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for reporting ambient air quality data and related information. The monitoring criteria pertain to the following areas:

(1) Quality assurance procedures for monitor operation and data handling.

(2) Methodology used in monitoring stations.

(3) Operating schedule.

(4) Siting parameters for instruments or instrument probes.

(5) Minimum ambient air quality monitoring network requirements used to provide support to the State implementation plans (SIP), national air quality assessments, and policy decisions. These minimums are described as part of the network design requirements, including minimum numbers and placement of monitors of each type.

(6) Air quality data reporting, and requirements for the daily reporting of an index of ambient air quality.

(b) The requirements pertaining to provisions for an air quality surveillance system in the SIP are contained in this part.

(c) This part also acts to establish a national ambient air quality monitoring network for the purpose of providing timely air quality data upon which to base national assessments and policy decisions.

§ 58.3 Applicability.

This part applies to:

(a) State air pollution control agencies.

(b) Any local air pollution control agency to which the State has delegated authority to operate a portion of the State's SLAMS network.

(c) Owners or operators of proposed sources.

Subpart B—Monitoring Network

SOURCE: 71 FR 61298, Oct. 17, 2006, unless otherwise noted.

§ 58.10 Annual monitoring network plan and periodic network assessment.

(a)(1) Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations. The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA.

(2) Any annual monitoring network plan that proposes SLAMS network modifications including new monitoring sites is subject to the approval of the EPA Regional Administrator, who shall provide opportunity for public comment and shall approve or disapprove the plan and schedule within 120 days. If the State or local agency has already provided a public comment opportunity on its plan and has made no changes subsequent to that comment opportunity, and has submitted the received comments together with the plan, the Regional Administrator is not required to provide a separate opportunity for comment.

(3) The plan for establishing required NCore multipollutant stations shall be submitted to the Administrator not later than July 1, 2009. The plan shall provide for all required stations to be operational by January 1, 2011.

(b) The annual monitoring network plan must contain the following information for each existing and proposed site:

(1) The AQS site identification number.

(2) The location, including street address and geographical coordinates.

(3) The sampling and analysis method(s) for each measured parameter.

(4) The operating schedules for each monitor.

(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.

(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.

(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM_{2.5}$ NAAQS as described in § 58.30.

(8) The MSA, CBSA, CSA or other area represented by the monitor.

(c) The annual monitoring network plan must document how States and local agencies provide for the review of changes to a $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ monitor or the creation/change to a community monitoring zone, including a description of the proposed use of spatial averaging for purposes of making comparisons to the annual $PM_{2.5}$ NAAQS as set forth in appendix N to part 50 of this chapter. The affected State or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

(d) The State, or where applicable local, agency shall perform and submit to the EPA Regional Administrator an assessment of the air quality surveillance system every 5 years to determine, at a minimum, if the network meets the monitoring objectives defined in appendix D to this part, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for incorporation into the ambient air monitoring network. The network assessment must consider the ability of existing and proposed sites to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma), and, for any sites that are being proposed for discontinuance, the effect on data users other than the agency itself, such as nearby States and Tribes or health effects studies. For $PM_{2.5}$, the assessment also must identify needed changes to population-oriented sites. The State, or where applicable local, agency must submit a copy of this 5-year assessment, along with a revised annual network plan, to the Regional Administrator. The first assessment is due July 1, 2010.

(e) All proposed additions and discontinuations of SLAMS monitors in annual monitoring network plans and periodic network assessments are subject to approval according to § 58.14.

[71 FR 61298, Oct. 17, 2006, as amended at 72 FR 32210, June 12, 2007]

§ 58.11 Network technical requirements.

(a)(1) State and local governments shall follow the applicable quality assurance criteria contained in appendix A to this part when operating the SLAMS networks.

(2) Beginning January 1, 2009, State and local governments shall follow the quality assurance criteria contained in appendix A to this part that apply to SPM sites when operating any SPM site which uses a FRM, FEM, or ARM and meets the requirements of appendix E to this part, unless the Regional Administrator approves an alternative to the requirements of appendix A with respect to such SPM sites because meeting those requirements would be physically and/or financially impractical due to physical conditions at the monitoring site and the requirements are not essential to achieving the intended data objectives of the SPM site. Alternatives to the requirements of appendix A may be approved for an SPM site as part of the approval of the annual monitoring plan, or separately.

