

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF FEDERAL AND STATE MATERIALS  
AND ENVIRONMENTAL MANAGEMENT PROGRAMS  
WASHINGTON, D.C. 20555

September 23, 2009

**NRC REGULATORY ISSUE SUMMARY 2009-12  
URANIUM RECOVERY POLICY REGARDING SITE PREPARATION  
ACTIVITIES AT PROPOSED, UNLICENSED URANIUM RECOVERY  
FACILITIES**

**ADDRESSEES**

All holders of operating licenses for uranium recovery facilities and all companies that have submitted applications to construct all types of new uranium recovery facilities (conventional mills, heap leach facilities, and in situ recovery (ISR) facilities) or letters of intent to submit such applications.

**INTENT**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to inform addressees of the NRC's policy regarding the permissible site preparation activities at proposed, unlicensed, uranium recovery facilities. This RIS responds to industry inquiries regarding the activities that applicants may undertake prior to receiving a license. No specific action nor written response is required.

**BACKGROUND**

In relation to the applications for new uranium recovery facilities currently under review and those applications expected over the next several years, the NRC has been queried by the uranium recovery industry about certain activities that would be permissible at the proposed facilities before a license is granted. In the interest of minimizing the lead time from receipt of a license to the initiation of uranium recovery operations, the industry has requested information on permissible site preparation activities, including the potential use of limited work authorizations (LWAs), similar to those provided in the reactor program.

**SUMMARY OF ISSUE**

The NRC's regulations in Title 10 of the Code of Federal Regulations (CFR), Part 40.32(e), state that "commencement of construction" of a uranium recovery facility prior to a conclusion by the NRC staff that a license should be issued is grounds for denial of the license application. The term "commencement of construction" means "any clearing of land, excavation, or other substantial action that would adversely affect the environment of a site." The term "commencement of construction" does not relate to the suitability of the site or the protection of environmental values." *Id.* Also the term does not mean "site exploration, roads necessary for

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site exploration, borings to determine foundation conditions, or other preconstruction monitoring or testing to establish background information activities, which do not constitute the commencement of construction, may thus be conducted before a license is granted.

Commission Staff Requirements Memorandum (SRM)-M081211 directed the staff to budget resources to develop a proposed rulemaking that will change the definition of construction to one that is comparable to the current Part 51 definition. Changing this definition would expand the types of permissible site preparation activities.

ISR Industry representatives, through their legal counsel, presented their opinions to staff regarding the applicability of Part 40.32(e) to ISR facilities during a meeting on November 18, 2008. Industry's position, as documented in a White Paper presented at the meeting, is that Part 40.32(e) is not applicable to ISR facilities, based on the rulemaking history of this regulation as reflected in the 1980 *Federal Register (FR)* notice publishing the final rule. In the November 18, 2008, White Paper, "Recommendations on Pre-Licensing Site Construction Requirements for In Situ Recovery Facilities Pursuant to 10 CFR § 40.32(e)," the ISR industry argues as follows:

This Final Rule promulgated and finalized a number of UMTRCA-specific regulations, including what the Commission referred to as "siting and design criteria" for newly proposed conventional uranium milling facilities (45 FR at 65521). One of these regulations was a newly proposed 10 CFR § 40.32(e) that dealt directly with the extent to which a proposed conventional uranium mill project site could be developed and constructed pursuant to these "siting and design criteria" prior to the issuance of a uranium milling license. This new Part 40.32(e) imposed a requirement on the Director of NRC's then-named Office of Nuclear Material Safety and Safeguards (now Office of Federal and State Materials and Environmental Management Programs) to make "a positive finding on an applicant's proposed plans as meeting the requirements and objectives in Appendix A *prior to commencement of construction of a mill which produces byproduct material*" (45 FR at 65521).

*Id.* at 7.

Industry further stated:

Based on this requirement, the Commission concluded in the regulation that "[c]ommencement of construction prior to this conclusion is grounds for denial of a license to possess and use of source and byproduct material in the plant or facility." (10 CFR §40.32(e)). Therefore, "the denial of applications for licenses where construction is started before the appropriate environmental appraisals are completed and documented" is required. (45 FR at 65521).

However, it is crystal-clear from NRC's accompanying explanatory language that this requirement is to be imposed only on a conventional "mill which produces byproduct material" as tailings, where it states: "Construction activities are likely to result in significant and long lasting environmental impacts, the propriety of which cannot be ascertained until these environmental appraisals are completed and documented."

*Id.*

In addition, to support its claim that 10 CFR § 40.32(e) applies only to conventional mills, the industry White Paper quotes the 1980 FR publication of the NRC's final rule on Uranium Mill Licensing Requirements:

Given that each mill tailings pile constitutes a low-level waste burial site containing long lived radioactive materials, the Commission believes that prudence requires that specific methods of tailings disposal, mill decontamination, site reclamation, surety arrangements, and arrangements to allow for transfer of site and tailings ownership be worked out and approved before a license is granted (45 FR 65521).

