Air Resources Board

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Matthew Rodriquez
Secretary for
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Edmund G. Brown Jr.
Governor

May 3, 2013

Chris Lanane
Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, California 93514

Dear: Mr. Lanane

The purpose of this letter is to formalize the roles and responsibilities of both the California Air Resources Board (ARB) and local monitoring organizations (MO) that are under the auspices of the ARB Primary Quality Assurance Organization (PQAO) to ensure compliance with State and federal air monitoring requirements.

As defined in the U.S. Environmental Protection Agency's (EPA) Code of Federal Regulations (40 CFR Part 58), a PQAO is a monitoring organization or a coordinated aggregation of such organizations that is responsible for a set of stations that monitors the same pollutant(s) and for which data quality assessments can logically be pooled. Each criteria pollutant sampler/monitor at a monitoring station in the State and Local Air Monitoring Stations network must be associated with one, and only one, PQAO.

The ARB is the governmental agency delegated under federal law with the authority and responsibility for collecting ambient air quality data as directed by the Clean Air Act. The ambient air monitoring network in California is operated by a combination of ARB and local MOs. It is critical that ARB and local MOs work together, through formalized roles and responsibilities, to collect consistent and reliable ambient air quality data.

Under the ARB PQAO, ARB and MOs should strive to collaboratively address the following common factors to the extent practical:

a) Operation by a common team of field operators according to a common set of procedures;

b) Use of a common Quality Assurance Project Plan and Standard Operating Procedures for State and federally mandated air monitoring projects;

c) Common calibration facilities and standards;

d) Oversight by a common quality assurance organization; and

e) Support by a common management, laboratory, or headquarters.

In order to address these common factors, ARB has worked collaboratively with the Great Basin Unified APCD (District) and EPA to define each agency's roles and responsibilities with regard to the operation of the State's ambient air monitoring network (see attached). The goal of the roles and responsibilities document is to ensure the generation of high quality, legally defensible data in a collaborative manner.

ARB appreciates the collaborative efforts of the District to define the roles and responsibilities and looks forward to working with them to ensure their effective implementation.

Please contact Mr. Patrick Rainey at (916) 327-4756 or prainey@arb.ca.gov or myself at (916) 322-0960 or mmiguel@arb.ca.gov, if you have any questions.

Sincerely,

Michael Miguel, Chief
Quality Management Branch
Monitoring and Laboratory Division

Attachment

cc. see next page

cc. Theodore D. Schade, APCO
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Attachment

PRIMARY QUALITY ASSURANCE ORGANIZATION ROLES AND RESPONSIBILITIES FOR GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

Five common factors have been identified by U.S. EPA that should be considered in defining a Primary Quality Assurance Organization (PQAO). Under the Air Resources Board (ARB) PQAO, ARB and Monitoring Organizations (MOs) shall strive to collaboratively address the following common factors to the extent practical. ARB has defined the roles and responsibilities of ARB and MOs within the ARB PQAO in regard to operation of the PQAO ambient air monitoring network in order to ensure the generation of high quality, legally defensible data.

1. Operation by a common team of field operators according to a common set of procedures

ARB recognizes the unique air monitoring challenges that face California and that field operations by a common team may not be feasible. ARB and MOs acknowledge the need to strive for uniformity of procedures, thus both parties agree to work together toward employing consistent and reliable field operations.

ARB Responsibilities:

- Maintain and disseminate a Quality Management Plan (QMP). ARB shall regularly request input from MOs within the ARB PQAO and agrees to review and update the QMP as needed. ARB will communicate updates to MOs accordingly;
- Review and approve alternative QMPs prepared by MOs seeking ARB and EPA approval;
- Maintain a PQAO contact list and working webpage to disseminate information;
- Serve as a liaison between MOs within ARB's PQAO;
- Provide adequate training on key air monitoring fundamentals related to operations, maintenance, quality assurance/quality control, and data management procedures;
- Facilitate Ambient Monitoring Technical Advisory Committee (AMTAC) meetings and information updates. Topics may include field, laboratory, quality assurance, and data management related items; and
- Participate in CAPCOA Monitoring Committee meetings and other informational forums.

