TABLE II—BENEFITS OF ALTERNATIVE STANDARDS FOR TAILINGS CONTROL TO THE YEAR 2000 (a)

<table>
<thead>
<tr>
<th>Alternative standard</th>
<th>Chance of misuse</th>
<th>Erosion avoided (y)</th>
<th>Maximum risk* of lung cancer</th>
<th>Radon Control</th>
<th>Deaths avoided</th>
<th>Water protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(percent reduction)</td>
<td>First 100 years</td>
<td>Total</td>
<td>longevity (y)</td>
</tr>
<tr>
<td>A</td>
<td>Very likely</td>
<td>0</td>
<td>2 x 10^-6 (2)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B1</td>
<td>Likely</td>
<td>Hundred</td>
<td>1 x 10^-5 (5)</td>
<td>300</td>
<td>1,000</td>
<td>100</td>
</tr>
<tr>
<td>B2</td>
<td>Less likely</td>
<td>do</td>
<td>4 x 10^-6 (6)</td>
<td>450</td>
<td>1,000</td>
<td>100</td>
</tr>
<tr>
<td>C1</td>
<td>Likely</td>
<td>Thousand</td>
<td>1 x 10^-5 (5)</td>
<td>570</td>
<td>2,000</td>
<td>100</td>
</tr>
<tr>
<td>C2</td>
<td>Less likely</td>
<td>do</td>
<td>1 x 10^-5 (5)</td>
<td>570</td>
<td>2,000</td>
<td>100</td>
</tr>
<tr>
<td>C3</td>
<td>Unlikely</td>
<td>do</td>
<td>1 x 10^-5 (5)</td>
<td>570</td>
<td>2,000</td>
<td>100</td>
</tr>
<tr>
<td>C4</td>
<td>Very unlikely</td>
<td>Many thousands</td>
<td>3 x 10^-6 (6)</td>
<td>590</td>
<td>10,000</td>
<td>100</td>
</tr>
<tr>
<td>C5</td>
<td></td>
<td>do</td>
<td>1 x 10^-5 (5)</td>
<td>590</td>
<td>10,000</td>
<td>100</td>
</tr>
<tr>
<td>C6</td>
<td></td>
<td>do</td>
<td>1 x 10^-5 (5)</td>
<td>590</td>
<td>10,000</td>
<td>100</td>
</tr>
</tbody>
</table>

* These estimates include the benefits resulting from control of 23 existing pits and 9 projected new pits. No credit is taken for any engineering safety factors incorporated to provide the required "reasonable assurance" of conformance.

(a) Lifetime risk of fatal cancer to an individual assumed to be living 800 meters from center of a modal tailings pile.

This standard is promulgated on the date signed.

List of Subjects in 40 CFR Part 192

Air pollution control, Radiation protection, Hazardous materials, Uranium, Environmental protection, Hazardous constituents, Groundwater protection, Radon, Radium, and Thorium.

Dated: September 30, 1983.

William D. Ruckelshaus,
Administrator.

In 40 CFR Chapter I, Part 192 is amended by adding Subparts D and E as follows:

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

Subpart D—Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended

§ 192.30 Applicability.

This subpart applies to the management of uranium byproduct materials under Section 84 of the Atomic Energy Act of 1954 (hereinafter designated "the Act").

§ 192.31 Definitions and Cross-references.

References in this subpart to other parts of the Code of Federal Regulations are to those parts as codified on January 1, 1983.

(a) Unless otherwise indicated in this subpart, all terms shall have the same meaning as in Title II of the Uranium Mill Tailings Radiation Control Act of 1978, Subparts A and B of this part, or Parts 190, 260, 261, and 294 of this chapter. For the purposes of this subpart, the terms "waste," "hazardous waste," and related terms, as used in Parts 260, 261, and 294 of this chapter shall apply to byproduct material.

(b) Uranium byproduct material means the tailings or waste produced by the extraction or concentration of uranium from any ore processed primarily for its source material content. Ore bodies depleted by uranium solution extraction operations and which remain underground do not constitute "byproduct material" for the purpose of this Subpart.

(c) Control means any action to stabilize, inhibit future misuse of, or reduce emissions or effluents from uranium byproduct materials.

(d) Licensed site means the area contained within the boundary of a location under the control of persons generating or storing uranium byproduct materials under a license issued pursuant to Section 84 of the Act. For purposes of this subpart, "licensed site" is equivalent to "regulated unit" in Subpart F of Part 264 of this chapter.

(e) Disposal site means a site selected pursuant to Section 83 of the Act.

