STATE OF CALIFORNIA
AIR RESOURCES BOARD

AIR MONITORING QUALITY ASSURANCE

VOLUME V

STANDARD OPERATING PROCEDURES
CORRECTIVE ACTION NOTIFICATION

Appendix AN

MONITORING AND LABORATORY DIVISION
October 2014

California Environmental Protection Agency

Air Resources Board

Standard Operating Procedure Approval

Title: Corrective Action Notification

SOP: QMB SOP, Revision (3)

Section: Quality Management Section

Branch: Quality Management Branch

Division: Monitoring and Laboratory Division

Approval: This SOP has been reviewed and approved by:

/s/	10/10/2014
Patrick Rainey, Manager Quality Management Section Quality Management Branch	Date
/s/	10/10/2014
Michael Miguel, Chief Quality Management Branch	Date

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1.0 INTRODUCTION

The Corrective Action Notification (CAN) process documents issues that may impact or potentially impact data quality, completeness, storage, or reporting.

The CAN process is the overall effort to investigate and correct air monitoring issues and to prevent recurrence. The CAN process may also be used to identify U.S. Environmental Protection Agency and Air Resources Board (ARB) recommended practices and procedures to improve the quality of data generated. The objective of the CAN process is to improve data quality and to ensure compliance with State, federal, and local requirements.

Monitoring organizations within the ARB Primary Quality Assurance Organization (PQAO) are encouraged to adopt this process.

This document describes ARB's CAN process.

1.1 CAN PROCESS

1.1.1 INITIATING THE CAN PROCESS

Any person in ARB or a local air monitoring organization that comprises the ARB PQAO, may initiate the CAN process when a potential air monitoring issue is identified. Issues prompting the CAN process may include, but not limited to; incomplete logbook or record documentation; incorrect frequency or failure of calibrations or routine checks; expired standards; missed or invalid samples; missing or anomalous data; etc. Issues resolved through common practice and documented through other mechanisms, that do not present a significant impact to data quality, completeness, storage, or reporting, may not prompt the CAN process. Decision to utilize the CAN process for these situations should be determined by the initiating organization.

1. Obtain a CAN form available online at: http://www.arb.ca.gov/aaqm/qa/pqao/can/can-form.pdf.

   NOTE: See Figure 1.1 for an example of a CAN form.

2. Complete fields in Section 1 of the CAN form as applicable. Under Reason for Corrective Action Notification, please provide a narrative of the identified issue.

   NOTE: If either the Start Date & Time or End Date & Time of the issue is estimated, check the "Estimated?" box.

3. Submit the CAN form to your immediate supervisor for review and signature.

4. The immediate supervisor is responsible for forwarding the signed CAN form to the ARB Point of Contact and the supervisor of the appropriate section or organization responsible for corrective action and resolution.

1.1.2 INITIATING THE CAN PROCESS ANONYMOUSLY

Any person in ARB, a local air monitoring organization that comprises the ARB PQAO, or another PQAO, may also initiate the CAN process anonymously when a potential air monitoring issue is identified.

1. Obtain and print a CAN form available online at: http://www.arb.ca.gov/aaqm/qa/pqao/can/can-form.pdf.

   NOTE: See Figure 1.1 for an example of a CAN form.

2. Complete fields in Section 1 of the CAN form as applicable, but it is not necessary to enter any information in the Initiator, Agency, or Supervisor fields. Under Reason for Corrective Action Notification, please provide a narrative of the identified issue.

   NOTE: If either the Start Date & Time or End Date & Time of the issue is estimated, check the "Estimated?" box.

3. Mail a hardcopy of the CAN form to the ARB Point of Contact.

   NOTE: Issues identified in CAN forms submitted anonymously will be investigated by the ARB Point of Contact. If the ARB Point of Contact determines an issue may impact data quality, completeness, storage, or reporting, the ARB Point of Contact will initiate a new CAN form for the issue and forward the form to the responsible section or organization. The responsible section or organization will work directly with the ARB Point of Contact regarding questions and resolution of the issue.

   If the ARB Point of Contact determines that an issue will not impact data quality, completeness, storage, or reporting, the CAN form will be retained and no further action will be taken.