*Id.* at 8.

According to industry, ISR applicants, therefore, should be allowed to build most of the facilities in three tiers. Tier 1 includes activities over which the NRC would have no jurisdiction, such as:

- laying foundations and construction of all support structures
- laying of foundations for processing facilities
- construction of ancillary facilities (i.e., roads, parking lots, access controls, power lines)
- installation of water and sanitary systems
- drilling of disposal wells

Tier 2 activities would include those requiring NRC approval, but not a license, such as the following:

- construction of processing facilities
- drilling of injection and production wells
- installation of wellfield pipelines

Tier 3 activities would not occur until a license is issued and would include construction of the evaporation ponds and engaging in uranium recovery operations.

NRC staff does not agree with industry's interpretation of 10 CFR Part 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. Consequently, the staff concludes that the requirements of Part 40.32(e) apply to both conventional mills and ISR facilities.

The NRC's regulations in 10 CFR Part 50 (Domestic Licensing of Production and Utilization Facilities) include an LWA process that allows the performance of certain site preparation activities in advance of the issuance of a construction permit or combined license. However, there are no similar provisions in 10 CFR Part 40 for the use of LWAs in the licensing of uranium recovery facilities. Therefore, if an applicant wishes to perform site preparation activities apart from those permitted under 10 CFR Part 40.32(e), an exemption request must be submitted for the staff's review under the provisions of 10 CFR Part 40.14.

#### EXEMPTION REQUEST COMPONENTS

The following components should be part of any exemption request:

1. A complete description of the particular activities for which an exemption is requested. Such activities should fall within the scope of what "construction" does not include, as set forth in the 10 CFR 51.4 definition.
2. The purpose and need for the activity. Applicants should state how this exemption will benefit the applicant and describe the impacts of the exemption not being granted.
3. Duration of the activity.
4. Potential impacts to human health and the environment. The exemption request should clearly identify impacts associated with site preparation versus those associated with licensed activities.
5. Drawings that provide construction details and the location of the proposed activity(ies).

#### ACTIVITIES FOR WHICH STAFF DOES NOT EXPECT TO APPROVE EXEMPTION REQUESTS

1. Production/Injection well installation.
2. Wellfield monitoring network installation.
3. Pipeline installation.
4. Header house installation.

5. Evaporation/surge/treatment pond installation.
6. Central processing plant construction, other than grading and excavation allowed per §51.4.
7. Satellite plant construction, other than grading and excavation allowed per §51.4.
8. Construction of chemical storage areas or tanks.
9. Disposal well drilling and installation.

As the above list of activities indicates, actions identified in an exemption request that are proposed to be taken before a license is issued will not be authorized if such actions have a nexus to safety. This is consistent with the underlying philosophy the Commission used when considering the LWA rule for reactors. While the reactor LWA rule does not apply to ISR facilities, the underlying premise of those regulations is useful in determining when an exemption may be appropriate. For example, the installation of a set of injection wells in a proposed wellfield is deemed to have a sufficiently close connection to later being able to adequately control byproduct material that a site preparation exemption for taking such an action will not be granted. Also, an environmental assessment will be performed for all exemption requests pursuant to 10 CFR 51.21 and 10 CFR 51.33.

Exemption requests will be reviewed on a case-by-case basis and the granting of any exemption does not ensure subsequent approval of a license application. As such, any site preparation activities performed by the applicant under an exemption and prior to the issuance of a license are performed at the applicant's risk. In this regard, it should be noted that the applicants must comply with other Federal, State, and Local regulations during the conduct of site preparation activities that may be applicable to the NRC-exempted activities.

#### **FEDERAL REGISTER NOTIFICATION**

A notice of opportunity for public comment on this RIS was published in the *Federal Register* (74 FR 13483) on March 27, 2009, for a 30 day comment period. The comment period was subsequently extended for an additional two weeks. Comments were received from the uranium recovery industry, Federal and State government representatives, interested stakeholder organizations, and public citizens. The staff considered all comments that were received. The staff's evaluation of the comments is publicly available through NRC's Agencywide Documents Access and Management System, under Accession No. ML092100004.

#### **CONGRESSIONAL REVIEW ACT**

This RIS is not a rule as designated in the Congressional Review Act (5 U.S.C. §§ 801-886) and, therefore, is not subject to the Act.

## **PAPERWORK REDUCTION ACT STATEMENT**

This RIS does not contain any information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, *et seq.*).

## **CONTACT**

This RIS requires no specific action or written response. If you have any questions about this summary, please contact the technical contact listed below.

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Enclosure: List of Recently Issued FSME  
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