(3) The owner or operator of an existing or a proposed source shall follow the quality assurance criteria in appendix A to this part that apply to PSD monitoring when operating a PSD site.

(b) State and local governments must follow the criteria in appendix C to this part to determine acceptable monitoring methods or instruments for use in SLAMS networks. Appendix C criteria are optional at SPM stations.

(c) State and local governments must follow the network design criteria contained in appendix D to this part in designing and maintaining the SLAMS stations. The final network design and all changes in design are subject to approval of the Regional Administrator. NCore, STN, and PAMS network design and changes are also subject to approval of the Administrator. Changes

in SPM stations do not require approvals, but a change in the designation of a monitoring site from SLAMS to SPM requires approval of the Regional Administrator.

(d) State and local governments must follow the criteria contained in appendix E to this part for siting monitor inlets, paths or probes at SLAMS stations. Appendix E adherence is optional for SPM stations.

§ 58.12 Operating schedules.

State and local governments shall collect ambient air quality data at any SLAMS station on the following operational schedules:

(a) For continuous analyzers, consecutive hourly averages must be collected except during:

(1) Periods of routine maintenance,

(2) Periods of instrument calibration, or

(3) Periods or monitoring seasons exempted by the Regional Administrator.

(b) For Pb manual methods, at least one 24-hour sample must be collected every 6 days except during periods or seasons exempted by the Regional Administrator.

(c) For PAMS VOC samplers, samples must be collected as specified in section 5 of appendix D to this part. Area-specific PAMS operating schedules must be included as part of the PAMS network description and must be approved by the Regional Administrator.

(d) For manual $PM_{2.5}$ samplers:

(1)(i) Manual $PM_{2.5}$ samplers at required SLAMS stations without a collocated continuously operating $PM_{2.5}$ monitor must operate on at least a 1-in-3 day schedule.

(ii) For SLAMS $PM_{2.5}$ sites with both manual and continuous $PM_{2.5}$ monitors operating, the monitoring agency may request approval for a reduction to 1-in-6 day $PM_{2.5}$ sampling or for seasonal sampling from the EPA Regional Administrator. The EPA Regional Administrator may grant sampling frequency reductions after consideration of factors, including but not limited to the historical $PM_{2.5}$ data quality assessments, the location of current $PM_{2.5}$ design value sites, and their regulatory data needs. Required SLAMS stations whose measurements determine the design value for their area and that are within plus or minus 10 percent of the NAAQS; and all required sites where one or more 24-hour values have exceeded the NAAQS each year for a consecutive period of at least 3 years are required to maintain at least a 1-in-3 day sampling frequency. A continuously operating FEM or ARM $PM_{2.5}$ monitor satisfies this requirement.

(iii) Required SLAMS stations whose measurements determine the design value for their area and that are within plus or minus 5 percent of the daily $PM_{2.5}$ NAAQS must have an FRM or FEM operate on a daily schedule. A continuously operating FEM or ARM $PM_{2.5}$ monitor satisfies this requirement.

(2) Manual $PM_{2.5}$ samplers at NCore stations and required regional background and regional transport sites must operate on at least a 1-in-3 day sampling frequency.

(3) Manual $PM_{2.5}$ speciation samplers at STN stations must operate on at least a 1-in-3 day sampling frequency.

(e) For PM_{10} samplers, a 24-hour sample must be taken from midnight to midnight (local standard time) to ensure national consistency. The minimum monitoring schedule for the site in the area of expected maximum concentration shall be based on the relative level of that monitoring site concentration with respect to the 24-hour standard as illustrated in Figure 1. If the operating agency demonstrates by monitoring data that during certain periods of the year conditions preclude violation of the PM_{10} 24-hour standard, the increased sampling frequency for those periods or seasons may be exempted by the Regional Administrator and permitted to revert back to once in six days. The minimum sampling schedule for all other sites in the area remains once every six days. No less frequently than as part of each 5-year network assessment, the most recent year of data must be considered to estimate the air quality status at the site near the area of maximum concentration. Statistical models such as analysis of concentration frequency distributions as described in ''Guideline for the Interpretation of Ozone Air Quality Standards,'' EPA–450/479–003,