MO Responsibilities:

- Utilize and follow the ARB QMP. MO may develop an approved alternative QMP at a later date;
- Provide a supervisory level PQAO Point-of-Contact to ARB. The PQAO contact will be added to a list serve to allow for effective and timely dissemination of information;

- Participate in ARB and EPA sponsored ambient air monitoring training;
- Participate in AMTAC meetings and review information updates; and
- Participate in CAPCOA Monitoring Committee meetings and other informational forums.

2 Use of a common Quality Assurance Project Plan (QAPP) and Standard Operating Procedures (SOP) for state and federally mandated air monitoring projects.

ARB Responsibilities:

- Maintain and disseminate a ARB and/or EPA QAPP for state and federally mandated air monitoring projects or programs;
- Maintain and disseminate SOPs for monitoring and analysis. These SOPs may also include forms (i.e., check sheets, calibration forms, maintenance forms, etc.);
- Provide notification of updates/revisions, as they occur, to ARB QAPPs and SOPs via the PQAO point-of-contact list; and
- Review and approve alternative QAPPs and SOPs prepared by MOs.

MO Responsibilities:

- Utilize and follow an ARB and/or EPA approved MO QAPP for the PM2.5 program;
- Utilize and follow an ARB and/or EPA approved MO QAPP for the PM10, meteorological, and sand flux monitors;
- Utilize and follow ARB and/or EPA approved alternative SOPs for PM10, surface meteorology, and sand flux monitoring;
- MO may develop approved alternative SOPs for trace analysis of CO, SO2, NOy, and ozone utilizing Thermo i-series instrumentation in the future. If so, Mo will work closely with EPA and ARB;
- Review/update SOPs on an established schedule and notify ARB of any revisions made as they occur; and
- Agree to make available to ARB a record of quality assurance related documents (QMP, QAPP, SOP, training plan, etc.) being utilized by the MO's ambient air monitoring network.

If a District conducts a special purpose monitoring program funded by EPA, the MO shall seek quality assurance assistance from the EPA or ARB Quality Management Branch.

3. Common calibration facilities and standards

MOs within the ARB PQAO are encouraged to utilize the services provided by ARB's Standards Laboratory for certifications, calibrations, and verifications. Organizations choosing to utilize external calibration facilities or vendor produced standard materials, must provide documentation of traceability upon request by ARB or EPA.

ARB Responsibilities:

- Provide timely certification, calibration, and verification services that meet or exceed 40 CFR Part 58 requirements via the ARB Standards Laboratory upon request.

MO Responsibilities:

- Utilize outside vendor services, using NIST-traceable standards, for certification, calibration, and verification of ozone and flow devices and gaseous standards. MO will maintain a record of vendor name and traceability.

Additionally, ARB may provide equipment acceptance testing, repair, and field calibration services to MOs upon prior or mutual agreement, which may depend upon budget feasibility and staff availability.

4 Oversight by a common quality assurance organization

ARB Responsibilities:

- Identify pollutant-specific parameters that are included in the ARB PQAO;
- Conduct annual Performance Evaluation (PE) audits of MO monitoring sites as required in 40 CFR Part 58, Appendix A, including Section 3.2.2 (NPAP PE audits for SO2, NO2, O3, and CO), and Section 3.2.4 (semi-annual flow rate audit for Particulate Matter (PM samplers), as well as, meteorological audits, and lead sampler audits, as appropriate. ARB will perform one of the annual PM flow audits and the MO will perform the other. ARB will work closely with MO to schedule ARB and MO flow audits to ensure they occur 5-7 months apart;
- Conduct annual siting evaluations at each air monitoring station to determine compliance with 40 CFR Part 58, Appendix E, and consistency with current Air Quality System (AQS) parameters;
- If an instrument or analyzer is found to be outside acceptable limits, ARB shall initiate Air Quality Data Action (AQDA) requests. The AQDA will request the

MO to correct the identified deficiencies and ensure associated ambient air data are verified to be good quality data. To ensure compliance, ARB shall conduct a re-audit or coordinate with MO's QA audit staff to conduct a re-audit to verify the corrective action once the problem has been resolved;

- Conduct technical systems audits (TSA) of all MOs within the ARB PQAO on an estimated schedule of every 3-5 years. ARB will coordinate with MO to receive and review quality management documents (QAPPs, SOPs, etc.) prior to TSA;
- ARB shall maintain a database, Corrective Action Notification (CAN), to be used by monitoring agencies to report operational problems, instrument malfunctions, and/or any items needing corrective action or investigation;
- Provide procedures and criteria for data acceptability and corrective action determination;
- Perform annual certification of precision and accuracy (P&A) by May 1st of each year; and
- Perform an annual evaluation of the statistical summaries of quality assurance and quality control data from all MOs in the ARB PQAO.

