NUCLEAR REGULATORY COMMISSION

10 CFR Parts 20 and 40

RIN 3150–AD65

Radiological Criteria for License Termination: Uranium Recovery Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Request for additional comment on uranium recovery facilities.

SUMMARY: The NRC is requesting specific comment on radiological criteria for license termination for uranium recovery facilities. This action is intended to provide full consideration of the issues associated with the decommissioning of these facilities and the regulatory options for resolving these issues.

DATES: Submit comments by October 6, 1997. Comments received after this date will be considered if it is practicable to do so, but the Commission is able to assure consideration only for comments received on or before this date.

ADDRESSES: Send comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, Attention: Rulemakings and Adjudications Staff.

Hand deliver comments to: 11555 Rockville Pike, Rockville, Maryland, between 7:30 am and 4:15 pm on Federal workdays.

For information on submitting comments electronically, see the discussion under Electronic Access in the Supplementary Information section.

FOR FURTHER INFORMATION CONTACT: Joseph J. Holonich, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: (301) 415–7238, e-mail JJH1@nrc.gov; Duane Schmidt, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: (301) 415–6919, e-mail DWS2@nrc.gov; or Frank Cardile, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: (301) 415–6185; e-mail FPC@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On August 22, 1994 (59 FR 43200), the NRC published a proposed rule for comment in the **Federal Register** to amend 10 CFR part 20 of its regulations ''Standards for Protection Against Radiation'' to include radiological criteria for license termination (referred to here as the ''cleanup rule''). The proposed cleanup rule included criteria for determining the adequacy of remediation of residual radioactivity resulting from the possession or use of source, byproduct, and special nuclear material. The scope of the proposed cleanup rule applied to the decommissioning of facilities licensed under 10 CFR parts 30, 40, 50, 60, 61, 70, and 72. Specifically with regard to uranium mills, the proposed cleanup rule stated that, for uranium mills, the criteria of the rule would apply to the facility but not to the disposal of uranium mill tailings or to soil cleanup. The proposed cleanup rule (§ 20.1401(a)) referred to 10 CFR part 40, Appendix A, where criteria for disposal of mill tailings and soil cleanup of radium already exist.

The public comment period for the proposed cleanup rule closed on January 20, 1995. Comments received on the proposed rule were summarized in NUREG/CR–6353. Comments on the criteria in the proposed rule were received from over 100 organizations and individuals representing a variety of interests. Viewpoints were expressed both in support of and in disagreement with nearly every provision of the rule. Specifically with regard to uranium mills, comments on the proposed rule generally agreed with the exclusion for disposal of mill tailings and soil cleanup. These commenters recommended that the rule also exempt conventional thorium and uranium mill facilities and in situ leach (ISL) (specifically uranium solution extraction) facilities from the scope of coverage because they stated that the decommissioning of these sites is covered by Appendix A to 10 CFR part 40 and 40 CFR part 192.

In responding to the comments on uranium mills during preparation of the final cleanup rule, the Commission considered appropriate regulatory options for addressing requirements for cleanup of soil, buildings, and groundwater at uranium and thorium mills and ISLs (collectively referred to as UR facilities) for unrestricted release of the site other than the tailings disposal and reclamation which are subject to the requirements of 10 CFR part 40, Appendix A.

In considering regulatory options for establishing radiological criteria for license termination of UR facilities, it is important to understand current regulations applicable to remediation of both inactive tailings sites, including vicinity properties, and active uranium and thorium mills. Under the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, as amended, EPA has the authority to set cleanup standards for uranium mills and, based on that authority, issued regulations in 40 CFR part 192 which contain remediation criteria for these facilities. NRC's regulations in 10 CFR part 40, Appendix A, apply to the decommissioning of its licensed facilities and conform to EPA's standards for uranium mills. At ISLs, the decommissioning activities are similar to those at uranium mills and consist mainly of the cleanup of byproduct material as defined in Section 11e.(2) of the Atomic Energy Act of 1954, as amended.

