Overview of Proposal: Revisions to Ambient Monitoring QA and Other Requirements

ENVIRONMENTAL PROTECTION AGENCY
40 CFR Part 58
[EPA–HQ–OAR–2013–0619; FRL–9915–16–OAR]
RIN 2060–AR59
Revisions to Ambient Monitoring Quality Assurance and Other Requirements
AGENCY: Environmental Protection Agency (EPA).
ACTION: Proposed rule.

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1

Summary

- Proposes 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
- Published September 11, 2014 at 79 FR 54356-54395
- Public comment period was open for 60 days at Docket ID No. EPA-HQ-OAR-2013-0619. Period closed November 10, 2014

2

Revisions to Ambient Monitoring QA and Other Requirements

http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0619-0001 3

How To Use These Slides

Element	CFR Cite	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 proposed changes.	Citation location in proposal	Page reference in September 11, 2014 FR notice

4

Revisions to Ambient Monitoring QA and Other Requirements

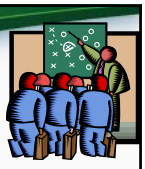
Definitions

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	54357-54358

5

Revisions to Ambient Monitoring QA and Other Requirements

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)	54358-54359
Specifically call-out PAMS network description as required element of ANP* *(note: already mentioned in Appendix D, section 5)	§ 58.10(a)(9)	54359
Identify long-term SPM's with rationale for keeping as SPM's or converting to SLAMS as required element	§ 58.10(b)(14)	54359

6

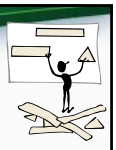
Revisions to Ambient Monitoring QA and Other Requirements

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)	54360
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)	54361
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)	54361-54362
STN sites in the Chemical Speciation Network may have sampling frequency reduced from 1-in-3 day – based on waiver request	§ 58.12(d)(3)	54360

Revisions to Ambient Monitoring QA and Other Requirements

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)	54362

8

Revisions to Ambient Monitoring QA and Other Requirements

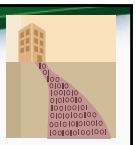
Annual Air Monitoring Data Certification

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)	54362-54363
Responsibility for reviewing data certification packages delegated to EPA Regional Offices from HQ.	§ 58.15(b) § 58.15(c)	54363

9

Revisions to Ambient Monitoring QA and Other Requirements

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)	54363
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)	54363-54364

10

Revisions to Ambient Monitoring QA and Other Requirements

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)	54364
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)	54364

11

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App A

Element	CFR Cite	FR Page #
Removing PSD from Appendix A; placing back in Appendix B	NA	54365
Added requirement that the agency identified as the PQAO is responsible or oversight of local monitoring agencies within PQAO	§ 58 App A Sec 1.2.1	54365
Removal of $PM_{10-2.5}$ QA Requirements	NA	54365
Removing the QA Requirement for Pb Monitoring at non-source NCore sites	NA	54365

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App A

Element	CFR Cite	FR Page #
Reporting of QMPs and QAPPS to AQS	§ 58 App A Sec 2.1.1 and 2.1.2	54366
Adding definition of independent assessment to the NPEP	§ 58 App A Sec 2.4.1	54366
Requiring that TSAs of monitoring organizations within a PQAO be completed within six years (TSAs are required of each PQAO every 3 years)	§ 58 App A Sec 2.5	54366
Completing the Ambient Air Protocol Gas Survey and participating in the program at the request of EPA every 5 years	§ 58 App A Sec 2.6.1	54366

Quality Assurance Proposals § 58 App A

Element	CFR Cite	FR Page #
Lowering 1-point QC Check to 0.005 - 0.08 ppm for SO2, NO2, and O3, and 0.5 - 5 ppm for CO monitors (currently 1 and 10 ppm). In addition, language clarified to be clear that this QC check concentration "… *must be related* to the mean or median of the ambient concentrations normally measured…"	§ 58 App A Sec 3.1.1	54366
Removal of language to perform Annual PE in all four quarters when a PQAO has less than 4 sites operating for a gaseous criteria pollutant	NA	54366
Expanding Annual Performance Evaluation (PE) Audit from five to ten concentration ranges	§ 58 App A Sec 3.1.2.1	54367
Revise Annual PE language so that two of the audit levels selected represent a range of 10-80 percent of the typical ambient air concentrations and the third point at the NAAQS or above the highest 3-year routine concentration, whichever is greater.	§ 58 App A Sec 3.1.2.1	54367

Quality Assurance Proposals § 58 App A

Element	CFR Cite	FR Page #
Removal of requirement for maintaining a minimum of 0.08 ppm excess NO during audits using gas phase titration.	§ 58 App A Sec 3.1.2.2	54367
Added information on NPAP program requirements for self implementation	§ 58 App A Sec 3.1.3	54367
Requiring flow rate verifications be reported to AQS	§ 58 App A Sec 3.2.1	54367
Clarification of PM2.5 collocation requirement to ensure that a collocated monitor for QA is associated with only the primary monitor at the site an therefore can only count as one collocation for the PQAO.	§ 58 App A Sec 3.2.3.3	54368