1.1.3 RESPONSIBLE SECTION OR ORGANIZATION

The section or organization receiving the CAN form is responsible for ensuring that the identified issue is investigated, corrective action implemented, and the issue is resolved. The investigation should attempt to identify the root cause of the issue and assess potential impacts on data quality. The implemented corrective action should address the issue and prevent recurrence.

1. Review Section 1 of the CAN form and complete blank fields as appropriate.

2. Complete Section 2 of the CAN form.

   NOTE: If data are impacted, ensure appropriate data groups are notified and that appropriate action is taken.

3. Forward the completed form to all affected parties, including the ARB Point of Contact, within 45 days of issuance.

   NOTE: See Figure 1.2 for an example of a completed CAN form.

   NOTE: If corrective action cannot be completed within 45 days, forward the proposed corrective action with an anticipated completion date. Once corrective action is implemented, forward the completed form to the ARB Point of Contact.

1.1.4 ARB POINT OF CONTACT

The following steps are taken by the ARB Point of Contact or designee:

1. Assign CAN Number and log into CAN database once the CAN form is received or initiated by the ARB Point of Contact.

   NOTE: If the ARB Point of Contact determines that an issue will not impact data quality, completeness, storage, or reporting, the CAN form will be retained and will not be assigned a number, the initiating supervisor and the supervisor of the responsible section or organization will be notified, and no further action will be taken.

2. Send acknowledgment of receipt to the responsible section or organization once the CAN form is received from the responsible section or organization.

1.1.5 ARB PQAO CAN REVIEW

1. ARB's Quality Management Branch (QMB) will review the CAN form and verify that the action taken was appropriate, or request additional information or corrective action, as necessary.

1.1.6 ARB PQAO CAN APPROVAL

1. Upon approval of CAN, QMB will send a letter notifying the initiator, initiator's immediate supervisor, and responsible section or organization of the closure of the CAN form.

2. QMB will review the CAN database annually to identify common or systemic issues. The issues and data quality impacts will be summarized in an annual report.

   NOTE: See Figure 1.3 for an example CAN database query of autocal related CANs.

California Environmental Protection Agency

Air Resources Board

Corrective Action Notification

This form is used to document issues that may impact or potentially impact data quality, completeness, storage, or reporting.

Section I: (to be completed by Initiator)

Initiator: _____ Date: _____

Subject: _____ Agency: _____

Reason for Corrective Action Notification (continue on an attachment if needed):

_____

_____

_____

_____

Estimated?

Start Date & Time: _____ End Date & Time: _____ ☐

Parameter(s) affected: _____ Expected Completion Date: _____

*Up to 45 days from initiation Date

Supervisor: _____ Date: _____

Section II: (to be completed by responsible section or organization)

Corrective Action Taken (continue on an attachment if needed):

_____

_____

_____

_____

Action taken by: _____ Date: _____

Resolution (continue on an attachment if needed): *Include changes to prevent recurrence, and any effect on data.

_____

_____

_____

_____

Resolved by: _____ Date: _____

Forward to: Michael Miguel, PQAO Point of Contact; PO BOX 2815, Sacramento, California 95812; mmiguel@arb.ca.gov

For questions regarding the CAN process, contact PQAO@arb.ca.gov CAN # assigned: _____

California Air Resources Board | MLD/QMS-064 (new)

FIGURE 1.1 CAN FORM

California Environmental Protection Agency

Air Resources Board

Corrective Action Notification

This form is used to document issues that may impact or potentially impact data quality, completeness, storage, or reporting.

Section I: (to be completed by Initiator)

Initiator: Jane Doe Date: May 11, 2012

Subject: PM10 Filter with corner missing Agency: Any Agency

Reason for Corrective Action Notification (continue on an attachment if needed):
PM 10 filter received from Anywhere monitoring site on May 8, 2012 had a corner ripped off which resulted in a final wt less than the tare wt, and invalidation of the sample. Sample collection date was April 30, 2012.

Estimated?

Start Date & Time: 00:01, 4/30/2012 End Date & Time: 23:59, 4/30/2012 ☐

Parameter(s) affected: PM10 Hi-Vol sample Expected Completion Date: June 11, 2012
*Up to 45 days from Initiation Date

Supervisor: Jane Doe Supervisor Date: May 18, 2012

Section II: (to be completed by responsible section or organization)

Corrective Action Taken (continue on an attachment if needed):
An investigation determined the filter holder had become sticky on the corner and the filter had stuck and ripped during sample recovery.

