Overview of Final Rule: Revisions to Ambient Monitoring QA and Other Requirements

ENVIRONMENTAL PROTECTION AGENCY
40 CFR Part 58
[EPA–HQ–OAR–2013–0619; FRL–9942–91–OAR]
RIN 2060–AS00
Revisions to Ambient Monitoring Quality Assurance and Other Requirements
AGENCY: Environmental Protection Agency (EPA).
ACTION: Final rule.

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Summary

- Finalized revisions to ambient air monitoring requirements for criteria pollutants to provide clarifications to existing requirements to reduce the compliance burden of monitoring agencies operating ambient networks.
  - Clarifies the annual monitoring network plan public notice requirements
  - Simplifies and reduces data reporting and certification requirements
  - Reduces network design criteria for nonsource lead monitoring
  - Reorganizes and clarifies quality assurance requirements for SLAMS and PSD
- Signed by the Administrator on March 10, 2016
- FR Publication Date : March 28, 2016
- Rule effectiveness date: April 27, 2016

How To Use These Slides

Element	CFR Cite	Final FR Page #
Refers to KEY issues in 40 CFR part 58 addressed in this proposal. NOTE: This presentation is not all inclusive – some minor changes are not included in the following slides. The preamble must be read to get a complete list of finalized changes.	Location in CFR subparts and appendices	Page reference in March 28, 2016 FR notice (preamble narrative for Part 58 changes)

Notes about any changes between proposal and final

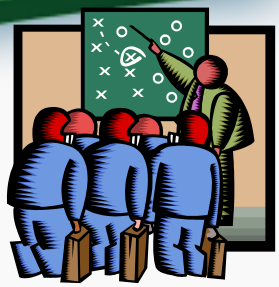
Definitions

Element	CFR Cite	FR Page #
Various revisions, additions, and deletions to harmonize usage with AQS and ensure consistent interpretations with language elsewhere in Part 58.	§ 58.1	17249-17250

The Meteorological Measurements definition was amended to include a clarifying reference that SLAMS stations include sites that comprise the NCore and PAMS networks. Additionally, the words “or other monitoring organization” were removed from the definition for Monitoring Organization to remove any ambiguity that monitoring regulations apply to entities other than state, local, or tribal agencies.

All other changes were finalized as proposed.

Annual Monitoring Network Plan (ANP)



Element	CFR Cite	FR Page #
Revise public inspection requirement to include comments and explanation of how addressed	§ 58.10(a)(1) and 58.10(a)(2)	17250-17252

See details on next slide

Annual Monitoring Network Plan (ANP) § 58.10(a)(1)

Current: (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.

Proposed: (a)(1) Beginning July 1, 2007, the state, or where applicable local, agency shall submit to the Regional Administrator an annual monitoring network plan which shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations. The plan shall include a purpose statement for each monitor along with a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require the submission of additional information as needed to evaluate compliance with applicable requirements of part 58 and its appendices. The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall reference and address any such received comments.

Final: (a)(1) Beginning July 1, 2007, the state, or where applicable local, agency shall submit to the Regional Administrator an annual monitoring network plan which shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations. The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement. The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments.

Annual Monitoring Network Plan (ANP) § 58.10(a)(1)

- Net effect of changes (current to final)
  - Simplifies and clarifies the extent of required information to show compliance with Part 58 and appendices. Removes “statement of purpose” and “evidence” statements that have been found to be unclear and/or redundant.
  - Includes flexibility for Regional Administrator to request more information in support of submitted statements.
  - States must obtain public comment on ANP’s prior to submittal
  - Submitted plans must include these public comments and address them to the extent possible. “As appropriate” language provides some wiggle room to engage in conversations with the Regions following submittal.
    - From a practical standpoint, this may push states to have to post ANP’s somewhat earlier (i.e., prior to June 1) to provide time to review and address comments to the greatest extent that is practical.

