(2) Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment.

(c) Owners and operators of facilities identified in § 257.5(a) must comply with the ground-water monitoring requirements of this section according to the following schedule unless an alternative schedule is specified under paragraph (d) of this section:

(1) Existing facilities and lateral expansions must be in compliance with the ground-water monitoring requirements specified in §§ 257.22–257.25 by [Insert date 2 years after date of publication of the final rule in the

Federal Register

(2) New facilities identified in § 257.5(a) must be in compliance with the ground-water monitoring requirements specified in §§ 257.22–257.25 before waste can be placed in the unit.

- (d) The Director of an approved State may specify an alternative schedule for the owners or operators of existing facilities and lateral expansions to comply with the ground-water monitoring requirements specified in §§ 257.22–257.25. This schedule must ensure that 50 percent of all existing facilities are in compliance by [Insert date 2 years after date of publication of the final rule in the Federal Register] and all existing facilities are in compliance by [Insert date 3 years after date of publication of the final rule in the **Federal Register**]. In setting the compliance schedule, the Director of an approved State must consider potential risks posed by the unit to human health and the environment. The following factors should be considered in determining potential risk:
- (1) Proximity of human and environmental receptors;
 - (2) Design of the unit;(3) Age of the unit;
 - (4) The size of the unit;
- (5) Resource value of the underlying aquifer, including:
- (i) Current and future uses;
- (ii) Proximity and withdrawal rate of users; and
- (iii) Ground-water quality and quantity.
- (e) Once established at a facility, ground-water monitoring shall be conducted throughout the active life plus 30 years. The Director of an approved State may decrease the 30 year period if the owner/operator demonstrates that a shorter period of time is adequate to protect human health and the environment and the Director approves the demonstration.
- (f) For the purposes of this section, a qualified ground-water scientist is a

- scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in ground-water hydrology and related fields as may be demonstrated by State registration, professional Certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding ground-water monitoring, contaminant fate and transport, and corrective-action.
- (g) The Director of an approved State may establish alternative schedules for demonstrating compliance with § 257.22(d)(2), pertaining to notification of placement of certification in operating record; $\S 257.24(c)(1)$, pertaining to notification that statistically significant increase (SSI) notice is in operating record; § 257.24(c) (2) and (3), pertaining to an assessment monitoring program; § 257.25(b), pertaining to sampling and analyzing appendix II of Part 258 constituents; $\S 257.25(d)(1)$, pertaining to placement of notice (appendix II of Part 258 constituents detected) in record and notification of notice in record; § 257.25(d)(2), pertaining to sampling for appendix I and II of Part 258; § 257.25(g), pertaining to notification (and placement of notice in record) of SSI above ground-water protection standard; §§ 257.25(g)(1)(iv) and 257.26(a), pertaining to assessment of corrective measures; § 257.27(a), pertaining to selection of remedy and notification of placement in record; $\S 257.5-2.8(c)(\bar{4})$, pertaining to notification of placement in record (alternative corrective action measures); and §257.28(f), pertaining to notification of placement in record (certification of remedy completed).
- (h) Directors of approved States may allow any non-municipal solid waste disposal unit meeting the criteria in paragraph (i) of this section to:
- (1) Use alternatives to the groundwater monitoring system prescribed in §§ 257.22 through 257.25 so long as the alternatives will detect and, if necessary, assess the nature or extent of contamination from the non-municipal solid waste disposal unit on a sitespecific basis; or establish and use, on a site-specific basis, an alternative list of indicator parameters for some or all of the constituents listed in Appendix 1 (appendix I of part 258 of this chapter). Alternative indicator parameters approved by the Director of an approved State or Tribe under this section must ensure detection of contamination from the non-municipal solid waste disposal unit.

- (2) If contamination is detected through the use of any alternative to the ground-water monitoring system prescribed in §§ 257.22 through 257.25, the non-municipal solid waste disposal unit owner or operator must perform expanded monitoring to determine whether the detected contamination is an actual release from the nonmunicipal solid waste disposal unit and, if so, to determine the nature and extent of the contamination. The nonmunicipal solid waste disposal unit owner or operator must submit the results from expanded monitoring to the Director of the approved State within 60 days from the time of detection.
- (i) If detection indicates that contamination from the non-municipal solid waste disposal unit has reached the saturated zone, the owner or operator must install ground-water monitoring wells and sample these wells in accordance with §§ 257.22 through 257.25.
- (ii) If detection indicates that contamination from the non-municipal solid waste disposal unit is present in the unsaturated zone or on the surface, the owner or operator must, within 60 days from the time expanded monitoring is completed, submit for approval by the Director of an approved State adequate corrective measures to prevent further contaminant migration, and where appropriate, to remediate contamination. The proposed corrective measures are subject to revision and approval by the Director of the approved State. The owner or operator must implement the corrective measures according to a schedule established by the Director of the approved State.
- (3) When considering whether to allow alternatives to a ground-water monitoring system prescribed in \$\ \\$\ 257.22\$ through 257.25, including alternative indicator parameters, the Director of an approved State shall consider at least the following factors:
- (i) The geological and hydrogeological characteristics of the site;
- (ii) The impact of manmade and natural features on the effectiveness of an alternative technology;
- (iii) Climatic factors that may influence the selection, use, and reliability of alternative ground-water monitoring procedures; and
- (iv) the effectiveness of indicator parameters in detecting a release.
- (4) The Director of an approved State can require an owner or operator to comply with the requirements of \$\ \\$\ \\$\ 257.22\$ through 257.25, where it is determined by the Director that using alternatives to ground-water monitoring approved under this subsection are inadequate to detect contamination and,