "expected" uranium licensing applications.

The NRC list of new uranium projects also will result in wasting taxpayers' money by bringing on too many staff and focusing on an inappropriately narrow portion of the industry. NRC also misinforms the public about the likelihood of so many applications.

That distorted image may reflect the interests of the nuclear industry that wants to portray that there is an impending uranium development boom or an agency seeking to expand its budget in bad economic times. But the NRC fails to accurately inform the people concerned about the impact that uranium operations have on their communities and their local economies. NRC is pursuing a role as a provider of a licensing service, rather than being a protector of public health and natural resources, or even an accurate information source for the public.

World Uranium Production Capacity Projected to Year 2030						
In Tonnes of U/year, from Reasonably Assured Reserves and Inferred Resources at Cost of <\$36/lb / Source: Uranium Red Book 2008, page 48						
COUNTRY	2007		2015		2030	
STATUS OF URANIUM PRODUCTION CENTERS	EXISTING AND COMMITTED	EXISTING AND COMMITTED + PLANNED AND PROSPECTIVE	EXISTING AND COMMITTED	EXISTING AND COMMITTED + PLANNED AND PROSPECTIVE	EXISTING AND COMMITTED	EXISTING AND COMMITTED + PLANNED AND PROSPECTIVE
Australia	9,400	9,400	10,200	19,000	5,500	17,700
Canada	14,990	14,990	17,730	19,270	17,730	19,270
China	940	1,040	1,200	1,200	1,200	1,200
Kazakhstan	7,000	7,000	22,000	22,000	20,000	23,000
Namibia	5,000	5,000	8,000	9,000	5,000	7,000
Niger	4,000	4,000	10,000	10,000	5,000	5,000
Russia	3,400	3,400	7,400	12,000	8,000	18,500
South Africa	2,000	2,000	4,800	6,320	4,860	6,320
Ukraine	1,000	1,000	2,000	2,000	3,700	3,700
USA	2,900	4,600	3,800	6,600	3,100	5,600
Uzbekistan	2,300	2,300	3,000	3,000	3,500	3,500
Total Listed Countries	52,930	54,730	90,130	110,390	77,590	110,790
Total Other Countries	1,440	2,125	5,500	7,030	5,540	7,060
Total Global Production & Projected Production	54,370	56,855	95,630	117,420	83,130	117,850

SOURCES OF INFORMATION

- Energy Fuels: www.energyfuels.com
- International Atomic Energy Agency (IAEA): www.iaea.org
- Nuclear Regulatory Commission (NRC): www.nrc.gov
- Organization for Economic Cooperation & Development (OECD) / Nuclear Energy Agency (NEA): www.nea.fr
- Tradetech: www.tradetech.com
- Uranium 2008 (Uranium Red Book 2008) is available for purchase and in a "read-only" format at: www.oecdbookshop.org/oecd/display.asp?sf1=identifiers&st1=9789264047662.
- Ux Consulting: www.uxc.com
- Wise Uranium Project: www.wise-uranium.org
- World Nuclear Association (WNA): www.world-nuclear.org
- WNA Symposia: www.world-nuclear.org/sym/subindex.htm