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

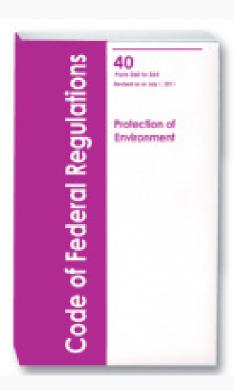
Agency (EPA).

ACTION: Proposed rule.

Lewis Weinstock & Mike Papp
Office of Air Quality Planning and Standards

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 open for 60 days at Docket ID No. EPA-HQ-OAR-2013-0619 until November 10, 2014





How To Use These Slides



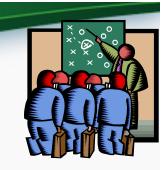
Element	CFR Cite	FR Page #
Refers to KEY issues in 40 CFR part 58 addressed in this proposal. NOTE: This presentation is not all inclusive – some minor changes are not included in the following slides. The preamble must be read to get a complete list of proposed changes.	Citation location in proposal	Page reference in September 11, 2014 FR notice

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

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

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



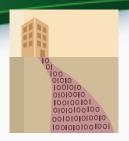
Element	CFR Cite	FR Page #
Network modification plan to be submitted as part of annual monitoring network plan (ANP). Due no later than 1 year following the due date of the 5-year network assessment. Clarifies that a separate ANP-like process is not needed for consideration of assessment results and provides additional year for consideration.	§ 58.14(a)	54362

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

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

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



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

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

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

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

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/m³ for methods approved before 3/04/2012 and the manual equivalent method EQLA-0813-803 and, 2) 0.002 ug/m³ 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

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

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

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

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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

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/m³ in the last quarter of monitoring	§ 58 App B Sec 3.2.4	54372

Element	CFR Cite	FR Page #
Providing two cut-off values for Pb evaluations due to new methods; 1) 0.02 ug/m³ for methods approved before 3/04/2012 and the manual equivalent method EQLA-0813-803 and, 2) 0.002 ug/m³ 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

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