§ 191.16 Alternative provisions for disposal.

The Administrator may, by rule, substitute for any of the provisions of subpart B alternative provisions chosen after:

(a) The alternative provisions have been proposed for public comment in the Federal Register together with information describing the costs, risks, and benefits of disposal in accordance with the alternative provisions and the reasons why compliance with the existing provisions of Subpart B appears inappropriate;

(b) A public comment period of at least 90 days has been completed, during which an opportunity for public hearings in affected areas of the country has been provided; and

(c) The public comments received have been fully considered in developing the final version of such alternative provisions.


§ 191.17 Effective date.

The standards in this subpart shall be effective on November 18, 1985.


Subpart C—Environmental Standards for Ground-Water Protection

§ 191.21 Applicability.

(a) This subpart applies to:

(1) Radiation doses received by members of the public as a result of activities subject to subpart B of this part; and

(2) Radioactive contamination of underground sources of drinking water in the accessible environment as a result of such activities.

(b) This subpart does not apply to:

(1) Disposal directly into the oceans or ocean sediments;

(2) Wastes disposed of before the effective date of this subpart; and

(3) The characterization, licensing, construction, operation, or closure of any site required to be characterized under section 113(a) of Public Law 97-425, 96 Stat. 2201.

§ 191.22 Definitions.

Unless otherwise indicated in this subpart, all terms have the same meaning as in subparts A and B of this part. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes:

(1) Any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and

(2) Any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

Total dissolved solids means the total dissolved (filterable) solids in water as determined by use of the method specified in 40 CFR part 136.

Underground source of drinking water means an aquifer or its portion which:

(1) Supplies any public water system; or

(2) Contains a sufficient quantity of ground water to supply a public water system; and

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

(ii) Contains fewer than 10,000 milligrams of total dissolved solids per liter.

§ 191.23 General provisions.

(a) Determination of compliance with this subpart shall be based upon underground sources of drinking water which have been identified on the date the implementing agency determines compliance with subpart C of this part.

(b) [Reserved]

§ 191.24 Disposal standards.

(a) Disposal systems.

(1) General. Disposal systems for waste and any associated radioactive material shall be designed to provide a reasonable expectation that 10,000 years of undisturbed performance after disposal shall not cause the levels of radioactivity in any underground
source of drinking water, in the accessible
environment, to exceed the limits
specified in 40 CFR part 141 as they exist on January 19, 1994.

(2) Disposal systems above or within a
formation which within one-quarter (1/4)
mile contains an underground source of
drinking water. [Reserved]

(b) Compliance assessments need not
provide complete assurance that the
requirements of paragraph (a) of this
section will be met. Because of the long
time period involved and the nature of
the processes and events of interest,
there will inevitably be substantial un-
certainties in projecting disposal sys-

§ 191.25 Compliance with other Fed-
eral regulations.

Compliance with the provisions in
this subpart does not negate the neces-
sity to comply with any other applica-
tible Federal regulations or require-
ments.

§ 191.26 Alternative provisions.

The Administrator may, by rule, sub-
stitute for any of the provisions of this
subpart alternative provisions chosen af-
after:

(a) The alternative provisions have
been proposed for public comment in the Federal Register together with
information describing the costs, risks,
and benefits of disposal in accordance
with the alternative provisions and the
reasons why compliance with the exist-
ing provisions of this subpart appears
inappropriate;

(b) A public comment period of at
least 90 days has been completed, dur-
ing which an opportunity for public
hearings in affected areas of the coun-
try has been provided; and

(c) The public comments received
have been fully considered in devel-
oping the final version of such alter-
native provisions.

§ 191.27 Effective date.

The standards in this subpart shall be

APPENDIX A TO PART 191—TABLE FOR
SUBPART B

TABLE 1—RELEASE LIMITS FOR CONTAINMENT
REQUIREMENTS

<table>
<thead>
<tr>
<th>Radionuclide</th>
<th>Release limit per 1,000 MTHM or other unit of waste (see notes) (curies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americium-241 or -243</td>
<td>100</td>
</tr>
<tr>
<td>Carbon-14</td>
<td>100</td>
</tr>
<tr>
<td>Cesium-135 or -137</td>
<td>1,000</td>
</tr>
<tr>
<td>Iodine-129</td>
<td>100</td>
</tr>
<tr>
<td>Neptunium-237</td>
<td>100</td>
</tr>
<tr>
<td>Plutonium-238, -239, -240, or -242</td>
<td>100</td>
</tr>
<tr>
<td>Radium-226</td>
<td>100</td>
</tr>
<tr>
<td>Strontium-90</td>
<td>1,000</td>
</tr>
<tr>
<td>Technetium-99</td>
<td>10,000</td>
</tr>
<tr>
<td>Thorium-232 or -233</td>
<td>10</td>
</tr>
<tr>
<td>Tin-126</td>
<td>1,000</td>
</tr>
<tr>
<td>Uranium-233, -234, -235, -236, or -238</td>
<td>100</td>
</tr>
<tr>
<td>Any other alpha-emitting radionuclide with a half-life greater than 20 years</td>
<td>100</td>
</tr>
<tr>
<td>Any other radionuclide with a half-life greater than 20 years that does not emit alpha particles</td>
<td>1,000</td>
</tr>
</tbody>
</table>

APPLICATION OF TABLE 1

Note 1: Units of Waste. The Release Limits in Table 1 apply to the amount of wastes in any one of the following:

(a) An amount of spent nuclear fuel contain-
ing 1,000 metric tons of heavy metal (MTHM) exposed to a burnup between 25,000
megawatt-days per metric ton of heavy metal (MWd/MTHM) and 40,000 MWd/MTHM;

(b) The high-level radioactive wastes gen-
erated from reprocessing each 1,000 MTHM
exposed to a burnup between 25,000 MWd/
MTHM and 40,000 MWd/MTHM;

(c) Each 100,000,000 curies of gamma or
beta-emitting radionuclides with half-lives
greater than 20 years but less than 100 years
(for use as discussed in Note 5 or with mate-
rials that are identified by the Commission
as high-level radioactive waste in accordance
with part B of the definition of high-level
waste in the NWPA);

(d) Each 1,000,000 curies of other radio-
nuclides (i.e., gamma or beta-emitters with
half-lives greater than 100 years or any
alpha-emitters with half-lives greater than
20 years) (for use as discussed in Note 5 or
with materials that are identified by the
Commission as high-level radioactive waste
in accordance with part B of the definition of
high-level waste in the NWPA); or