

April 30, 2007

MEMORANDUM TO: Chairman Klein
Commissioner McGaffigan
Commissioner Merrifield
Commissioner Jaczko
Commissioner Lyons

FROM: Luis A. Reyes */RA/*
Executive Director for Operations

SUBJECT: PATH FORWARD FOR RULEMAKING ON GROUNDWATER
PROTECTION AT *IN SITU* LEACH URANIUM
EXTRACTION FACILITIES

The purpose of this memorandum is: (1) to provide the Commission with the status of the staff's effort to develop a draft rule for groundwater protection in the well-field production zone at *in situ* leach (ISL) uranium recovery facilities in non-Agreement States; and (2) to request that the Commission approve the staff recommendation to resume the rulemaking process and conform to 40 CFR Part 192. This request to deviate from previous Commission direction (i.e., conform to the underground injection control) is needed to address the concerns raised by EPA during implementation of codifying requirements for groundwater protection at ISLs.

The Uranium Mill Tailings Radiation Control Act (UMTRCA) added Sections 84 and 275 to the Atomic Energy Act (AEA). Section 84 requires, in part, that the Nuclear Regulatory Commission (NRC) ensure that byproduct material, as defined in section 11e.(2) of the AEA (hereafter referred to as 11e.(2) byproduct material), is managed in such a manner as to conform with applicable general standards promulgated by the U.S. Environmental Protection Agency (EPA) under AEA Section 275. As directed by Section 275, EPA standards of general application for 11e.(2) byproduct material were established in 40 CFR Part 192. AEA Section 275 requires that the generally applicable standards EPA promulgates for nonradiological hazards under UMTRCA shall be consistent with the standards EPA promulgates under the Safe Drinking Water Act/Resources Conservation and Recovery Act (SWDA/RCRA) for such hazards. To satisfy this mandate, the Part 192 standards specifically incorporate certain RCRA-based 40 CFR Part 264 requirements.

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NRC conforming regulations are in 10 CFR Part 40, Appendix A. Both 10 CFR Part 40, Appendix A and 40 CFR Part 192 focus primarily on conventional mills, with little reference to ISL uranium facilities. As a result, NRC has been regulating groundwater protection at ISLs primarily through license conditions.

In a Staff Requirements Memorandum (SRM) dated March 24, 2006, COMJSM-06-0001, "Regulation of Groundwater Protection at *In-Situ* Leach Uranium Extraction Facilities," the Commission directed the staff to initiate a rulemaking effort specifically tailored to groundwater protection programs in the well-field production zone at ISL uranium recovery facilities. The Commission directed that the rule focus on eliminating dual NRC/EPA regulation by deferring regulation of groundwater protection to EPA and EPA-authorized States, through their underground injection control (UIC) programs. The Commission also specified that the staff should work closely with EPA, EPA-authorized States, and other interested stakeholders in the rulemaking effort.

In the Statement of Considerations for 40 CFR 192 (the UMTRCA standards), EPA referenced its UIC regulations as environmental requirements that were also applicable to the well-field production zone at ISLs. Thus, it seemed that codifying groundwater protection regulations for ISLs based on EPA's UIC standards would satisfy the AEA requirement for conformity with EPA standards. Such a codification would allow deferral to EPA and EPA-authorized States, which are regulating ISLs under UIC program standards. However, EPA has made it clear, in discussions on the subject, that the UIC regulations are not to be considered as the generally applicable standards for ISLs, because they were issued under the authority of the SDWA, not UMTRCA. EPA has indicated that the applicable standards are the 40 CFR 192 standards that EPA promulgated under UMTRCA, even though such standards do not directly address ISLs. In the EPA's view, the UIC standards are additional applicable requirements.

In further discussions between NRC and EPA technical and legal staff, EPA indicated that there may be flexibility in the application of the UMTRCA standards to groundwater protection at ISLs. EPA also expressed a willingness to work closely with NRC during the rulemaking process.