U.S. Environmental Protection Agency, Research Triangle Park, NC, January 1979, should be used. Adjustments to the monitoring schedule must be made on the basis of the 5-year network assessment. The site having the highest concentration in the most current year must be given first consideration when selecting the site for the more frequent sampling schedule. Other factors such as major change in sources of PM_{10} emissions or in sampling site characteristics could influence the location of the expected maximum concentration site. Also, the use of the most recent 3 years of data might, in some cases, be justified in order to provide a more representative database from which to estimate current air quality status and to provide stability to the network. This multiyear consideration reduces the possibility of an anomalous year biasing a site selected for accelerated sampling. If the maximum concentration site based on the most current year is not selected for the more frequent operating schedule, documentation of the justification for selection of an alternative site must be submitted to the Regional Office for approval during the 5-year network assessment process. Minimum data completeness criteria, number of years of data and sampling frequency for judging attainment of the NAAQS are discussed in appendix K of part 50 of this chapter.

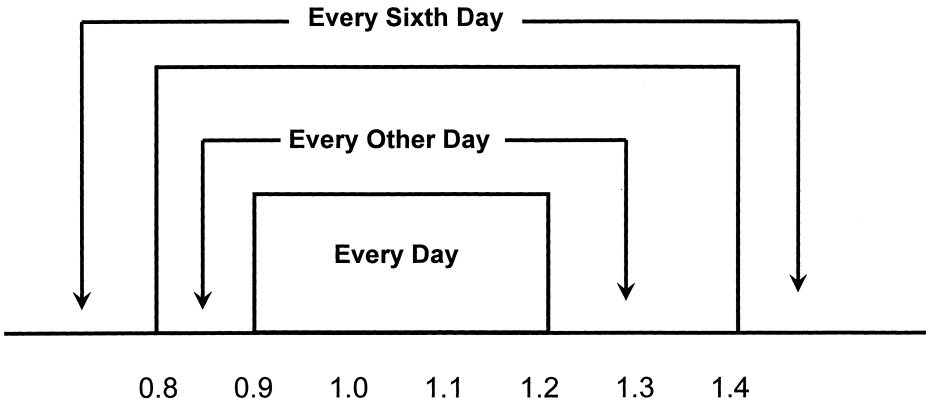

Figure 1 – Ratio to Standard

(f) For manual $PM_{10-2.5}$ samplers:

(1) Manual $PM_{10-2.5}$ samplers at NCore stations must operate on at least a 1-in-3 day schedule at sites without a collocated continuously operating federal equivalent $PM_{10-2.5}$ method that has been designated in accordance with part 53 of this chapter.

(2) Manual $PM_{10-2.5}$ speciation samplers at NCore stations must operate on at least a 1-in-3 day sampling frequency.

[71 FR 61298, Oct. 17, 2006, as amended at 72 FR 32210, June 12, 2007]

§ 58.13 Monitoring network completion.

(a) The network of NCore multipollutant sites must be physically established no later than January 1, 2011, and at that time, operating under all of the requirements of this part, including the requirements of appendices A, C, D, E, and G to this part.

(b) Where existing networks are not in conformance with required numbers of monitors specified in this part, additional required monitors must be operated by January 1, 2008.

§ 58.14 System modification.

(a) The State, or where appropriate local, agency shall develop and implement a plan and schedule to modify the ambient air quality monitoring network that complies with the findings of the network assessments required every 5 years by § 58.10(e). The State or local agency shall consult with the EPA Regional Administrator during the development of the schedule to modify the monitoring program, and shall make the plan and schedule available to the public for 30 days prior to submission to the EPA Regional Administrator. The final plan and schedule with respect to the SLAMS network are subject to the approval of the EPA Regional Administrator. Plans containing modifications to NCore Stations or PAMS Stations shall be submitted to the Administrator. The Regional Administrator shall provide opportunity for public comment and shall approve or disapprove submitted plans and schedules within 120 days.

(b) Nothing in this section shall preclude the State, or where appropriate local, agency from making modifications to the SLAMS network for reasons other than those resulting from the periodic network assessments. These modifications must be reviewed and approved by the Regional Administrator. Each monitoring network may make or be required to make changes between the 5-year assessment periods, including for example, site relocations or the addition of PAMS networks in bumped-up ozone nonattainment areas. These modifications must address changes invoked by a new census and changes due to changing air quality levels. The State, or where appropriate local, agency shall provide written communication describing the network changes to the Regional Administrator for review and approval as these changes are identified.

