From: Go, Alyssa [ago@nrdc.org]
Sent: Monday, May 11, 2009 5:55 PM
To: Stephen Cohen
Subject: Comments on NRC's proposal to write RIS on pre-construction for U facilities
Attachments: NRC RIS PreLicensing Activity U Mining FINAL 11May2009.pdf

Hello,

Please find attached comments on the NRC's proposal to write a RIS on pre-construction activity at uranium recovery facilities. If you have any problems with the file, or questions, don't hesitate to call or write. A hard copy is also in the mail.

Thanks,

Alyssa

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From: "Go, Alyssa" <ago@nrdc.org>
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NRDC
THE EARTH'S BEST DEFENSE

May 11, 2009

Via Electronic and First Class Mail

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Re: Comments on the NRC's Proposal to Issue a Regulatory Issue Summary on Pre-Licensing Construction Activities at Proposed Uranium Recovery Facilities

The Natural Resources Defense Council (NRDC), the Powder River Basin Resource Council, the Biodiversity Conservation Alliance, Southwest Research and Information Center, and the Information Network for Responsible Mining, (collectively, "environmental organizations") appreciate the opportunity to comment on the Nuclear Regulatory Commission's (NRC) *Proposed Generic Communication: Pre-Licensing Construction Activities at Proposed Uranium Recovery Facilities*, 74 Fed. Reg. 13483 (March 27, 2009).

Background

Presenting the issue of pre-licensing construction activities for public comment is appropriate and of environmental concern, especially considering the significant number of potential applications for new or expanded uranium recovery licenses that may be before the NRC over the next few years. As explained in the Federal Register Notice, the uranium recovery industry (conventional mills, heap leach, and in-situ leach ("ISL" or "ISR") facilities, collectively "industry") has requested information and regulatory positions from NRC Staff on a range of issues, summarized briefly below.

The industry first asserts that 10 CFR 40.32(e) is not applicable to ISR facilities and applies only to conventional mills. Then, following on that line of logic, the industry asserts that ISR applicants should be allowed to build out most of their facilities in three tiers, only one of which is subject to NRC licensing.

First, the industry asserts that in "Tier 1" – activities over which the NRC would have no jurisdiction whatsoever – would allow for:

- Laying the foundations and construction of all support structures;
- Laying of foundations for processing facilities;
- Construction of ancillary facilities (roads, parking lots, access controls, power lines);
- Installation of water and sanitary systems;
- Drilling of disposal wells.

Next, the industry asserts that "Tier 2" would require NRC approval, but not a license and would allow for:

- Construction of processing facilities;
- Drilling of injection and production wells;
- Installation of wellfield pipelines.

And finally, "Tier 3" activities – the construction of evaporation ponds and engaging in uranium recovery operations – would not occur until after a license is issued.

The NRC Staff disagreed with industry's interpretation of 10 CFR 40.32(e). First, the NRC Staff stated that 10 CFR 40.32(e) does apply to the ISR industry. See 74 Fed. Reg. 13484-13485. The NRC Staff cites the definitions of "uranium milling" and of "byproduct material" as the basis for the application of 40.32(e) to ISR facilities. Specifically, the NRC states:

NRC staff does not agree with industry's interpretation of 10 CFR 40.32(e). This regulation uses the terms "uranium milling" and "byproduct material," each of which is specifically defined in 10 CFR 40.4. The term "uranium milling" means "any activity that results in the production of byproduct material as defined in this part." The term "byproduct material" means the "tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface wastes resulting from uranium solution extraction processes." These definitions were added to 10 CFR Part 40 in a 1979 final rulemaking that the ISR industry paper does not discuss.