Thus, applicable cleanup standards already exist for soil cleanup of radium in 10 CFR part 40, Appendix A, Criterion 6(6). Radium is the main contaminant at uranium mills in the large areas (20–400 hectares (50 to 1000 acres)) where windblown contamination from the tailings pile has occurred, and at ISLs (in holding ponds). These standards require that the concentration of radium in those large areas not exceed the background level by more than 0.19 Bq/gm (5 pCi/gm) in the first 15 cm (6 inches) of soil, and 0.56 Bq/gm (15 pCi/gm) for every 15 cm (6 inches) below the first 15 cm (6 inches). However, in other mill and ISL site areas proximate to locations where radium contamination exists (e.g., under the mill building, in a yellow cake storage area, under/around an ore pad, and at ISLs in soils where spray irrigation has occurred as a means of disposal), uranium or thorium would be the radionuclide of concern. Because 10 CFR part 40, Appendix A, does not codify cleanup criteria for soil contamination from radionuclides other than radium, it cannot be used as a standard for uranium and thorium cleanup, and existing NRC guidance documents are currently used to develop appropriate cleanup levels for these and other radionuclides. There is not a similar need to address codifying requirements for groundwater at UR facilities because 10 CFR 40, Appendix A, as adopted by NRC to conform to EPA regulations in 40 CFR 192, already specifies groundwater cleanup standards applicable to tailings impoundments and also specifies that standards at UR facilities for groundwater cleanup from sources other than the tailings impoundment can be determined on a site-specific basis.

Cleanup of radium to the concentration standards noted above would generally result in doses higher than the 0.25 mSv/yr (25 mrem/yr) unrestricted use dose criterion of the final cleanup rule. Calculations done by

EPA in support of 40 CFR part 192 indicated that the dose from radium, excluding radon, was approximately 0.6 mSv/yr (60 mrem/yr) (the final cleanup rule notes that doses from radon would be controlled by cleanup of radium which is the principal precursor to radon). In actual practice, cleanup of uranium mill tailings results in radium levels lower than the 10 CFR part 40 standards, and radium is usually removed to background levels during cleanup of uranium and thorium to the levels in existing NRC guidance documents.

As noted above, the Commission considered including criteria in the final cleanup rule for radionuclides other than radium (primarily uranium or thorium) that would be present in UR facility site areas proximate to locations where radium contamination exists (e.g., under the mill building, in a yellow cake storage area, under/around an ore pad, and at ISLs in soils where spray irrigation has occurred as a means of disposal). In this approach, the standard of the final cleanup rule would apply to radionuclides other than radium, while the 10 CFR 40, Appendix A, standard would continue to apply to radium. However, as discussed in the final cleanup rule, published in this issue of the **Federal Register**, there are unique technical and regulatory complexities associated with decommissioning of UR facilities which could cause practical problems in applying the standards of the final cleanup rule to UR facilities. In particular, under this approach, application of the dose criterion of the final cleanup rule to the areas noted above would result in a situation where the cleanup standard of that small portion of the mill site would be much lower than the standard for the large windblown tailings areas where radium is the nuclide of concern. This would result in situations of differing criteria being applied across similar areas. This problem would exist for contamination in both soils and buildings.

Thus, in preparing the final cleanup rule, the Commission decided to exclude UR facilities from the scope of the final rule to allow further consideration of the issues involved. To allow for full consideration by the Commission and affected parties of the issues associated with decommissioning of UR facilities, the Commission decided to publish this separate notice to specifically request additional comment on decommissioning criteria for UR facilities (the Commission did not reopen the comment period for any of the other issues discussed in the rulemaking for the final cleanup rule). In publishing the final cleanup rule, the Commission noted that, in the interim while comments are being requested, the Commission will continue its current practices for decommissioning UR facilities.

II. Discussion

As noted above, there is an existing standard for radium in soil at UR facilities, however, it does not apply to radionuclides other than radium at these facilities. A way to address this situation could be to establish a criterion whereby the dose from all radionuclides at UR facilities, including radium, is set at levels different from either the final cleanup rule or the standards in 10 CFR part 40. This would involve modifying the radium standards of 10 CFR part 40, Appendix A. However, a difficulty with this approach is that the radium cleanup standard of 10 CFR part 40, Appendix A, conforms to EPA's cleanup standard for uranium mills, and per UMTRCA, the authority to set such cleanup standards for uranium mills rests with EPA.

