

Dated: December 14, 1994.

**Carol M. Browner,**

*Administrator, Environmental Protection Agency.*

For the reasons set forth in the preamble, 40 CFR part 192 is amended as follows:

**PART 192—HEALTH AND ENVIRONMENTAL PROTECTION STANDARDS FOR URANIUM AND THORIUM MILL TAILINGS**

1. The authority citation for part 192 continues to read as follows:

**Authority:** Section 275 of the Atomic Energy Act of 1954, 42 U.S.C. 2022, as added by the Uranium Mill Tailings Radiation Control Act of 1978, Pub. L. 95-604, as amended.

**Subpart A—Standards for the Control of Residual Radioactive Materials From Inactive Uranium Processing Sites**

2. Section 192.01 is amended by revising paragraphs (a) and (e) and adding paragraphs (g) through (r) to read as follows:

**§ 192.01 Definitions.**

(a) *Residual radioactive material* means:

(1) Waste (which the Secretary determines to be radioactive) in the form of tailings resulting from the processing of ores for the extraction of uranium and other valuable constituents of the ores; and

(2) Other wastes (which the Secretary determines to be radioactive) at a processing site which relate to such processing, including any residual stock of unprocessed ores or low-grade materials.

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(e) *Depository site* means a site (other than a processing site) selected under Section 104(b) or 105(b) of the Act.

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(g) *Act* means the Uranium Mill Tailings Radiation Control Act of 1978, as amended.

(h) *Administrator* means the Administrator of the Environmental Protection Agency.

(i) *Secretary* means the Secretary of Energy.

(j) *Commission* means the Nuclear Regulatory Commission.

(k) *Indian tribe* means any tribe, band, clan, group, pueblo, or community of Indians recognized as eligible for services provided by the Secretary of the Interior to Indians.

(l) *Processing site* means:

(1) Any site, including the mill, designated by the Secretary under Section 102(a)(1) of the Act; and

(2) Any other real property or improvement thereon which is in the

vicinity of such site, and is determined by the Secretary, in consultation with the Commission, to be contaminated with residual radioactive materials derived from such site.

(m) *Tailings* means the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted.

(n) *Disposal period* means the period of time beginning March 7, 1983 and ending with the completion of all subpart A requirements specified under a plan for remedial action except those specified in § 192.03 and § 192.04.

(o) *Plan for remedial action* means a written plan (or plans) for disposal and cleanup of residual radioactive materials associated with a processing site that incorporates the results of site characterization studies, environmental assessments or impact statements, and engineering assessments so as to satisfy the requirements of subparts A and B of this part. The plan(s) shall be developed in accordance with the provisions of Section 108(a) of the Act with the concurrence of the Commission and in consultation, as appropriate, with the Indian Tribe and the Secretary of Interior.

(p) *Post-disposal period* means the period of time beginning immediately after the disposal period and ending at termination of the monitoring period established under § 192.03.

(q) *Groundwater* means water below the ground surface in a zone of saturation.

(r) *Underground source of drinking water* means an aquifer or its portion:

(1)(i) Which supplies any public water system as defined in § 141.2 of this chapter; or

(ii) Which contains a sufficient quantity of groundwater to supply a public water system; and

(A) Currently supplies drinking water for human consumption; or

(B) Contains fewer than 10,000 mg/l total dissolved solids; and

(2) Which is not an exempted aquifer as defined in § 144.7 of this chapter.

3. Section 192.02 is revised to read as follows:

**§ 192.02 Standards.**

Control of residual radioactive materials and their listed constituents shall be designed<sup>1</sup> to:

(a) Be effective for up to one thousand years, to the extent reasonably achievable, and, in any case, for at least 200 years, and,

<sup>1</sup> Because the standard applies to design, monitoring after disposal is not required to demonstrate compliance with respect to § 192.02(a) and (b).

(b) Provide reasonable assurance that releases of radon-222 from residual radioactive material to the atmosphere will not:

(1) Exceed an average<sup>2</sup> release rate of 20 picocuries per square meter per second, or

(2) Increase the annual average concentration of radon-222 in air at or above any location outside the disposal site by more than one-half picocurie per liter.

(c) Provide reasonable assurance of conformance with the following groundwater protection provisions:

(1) The Secretary shall, on a site-specific basis, determine which of the constituents listed in Appendix I to Part 192 are present in or reasonably derived from residual radioactive materials and shall establish a monitoring program adequate to determine background levels of each such constituent in groundwater at each disposal site.

(2) The Secretary shall comply with conditions specified in a plan for remedial action which includes engineering specifications for a system of disposal designed to ensure that constituents identified under paragraph (c)(1) of this section entering the groundwater from a depository site (or a processing site, if residual radioactive materials are retained on the site) will not exceed the concentration limits established under paragraph (c)(3) of this section (or the supplemental standards established under § 192.22) in the uppermost aquifer underlying the site beyond the point of compliance established under paragraph (c)(4) of this section.

(3) Concentration limits:

(i) Concentration limits shall be determined in the groundwater for listed constituents identified under paragraph (c)(1) of this section. The concentration of a listed constituent in groundwater must not exceed:

(A) The background level of that constituent in the groundwater; or

(B) For any of the constituents listed in Table 1 to subpart A, the respective value given in that Table if the background level of the constituent is below the value given in the Table; or

(C) An alternate concentration limit established pursuant to paragraph (c)(3)(ii) of this section.

(ii)(A) The Secretary may apply an alternate concentration limit if, after

<sup>2</sup> This average shall apply over the entire surface of the disposal site and over at least a one-year period. Radon will come from both residual radioactive materials and from materials covering them. Radon emissions from the covering materials should be estimated as part of developing a remedial action plan for each site. The standard, however, applies only to emissions from residual radioactive materials to the atmosphere.