74 Fed. Reg. 13484-13485.[1]

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[1] While the NRC references the 1979 rulemaking, it does not cite the actual document. See 44 Fed. Reg. 50012, August 24, 1979, *NRC Uranium Mill Tailings Licensing, Final Regulations with request for comments*. In those Final Regulations – issued in a final form in response to the recently enacted Uranium Mill Tailings Radiation Control Act of 1978 – the NRC presented its legal interpretation of UMTRCA and clarified the application of its general license. Id. In the associated document that presents the new (and final) rules, the NRC is careful to note that "[d]iscrete above ground wastes from in-situ or solution extraction are covered by this definition [referring to 40 CFR 40.4 definition of byproduct material], although the underground ore bodies depleted by the extraction process are not covered." 44 Fed. Reg. 50015, at 50016 (August 24, 1979), *Criteria Relating to Uranium Mill Tailings and Constructions of Major Plants, Proposed Rules*.

Next, the NRC Staff stated that while 10 CFR Part 40 does not provide for limited work authorizations (LWA), such as those specifically authorized for nuclear power plants under 10 CFR Part 50, the current 10 CFR Part 40 regulations already provide an allowance for pre-licensing construction via the exemption request process under 10 CFR 40.32(e). Id. at 13485. And as the NRC noted, any such exemption request must specify the particular activity, the purpose and need, the duration, and the potential impacts to human health and the environment. Depending on the aforementioned list, the NRC staff's review may include at least an Environmental Assessment conducted pursuant to the agency's National Environmental Policy Act requirements (see 10 CFR Part 51) and are reviewed by Staff on a case-by-case basis. The NRC Staff concludes with noting that '[a]ny construction activities performed by an applicant under an exemption and prior to the issuance of a license are performed at the applicant's risk." Id.

Comments

Despite the numerous inadequacies of ISR regulation, in this instance the environmental organizations agree with NRC Staff that the industry interpretation of 10 CFR 40.32(e) is inaccurate.[2] The sections of the regulatory scheme in question – 10 CFR 40.32(a)-(g) – are the "General requirements for issuance of specific licenses" and subsection (e) sets out a great many of the licensing and safety requirements. Subsection (e) in particular includes a definition of "commencement of construction" and a clear statement that to commence construction prior to obtaining a license could be grounds for denial of an application.

The 1979 Final Rule that NRC Staff cites in support of its position clearly illustrates that the activities contemplated in the industry's request fall under the General Requirements for Specific Licenses, 10 CFR 40.32(a)-(g) by virtue of the 10 CFR 40.4. While we concur that industry's effort to reinterpret the rules to exclude ISR construction activities lacks merit, the "above the ground" distinction cited above in note 1 compels us to renew our objection to the splintered and inadequately protective regulatory regime for ISR mining.[3] Indeed, discussing related matters and the 1979 Final Rule just a few days ago, the NRC also stated:

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2 NRDC and others noted numerous inadequacies of the regulatory system in public comments on the NRC's *Notice of Intent to Prepare a Draft Generic Environmental Impact Statement for Uranium Recovery,* which were submitted to the NRC on October 31, 2007.

3 As an example, see the Commission's discussion of the application of 10 CFR Part 40:

> In issuing the HRI license, the Staff appropriately did not insist that HRI meet Part 40 requirements across the board. We agree that those requirements in Part 40, such as many of the provisions in Appendix A, that, by their own terms, apply only to conventional uranium milling activities, cannot sensibly govern ISL mining. At the same time, there are a number of general safety provisions in Part 40, Appendix A, such as Criteria 2, 5A, and 9, that are relevant to ISL mining and, as such, have been appropriately reflected in the license ... Regulating the ISL facilities in the absence of specific regulatory requirements for ISL recovery activities has become increasingly problematic and more complicated for the staff, which has relied heavily on guidance documents and license conditions in this area, as the recovering uranium production industry seeks to expand ISL facility production and submits new applications for additional facilities.

The 1979 final rule's preamble further reflects the NRC's finding that, properly construed, UMTRCA covers the "above-ground wastes" from ISR operations as published in the Federal Register on August 24, 1979 (44 FR 50012). Additionally, in 2000, the NRC determined that all waste water generated during ISR operations would be classified as 11e.(2) byproduct material ...