The staff has recently met several times with EPA to try to reach a consensus on a rulemaking strategy that would result in a rule conforming to EPA's UMTRCA and UIC standards and satisfying NRC's needs. The first meeting was held at EPA headquarters in Washington, on February 21, 2007, and included technical staff, attorneys, and management from both agencies. A sub-group, composed primarily of technical staff, subsequently met on February 26, March 12, and March 28.

Additionally, staff and EPA met with representatives from the National Mining Association (NMA) on March 15, 2007, to elicit industry views. NMA stated that it was most desirous that

the rule clearly allow alternate concentration limits (ACLs) as a standard¹ for groundwater restoration at ISLs. NMA also stated that it believed that the States' class-of-use² designation of the aquifer should be considered by NRC in reviewing a proposed ACL. EPA informed NMA that class-of-use was not a designation authorized for approving ACLs under UMTRCA and RCRA but that it could be considered as one potential input in determining an ACL. EPA also explained that the standards developed in accordance with UMTRCA are completely separate and independent of what may be required under the SDWA UIC program. NMA understood that deferral to a State under the UIC program could only be considered appropriate if the State was implementing a groundwater program compatible to, or more restrictive than, NRC's.

Based upon the discussions with EPA and NMA, the NRC staff concludes that it can now proceed to prepare a rule that will conform to the generally applicable EPA standards in 40 CFR Part 192, and also satisfy the needs of the industry. As deemed appropriate, the NRC rule may also reflect relevant elements of EPA's SDWA-based UIC program which contains separate, independently applicable requirements for underground injection wells. Deferral to States could only be considered where a State's program is at least as stringent as the applicable UMTRCA and SDWA requirements. However, as noted below, the staff will use the rulemaking process as an opportunity to explore with the States and other stakeholders approaches to reduce or mitigate duplicative requirements.

Staff concludes that an adjustment to the direction in the March 24, 2006 SRM is warranted. It recommends that the Commission allow the staff to continue its rulemaking effort, in collaboration with EPA, to codify requirements for groundwater protection at ISLs. However, based on discussions with EPA, the regulations will conform to the standards in 40 CFR Part 192, and may contain relevant elements of the EPA's SDWA-based UIC program. The codification of standards for groundwater protection at ISLs will address industry's preference for predictability and stability in the regulatory process. As part of the rulemaking effort, the staff will update its guidance; the revised guidance will include discussion of use of a State's class-of-use designation in the ACL process. The staff will also explore, with EPA-authorized States, approaches to reduce or mitigate areas of duplicative requirements.

The staff requests that the Commission approve the resumption of the rulemaking process as discussed above (i.e., conform to 40 CFR Part 192 rather than UIC). The staff will actively engage interested stakeholders, through public workshops, intends to work closely and

¹ Although the use of ACLs are discussed in NUREG-1569 and explicitly allowed in criterion 5B(5)© of Part 40, Appendix A, NMA prefers a rule that specifically permits the use of ACLs as a standard for restoration of groundwater at ISLs.

² A State's class-of-use standard cannot be a restoration standard per se, as there is no basis for that in EPA's regulations in 40 CFR 192 or in NRC's groundwater standards in criterion 5 of Appendix A to 10 CFR 40. However, a State's class-of-use standard can be a component in the analysis. Under criterion 5B(6) of Appendix A, the Commission may establish a site-specific ACL for a hazardous constituent if it finds that the ACL is as low as reasonably achievable, and that the constituent will not pose a substantial present or potential hazard to human health or the environment.

The Commissioners

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cooperatively with EPA, and will share draft proposed rule language via the NRC web page. The staff plans to provide the proposed rule to the Commission in April 2008.

The Office of the General Counsel has reviewed this paper and has no legal objections.

Staff requests that this memorandum be withheld for 30 days after Commission action. This would allow time for staff to inform EPA and NMA of Commission direction. It would also allow time for EPA and NMA to inform their constituents.

SECY, please track.

cc: SECY
OGC
OCA
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CFO