(c) State, or where appropriate, local agency requests for SLAMS monitor station discontinuation, subject to the review of the Regional Administrator, will be approved if any of the following criteria are met and if the requirements of appendix D to this part, if any, continue to be met. Other requests for discontinuation may also be approved on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of a NAAQS and if the requirements of appendix D to this part, if any, continue to be met.

(1) Any $PM_{2.5}$, O_3, CO, PM_{10}, SO_2, Pb, or NO_2 SLAMS monitor which has shown attainment during the previous five years, that has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past, and which is not specifically required by an attainment plan or maintenance plan. In a nonattainment or maintenance area, if the most recent attainment or maintenance plan adopted by the State and approved by EPA contains a contingency measure to be triggered by an air quality concentration and the monitor to be discontinued is the only SLAMS monitor operating in the nonattainment or maintenance area, the monitor may not be discontinued.

(2) Any SLAMS monitor for CO, PM_{10}, SO_2, or NO_2 which has consistently measured lower concentrations than another monitor for the same pollutant in the same county (or portion of a county within a distinct attainment area, nonattainment area, or maintenance area, as applicable) during the previous five years, and which is not specifically required by an attainment plan or maintenance plan, if control measures scheduled to be implemented or discontinued during the next five years would apply to the areas around both monitors and have similar effects on measured concentrations, such that the retained monitor would remain the higher reading of the two monitors being compared.

(3) For any pollutant, any SLAMS monitor in a county (or portion of a county within a distinct attainment, nonattainment, or maintenance area, as applicable) provided the monitor has not measured violations of the applicable NAAQS in the previous five years, and the approved SIP provides for a specific, reproducible approach to representing the air quality of the affected county in the absence of actual monitoring data.

(4) A $PM_{2.5}$ SLAMS monitor which EPA has determined cannot be compared to the relevant NAAQS because of the siting of the monitor, in accordance with § 58.30.

(5) A SLAMS monitor that is designed to measure concentrations upwind of an urban area for purposes of characterizing transport into the area and that has not recorded violations of the relevant NAAQS in the previous five years, if discontinuation of the monitor is tied to start-up of another station also characterizing transport.

(6) A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site.

§ 58.15 Annual air monitoring data certification.

(a) The State, or where appropriate local, agency shall submit to the EPA Regional Administrator an annual air monitoring data certification letter to certify data collected at all SLAMS and at all FRM, FEM, and ARM SPM stations that meet criteria in appendix A to this part from January 1 to December 31 of the previous year. The senior air pollution control officer in each agency, or his or her designee, shall certify that the previous year of ambient concentration and quality assurance data are completely submitted to AQS and that the ambient concentration data are accurate to the best of her or his knowledge, taking into consideration the quality assurance findings.

(1) Through 2009, the annual data certification letter is due by July 1 of each year.

(2) Beginning in 2010, the annual data certification letter is due by May 1 of each year.

(b) Along with each certification letter, the State shall submit to the Administrator (through the appropriate Regional Office) an annual summary report of all the ambient air quality data collected at all SLAMS and at SPM stations using FRM, FEM, or ARMs. The annual report(s) shall be submitted for data collected from January 1 to December 31 of the previous year. The annual summary report(s) must contain all information and data required by the State's approved plan and must be submitted on the same schedule as the certification letter, unless an approved alternative date is included in the plan. The annual summary serves as the record of the specific data that is the object of the certification letter.

(c) Along with each certification letter, the State shall submit to the Administrator (through the appropriate Regional Office) a summary of the precision and accuracy data for all ambient air quality data collected at all SLAMS and at SPM stations using FRM, FEM, or ARMs. The summary of precision and accuracy shall be submitted for data collected from January 1 to December 31 of the previous year. The summary of precision and accuracy must be submitted on the same schedule as the certification letter, unless an approved alternative date is included in the plan.

§ 58.16 Data submittal and archiving requirements.