An approach for setting decommissioning criteria for UR facilities, which has been developed in response to the comments received on the proposed rule, would be to codify a dose objective for radionuclides other than radium in soil and buildings at UR sites consistent with the radium cleanup standard already in place for those sites in 10 CFR part 40, Appendix A, and 40 CFR part 192. Under this approach, UR facilities would use the dose from radium in existing 10 CFR part 40 as a benchmark for the cleanup of radionuclides other than radium. Thus, in this approach, the criterion for cleanup of radionuclides other than radium from buildings and soils could be set such that it resulted in a dose no greater than the dose resulting from cleanup of radium contaminated soil to the standard specified in Criterion 6(6) of 10 CFR part 40, Appendix A. Use of this approach would thus allow for consistent criteria to be applied across site areas.

III. Request for Additional Comments on Regulatory Options

The Commission is reopening the public comment period specifically to solicit additional comments on the specific standard that should be used for cleanup of radionuclides at UR facilities. Commenters are requested to provide input for addressing this issue, and specifically on the approach discussed above involving the use of the 10 CFR part 40, Appendix A, radium standard as a benchmark for the cleanup of other radionuclides. Based on the comments already received on the proposed rule, described in Section I, and on additional comments received in response to this request, the Commission will then be in a position to prepare a final rule which reflects additional consideration by the NRC and affected parties on the approach for setting a standard for UR facilities.

IV. Electronic Access

Comments may be submitted electronically, in either ASCII text or WordPerfect format (version 5.1 or later), by calling the NRC Electronic Bulletin Board on FedWorld or connecting to the NRC interactive rulemaking web site, ''Rulemaking Forum.'' The bulletin board may be accessed using a personal computer, a modem, and one of the commonly available communications software packages, or directly via Internet.

If using a personal computer and modem, the NRC subsystem on FedWorld can be accessed directly by dialing the toll free number: 1–800–303–9672. Communication software parameters should be set as follows: parity to none, data bits to 8, and stop bits to 1 (N,8,1). Using ANSI or VT–100 terminal emulation, the NRC NUREGs and Reg Guides for Comment subsystem can then be accessed by selecting the ''Rules Menu'' option from the ''NRC Main Menu.'' For further information about options available for NRC at FedWorld, consult the ''Help/Information Center'' from the ''NRC Main Menu.'' Users will find the ''FedWorld Online User's Guides'' particularly helpful. Many NRC subsystems and databases also have a ''Help/Information Center'' option that is tailored to the particular subsystem.

The NRC subsystem on FedWorld can also be accessed by a direct-dial telephone number for the main FedWorld BBS, 703–321–3339, or by using Telnet via Internet, fedworld.gov. If using 703–321–3339 to contact FedWorld, the NRC subsystem will be accessed from the main FedWorld menu by selecting the ''Regulatory, Government Administration and State Systems,'' then selecting ''Regulatory Information Mall.'' At that point, a menu will be displayed that has an option ''U.S. Nuclear Regulatory Commission'' that will take you to the NRC Online main menu. The NRC Online area also can be accessed directly by typing ''/go nrc'' at a FedWorld command line. If you access NRC from FedWorld's main menu, you may return to FedWorld by selecting the ''Return to FedWorld'' option from the NRC Online Main Menu. However, if you access NRC at FedWorld by using

NRC's toll-free number, you will have full access to all NRC systems but you will not have access to the main FedWorld system.

If you contact FedWorld using Telnet, you will see the NRC area and menus, including the Rules menu. Although you will be able to download documents and leave messages, you will not be able to write comments or upload files (comments). If you contact FedWorld using FTP, all files can be accessed and downloaded but uploads are not allowed; all you will see is a list of files without descriptions (normal Gopher look). An index file listing all files within a subdirectory, with descriptions, is included. There is a 15-minute time limit for FTP access.

Although FedWorld can be accessed through the World Wide Web, like FTP that mode only provides access for downloading files and does not display the NRC Rules menu.

You may also access the NRC's interactive rulemaking web site through the NRC home page (http://www.nrc.gov). This site provides the same access as the FedWorld bulletin board, including the facility to upload comments as files (any format), if your web browser supports that function.

For more information on NRC bulletin boards call Mr. Arthur Davis, Systems Integration and Development Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415–5780; e-mail AXD3@nrc.gov. For information about the interactive rulemaking site, contact Ms. Carol Gallagher, (301) 415–6215; e-mail CAG@nrc.gov.

Dated at Rockville, Maryland this 1st day of July, 1997.

For the Nuclear Regulatory Commission.

John C. Hoyle,

Secretary of the Commission.

[FR Doc. 97–17753 Filed 7–18–97; 8:45 am]

BILLING CODE 7590–01–P