Annual Monitoring Network Plan (ANP) § 58.10(a)(2)

Current: (a)(2) Any annual monitoring network plan that proposes SLAMS network modifications (including new monitoring sites, new determinations that data are not of sufficient quality to be compared to the NAAQS, and changes in identification of monitors as suitable or not suitable for comparison against the annual $PM_{2.5}$ NAAQS) 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.

Proposed: (a)(2) Any annual monitoring network plan that proposes SLAMS network modifications (including new or discontinued monitoring sites, new determinations that data are not of sufficient quality to be compared to the NAAQS, and changes in identification of monitors as suitable or not suitable for comparison against the annual PM2.5 NAAQS) is subject to the approval of the EPA Regional Administrator, who shall approve or disapprove the plan within 120 days of submission of a complete plan to the EPA.

Final: (a)(2) Any annual monitoring network plan that proposes network modifications (including new or discontinued monitoring sites, new determinations that data are not of sufficient quality to be compared to the NAAQS, and changes in identification of monitors as suitable or not suitable for comparison against the annual PM2.5 NAAQS) to SLAMS networks is subject to the approval of the EPA Regional Administrator, who shall approve or disapprove the plan within 120 days of submission of a complete plan to the EPA.

Net effect of changes (current to final)

- Removed requirement for the Regions to obtain public comment if the submitting agency had not done so already.
- Proposed and final versions virtually identical.

Annual Monitoring Network Plan (ANP)

Element	CFR Cite	FR Page #
Specifically call-out PAMS network description as required element of ANP* (note: already mentioned in Appendix D, section 5) Finalized as proposed	§ 58.10(a)(12)* * Renumbered to account for additions from O_3 NAAQS FR.	17252
Element	**CFR Cite**	**FR Page #**
Identify long-term SPM's with rationale for keeping as SPM's or converting to SLAMS as required element	§ 58.10(b)(14)	17252-17253

Revision NOT finalized due to comments about burden and apparent confusion about EPA's stated rationale

Operating Schedules

Element	CFR Cite	FR Page #
Manual PM2.5 samplers at required SLAMS may have sampling frequency reduced from 1-in-3 day – based on waiver request (with or without collocated continuous analyzer)	§ 58.12(d)(1)(i) § 58.12(d)(1)(ii)	17253-17256
STN sites in the Chemical Speciation Network may have sampling frequency reduced from 1-in-3 day – based on waiver request Finalized as proposed	§ 58.12(d)(3)	17254-17255

Net effect of changes (current to final)

- Provides flexibility to reduce sampling frequency when current 1-in 3 day monitors are highly unlikely to record a violation of the PM2.5 NAAQS.
- Based on factors such as very low PM2.5 concentrations relative to the NAAQS, urban areas with many more monitors than are required by appendix D.
- Case by case approval to reduce to 1-in-6 day sampling or another alternate schedule by the EPA Regional Administrator.
- Requests occur as part of the annual monitoring network plan process as operating schedules are a required part of the plans as stated in 40 CFR 58.10(b)(4).
- STN Request would be based on technical rationale justifying the request and evaluating the impact on data users and the ability of the site to meet the CSN key objectives, for example, by employing new technology such as continuous monitoring of PM2.5 species, in lieu of the reduced number of filter samples. Expect this request to be uncommon.

Operating Schedules

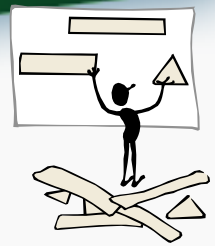
Element	CFR Cite	FR Page #
NAAQS driven changes in sampling frequency must be maintained until design values no longer meet criteria for 3 years	§ 58.12(d)(1)(ii) § 58.12(d)(1)(iii)	17255-17256
Changes in sampling frequency attributable to design values must be implemented no later than Jan 1 of calendar year following data certification	§ 58.12(d)(1)(iv)	17255

Finalized as proposed

Net effect of changes (current to final)

- Clarifies that design value-driven sampling frequency changes be maintained for a minimum 3-year period once such a change is triggered.
- Changes in sampling frequency required to be implemented no later than January 1 of the year that follows the recalculation and certification of a triggering design value.
- Treatment of sampling frequency in situations where a sampler is no longer in the specific triggering range after a 3-year period of increased sampling is analogous to the treatment of sampling frequency in situations where a sampler first enters into the specific triggering range, for purposes of providing predictability to monitoring agencies in terms of anticipating operational burden. For example, where the design value falls out of the +/-5 percent range), that sampler will not be subject to an increased sampling frequency requirement for at least 3 years.
- Very narrow applicability in practice, approximately 1% of FRM samplers based on a 2014 AQS retrieval.