The 10 CFR Part 40 definition of byproduct material is relevant to Criterion 5B of Appendix A, because this Criterion pertains uranium byproduct materials, and Sections (5) and (6) of Criterion 5B govern the setting of site-specific concentration limits of hazardous constituents for purposes of protecting and restoring groundwater quality at all uranium mill operations. Accordingly, the requirements in Criterion 5B of Appendix A apply to restoration of groundwater at uranium ISR facilities.

NRC Regulatory Issue Summary 2009-05, *Uranium Recovery Policy Regarding: (1) The Process for Scheduling Licensing Reviews of Applications for New Uranium Recovery Facilities and (2) The Restoration of Groundwater at Licensed Uranium In Situ Recovery Facilities*, at 3, April 29, 2009 (ML083510622) (citation omitted and emphasis added).[4] Depressingly, it has taken a mere 30 years for the NRC Staff to assert a relatively more comprehensive – if not adequately protective – set of jurisdictional coverage of ISR facilities and their myriad negative impacts to the environment and public health.

Additionally, the NRC Staff is correct that there already exists in the regulations adequate provision for the industry to conduct pre-licensing construction activities. Such action could happen via a request for exemption and an associated environmental review prior to the granting of any such exemption. Despite our many detailed concerns with the inadequate regulatory regime that currently exists, NRC Staff's position on this singular issue is well-grounded in the regulations and protective of public health and the

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> Until the Commission develops regulatory requirements specifically dedicated to the particular issues raised by ISL mining, we will have no choice but to follow the case-by-case approach taken by our Staff in issuing HRI's license. As the Presiding Officer concluded, the "principal regulatory standards governing this application for a license are 10 C.F.R. § 40.32(c) and (d), which mandate protection of the public health and safety.

In Re Hydro Resources, Inc., 50 NRC 3, **5 (1999) (emphasis added). Nearly a decade after this decision, we still await regulatory requirements that address the particular issues raised by ISL mining.

[4] The environmental organizations have had little opportunity to review NRC RIS 2009-05 – issued without notice or opportunity for public comment – and reserve the right to do so and will respond accordingly within a reasonable time period. Additionally, RIS 2009-05 states that the "staff is now working with the Environmental Protection Agency to resolve groundwater protection issues at ISR facilities and to revise Appendix A of 10 CFR Part 40 accordingly. The NRC expects that a draft of the proposed revisions to Appendix A will be published for public comment in 2010." RIS 2009-05 at 3, 4. The proposed groundwater protections have been in some version of a draft form for nearly a decade. In a December 2008 hearing before the NRC Commissioners we requested a copy of the most current draft and were denied on the grounds that to release the draft "might confuse the public." We respectfully beg to differ and assert that the public is well capable of understanding the issues presented. Thus, this day we renew our request for the most current draft of the proposed groundwater protection rules.

environment. And most important, consenting to industry's conclusions would have placed the NRC Staff in opposition to decades of established federal law.

If the NRC Staff were to have concurred with the industry's assertions, entire ISR facilities could (and would) be constructed and essentially be ready to go before the imposition of any meaningful licensing and associated environmental review. To recap, the industry has suggested with its "Tiers 1 and 2" that it be allowed to construct an entire ISR facility – a not insignificant undertaking by any measure – and essentially be almost ready to flip the switch before NRC jurisdiction would apply. Such a lax regulatory stance on the NRC's part would potentially allow for irreversible harms and, without question, strong prejudice to any licensing proceeding.

The activities contemplated in the industry's suggested "Tiers 1 and 2" include the drilling of numerous wells, construction of roads and power lines, construction of entire processing facilities, and even the installation of wellfield pipelines. Each of these activities on their own merit significant environmental review and the cumulative set of such activities require a strict, thorough appraisal.