(a) The State, or where appropriate, local agency, shall report to the Administrator, via AQS all ambient air quality data and associated quality assurance data for SO_2; CO; O_3; NO_2; NO; NO_Y; NO_X; Pb; PM_{10} mass concentration; $PM_{2.5}$ mass concentration; for filter-based $PM_{2.5}$ FRM/FEM the field blank mass, sampler-generated average daily temperature, and sampler-generated average daily pressure; chemically speciated $PM_{2.5}$ mass concentration data; $PM_{10-2.5}$ mass concentration; chemically speciated $PM_{10-2.5}$ mass concentration data; meteorological data from NCore and PAMS sites; and metadata records and information specified by the AQS Data Coding Manual (*http://www.epa.gov/ttn/airs/airsaqs/manuals/manuals.htm*). Such air quality data and information must be submitted directly to the AQS via electronic transmission on the specified quarterly schedule described in paragraph (b) of this section.

(b) The specific quarterly reporting periods are January 1–March 31, April

1–June 30, July 1–September 30, and October 1–December 31. The data and information reported for each reporting period must contain all data and information gathered during the reporting period, and be received in the AQS within 90 days after the end of the quarterly reporting period. For example, the data for the reporting period January 1–March 31 are due on or before June 30 of that year.

(c) Air quality data submitted for each reporting period must be edited, validated, and entered into the AQS (within the time limits specified in paragraph (b) of this section) pursuant to appropriate AQS procedures. The procedures for editing and validating data are described in the AQS Data Coding Manual and in each monitoring agency's quality assurance project plan.

(d) The State shall report VOC and if collected, carbonyl, NH_3, and HNO_3 data, from PAMS sites to AQS within 6 months following the end of each quarterly reporting period listed in paragraph (b) of this section.

(e) The State shall also submit any portion or all of the SLAMS and SPM data to the appropriate Regional Administrator upon request.

(f) The State, or where applicable, local agency shall archive all $PM_{2.5}$, PM_{10}, and $PM_{10-2.5}$ filters from manual low-volume samplers (samplers having flow rates less than 200 liters/minute) from all SLAMS sites for a minimum period of 1 year after collection. These filters shall be made available during the course of that year for supplemental analyses at the request of EPA or to provide information to State and local agencies on particulate matter composition. Other Federal agencies may request access to filters for purposes of supporting air quality management or community health—such as biological assay—through the applicable EPA Regional Administrator. The filters shall be archived according to procedures approved by the Administrator. The EPA recommends that particulate matter filters be archived for longer periods, especially for key sites in making NAAQS related decisions or for supporting health-related air pollution studies.

Subpart C—Special Purpose Monitors

SOURCE: 71 FR 61302, Oct. 17, 2006, unless otherwise noted.

§ 58.20 Special purpose monitors (SPM).

(a) An SPM is defined as any monitor included in an agency's monitoring network that the agency has designated as a special purpose monitor in its annual monitoring network plan and in AQS, and which the agency does not count when showing compliance with the minimum requirements of this subpart for the number and siting of monitors of various types. Any SPM operated by an air monitoring agency must be included in the periodic assessments and annual monitoring network plan required by § 58.10. The plan shall include a statement of purposes for each SPM monitor and evidence that operation of each monitor meets the requirements of appendix A or an approved alternative as provided by § 58.11(a)(2) where applicable. The monitoring agency may designate a monitor as an SPM after January 1, 2007 only if it is a new monitor, i.e., a SLAMS monitor that is not included in the currently applicable monitoring plan or, for a monitor included in the monitoring plan prior to January 1, 2007, if the Regional Administrator has approved the discontinuation of the monitor as a SLAMS site.

(b) Any SPM data collected by an air monitoring agency using a Federal reference method (FRM), Federal equivalent method (FEM), or approved regional method (ARM) must meet the requirements of § 58.11, § 58.12, and appendix A to this part or an approved alternative to appendix A to this part. Compliance with appendix E to this part is optional but encouraged except when the monitoring agency's data objectives are inconsistent with those requirements. Data collected at an SPM using a FRM, FEM, or ARM meeting the requirements of appendix A must be submitted to AQS according to the requirements of § 58.16. Data collected by other SPMs may be submitted. The monitoring agency must also submit to AQS an indication of whether each SPM reporting data to AQS monitor