3A Progress 2

PM2.5 Quality Assurance Progress Report

Planning

Method 2.12 is undergoing a revision using comments received from the first year of sampler implementation. OAQPS is soliciting additional comments at this time and hopes to have a draft for review by the end of May. **Contact - M. Papp**

Speciation Trends DQO Broadcast- OAQPS presented a broadcast on the use of the data quality objective process for the speciation network in March, 2000. The broadcast focuses on a mock situation in which a State program is attempting to develop a speciation network using the DQO process. A tape is available. In addition, we have made statistical and facilitation resources available for those State and local organizations that would like help implementing this process **Contact - J. Homolya**

Speciation Trends QAPP -The speciation field and laboratory QAPPs were completed in November, 1999 for implementation of the Mini-Trends Network. OAQPS is soliciting comments for improvements of this QAPP prior to implementation of the National Trends Network (54 sites) . OAQPS is seeking to identify QA managers of each State and local responsible for the operations of the Trends Network sites in order for approval of this QAPP. In addition, OAQPS has asked each Regional QA managers for review and approval of this QAPP. State and locals are encouraged to adopt the QAPP, but if not, they will be required to submit individual QAPPs to the Regions prior to implementation of sampling activities. **Contact- D. Musick**

Continuous monitoring - A national workgroup has been formed for the discussion and collaboration on the monitoring and quality assurance aspects of the continuous monitoring program. The workgroup will attempt to develop the most critical elements of a QAPP, including DQOs, in order to develop some consistency and comparability in the monitoring networks. Workgroup notes are being posted on AMTIC. **Contact - T. Hanley**

Implementation

Performance Evaluation Program (PEP)- The PEP successfully completed it's first year of operation and is presently undergoing final verification and validation activities. All PEP verification standards have undergone recertifications for use in CY00. Sites have been selected for CY00 and it appears that implementation is proceeding as scheduled. OAQPS audited all PEP field scientists in CY99 and in general the field scientists were performing the PEP as required. The EPA Regional WAMs also implemented audits of the field scientists **Contact - M. Papp**

Management Systems Reviews - OAQPS performed a management systems review on three EPA Regions in CY99 and are planning three in CY00. **Contact - M. Papp, L, Byrd**

Assessments

Data quality Assessments - OAQPS is presently performing data quality assessments of the mass network and PEP data. OAQPS is defining the data quality indicators of precision, bias, representativeness, completeness, comparability and detectability. The QA Team recently presented information on completeness, precision and bias of the mass routine and PEP network. Initial issues are that there is a significant lack of routine data as well as precision and accuracy data in the AIRS data base. **Contacts- S. Eberly, M. Papp**

Guidance -

This guidance can be found on AMTIC (http://www.epa.gov/ttn/amtic/pmpolgud.html)

Flexibility in sample transport conditions - guidance was distributed on 1/20/00 that provided a bridge between the two temperature transport requirements (25°C/10 day and 4°C/30 day) that allows one to determine the number of days available for sample weighing from the sample end data and time, based upon the average temperature that the sample arrived at the laboratory.

Standard Time - guidance was distributed on 6/22/99 to set and leave all instruments on local standard time.

Archiving PM2.5 Samples - Some additional guidance for acceptable procedures for archiving PM2.5 samples was distributed on 2/7/00

Collocated substitution and POC codes- guidance was distributed on 1/3/00 to reiterate earlier PM10 guidance that collocated data can be substituted for routine data when the routine sampler was inoperable or otherwise caused the routine sample to be invalidated. However, in order to identify that the collocated value was used, it was suggested that the value be placed in POC 2. This would help in completeness assessments for P & A. In addition this memo went on to designate all POCS (1-9) for the PM2.5 work (mass, speciation and continuous).

Flagging - A recent memo (not on AMTIC yet) from the EMAD Division Director to the Regions provided for the use of following 5 data qualifiers.

1. **Deviation from a CFR requirement**- Data collected did not or may not meet all of the critical criteria for sampling and analysis as specified in CFR and the Validation Template critical criteria table (Table 1). As stated in the Validation Template: *"Criteria that were deemed critical to maintaining the integrity of a sample or group of samples were placed in the **Critical Criteria Table** (see Table 1). Observations that do not meet each and every criterion on the Critical Criteria Table should be invalidated unless there are compelling reason and justification for not doing so. Basically, the sample or group of samples for which one or more of these criteria are not met is invalid until proven otherwise."* The State/local may use this flag when it is unclear of the effect of the deviation on data quality. This flag should be rarely used, but there may be instances where other QA/QC information tend to validate the sample or changes/updates to the critical criteria table may allow utilization of the data for some purposes.

2. **Operational Deviations**- Out of some pre-defined threshold value, from either the Validation Template operational evaluations table (see Table 2) or a State/local defined acceptance criteria.

3. **Field Issue**- possible field contamination (oil crystallization, excessive dust etc.)

4. **Lab Issue**- possible lab contamination (cassette off gassing, etc.)

5. **Outlier** - a data value that appears to be invalid either because it is outside the normal/expected range of concentrations or fails various statistical or comparison tests. However there is no additional information available that would provide a reason to invalidate the value(s).

Studies

Filter extension study- We are attempting to implement a study to determine whether the sample retrieval time can be extended past 96 hours. A number of State and locals have volunteered for this study, but due to lack of additional sampling instruments the study has not started. The States of Alaska and Washington have stepped up and loaned some instruments to the other State volunteers.

OAQPS has initiated conference calls to the participants to try and move the study along. OAQPS has continued to operate the Air Training Platform in support of this study through the fall and winter on CY99 and continues to sample based upon the study plan. **Contacts- M. Papp, T. Hanley**

Speciation Intercomparison - I do not have good information on this but many of the speciation Mini-Trends site are implementing multiple samplers in order to perform additional data comparisons . **Contact-J. Homolya**

Reporting

QA Report - OAQPS plans on developing a QA Report for CY99 in the August - September time frame. The report will include the data quality assessment discussed earlier for both routine and PEP data. **Contacts: M.Papp, S. Eberly, T. Hanley**