15

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App A

Element	CFR Cite	FR Page #
Revision of PM2.5 collocation to provide a less restrictive requirement on site selection relative to higher concentration sites	§ 58 App A Sec 3.2.3.4 (b)	54368
Removing TSP concentration cut-off value since TSP is no longer a NAAQS	NA	54368
Providing two cut-off values for Pb evaluations due to new methods; 1) 0.02 ug/m^3 for methods approved before 3/04/2012 and the manual equivalent method EQLA-0813-803 and, 2) 0.002 ug/m^3 for methods approved after 3/04/2010 with the exception of manual equivalent method EQLA-0813-803.	§ 58 App A Sec 4(c)	54368
Removal of statistical methods for comparing the gaseous Annual PE against 1-point QC checks	NA	54368

16

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App A

Element	CFR Cite	FR Page #
Removal of statistical methods for comparing the PM flow rate audit data against flow rate verification data	NA	54368

17

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App B

Element	CFR Cite	FR Page #
Providing the reviewing authority flexibility on the implementation of the NPEP program based on whether data needs to be used for comparison to the NAAQS.	§ 58 App B Sec 1.1 (b)	54369
Clarification of primary quality assurance organization (PQAO) in that the PQAO must be associated with only one reviewing authority.	§ 58 App B Sec 1.2	54369
Removal of $PM_{10-2.5}$ QA requirements	NA	54370
Removal of Pb QA requirements for non-source NCore sites	NA	54370

18

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App B

Element	CFR Cite	FR Page #
Revision to provide flexibility to combine QMP and QAPPs into one document	§ 58 App B Sec 2.1.3	54370
Revision to allow reviewing authority to determine the data quality objectives for PSD monitoring if the data is not used for NAAQS decisions.	§ 58 App B Sec 2.3.1	54370
Adding definition of independent assessment to the NPEP.	§ 58 App B Sec 2.4.1	54370
Requiring PSD PQAO to provide information on gas standards used for monitoring to the reviewing authority.	§ 58 App B Sec 2.6.1	54371

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App B

Element	CFR Cite	FR Page #
Lowering 1-point QC Check to 0.005 - 0.08 ppm for SO2, NO2, and O3, and 0.5 - 5 ppm for CO monitors (currently 1 and 10 ppm). In addition, language clarified to be clear that this QC check concentration "… *must be related* to the mean or median of the ambient concentrations normally measured…"	§ 58 App B Sec 3.1.1	54371
Expanding Annual PE audit levels from five to ten concentration ranges	§ 58 App B Sec 3.1.2	54371
Revising Annual PE language so that two of the audit levels selected represent a range of 10-80 percent of the typical ambient air concentrations and the third point at the NAAQS or above the highest 3-year routine concentration, whichever is greater	§ 58 App B Sec 3.1.2.1	54371
Removal of requirement for maintaining a minimum of 0.08 ppm excess NO during audits using gas phase titration.	§ 58 App B Sec 3.1.2.2	54371

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App B

Element	CFR Cite	FR Page #
Adding information on NPAP program requirements for self implementation	§ 58 App B Sec 3.1.3	54371
For consistency revising all flow rate verifications to be implemented monthly	§ 58 App B Sec 3.2.1	54372
Providing flexibility (with a waiver) to collocate an FEM with another FEM rather than initially collocating with an FRM	§ 58 App B Sec 3.2.3.1	54372
Allowing a waiver of minimum concentration in the PM2.5 PEP program of 3 ug/m^3 in the last quarter of monitoring	§ 58 App B Sec 3.2.4	54372

21

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals § 58 App B

Element	CFR Cite	FR Page #
Providing two cut-off values for Pb evaluations due to new methods; 1) 0.02 ug/m^3 for methods approved before 3/04/2012 and the manual equivalent method EQLA-0813-803 and, 2) 0.002 ug/m^3 for methods approved after 3/04/2010 with the exception of manual equivalent method EQLA-0813-803.	§ 58 App B Sec 4	54372
Removing TSP concentration cut-off value since TSP is not a NAAQS	NA	54372
Removal of statistical methods for comparing the gaseous Annual PE against 1-point QC checks	NA	54372
Removal of statistical methods for comparing the PM flow rate audit data against flow rate verification data	NA	54373

22

Revisions to Ambient Monitoring QA and Other Requirements

Quality Assurance Proposals
§ 58 App B

Element	CFR Cite	FR Page #
Removal of QA reporting requirements since PSD organizations are not required to report/certify data to EPA	NA	54373

23

Revisions to Ambient Monitoring QA and Other Requirements