System Modification



Element	CFR Cite	FR Page #
Network modification plan to be submitted as part of annual monitoring network plan (ANP). Due no later than 1 year following the due date of the 5-year network assessment. Clarifies that a separate ANP-like process is not needed for consideration of assessment results and provides additional year for consideration.	§ 58.14(a)	17256-17257

Finalized as proposed

Net effect of changes (current to final)

- Clarifies that a separate plan is not needed to account for the findings of the 5-year network assessment, and that the information concerning the implementation of the 5-year assessment, referred to in the proposed regulatory language as a "network modification plan," shall be submitted as part of the annual monitoring network plan.
- States will need to obtain public comment on network modification plan as it is part of ANP.
- Findings are due no later than the year after the network assessment, for example, the annual monitoring network plans that are due in 2016, 2021, etc., would contain the information about the network assessment completed the prior year (e.g., 2015, 2020).
- Monitoring agencies, at their discretion, could submit the network modification plan in the year that the assessment is due if sufficient feedback had been received.
- Revised language – "addresses the findings" – in response to state comments expressing concern about implied requirement to *implement* all aspects of 5-year assessment.

Annual Air Monitoring Data Certification

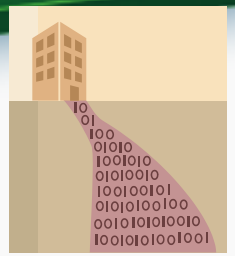
Element	CFR Cite	FR Page #
Breadth of data certification requirements narrowed to FRM, FEM, and ARM monitors at SLAMS (or SPM) rather than applicable to all SLAMS.	§ 58.15(a)	17257-17258
Responsibility for reviewing data certification packages delegated to EPA Regional Offices from HQ.	§ 58.15(b) § 58.15(c)	17257-17258

Finalized as proposed

Net effect of changes (current to final)

- Data certification requirements significantly narrowed to criteria pollutants using Federally approved methods.
- Requirement no longer applies to PM2.5 speciation data, meteorological data, and most PAMS (except where FRM/FEM data are obtained, e.g., true NO2).
- OAQPS believes these revisions are applicable to the CY2015 data certification process as the FR will become effective approximately May 1, 2016.
- Revisions codify changes in procedure which began several years when the Regional Offices took over data review and concurrence responsibility from OAQPS.

Data Submittal and Archiving Requirements



Element	CFR Cite	FR Page #
Removed data reporting requirement for average daily temperature and average daily pressure from manual PM2.5 samplers, as well as meteorological data reporting from nearby airports in support of Pb sampling.	§ 58.16(a)	17258
Changed data reporting schedule for PM2.5 chemical speciation data to 6 months* after end of quarter (from 90 days).	§ 58.16(c) § 58.16(d)	17258

Finalized as proposed

Net effect of changes (current to final)

- PM2.5 sampler data records (e.g., temperature, pressure, Cv, elapsed time, flow rate, etc) should still be downloaded and saved per monitoring agency QAPP's and SOP's; only the requirement for AQS reporting has been eliminated.
- *EPA expects chemical speciation data to be reported within 30 days of PM2.5 mass data (i.e., 120 days after the end of quarter) based on the revised analytical framework that took effect in late 2015 with the switch of the analysis contract to UC-Davis. This is considerably faster than CFR requirement.

