



# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**Mary D. Nichols, Chairman**  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

**Edmund G. Brown Jr.**  
Governor

December 1, 2014

**MAILED**  
12.3.14

Mr. Glen Stephens  
Eastern Kern Air Pollution Control District  
2700 M Street, Suite 302,  
Bakersfield, California 93301

Dear Mr. Stephens:

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 ARB's 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 (U.S. EPA) Title 40 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.

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 ARB's 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.

*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

Mr. Glen Stephens  
December 1, 2014  
Page 2 of 3

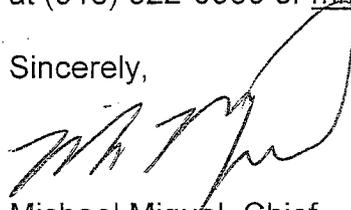
- c) Common calibration facilities and standards.
- d) Oversight by a common quality assurance organization.
- e) Support by a common management, laboratory, or headquarters.

In order to address these common factors, ARB has worked collaboratively with the Eastern Kern Air Pollution Control District (District) and U.S. EPA to define each agency's roles and responsibilities with regard to the operation of the State's ambient air monitoring network (see enclosed). 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](mailto:prainey@arb.ca.gov) or myself at (916) 322-0960 or [mmiguel@arb.ca.gov](mailto:mmiguel@arb.ca.gov), if you have any questions.

Sincerely,



Michael Miguel, Chief  
Quality Management Branch  
Monitoring and Laboratory Division

Enclosure

cc. See next page.

Mr. Glen Stephens  
December 1, 2014  
Page 3 of 3

cc. John Hayes  
Senior Air Quality Specialist  
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Dr. Michael T. Benjamin, Chief  
Monitoring and Laboratory Division

Patrick Rainey, Manager  
Monitoring and Laboratory Division

Carissa Ganapathy  
Monitoring and Laboratory Division

**PRIMARY QUALITY ASSURANCE ORGANIZATION  
ROLES AND RESPONSIBILITIES  
FOR THE CALIFORNIA AIR RESOURCES BOARD AND  
EASTERN KERN AIR POLLUTION CONTROL DISTRICT**

Five common factors have been identified by the U.S. Environmental Protection Agency (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) will strive to collaboratively address the following common factors to the extent practical. ARB has defined the roles and responsibilities of ARB's PQAO in regard to operation of the 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 or according to a common set of procedures

ARB recognizes the unique air monitoring challenges that face California that field operations by a common team may not be feasible. ARB and the 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 ARB's 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 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.
- g) Participate in California Air Pollution Control Officers (CAPCOA) Monitoring Committee meetings and other informational forums.

Eastern Kern Air Pollution Control District (APCD) Responsibilities:

- a) Utilize and follow ARB's QMP. Any modifications to ARB's QMP will be specified in an addendum and submitted to ARB for review and approval.
- b) Provide a supervisory level or designee PQAO Point-of-Contact to ARB. The contact will receive list serve notices to provide 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.
- 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 U.S. 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, to QAPPs and SOPs via the PQAO point-of-contact list.
- d) Review and approve alternative QAPPs and SOPs prepared by MOs.

Eastern Kern APCD Responsibilities:

- a) Utilize and follow ARB's QAPP for PM10 and San Diego County Air Pollution Control District's (APCD) QAPP for PM2.5. Any deviations to the respective QAPPs will be specified in an addendum and submitted to ARB for review and approval.
- b) Utilize and follow ARB's SOPs for PM2.5 and PM10 programs. Any deviations to ARB's SOPs will be specified in an addendum and submitted to ARB for review and approval. The District may develop its own SOPs for PM10/2.5 at a later date.
- c) District management will review SOPs periodically to ensure they are consistent with district practices and notify ARB of any revisions as they occur.
- d) Make available to ARB a record or list of quality assurance related documents (QMP, QAPP, SOP, training plan, etc.) utilized by Eastern Kern APCD for the ambient air monitoring network.