MO Responsibilities:

- Review and verify pollutant-specific parameters on an annual basis that are included in the ARB PQAO;
- Participate in criteria pollutant, particulate and meteorological PE audits conducted by ARB. ARB will conduct one of the two required semi-annual PM flow audits and MO's internal QA audit staff will conduct the other semi-annual PM audits and semi-annual Met audits to complement ARB's annual audit program. MO will coordinate with ARB to schedule MO and ARB flow audits of PM samplers to occur 5-7 months apart and to report this audit data to AQS within 90 days following the end of the quarter;
- MO will use the ARB CAN process to report any audit failures to ARB;
- Participate in laboratory PE audits. For laboratory programs not supported by ARB, the MO agrees to participate in a EPA or ARB approved alternative audit program, if available;
- Participate in EPA required technical system audits conducted either by ARB or EPA;
- Review and validate MO's precision and accuracy data against ARB or EPA established acceptance criteria prior to submittal to AQS;
- Review MO data in AQS on a quarterly basis to verify accuracy and completeness (AMP 255 and 430 reports);
- Submit a data certification package to EPA by May 1st of each year for PM10, PM2.5 and meteorological parameters; and
- Utilize ARB's CAN process to report significant instrument malfunctions, operational problems, and/or items needing corrective action or investigation.

MO management shall use appropriate discretion to determine issues deemed to be anomalous versus routine occurrences and report appropriately.

In addition, the MO is responsible to:

- Resolve AQDAs, CANs and TSA findings, or develop corrective action plan as appropriate, within 45 days of issuance;
- Utilize the CAN process to notify ARB's Quality Management Branch of issues regarding data quality as well as impending data actions in EPA's Air Quality System (AQS) within 45 days of determination of issue;
- Review and validate ambient air monitoring data prior to submission to AQS; and communicate to ARB when data have been altered or modified after it has been submitted;
- The MO, as a direct data submitter to AQS, shall validate data before upload to AQS, and certify the data annually by May 1st of each year; and
- Upload air quality data in accordance with EPA requirements.

5. Support by a common management, laboratory or headquarters

Operating California's complex ambient air monitoring network requires ARB to work collaboratively with each MO. In order to accurately assess the MO's monitoring network, both parties must document and evaluate potential or scheduled modifications to the air monitoring network.

ARB Responsibilities:

- Coordinate an annual meeting/teleconference with EPA and all MOs preparing their own networks plans during the Statewide network review process to discuss the status of the statewide monitoring network;
- Assemble state-wide and PQAO-wide information for the annual network plan and 5-year network assessment processes; and
- Provide laboratory analytical support as required (i.e., PM2.5 and PM10 mass analysis, Lead analysis, Toxics analysis, speciation, etc.) upon prior or mutual agreement.

MO Responsibilities:

- Communicate all site changes (i.e., openings, closures, relocations), not mentioned in the MOs annual network plan to EPA and ARB, in a timely manner;
- Participate in annual meeting/teleconference during the statewide network review period to discuss ARB PQAO monitoring network status; and

- Submit an annual network plan and network assessment by the required timeframe. Update the state-wide monitoring network database prior to completion of each year's annual network plan.

MOs submitting annual Network Monitoring Plans directly to EPA shall continue to submit plans directly with a copy provided to ARB's PTSD to utilize during the statewide network assessment.

If circumstances should arise that prevent either the ARB and/or MO from meeting the above mentioned responsibilities, the agencies shall work collaboratively to ensure that the tasks are completed to meet the common goal of generating legally and scientifically defensible data throughout the PQAO monitoring network. As needed, both agencies will work with EPA Region IX to assist in meeting the PQAO requirements.