Network Design Criteria (Appendix D)

Element	CFR Cite	FR Page #
Removed requirement for NCore sites to measure speciated PM10-2.5 (cleanup from 2013 PM NAAQS Final Rule) to align with previous changes to § 58.16(a).	§ 58 Appendix D Section 3(b)	17258-17259
Removed requirement for urban NCore sites to measure Lead (Pb). Monitors eligible to be discontinued after collecting 3 years of data per approval by Regional Office and showing compliance with 58.14(c).	§ 58 Appendix D Section 4.5(b) and 4.5(c)	17258-17259

Finalized as proposed

Net effect of changes (current to final)

- Requests for shutdown under the provisions of 40 CFR 58.14 can be considered after three years of data have been collected (which should be for all or most NCore Pb sites).
- Timing should permit such requests to be submitted as part of ANP's due July 1, 2016.

40 CFR Part 58 Appendix A

Comment Summary

1-point QC

Annual PE

X = Concern comment
O = Positive Comment
O/X=+/-

Aff	Moving PSD in own section	1- PT QC	Annual PE	PGVP	TSA	QA Collocation 1 site	QA Collocation flex	QAPP	QMP	NPAP	Pb threshold	Removing Annual PE in all 4 quarters	Removing PM10-2.5	Removing PB at Ncore	Removing excess NO	PQAO langauge addition	Independent Assessment	Flow rate verification	Randomization of Flow	Monitoring Org Definition	Remove TSP Threshold	Remove Stat Checks
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S+D3:D26							O															
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Title Change
Pg 17280* - Title

* Page numbers in ensuing slides refer to Appendix A/B language citations in reg text

Current:

Quality Assurance Requirements for SLAMS, SPMs and PSD Air Monitoring

To:

Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards

Finalized as proposed

Formatting

Finalized as proposed

Current Appendix A Format	Proposed Appendix A Format
1. GENERAL INFORMATION ~~1.1 Similarities and Differences Between SLAMS and PSD Monitoring.~~ ~~1.2 Measurement Uncertainty.~~ 1.3 Measurement Quality Checks. 1.4 Assessments and Reports.	1. GENERAL INFORMATION 1.1 Applicability 1.2 Primary Quality Assurance Organization 1.3 Definitions (precision, bias etc) 1.4 Measurement Quality Checks 1.5 Assessments and Reports.
2 QUALITY SYSTEM REQUIREMENTS 2.1 Quality Management Plans and Quality Assurance Project Plans 2.2 Independence of Quality Assurance. 2.3. Data Quality Performance Requirements. 2.4 National Performance Evaluation Programs. 2.5 Technical Systems Audit Program. 2.6 Gaseous and Flow Rate Audit Standards. 2.7 Primary Requirements and Guidance.	2. QUALITY SYSTEM REQUIREMENTS 2.1 Quality Management Plans and Quality Assurance Project Plans. 2.2 Independence of Quality Assurance. 2.3. Data Quality Performance Requirements. 2.4 National Performance Evaluation Programs. 2.5 Technical Systems Audit Program. 2.6 Gaseous and Flow Rate Audit Standards. 2.7 Primary Requirements and Guidance.
3 MEASUREMENT QUALITY CHECK REQUIREMENTS 3.1 Primary Quality Assurance Organization. 3.2 Measurement Quality Checks of Automated Methods. 3.2.1 One-Point Quality Control Check for SO_2, NO_2, O_3, and CO. 3.2.2 Annual performance evaluation for SO_2, NO_2, O_3, and CO. 3.2.3 Flow Rate Verification for Particulate Matter 3.2.4 Semi-Annual Flow Rate Audit for Particulate Matter. 3.2.5 Collocated Sampling Procedures for $PM_{2.5}$. 3.2.6 Collocated Sampling Procedures for $PM_{10-2.5}$. 3.2.7 $PM_{2.5}$ Performance Evaluation Program (PEP) Procedures. 3.2.8 $PM_{10-2.5}$ Performance Evaluation Program 3.3 Measurement Quality Checks of Manual Methods. 3.3.1 Collocated Sampling Procedures for PM_{10}. 3.3.2 Flow Rate Verification for Particulate Matter. 3.3.3 Semi-Annual Flow Rate Audit for Particulate Matter. 3.3.4 Pb Methods. 3.3.5 Collocated Sampling Procedures for $PM_{2.5}$. ~~3.3.6 Collocated Sampling Procedures for $PM_{10-2.5}$.~~ 3.3.7 $PM_{2.5}$ Performance Evaluation Program (PEP) Procedures. ~~3.3.8 $PM_{10-2.5}$ Performance Evaluation Program (PEP) Procedures.~~	3. MEASUREMENT QUALITY CHECK REQUIREMENTS 3.1 Gaseous Analyzers of SO_2, NO_2, O_3, and CO. 3.1.1 One-Point Quality Control Check for SO_2, NO_2, O_3, and CO. 3.1.2 Annual performance evaluation for SO_2, NO_2, O_3, and CO 3.1.3 National Performance Audit Program 3.2 $PM_{2.5}$ 3.2.1 Flow Rate Verification 3.2.2 Semi-Annual Flow Rate Audit 3.2.3 Collocated Sampling. 3.2.4 $PM_{2.5}$ Performance Evaluation Program (PEP) Procedures. 3.3 PM_{10} 3.3.1 Flow Rate Verification for Low Volume Samplers 3.3.2 Flow Rate Verification for High Volume Samplers 3.3.3 Semi-Annual Flow Rate Audit. 3.3.4 Collocated Sampling for Manual PM_{10} 3.4 Pb Methods 3.4.1 Flow Rate Verification for Low Volume Samplers 3.4.2 Flow Rate Verification for High Volume Samplers 3.4.3 Semi-Annual Flow Rate Audit. 3.4.4 Collocated Sampling for TSP 3.4.5 Collocated Sampling for Pb-PM_{10} 3.4.6 Pb Analysis Audits 3.4.7 Performance Evaluation Program (PEP) Procedures