And not only do the cumulative activities have a significant impact on the environment, construction of facilities can foreclose options such as protective conditions in licenses. As just one example, if a drilling pad is constructed in a certain manner, that might preclude a different construction that Staff, the State, or an appropriately versed independent consultant might deem necessary to provide for proper operation. Additionally, in terms of creating prejudice to the "future review" that will constitute the application process, a commitment of resources will have the effect of making it more difficult for the NRC to deny a license or impose different conditions because of the equities involved. That is, the NRC staff may feel pressure not to require a company to do things differently if the company has spent several million dollars on construction already. And finally, many of the Tier 1 and 2 type activities identified by industry will cause significant surface or subsurface disturbance. These disturbances will need to be accounted for in effective closure plans and under financial assurance. Construction before licensing or even environmental review will, at minimum, complicate and in even some instances prevent the establishment of effective closure plans and financial assurance. In short, adoption of the industry's position would make a mockery of the agency's licensing and associated environmental review obligations, and NRC Staff is right to reject it.

As the NRC Staff is plainly well aware, the Council on Environmental Quality (CEQ) – an agency within the Executive Office of the President – has promulgated NEPA implementing regulations that are "binding on all federal agencies." 40 CFR 1500.3. Those regulations make it absolutely clear that agencies must complete the NEPA process "before decisions are made and before actions are taken." Id. § 1500.1(b); see also id. § 1500.5(f) (requiring NEPA review "early in the process"). Id.§ 1501.2 ("Apply NEPA early in the process") (emphasis added). By noting precisely that NEPA analysis must happen "early" in the proceeding, the law plainly requires that entire facilities are not constructed before the agency has an opportunity to evaluate any license application

and associated environmental and public health impacts. The NEPA process must be completed "early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made." Id. 1502.5 (emphasis added). The industry's suggestion that allowing for no NRC jurisdiction over the activities described in Tiers 1 and 2 runs counter to decades of established law and would clearly prejudice any licensing proceeding. As the Supreme Court has summarized, "NEPA ensures that important effects will not be . . . discovered [only] after the die [is] otherwise cast." Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989) (emphasis added).

The NRC Staff is correct to reject the industry's assertions. Put simply, in order to insure that an agency's NEPA analysis "serve[s] practically as an important contribution to the decision-making process, 40 CFR 1502.5, NEPA review must be conducted "before decisions are made and before actions are taken." Id. § 1500.1(b) (emphasis added). Thus, as the binding CEQ regulations make absolutely clear, an agency may not use the NEPA process simply to "rationalize or justify decisions already made." Id. § 1502.5 (emphasis added).

As the D.C. Circuit succinctly explained in Sierra Club v. Peterson, "NEPA requires an agency to evaluate the environmental effects of its action at the point of commitment . . . to insure that the agency considers all possible courses of action and assesses the environmental consequences of each proposed action." 717 F.2d at 1415 (emphasis added). Consequently, "the appropriate time for preparing an EIS is prior to a decision, when the decisionmaker retains a maximum range of options." Id. at 1414 (emphasis in original); see also, Realty Income Trust v. Eckerd, 564 F.2d 447 (D.C. Cir. 1977); Metcalf v. Daley, 214 F.3d 1135 (9th Cir. 2000); Fund for Animals v. Norton, 281 F. Supp. 2d 209, 229 (D.D.C. 2003); Natural Resources Defense Council v. Houston, 146 F.3d 1118, 1129 (9th Cir. 1998); accord Sierra Club v. Lujan, 716 F.Supp. 1289, 1293 (D.Ariz. 1989) ("post hoc compliance with NEPA is unlawful"); Save the Yaak Committee v. Block, 840 F.2d 714, 718 (9th Cir. 1988) ("The rationale behind this rule is that inflexibility may occur if delay in preparing an EIS is allowed: 'after major investment of both time and money, it is likely that more environmental harm will be tolerated.'").

In sum, the NRC Staff was right to reject the industry's misreading of the regulations. We understand that other environmental organizations, including New Mexico Environmental Law Center and the Powder River Basin Resource Council, to name just two, are submitting additional comments on this matter and we hereby incorporate those comments by reference.

We appreciate the opportunity to comment and look forward to working with you. If you have any questions, please do not hesitate to contact us.

Sincerely,

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