§ 264.91 Required programs.

(a) Owners and operators subject to this subpart must conduct a monitoring and response program as follows:

(1) Whenever hazardous constituents under §264.93 from a regulated unit are detected at a compliance point under §264.95, the owner or operator must institute a compliance monitoring program under §264.99. Detected is defined as statistically significant evidence of contamination as described in §264.96(f);

(2) Whenever the ground-water protection standard under §264.92 is exceeded, the owner or operator must institute a corrective action program under §264.100. Exceeded is defined as statistically significant evidence of increased contamination as described in §264.96(d);

(3) Whenever hazardous constituents under §264.93 from a regulated unit exceed concentration limits under §264.94 in ground water between the compliance point under §264.95 and the downgradient facility property boundary, the owner or operator must institute a corrective action program under §264.100; or

(4) In all other cases, the owner or operator must institute a detection monitoring program under §264.98.

(b) The Regional Administrator will specify in the facility permit the specific elements of the monitoring and response program. The Regional Administrator may include one or more of the programs identified in paragraph (a) of this section in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Regional Administrator will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.


§ 264.92 Ground-water protection standard.

The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under §264.93 detected in the ground water from a regulated unit do not exceed the concentration limits under §264.94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under §264.95 during the compliance period under §264.96. The Regional Administrator will establish this ground-water protection standard in the facility permit when hazardous constituents have been detected in the ground water.

[53 FR 39728, Oct. 11, 1988]

§ 264.93 Hazardous constituents.

(a) The Regional Administrator will specify in the facility permit the hazardous constituents to which the ground-water protection standard of §264.92 applies. Hazardous constituents are constituents identified in appendix VIII of part 261 of this chapter that have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Regional Administrator has excluded them under paragraph (b) of this section.

(b) The Regional Administrator will exclude an appendix VIII constituent from the list of hazardous constituents specified in the facility permit if he finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Regional Administrator will consider the following:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated
unit, including its potential for migration;
(ii) The hydrogeological characteristics of the facility and surrounding land;
(iii) The quantity of ground water and the direction of ground-water flow;
(iv) The proximity and withdrawal rates of ground-water users;
(v) The current and future uses of ground water in the area;
(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;
(vii) The potential for health risks caused by human exposure to waste constituents;
(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface water quality, considering:
(i) The volume and physical and chemical characteristics of the waste in the regulated unit;
(ii) The hydrogeological characteristics of the facility and surrounding land;
(iii) The quantity and quality of ground water, and the direction of ground-water flow;
(iv) The patterns of rainfall in the region;
(v) The proximity of the regulated unit to surface waters;
(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;
(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;
(viii) The potential for health risks caused by human exposure to waste constituents;
(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and
(x) The persistence and permanence of the potential adverse effects.

(3) Must not exceed an alternate limit established by the Regional Administrator under paragraph (b) of this section.

(b) The Regional Administrator will establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose about the use of ground water in the area around the facility, the Regional Administrator will consider any identification of underground sources of drinking water and exempted aquifers made under §144.8 of this chapter.


§ 264.94 Concentration limits.

(a) The Regional Administrator will specify in the facility permit concentration limits in the ground water for hazardous constituents established under §264.93. The concentration of a hazardous constituent:

(1) Must not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(2) For any of the constituents listed in Table 1, must not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

Table 1—Maximum Concentration of Constituents for Ground-water Protection

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Maximum concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>0.05</td>
</tr>
<tr>
<td>Barium</td>
<td>1.0</td>
</tr>
<tr>
<td>Cadmium</td>
<td>0.01</td>
</tr>
<tr>
<td>Chromium</td>
<td>0.05</td>
</tr>
<tr>
<td>Lead</td>
<td>0.05</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.002</td>
</tr>
<tr>
<td>Selenium</td>
<td>0.01</td>
</tr>
<tr>
<td>Silver</td>
<td>0.05</td>
</tr>
<tr>
<td>Endrin</td>
<td>0.0002</td>
</tr>
<tr>
<td>Lindane</td>
<td>0.004</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>0.1</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>0.005</td>
</tr>
<tr>
<td>2,4-D</td>
<td>0.1</td>
</tr>
<tr>
<td>2,4,5-TP</td>
<td>0.01</td>
</tr>
<tr>
<td>Silvex</td>
<td>0.005</td>
</tr>
<tr>
<td>2,4,5-TP</td>
<td>0.01</td>
</tr>
</tbody>
</table>

1 Milligrams per liter.