



Matthew Rodriguez
Secretary for
Environmental Protection

Air Resources Board

Mary D. Nichols, Chairman
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MAILED
11/8/13 DP



Edmund G. Brown Jr.
Governor

November 8, 2013

Yushuo Chang
Placer County Air Pollution Control District
110 Maple Street
Auburn, CA 95603

Dear Mr. Chang:

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;

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website. <http://www.arb.ca.gov>.

California Environmental Protection Agency

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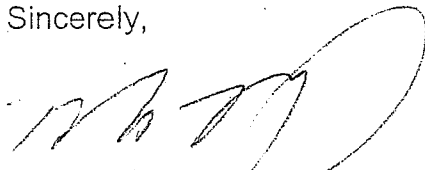
- b) Use of a common Quality Assurance Project Plan and Standard Operating Procedures for State and federally mandated air monitoring projects;
- c) Common calibration facilities and standards;
- d) Oversight by a common quality assurance organization; and
- e) Support by a common management, laboratory, or headquarters.

In order to address these common factors, ARB has worked collaboratively with the Placer County 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

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cc. Thomas Christofk, APCO
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Dr. Michael T. Benjamin, Chief
Monitoring and Laboratory Division

Patrick Rainey, Manager
Monitoring and Laboratory Division

Attachment

PRIMARY QUALITY ASSURANCE ORGANIZATION ROLES AND RESPONSIBILITIES FOR PLACER COUNTY 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:

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

Placer County Air Pollution Control District (APCD) Responsibilities:

- a) Utilize and follow ARB's QMP;
- b) Provide a supervisory level PQAO Point-of-Contact or designee to ARB. The PQAO contact will be added to a list serve to allow for effective and timely dissemination of information;
- c) Participate in ARB and EPA sponsored ambient air monitoring training;

- d) Participate in AMTAC meetings and review information updates; and
- e) 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:

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

Placer County APCD Responsibilities:

- a) Utilize and follow ARB QAPPs for ozone, PM10, and PM2.5 programs;
- b) Utilize and follow ARB SOPs for ozone, PM10, and PM2.5 monitoring;
- c) District management will perform periodic review of District practices to ensure compliance with applicable QAPPs and SOPs; and
- d) 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 and communicate any changes made to the QMP, QAPPs, and SOPs with ARB for review and approval.

If a District conducts a special purpose monitoring program (SPM) funded by EPA, the MO shall seek quality assurance assistance from the EPA or ARB Quality Management Branch. Such monitoring is required to be covered by quality assurance documents prior to sample collection.

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:

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

Placer County APCD Responsibilities:

- a) Utilize ARB certification, calibration, and verification services for ozone transfer standard and high volume flow standard;
- b) Utilize a qualified outside vendor that uses NIST traceable standards for certification, calibration, and verification of low volume flow standard, and maintain a record of traceability;
- c) Utilize a qualified outside vendor that uses NIST traceable standards for certification, calibration, and verification of balance, weights, and temperature/RH sensors for the mass analysis laboratory, and maintain a record of traceability; and
- d) MO will maintain a schedule and record of certification dates that will be available to ARB or EPA upon request.

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:

- a) Identify pollutants that are included in the ARB PQAO;
- b) Conduct Performance Evaluation (PE) audits of MO monitoring sites as required in 40 CFR Part 58, Appendix A, including Section 3.2.2 (annual PE audits for O₃), and Section 3.2.4 (semiannual flow rate audit for Particulate Matter (PM₁₀ and PM_{2.5} samplers), as well as annual PM mass analysis laboratory audits for pollutants reported to AQS;
- c) 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) pollutants;
- d) 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 to verify the corrective action once the problem has been resolved and

- review data in AQS to ensure recommended data action has been taken (i.e., flagging, invalidation, etc.);
- e) Conduct technical systems audits (TSA) of all MOs within the ARB PQAO on an estimated schedule of every 3-5 years;
 - f) 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. ARB will follow-up to verify that appropriate action has been taken to close the CAN, and will perform an annual review of the CAN database for systematic issues;
 - g) Provide procedures and criteria for data acceptability and corrective action determination;
 - h) Provide procedures and criteria for data validation prior to data submittal to ARB;
 - i) Provide training on data verification and validation procedures during the PQAO air monitoring training;
 - j) Perform upload of MO validated data for ozone, PM2.5, and PM10, generated by MO mass analysis laboratory, to AQS within 90 days following the end of each quarter;
 - k) Perform post-AQS screening of MO data submitted by ARB to identify possible issues;
 - l) Perform annual certification of PM10, PM2.5, and ozone data for which ARB has AQS submittal authority by May 1st of each year; and
 - m) Perform an annual evaluation of the statistical summaries of quality assurance and quality control data from all MOs in the ARB PQAO, and distribute results to the MOs.