If Eastern Kern APCD conducts a special purpose monitoring (SPM) program funded by U.S. EPA, the district will seek quality assurance assistance from the EPA or ARB Quality Management Branch. Such monitoring is required to be covered by appropriate quality assurance documents prior to sample collection.

3. Common calibration facilities and standards

MOs within ARB's PQAO are encouraged to utilize the services provided by ARB's Standards Laboratory for certifications, calibrations, and verifications to ensure

uniformity and consistency. Organizations choosing to utilize external calibration facilities or vendor produced standard materials will provide documentation of traceability upon request by ARB or U.S. EPA.

ARB Responsibilities:

- a) Provide timely certification, calibration, and verification services that meet or exceed Title 40, Code of Federal Regulations (40 CFR) Part 58 requirements via ARB's Standards Laboratory upon request.

Eastern Kern APCD Responsibilities:

- a) Utilize ARB services for certification and calibration of high and low-volume flow devices.
- b) Maintain a schedule and record of certification dates that are available to ARB or U.S. EPA upon request.

Additionally, ARB can provide equipment acceptance testing, repair, and field calibration services to Eastern Kern APCD upon agreement, which may depend upon budget feasibility and staff availability.

4. Oversight by a common quality assurance organization

ARB Responsibilities:

- a) Identify pollutants monitored by Eastern Kern APCD that are included in ARB's PQAO.
- b) Conduct Performance Evaluation (PE) audits for semiannual flow rate for Particulate Matter (PM10 high-volume and PM2.5 low-volume).
- 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 outside acceptable limits, ARB will initiate Air Quality Data Action (AQDA). The AQDA will request the Eastern Kern APCD to correct the identified deficiencies and ensure associated ambient air data are verified to be good quality data. To ensure compliance, ARB will conduct a re-audit to verify the corrective action once the problem has been resolved and will review data in AQS to ensure recommended data action was taken (i.e., flagging, invalidation, etc.).
- e) Conduct technical systems audits (TSA) on a schedule of all MOs within ARB's PQAO every 3-5 years.

- f) Maintain the Corrective Action Notification (CAN) database 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 appropriate action was 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 verification and validation procedures to be performed by the MO prior to data being sent to ARB for upload to Air Quality System (AQS).
- i) Provide training on data verification and validation procedures during the PQAO air monitoring training.
- j) Upload MO validated data for PM10 to AQS within 90 days following the end of each quarter. For PM2.5 mass analysis at the Ridgecrest site, San Diego County APCD uploads the validated data.
- k) Perform post-AQS screening of data to identify possible issues.
- l) Perform annual certification of Eastern Kern APCD's PM10 data for which ARB has AQS submittal authority by May 1<sup>st</sup> of each year.
- m) Perform annual certification of Eastern Kern APCD's PM2.5 data for which San Diego County APCD has AQS submittal authority by May 1<sup>st</sup> of each year.
- n) Perform an annual evaluation of the statistical summaries of quality assurance and quality control data from all MOs in ARB's PQAO, and distribute the results.

Eastern Kern APCD Responsibilities:

- a) Review and verify pollutants on an annual basis that are included in ARB's PQAO.
- b) Participate in particulate PE audits (PM2.5 and PM10) conducted by ARB.
- c) Participate in U.S. EPA required technical system audits conducted either by ARB or U.S. EPA.
- d) Utilize and follow ARB's procedures to validate PM2.5 and PM10 data quality against ARB or U.S. EPA established acceptance criteria prior to upload to AQS. Any deviations to ARB's procedure will be specified in an addendum and submitted to ARB for review and approval.
- e) Ensure that San Diego County APCD conducts PM2.5 mass analysis and uploads the data to AQS.
- f) Participate in data verification and validation training provided by ARB and/or U.S. EPA.
- g) Review data in AQS (AMP 256, 430 or another ARB approved report) on a quarterly basis to verify accuracy and completeness.