PSD Monitoring QA Back to Appendix B Pg. 17290

- Moved it back to Appendix B and provided better detail/specification
- Defined QA responsibilities based on permitting organization (Fed vs. State)
- Described how NPAP/PEP will work for PSD
  - Optional if data not used for NAAQS purposes.

Finalized as proposed

PQAO
Pg 17280 Sec 1.2

- Emphasis of PQAO throughout App A
- Moved up to Applicability Section
- No change in definition, but
- Agency identified as the PQAO (usually the state agency) will be responsible for overseeing that the Appendix A requirements are being met by all consolidated locals within the PQAO.

Finalized as proposed

TSAs on Consolidated PQAOs
Pg 17282 Sec. 2.5

- A TSA for each PQAO every three years
- If a PQAO is made up of a number of monitoring organizations, all monitoring organizations should be audited within two TSAs (6 years) cycles of the PQAO.
- This would allow EPA Regions to audit monitoring organizations within the PQAO.

Finalized as proposed

Removed QA Requirements for $PM_{10-2.5}$ and Pb at NCore

Requirements will be included in guidance which will allow more flexibility for change

Finalized as proposed

QMP & QAPP Submission and Approval Dates in AQS
Pg 17281 Sec 2.1.1. & 2.1.2

- Used 2011 Excel spreadsheet to input current QAPP info into AQS*
  - QMP has also been entered
  - Regions and Monitoring Orgs will be able to edit new dates
- Added courtesy copy language to regs for providing an electronic version of QAPPs to EPA Regions for those self approving agencies.

* https://aqs.epa.gov/aqsweb/codes/data/QAPP.html

Finalized as proposed

NPEP and NPAP

- NPEP *Pg 17282 Sec. 2.4*
  - Added some language on "self-implementation"
  - Added the definition of independence which is found in the annual self-implementation memo* to provide a better reference and insure proper implementation
- NPAP *Pg 17283 Sec. 3.1.3*
  - Never had much language in CFR
  - Added requirements from annual self-implementation memo*
  - Regions and OAQPS to consult on self-implementation issues

* http://www3.epa.gov/ttn/amtic/files/ambient/pm25/qa/npappep2016.pdf

Finalized as proposed

Participation in AA-PGVP
Pg 17282 Sec. 2.6

- Required to participate in 10-minute survey
  - Lets us know what vendors being used.
- Added potential for EPA to request a cylinder from monitoring organization every 5 years.
  - Region 2 becoming cert lab for vendors
    - Was never the intent
  - EPA will cover shipping
  - We provide free DOT training
  - You get a free verification

