

concentrations, if applicable, for open path analyzers) indicated by the analyzer are used to assess the accuracy of the monitoring data as described in section 4.2. Report data only from automated analyzers that are approved for use in the PSD network.
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TABLE B-1.—MINIMUM PSD DATA ASSESSMENT REQUIREMENTS

Method	Assessment method	Coverage	Frequency	Parameters reported
Precision: Automated Methods for SO ₂ , NO ₂ , O ₃ , and CO.	Response check at concentration between .08 & .10 ppm (8 & 10 ppm for CO) ² .	Each analyzer	Once per 2 weeks	Actual concentration ² & measured concentration. ³
TSP, PM ₁₀ , Lead	Collocated samplers	Highest concentration site in monitoring network.	Once per week or every 3rd day for continuous sampling.	Two concentration measurements.
Accuracy: Automated Methods for SO ₂ , NO ₂ , O ₃ , and CO.	Response check at: .03-.08 ppm; ^{1,2} .15-.20 ppm; ^{1,2} .35-.45 ppm; ^{1,2} .80-.90 ppm; ^{1,2} (if applicable).	Each analyzer	Once per sampling quarter	Actual concentration ² & measured (indicated) concentration ³ for each level.
TSP, PM ₁₀	Sampler flow check	Each sampler	Once per sampling quarter	Actual flow rate and flow rate indicated by the sampler.
Lead	1. Sample flow rate check. 2. Check analytical system with Pb audit strips.	1. Each sampler. 2. Analytical system	1. Once/quarter. 2. Each quarter Pb samples are analyzed.	1. Same as for TSP. 2. Actual concentration & measured concentration of audit samples (µg Pb/strip).

¹ Concentration shown times 100 for CO.
² Effective concentration for open path analyzers.
³ Corrected concentration, if applicable, for open path analyzers.

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5. Appendix D is amended as follows:
a. The second, third, and fourth paragraphs of section 1 are revised; and a new paragraph is added between Table 1 and the last paragraph of section 1.

b. Section 2.2 is added.

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

1. SLAMS Monitoring Objectives and Spatial Scales

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The network of stations which comprise SLAMS should be designed to meet a minimum of four basic monitoring objectives. These basic monitoring objectives are: (1) To determine highest concentrations expected to occur in the area covered by the network; (2) to determine representative concentrations in areas of high population density; (3) to determine the impact on ambient pollution levels of significant sources or source categories; and (4) to determine general background concentration levels. Of these four basic ambient air monitoring network design objectives, attempts to measure in areas of maximum concentrations and maximum

population exposures (these can be exclusive or coincident) are primary due to the combination of prevailing needs and constraints.

It should be noted that this appendix contains no criteria for determining the total number of stations in SLAMS networks, except that a minimum number of lead SLAMS is prescribed. The optimum size of a particular SLAMS network involves tradeoffs between data needs and available resources which the EPA believes can best be resolved during the network design process.

This appendix focuses on the relationship between monitoring objectives and the geographical location of monitoring stations. Included are a rationale and set of general criteria for identifying candidate station locations in terms of physical characteristics which most closely match a specific monitoring objective. The criteria for more specifically siting the monitoring station, including spacing from roadways and vertical and horizontal probe and path placement, are described in appendix E of this part.

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Open path analyzers can often be used effectively and advantageously to provide better monitoring representation for population exposure monitoring and general or background monitoring in urban and neighborhood

scales of representation. Such analyzers may also be able to provide better area coverage or operational advantages in high concentration and source-impact monitoring in middle scale and possibly microscale areas. However, siting of open path analyzers for the latter applications must be carried out with proper regard for the specific monitoring objectives and for the path-averaging nature of these analyzers. Monitoring path lengths need to be commensurate with the intended scale of representativeness and located carefully with respect to local sources or potential obstructions. For short-term/high-concentration or source-oriented monitoring, the monitoring path may need to be further restricted in length and be oriented approximately radially with respect to the source in the downwind direction, to provide adequate peak concentration sensitivity. Alternatively, multiple (e.g., orthogonal) paths may be used advantageously to obtain both wider area coverage and peak concentration sensitivity. Further discussion on this topic is included in section 2.2 of this appendix.

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2. SLAMS Network Design Procedures

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