Placer County APCD Responsibilities:

- a) Review and verify pollutant-specific parameters on an annual basis that are included in the ARB PQAO;
- b) Participate in annual PE audits for ozone and semi-annual audits for PM10 and PM2.5;
- c) Participate in annual laboratory PE audits of MO PM10 mass analysis laboratory. For laboratory programs not supported by ARB, the MO agrees to participate in a EPA or ARB approved alternative audit program, if available;
- d) Participate in EPA-required technical system audits conducted either by ARB or EPA;
- e) Utilize and follow ARB data validation procedures to review and verify PM10, PM2.5, and ozone data quality against ARB or EPA established acceptance criteria prior to submittal to AQS, and provide a statement to ARB stating that validation has been performed;
- f) Participate in data verification and validation training provided by ARB and or EPA;

- g) Perform screening of MO data in AQS on a quarterly basis to verify accuracy and completeness (AMP 255 and 430 reports) by reviewing a minimum of one month's data per quarter;
- h) Review MO data in AQS on an annual basis to verify accuracy and completeness (AMP 600 and 450NC reports) of data for certification purposes, and provide a letter to ARB verifying the data quality by April 15th of each year; and
- i) Utilize ARB's CAN process to notify ARB's Quality Management Branch of instrument malfunctions, operational problems, any items needing corrective action or investigation, and/or impending data actions in EPA's Air Quality System (AQS) within 45 days of determination of issue. MO management shall use appropriate discretion to determine issues deemed to be anomalous versus routine occurrences and report appropriately.

In addition, the Placer County APCD is responsible to:

- a) Resolve AQDAs, CANs, and TSA findings, or develop corrective action plan as appropriate, within 45 days of issuance;
- b) Communicate to ARB when data have been altered or modified after it has been submitted to ARB or AQS so ARB can review the justification and adjust data in AQS accordingly; and
- c) Submit PM10, PM2.5, and ozone data to ARB within 75 days of the end of each quarter.

If a MO shares AQS screening group rights with ARB to upload air quality data to AQS, the MO must coordinate with ARB before performing data uploads, otherwise ARB will perform upload of all MO data to AQS. If MO uploads data it will do so in accordance with EPA requirements.

Data collected from SPM sites using FRM, FEM, or approved regional method (ARM) should be evaluated against the requirements of 40 CFR 58.11, 58.12, and Appendix A, and will be submitted to AQS according to 40 CFR 58.16, as applicable. Coordination of data upload between MO and ARB will be performed prior to data upload.

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:

- a) Provide and review an annual survey questionnaire regarding MOs monitoring network planned changes (i.e., new/removed instruments, site closures, new sites, contracted services, etc.) as required by 40 CFR 58.10. ARB shall review completed questionnaires within 30 days of receipt and provide feedback as necessary to MOs regarding network changes;
- b) Participate in annual meeting/teleconference during the network review period to discuss ARB PQAO monitoring network status; and
- c) Provide laboratory analytical support as required (i.e., PM2.5 and PM10 mass analysis, toxics analysis, speciation, etc.) upon prior or mutual agreement.

Placer County APCD Responsibilities:

- a) Complete the annual questionnaire regarding MO monitoring network changes within 30 day of receipt from ARB;
- b) Coordinate all site changes (i.e., openings, closures, relocations), not mentioned in the annual questionnaire with ARB and EPA, in a timely manner. The MO will alert ARB and EPA to anticipated changes before they occur and together develop a mutually agreeable decision for the change before executing it, barring exceptional circumstances; and
- c) Participate in ARB PQAO monitoring network status meetings/teleconferences.

If circumstances should arise that prevent either 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.