(f) Disposal area means the region within the perimeter of an impoundment or pile containing uranium byproduct materials to which the post-closure requirements of § 192.32(b)(1) of this subpart apply.

(g) Regulatory agency means the U.S. Nuclear Regulatory Commission.

(h) Closure period means the period of time beginning with the cessation, with respect to a waste impoundment, of uranium ore processing operations and ending with completion of requirements specified under a closure plan.

(i) Closure plan means the plan required under § 264.112 of this chapter.

(j) Existing portion means that land surface area of an existing surface impoundment on which significant quantities of uranium byproduct materials have been placed prior to promulgation of this standard.

§ 192.32 Standards.

(a) Standards for application during processing operations and prior to the end of the closure period. (1) Surface impoundments (except for an existing portion) subject to this subpart must be designed, constructed, and installed in such manner as to conform to the requirements of § 264.221 of this chapter.
except that at sites where the annual precipitation falling on the impoundment surface runoff to the impoundment is less than the annual evaporation from the impoundment, the requirements of § 264.228(a)(2)(iii)(E) referenced in § 264.221 do not apply.

(2) Uranium byproduct materials shall be managed so as to conform to the ground water protection standard in § 264.92 of this chapter, except that for the purposes of this subpart:

(i) To the list of hazardous constituents referenced in § 264.93 of this chapter are added the chemical elements molybdenum and uranium.

(ii) To the concentration limits provided in Table 1 of § 264.94 of this chapter are added the radioactivity limits in Table A of this subpart.

(iii) Design monitoring programs required under § 264.98 to establish the standards required under § 264.92 shall be completed within one (1) year of promulgation.

(iv) The regulatory agency may establish alternate concentration limits (to be satisfied at the point of compliance specified under § 264.95) under the criteria of § 264.94(b), provided that, after considering practicable corrective actions, these limits are as low as reasonably achievable, and that, in any case, the standards of § 264.94(a) are satisfied at all points at a greater distance than 500 meters from the edge of the disposal area and/or outside the site boundary, and

(v) The functions and responsibilities designated in Part 264 of this chapter as those of the "Regulatory Administrator" with respect to "facility permits" shall be carried out by the regulatory agency, except that exemptions of hazardous constituents under § 264.93 (b) and (c) of this chapter and alternate concentration limits established under § 264.94 (b) and (c) of this chapter (except as otherwise provided in § 192.32(a)(2)(iv)) shall not be effective until EPA has concurred therein.

(3) Uranium byproduct materials shall be managed so as to conform to the provisions of:

(a) Part 190 of this chapter, "Environmental Radiation Protection Standards for Nuclear Power Operations" and

(b) Part 440 of this chapter, "Ore Mining and Dressing Point Source Category: Effluent Limitations Guidelines and New Source Performance Standards, Subpart C, Uranium, Radium, and Vanadium Ores Subcategory."

§ 192.34 Effective date.
Subpart D shall be effective December 6, 1983.

Table A

<table>
<thead>
<tr>
<th>Description</th>
<th>pCi/liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined radium-226 and radium-228...</td>
<td>5</td>
</tr>
<tr>
<td>Gross alpha-particle activity (excluding radon and uranium)</td>
<td>15</td>
</tr>
</tbody>
</table>

Subpart E—Standards for Management of Thorium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended

§ 192.40 Applicability.
This subpart applies to the management of thorium byproduct materials under Section 84 of the Atomic Energy Act of 1954, as amended, during and following processing of thorium ores, and to restoration of disposal sites following any use of such sites under Section 85(b)(1)(B) of the Act.

§ 192.41 Provisions.
- The provisions of Subpart D of this part, including §§ 192.31, 192.32, and 192.33, shall apply to thorium byproduct material and:
  (a) Provisions applicable to the element uranium shall also apply to the element thorium;
  (b) Provisions applicable to radon-222 shall also apply to radon-220; and
  (c) Provisions applicable to radium-226 shall also apply to radium-228.

(d) Operations covered under § 192.32(a) shall be conducted in such a way as to provide reasonable assurance that the annual dose equivalent does not exceed 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public as a result of exposures to the planned discharge of radioactive materials, radon-220 and its daughters excepted, to the general environment.

§ 192.42 Substitute provisions.
The regulatory agency may, with the concurrence of EPA, substitute for any provisions of § 192.41 of this subpart alternative provisions that deem more practical that will provide at least an equivalent level of protection for human health and the environment.

§ 192.43 Effective date.
Subpart E shall be effective December 6, 1983.

[FR Doc. 83-27177 Filed 10-6-83; 8:45 am]
BILLING CODE 6550-50-M