§ 257.26 Assessment of corrective measures.

(a) Within 90 days of finding that any of the constituents listed in appendix II (appendix II of 40 CFR Part 258) have been detected at a statistically significant level exceeding the ground-water protection standards defined under §257.25 (h) or (i), the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed within a reasonable period of time.

(b) The owner or operator must continue to monitor in accordance with the assessment monitoring program as specified in §257.25.

(c) The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under §257.27, addressing at least the following:

1. The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

2. The time required to begin and complete the remedy;

3. The costs of remedy implementation;

4. The institutional requirements such as State or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(d) The owner or operator must discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

§ 257.27 Selection of remedy.

(a) Based on the results of the corrective measures assessment conducted under §257.26, the owner or operator must select a remedy that, at a minimum, meets the standards listed in paragraph (b) of this section. The owner or operator must notify the State Director, within 14 days of selecting a remedy, that a report describing the selected remedy has been placed in the operating record and how it meets the standards in paragraph (b) of this section.

(2) For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells in accordance with §257.22(a)(1); or

(3) For constituents for which the background level is higher than the MCL identified under subparagraph (h)(1) of this section or health based levels identified under paragraph (i)(1) of this section, the background concentration.

(i) The Director of an approved State may establish an alternative ground-water protection standard for constituents for which MCLs have not been established. These ground-water protection standards shall be appropriate health based levels that satisfy the following criteria:

1. The level is derived in a manner consistent with Agency guidelines for assessing the health risks of environmental pollutants (51 FR 33992, 34006, 34014, 34028, September 24, 1986);

2. The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 CFR part 792) or equivalent;

3. For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) within the 1x10^-4 to 1x10^-6 range; and

4. For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subpart, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(j) In establishing ground-water protection standards under paragraph (i) of this section, the Director of an approved State may consider the following:

1. Multiple contaminants in the ground water;

2. Exposure threats to sensitive environmental receptors; and

3. Other site-specific exposure or potential exposure to ground water.
(b) Remedies must:
(1) Be protective of human health and the environment;
(2) Attain the ground-water protection standard as specified pursuant to §§257.25 (h) or (i);
(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of appendix II (appendix II of 40 CFR part 258) constituents into the environment that may pose a threat to human health or the environment; and
(4) Comply with standards for management of wastes as specified in §257.28(d).

(c) In selecting a remedy that meets the standards of §257.27(b), the owner or operator shall consider the following evaluation factors:
(1) The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:
   (i) Magnitude of reduction of existing risks;
   (ii) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;
   (iii) The type and degree of long-term management required, including monitoring, operation, and maintenance;
   (iv) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and re-disposal or containment;
   (v) Time until full protection is achieved;
   (vi) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, re-disposal, or containment;
   (vii) Long-term reliability of the engineering and institutional controls; and
   (viii) Potential need for replacement of the remedy.
(2) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:
   (i) The extent to which containment practices will reduce further releases;
   (ii) The extent to which treatment technologies may be used.
(3) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:
   (i) Degree of difficulty associated with constructing the technology;
   (ii) Expected operational reliability of the technologies;
   (iii) Need to coordinate with and obtain necessary approvals and permits from other agencies;
   (iv) Availability of necessary equipment and specialists; and
   (v) Available capacity and location of needed treatment, storage, and disposal services.
(4) Practicable capability of the owner or operator, including a consideration of the technical and economic capability.
(5) The degree to which community concerns are addressed by a potential remedy(s).

(d) The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time taking into consideration the factors set forth in paragraphs (d)(1) through (d)(8) of this section. The owner or operator must consider the following factors in determining the schedule of remedial activities:
(1) Extent and nature of contamination;
(2) Practical capabilities of remedial technologies in achieving compliance with ground-water protection standards established under §§257.25 (g) or (h) and other objectives of the remedy;
(3) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;
(4) Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;
§ 257.28 Implementation of the corrective action program.

(a) Based on the schedule established under § 257.27(d) for initiation and completion of remedial activities the owner/operator must:

(1) Establish and implement a corrective action ground-water monitoring program that:

(i) At a minimum, meets the requirements of an assessment monitoring program under § 257.25;
(ii) Indicates the effectiveness of the corrective action remedy; and
(iii) Demonstrates compliance with ground-water protection standard pursuant to paragraph (e) of this section.

(2) Implement the corrective action remedy selected under § 257.27; and

(3) Take any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to § 257.27. The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

(i) Time required to develop and implement a final remedy;
(ii) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;
(iii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;
(iv) Further degradation of the ground-water that may occur if remedial action is not initiated expeditiously;
(v) Weather conditions that may cause hazardous constituents to migrate or be released;