§ 265.91 Ground-water monitoring system.

(a) A ground-water monitoring system must be capable of yielding ground-water samples for analysis and must consist of:

(1) Monitoring wells (at least one) installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield ground-water samples that are:

(i) Representative of background ground-water quality in the uppermost aquifer near the facility; and

(ii) Not affected by the facility; and

(2) Monitoring wells (at least three) installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(f) The Regional Administrator may replace all or part of the requirements of this subpart applying to a regulated unit (as defined in 40 CFR 264.90), with alternative requirements developed for groundwater monitoring set out in an approved closure or post-closure plan or in an enforceable document (as defined in 40 CFR 270.1(c)(7)), where the Regional Administrator determines that:

(1) A regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

(2) It is not necessary to apply the requirements of this subpart because the alternative requirements will protect human health and the environment. The alternative standards for the regulated unit must meet the requirements of 40 CFR 264.101(a).

§ 265.94(b).

(e) The ground-water monitoring requirements of this subpart may be waived with respect to any surface impoundment that (1) is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under §261.22 of this chapter or are listed as hazardous wastes in subpart D of part 261 of this chapter only for this reason, and

(2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

(f) The Regional Administrator may replace all or part of the requirements of this subpart applying to a regulated unit (as defined in 40 CFR 264.90), with alternative requirements developed for groundwater monitoring set out in an approved closure or post-closure plan or in an enforceable document (as defined in 40 CFR 270.1(c)(7)), where the Regional Administrator determines that:

(1) A regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

(2) It is not necessary to apply the requirements of this subpart because the alternative requirements will protect human health and the environment. The alternative standards for the regulated unit must meet the requirements of 40 CFR 264.101(a).

§265.92 Sampling and analysis.

(a) The owner or operator must obtain and analyze samples from the installed ground-water monitoring system. The owner or operator must develop and follow a ground-water sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

1. Sample collection;
2. Sample preservation and shipment;
3. Analytical procedures; and
4. Chain of custody control.


(b) The owner or operator must determine the concentration or value of the following parameters in ground-water samples in accordance with paragraphs (c) and (d) of this section:

1. Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in appendix III.
2. Parameters establishing ground-water quality:
   (i) Chloride
   (ii) Iron
   (iii) Manganese
   (iv) Phenols
   (v) Sodium
   (vi) Sulfate

[Comment: These parameters are to be used as a basis for comparison in the event a ground-water quality assessment is required under §265.93(d).]

3. Parameters used as indicators of ground-water contamination:
   (i) pH
   (ii) Specific Conductance
   (iii) Total Organic Carbon
   (iv) Total Organic Halogen

(c)(1) For all monitoring wells, the owner or operator must establish initial background concentrations or values of all parameters specified in paragraph (b) of this section. He must do this quarterly for one year.

(2) For each of the indicator parameters specified in paragraph (b)(3) of this section, at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(d) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:

1. Samples collected to establish ground-water quality must be obtained and analyzed for the parameters specified in paragraph (b)(2) of this section at least annually.

2. Samples collected to indicate ground-water contamination must be obtained and analyzed for the parameters specified in paragraph (b)(3) of this section at least semi-annually.

(e) Elevation of the ground-water surface at each monitoring well must