Finalized as proposed

Lowering 1-Point QC Check Concentration Range Pg 17282 Sec. 3.1.1

- SO_2, NO_2, and O_3, Concentration Range
  - Previous: 0.01 - 0.1 ppm
  - Proposed/Final: 0.005 - 0.08 ppm Finalized as proposed
- CO Concentration Range
  - Previous: 1 – 10 ppm
  - Proposed/Final: 0.5 - 5 ppm Finalized as proposed

- Concentration selection Changed from proposal
  - Proposed- based on mean/median concentration of site or network of sites
  - Final
    - The QC check gas concentration selected within the prescribed range should be related to the monitoring objectives for the monitor.
    - If NAAQS related one can select a higher range… but be mindful of your routine concentration
    - If monitoring at an NCore site or for trace level monitoring, the QC check concentration should be selected to represent the mean or median

Annual Performance Evaluation- Part 1
Pg 17283 Sec. 3.1.2

- Increased to 10 audit level concentrations
- Modified language so that it's not a requirement to audit sites a second time in order to fulfill audits in each quarter.
- Removed requirement to audit three consecutive audit ranges
- Removed requirement for Regional Administrator (or designee) approval for use of audit gasses at ranges higher than the highest concentration in level 10.
  - Added language to notify AQS to accommodate audits higher than level 10

Finalized as proposed

Annual Performance Evaluation-Part 2
Pg 17283 Sec. 3.1.2

Changed from proposal

- Proposed- revised the previous "80% bracketing language" for the three audits
  - 2 audits at 10-80% of routine concentrations
  - The third audit at the NAAQS or above the highest 3-year concentration whichever is greater.
- Final
  - One point must be within two to three times the method detection limit of the instruments within the PQAOs network*, (minimally level 1)*
  - the second point will be less than or equal to the 99th percentile of the data at the site or the network of sites in the PQAO or the next highest audit concentration level, and
  - The third point can be around the primary NAAQS or the highest 3-year concentration at the site or the network of sites in the PQAO.

Reporting of Flow Rate Verifications for all PM and Pb to AQS

$PM_{2.5}$ *Pg 17284 Sec. 3.2.1;*
PM_{10} *17285 Sec. 3.3.1 & 3.3.2,*
Pb *Pg17285 Sec. 3.4.1 and Pg17286 Sec.3.4.2*

Background

- They are the "one-point QC check" for PM &Pb.
- Only check in Appendix A required to be performed but not reported to AQS for all PM parameters
  - Current requirement is for PM10 continuous only
- Of 1110 SLAMS $PM_{2.5}$ samplers/monitors 543 (49%) were reporting verifications to AQS.

Finalized as proposed

PM Collocation Revisions
Pg 17284 Sec. 3.2.3

- Clarification- *Sec 3.2.3.3*
  - Only "official" collocation that counts is collocation to the primary monitor
    - No "official" multiple collocations at one site
  - Was always the intent in Appendix
- Site selection flexibility *Sec 3.2.3.4*
  - Previous: 80% collocation at ± 20% annual or 24-Hour NAAQS
  - Final: 50% collocation at ± 20% annual or 24-Hour NAAQS.

Finalized as proposed

Providing Two Pb Cutoff Values
Pg 17287 Sec 4 (c)

Current: 0.02 µg/m^3 for methods approved before 3/04/2010 and manual equivalent method EQLA-0813-803

Added: 0.002 µg/m^3 for methods approved after 3/04/2010 with exception of manual equivalent method EQLA-0813-803

- 40 CFR Part 50 Appendix G method revisions (2013) showed that the MDLs were below 0.0002 µg/m^3
- will provide much more data to be accepted and used for collocation and Pb-PEP
  - 2011 – 2013 data only 35% of collocation data > 0.02 µg/m^3.
  - 91% > 0.002 µg/m^3
- provide better confidence in estimates of precision and bias
- Removed TSP cutoff value since TSP no longer a NAAQS pollutant

