background document ("Examples of Alternatives to Conventional Ground-Water Monitoring Wells at Small, Dry or Remote Landfills") and cost analysis for today's rule suggests that the use of indicator parameters (e.g., Ph, specific conductance, total organic carbon, total organic halogen), where appropriate, may be a cost-effective means for owners/operators of a qualifying small MSWLF to detect contamination from their unit. Again, this could be the first step in a phased approach that eventually could lead to full groundwater monitoring pursuant to the final MSWLF criteria.

Thus, today's proposal would allow approved States and Tribes to permit the use of a set of parameters tailored to a site-specific location. The appropriate use of this flexibility again would be tied to the site-specific conditions at the particular qualifying small MSWLF. For example, the effectiveness of an alternative set of parameters depends, in part, on having an adequate understanding of the geochemistry of underlying rock, soil, and ground water, to ensure that natural variability in concentrations of elements or parameters in the ground water can be distinguished from concentrations that are indicative of a release from the MSWLF.

As illustrated in the above discussion, the selection, use, and reliability of alternative monitoring technologies or parameters depends on a number of sitespecific factors. Additional information on the types of site-specific factors that should be considered for various alternative monitoring techniques and how to apply them may be found in the technical background documents entitled "Examples of Alternatives to Conventional Ground-Water Monitoring Wells at Small, Dry or Remote Landfills" and "Subsurface Characterization and Monitoring Techniques, Vols. I and II.'

2. Phased Approach to Alternative Ground-Water Monitoring

Today's proposal uses an approach that would allow approved States or Tribes to implement the proposed ground-water monitoring flexibility in phases. Thus, today's proposal would allow approved States or Tribes to authorize the use of alternatives to full part 258 ground-water monitoring requirements for initially "detecting" contamination. If contamination is detected, the approved State or Tribe could then allow use of further alternatives for "expanded monitoring" to assess the nature and extent of "detected" contamination. Alternatives, or combinations of alternatives, could

be used for both detection and expanded monitoring. Expanded monitoring, however, might require the use of conventional ground-water monitoring wells, or other aspects of the full part 258 ground-water monitoring requirements.

As used in this proposed rule, "detection" would refer to the moment when data, instrument readings, analyses, or other information collected by an alternative to full part 258 groundwater monitoring requirements indicates a change in surface or subsurface conditions that could be caused by a release from an MSWLF. "Expanded monitoring" would refer to the steps taken to determine whether the "detected" release is an actual release from the MSWLF and to determine the nature and extent of the release.

Under today's proposal, if expanded monitoring using alternatives indicates that a release from the MSWLF unit has contaminated the saturated zone, then the owner/operator would be required to install ground-water monitoring wells and comply with the full range of ground-water monitoring requirements of 40 CFR part 258 (§§ 258.50 through 258.58). If expanded monitoring indicates that a release from the MSWLF unit exists, but has not yet contaminated the saturated zone, the Director of an approved State or Tribe would establish a schedule for the owner/operator to propose, as necessary, measures to prevent further contaminant migration and to remediate contamination in a manner that ensures protection of human health and the environment.

V. Role of States and Tribes

Section 4005(c) of RCRA requires that each State (or Tribe) adopt and implement a "permit program or other system of prior approval and conditions" adequate to assure that each facility that may receive household hazardous waste or small quantity generator waste will comply with the revised MSWLF criteria. The statute also requires each State (or Tribe) to adopt and implement a permit program not later than 18 months after promulgation of EPA's final criteria (October 9, 1991).

The issue of whether Tribes should be approved to administer programs under RCRA Subtitle D is about to be proposed generically as part of the State and Tribal Implementation Rule (STIR). The Agency is seeking comment on the issue of Tribal permit program approval as part of the STIR and not as part of today's proposed rule. References to potential Tribal approvals in today's proposed rule are being made to be consistent with the STIR proposal.

The Agency believes that an approved State or Tribal permit program plays an important role in the proper implementation of today's rule to allow alternative ground-water monitoring requirements. Approved State or Tribal permit programs provide opportunities for public participation during the permit issuance process, at which time alternative ground-water monitoring procedures would be considered.

The STIR proposal will establish adequacy determination requirements and procedures for State and Tribal MSWLF permit programs, including submission of an MSWLF permit program application. The statute, however, does not require that the STIR be in place before EPA assesses the adequacy of any State or Tribal program. In fact, while the EPA has not yet promulgated the STIR, the Agency has already reviewed and approved over 40 State programs.

The STIR proposal also will include procedures for submitting revised applications for State and Tribal program adequacy determinations, should a State or Tribe revise its permit program after it has been deemed adequate. Program revision may be necessary when the pertinent Federal statutory or regulatory authority or relevant guidance changes, or when responsibility for the State or Tribal program is shifted within the lead agency or to a new or different State or Tribal agency or agencies. Final promulgation of today's proposed changes to part 258 may require revision to a State's or Tribe's permit program application, as well.

The statute does not establish any mandatory timeframes for revising approved programs, submitting revised applications, or re-examining adequacy determinations. Schedules for States and Tribes to submit revised applications to the Regional Administrator, where needed, are to be negotiated by the State or Tribal Director and the Regional Administrator. This arrangement should minimize potential disruption to ongoing program activities.

States and Tribes may receive approval of their permit programs prior to the final promulgation of today's rule and later elect to adopt the revised regulatory language regarding alternatives to ground-water monitoring. These States and Tribes should work with their respective Regional EPA offices as they proceed to revise their permit programs.