



UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY
RESEARCH TRIANGLE PARK, NC
27711

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: EPA Review of Monitoring Organization QAPP's for critical criteria conformance

FROM: Lewis Weinstock 
OAQPS/AQAD/AAMG (C304-06)

TO: Air Program Managers and Staff

QAPP Critical Criteria Non-Conformance

Prompted by findings from the February 6, 2017 Office of Inspector General management (OIG) Alert¹, EPA has been reviewing monitoring organizations adherence to critical criteria, particularly for the one 1-point QC checks for ozone. Through our evaluations, we find that over 99% of the 1-point ozone checks meet the acceptance criteria and that over 70% of the sites did not have an ozone check exceedance in the years 2014-2016. These data demonstrate that the critical criteria for 1-point QC checks are being met by virtually all monitoring organizations. It further demonstrates the technical justification and practicality of ensuring that a monitoring organization QAPPs acceptance criteria for the ozone check be consistent with the QA Handbook² validation template critical criteria of <7.1 % (percent difference) or < 1.5 ppb difference.

We are asking regional air monitoring staff to review QAPP's for adherence to these (and other) critical criteria. Those QAPPs that do not comply should be revised to reflect the current QA Handbook.

QAPPs Needing Updates

EPA suggests that QAPPs be updated every 5 years or when significant changes to the monitoring program occur. The OIG found that 38% of the monitoring agencies do not have ozone monitoring QAPPs that have been approved within the last 5 years.

¹ <https://www.epa.gov/office-inspector-general/report-certain-state-local-and-tribal-data-processing-practices-could>

² Quality Assurance Handbook for Air Pollution Measurement Systems Volume II Ambient Air Quality Monitoring Program. <https://www3.epa.gov/ttn/amtic/qalist.html>

We have posted a list on the QA SharePoint site of all QAPPs reported to AQS sorted by pollutant, EPA Region and by evaluation date. We ask that any Regions that have not approved particular QAPPs within a 5-year period work with their monitoring organizations to provide a schedule when the subject QAPP will be revised and submitted. We will update this information on SharePoint and be reviewing this list over the next year to see what improvements can be made prior to the next data certification deadline of May 1, 2018. In addition, we currently list a warning in the AMP600 data certification report when a monitoring organizations QAPP is between 5 and 10 years old. For the 2018 data certifications (due May 1, 2019), we will change that warning to a red non-conformance flag so that any data certified with a QAPP greater than 5 years old will automatically receive a AQS "N" flag. This change will give all monitoring organization until the end of calendar year 2018 to ensure that all QAPPs have approval dates less than 5 years. This procedure will be used for all criteria pollutants.

If a monitoring organization resists making appropriate revisions to meet critical criteria, we suggest that EPA document the critical criteria that do not meet the validation template acceptance criteria in their approval letters and in the AQS QAPP database and only provide conditional approval for the QAPP (if the EPA Region feels like the QAPP is sufficient other than not meeting the critical criteria) due to non-conformance to the critical criteria.

In addition, we suggest you inform the monitoring organization that EPA reserves the right to not use the routine data for NAAQS design values that are represented by 1-point QC checks that exceed the acceptance criteria listed in the QA Handbook validation templates. As described in 40 CFR Appendix A Section 1.2.3.

"The EPA reserves the authority to use or not use monitoring data submitted by a monitoring organization when making regulatory decisions based on the EPA's assessment of the quality of the data. Consensus built validation templates or validation criteria already approved in QAPPs should be used as the basis for the weight of evidence approach".

The Handbook does provide for the use of compelling evidence to validate the routine data in the case of an exceedance of a QC check beyond the validation template acceptance criteria. New flagging methods and the development of a new quarterly report will help identify these issues. However, with the majority of monitoring organizations following the validation template criteria and meeting those acceptance criteria, we feel that for the consistency and comparability of data across the ambient air monitoring program, the acceptance criteria should be the same for all organizations and be reflected in the monitoring organizations QAPP.

For technical questions, please contact Mike Papp at papp.michael@epa.gov or 919-541-2408.