- h) Review data in AQS (AMP 600 and 450 reports as appropriate) on an annual basis to verify the accuracy and completeness of data for certification purposes. Provide a letter verifying the data quality by April 15<sup>th</sup> of each year (See Appendix 1).
- i) Utilize ARB's CAN process to notify ARB's Quality Management Branch of instrument malfunctions, operational problems, data quality issues, and/or any items needing corrective action or investigation within 45 days of determination of the issue. Management will use appropriate discretion to determine issues deemed to be anomalous versus routine occurrences.
- j) Resolve AQDAs, CANs, and TSA findings, and develop corrective action plan as appropriate, within 45 days of issuance.
- k) Utilize the CAN process to communicate to ARB when data is altered or modified after submittal so that ARB can review the justification and adjust data in AQS accordingly.

Data collected from SPM sites using Federal Reference Methods, Federal Equivalent Methods, or approved regional methods should be evaluated against the requirements in 40 CFR 58.11, 58.12, and Appendix A, and submitted to AQS according to 40 CFR 58.16.

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 MOs monitoring network, both parties will document and evaluate potential or scheduled modifications to the air monitoring network.

ARB Responsibilities:

- a) Provide and review an annual survey questionnaire regarding planned changes to the monitoring network (i.e., new/removed instruments, site closures, new sites, contracted services, etc.) for MOs in ARB's PQAO that are not drafting their own network plan as required in 40 CFR, Part 58.10. ARB will review completed questionnaires within 30 days of receipt and provide feedback regarding network changes.
- b) Participate in annual meeting/teleconference during the network review period to discuss ARB PQAO monitoring network status.
- c) Provide laboratory analytical support as required upon agreement.

Eastern Kern APCD Responsibilities:

- a) Complete the annual questionnaire regarding monitoring network changes within 30 days of receipt from ARB.

- b) Coordinate all site changes (i.e., openings, closures, relocations) not mentioned in the annual questionnaire to ARB. Eastern Kern APCD will notify ARB of anticipated changes before they occur and obtain prior approval of the change before executing it, barring exceptional circumstances.
- c) Participate in ARB PQAQO monitoring network status meetings/teleconferences.

If circumstances should arise that prevent either ARB and/or Eastern Kern APCD from meeting the above mentioned responsibilities, the agencies will work collaboratively to ensure that the common goal of generating legally and scientifically defensible data throughout the PQAQO monitoring network is met. As needed, the agencies will work with U.S. EPA Region 9 to assist in meeting the PQAQO requirements.

# Appendix 1



# Air Resources Board



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**Edmund G. Brown Jr.**  
Governor

(Insert Date)

Ms. Gayle Sweigert  
California Air Resources Board  
1001 I Street  
Sacramento, California 95812

Dear Ms. Sweigert:

The (*specify district*) is responsible for submitting air quality and precision data to the Air Resources Board (ARB) for submittal to the Air Quality System (AQS) for those monitors that are under the control of the District. In support of the requirements in Title 40, Code of Federal Regulation (40 CFR), Part 58, this letter certifies that the District has reviewed the ambient concentration data and the quality assurance data for the (*specify year*) and attests that the ambient data are accurate and complete to the best of our knowledge taking into consideration the quality assurance findings. We recommend the data for certification.

At this time the District is not recommending certification of the following data: (*specify pollutants, site name, AQS #, and reason for not recommending certification*)

*Specify any other data that the District has partial/shared responsibility for generating (filter-based PM10, PM2.5, toxics, etc.) and identify the agency responsible for generating and submitting the data to AQS.*

Copies of the AQS data certification report (AMP 600) and the AQS Quick Look Report (AMP 450NC, if applicable) are attached.

Sincerely,

(Authorized District monitoring manager or APCO)

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California Environmental Protection Agency