The proposed test procedures recommend that these tests should be carried out, if possible, during periods when the atmospheric pollutant concentration is low and steady. The lower the atmospheric pollutant concentration, the steadier the concentration is likely to be and the better the pre- and post-test measurements will represent the actual atmospheric concentration during the test measurement. Further, the procedures provide that if the pre- and post-test measurements of the atmospheric concentration differ by more than 20 percent of the effective concentration of the test standard, the test result is discarded and the test repeated.

Two comments were received regarding the recommendation that preand post-test measurements be taken when the atmospheric pollutant concentration is low and steady, such as during early morning or late evening hours. These comments illustrated a concern that it may be difficult for a monitoring agency to conduct the accuracy audits and precision checks at such specific times. In amending the monitoring regulations to permit the use of open path analyzers, the EPA is not suggesting that the use of open path analyzers is necessarily cost effective or even necessarily advantageous. The EPA is permitting their use, at the discretion of the monitoring agency, for whatever benefit the agency may believe to accrue. The recommendation cited is intended to point out that the precision and accuracy test results may be better if carried out during periods when concentration levels are more likely to be low and steady, and therefore the timing of these tests as to the time of day or the meteorological conditions of the day should be considered—to the extent practicable—by the monitoring agency scheduling these tests.

A comment was received which recommended that accuracy limits on the measurement of the optical measurement path length be incorporated into the regulation. This issue of the determination of the optical measurement path length is particularly important because an error in this parameter would not normally be compensated for in the calibration or be evident in the results of the accuracy audit procedures for open path analyzers. Therefore, the accuracy audit procedure has been revised to include reverification of this parameter.

It is recognized that the new tests for precision and accuracy for open path analyzers, as well as the existing tests for point analyzers, are described in very general terms, and that additional,

more detailed information and guidance are usually necessary for an analyzer operator to carry out these tests properly. Accordingly, section 3 of appendix A is amended by adding an explicit indication that supplemental information and guidance to assist the analyst in conducting these tests may be available in the publication, "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II' (EPA-600/4-77-027a, identified as Reference 3 at the end of appendix A), or in the operation or instruction manual associated with the particular monitor being used.

The techniques for precision and accuracy assessment of open path analyzers are based largely on consultations with the manufacturer, along with EPA tests, of the differential optical absorption spectrometer that is currently under consideration by the EPA for possible designation as equivalent methods under 40 CFR part 53. However, it is desirable that the techniques be generic in nature, if possible, so that they would be applicable to other types of open path monitoring instruments as well. In addition, for some types of open path instruments or for some installations or configurations, there may be technical reasons why the new techniques for precision and accuracy assessment may not be feasible, appropriate, or advisable. As a result, these procedures allow for the use of an alternate local light source or an alternate optical path that does not include the normal atmospheric monitoring path, if such an alternate configuration is permitted by the operation or instruction manual associated with the analyzer. Since the analyzer operation or instruction manual would be subject to approval as part of the requirements for EPA designation of an open path analyzer as an equivalent method, the EPA would thereby have control over the alternate configurations that would be allowable for the precision and accuracy assessment tests.

One comment was received recommending more details be provided within the regulation defining the limitations and conditions under which an alternative light source could be used. Because it is impossible to anticipate the variety of open path analyzers and audit techniques that could eventually be used, it is difficult, if not impossible, to define specific limits and conditions under which an alternative light source could be permitted for accuracy audits and precision checks. The specific authorization to use an alternate light source will be determined on a case-bycase basis for each specific open path analyzer subject to an equivalent method determination under part 53. Then, if permitted, the analyzer-specific conditions and limitations for its use would be described in detail in the associated operation/instruction manual. This manual is approved as part of the formal designation of the analyzer as an equivalent method, and the EPA can make sure that the procedures and conditions are addressed adequately in the manual before a candidate method is designated as an equivalent method.

C. Appendix B—Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring

Appendix B sets forth both general quality assurance requirements for PSD monitoring as well as specific procedures for assessing the quality of the monitoring data obtained in PSD monitoring networks. The amendments and procedures proposed for appendix B to extend the existing requirements to open path analyzers are essentially identical to the changes proposed for appendix A. Similarly, changes to the regulatory language resulting from public comments received on appendix A apply equally to appendix B.

D. Appendix D—Network Design for State and Local Air Monitoring Stations (SLAMS), National Air Monitoring Stations (NAMS), and Photochemical Air Monitoring Stations (PAMS)

Changes to appendix D were not recommended with the original proposal associated with this action. Public comments indicated the need for the EPA to consider the comparability of data collected by point analyzers and data collected by open path analyzers, particularly in situations of nonuniform pollutant concentrations. This issue also raises an additional concern over introducing new ambient air monitoring technologies into the Nation's monitoring program which is currently based on traditional point-specific monitoring techniques, and its impact on existing air quality management

In response to these issues, the EPA has modified appendix D with criteria and requirements intended to help agencies determine what, if any, impacts the introduction of this technology may have on their local air quality management programs. These criteria include investigations into the specific technology selected for a chosen application, the site location with respect to the monitoring objective, and a requirement for concurrent