Finalized as proposed

Removing Validation Checks

- 4.1.4 to-4.1.5 Validation of Bias using 1-point QC
  - 95% of annual PEs results need to fall into precision window of 1-point QC's
  - Penalizes organization with very precise 1-point QC
- 4.2.4 Validation of Flow Rate Audits
  - 95% of annual flow rate results need to fall into precision window of flow rate verifications
  - Penalizes organization with very precise 1-point QC

Finalized as proposed

Summary Document Available On AMTIC Soon

Summary of Changes to 40 CFR Part 58 Appendix A

Change	Previous App A Section[1]	New App A Section	Comments
Title	Title	NA	The quality assurance requirements in Appendix A have been developed for the six criteria pollutants of O3, NO2, SO2, CO, PM2.5 and PM10 and are minimum requirements for monitoring these ambient air pollutants for use in NAAQS attainment demonstrations. To emphasize the objective of this Appendix, EPA changed the title of Appendix A to "Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards" and remove the terms SLAMS and special purpose monitors (SPMs) from the title. SPM may in fact be monitoring for a criteria pollutant for other objectives than NAAQS determinations. Some Native American Tribes are monitoring for the criteria pollutants, want to report their data to AQS, but do not want it used for attainment purposes and so do not necessarily want to meet all the Appendix A requirements. Therefore Appendix A attempts to clarify in the title and the applicability section that the QA requirements are for monitors that are required through the Part 58 ambient air regulations, monitoring organization network plans and those organizations that want their data to be used for NAAQS evaluation purposes. The applicability section also provides a mechanism in AQS to identify any criteria monitors that are not used for NAAQS evaluations which will require review and approval by the EPA Regions. This process will create transparency and efficiencies in the designation process and will assist in the data quality evaluation and data certification processes.
Format Revision	NA	NA	The previous regulation has separate sections for automated (continuous) and manual methods. Since some of the particulate matter methods are both continuous and manual and in some cases have different quality control requirements, monitoring organizations found the Appendix A requirements confusing. EPA reformatted the document by pollutant rather than method type. The four gaseous pollutants (CO, NO2, SO2 and O3) will be in one section since the quality control requirements are the same, and separate sections are provided for PM10, PM2.5 and Pb.
Removing PSD from Appendix A	NA	NA	In 2006, the PSD QA requirements, which were previously in App B, were added to App A. The PSD requirements, in most cases, mimicked Appendix A in structure but because monitoring is often only one year, some of the frequencies of implementation of the PSD QC requirements are higher than the Appendix A SLAMS requirements. The combined regulations have caused some confusion and EPA moved the PSD requirements back to Appendix B. This also provides more flexibility for revision if changes in PSD requirements are needed.
Emphasis on PQAO	NA	1.2	Appendix A emphasizes the primary quality assurance organizations (PQAO) and moved the definition and explanation to the beginning of the regulation in order to ensure that the application and use of PQAO in App A is clearly understood.
PQAO Oversight	NA	1.2.1	Since the PQAO can be a consolidation of a number of local monitoring organizations, the EPA added a sentence clarifying that the agency identified as the PQAO (usually the state agency) will be responsible for overseeing that the Appendix A requirements are being met by all consolidated monitoring organizations within the PQAO.
Approval of PQAO by EPA	3.1.1	1.2	Previous Appendix A regulation requires PQAOs to be approved by Regions during network reviews or audits. EPA believes this approval can occur at any time and eliminates PQAO approvals only during events like network reviews or audits.
Removal of $PM_{10-2.5}$ QA Requirements	NA	NA	Appendix A has traditionally been used to describe the quality assurance requirements of the criteria pollutants used in making NAAQS attainment decisions. While the Part 58 Ambient Air Monitoring regulation require monitoring for the Chemical Speciation Network (CSN) and the Photochemical Assessment Monitoring Stations (PAMS), the quality assurance requirements are found in technical assistance documents and not in Appendix A. In 2006, EPA proposed a $PM_{10-2.5}$ standard along with requisite QA