Action taken by: John Doe, Operator Date: May 23, 2012

Resolution (continue on an attachment if needed): *Include changes to prevent recurrence, and any effect on data.
Filter sampling procedures have been modified to include inspection, and cleaning if necessary, of filter holder prior to installation of new filter media for sampling. Make-up sample could not be collected within allowable period. Sample will be invalidated.

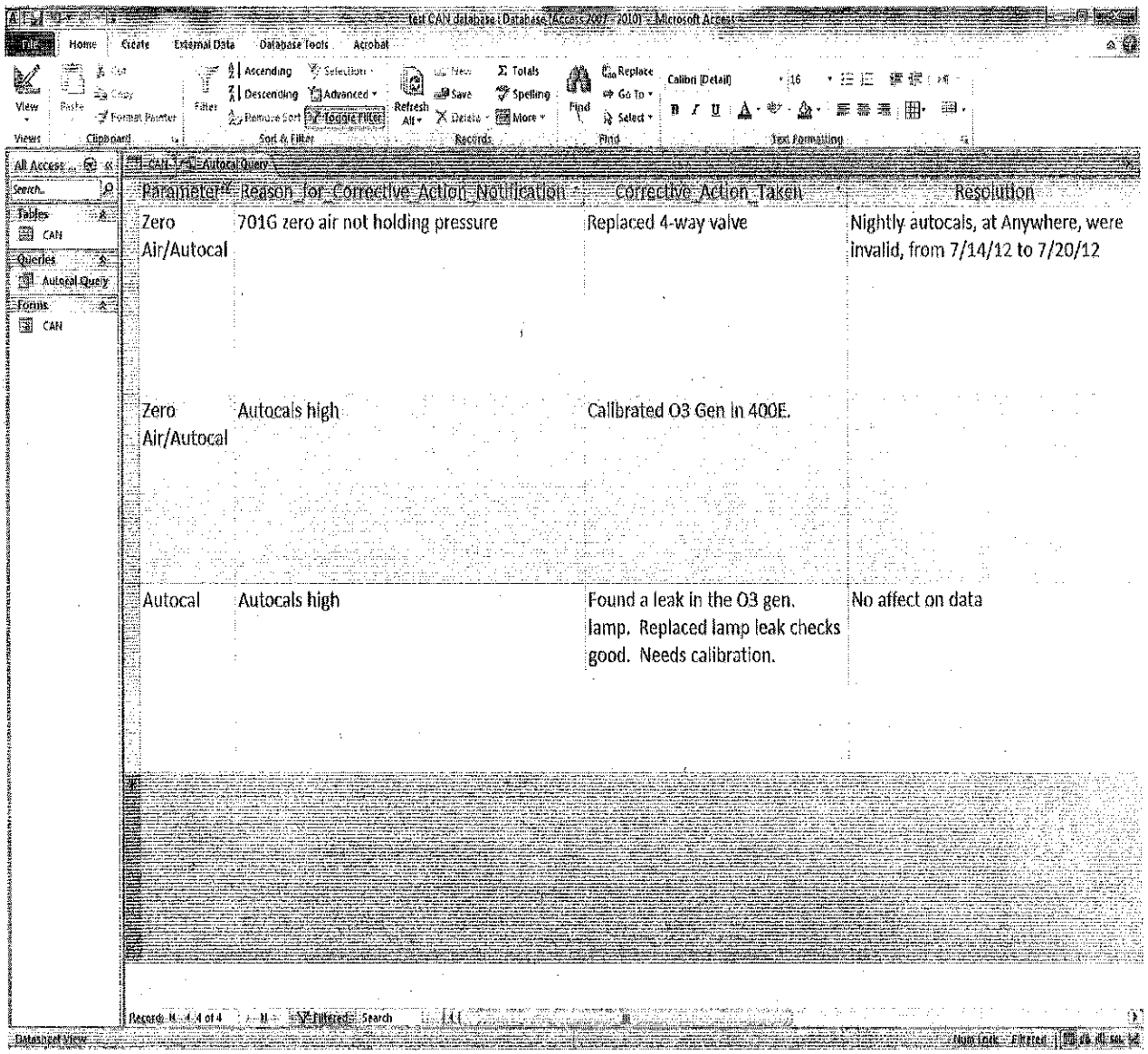
Resolved by: John Doe, Supervisor Date: May 28, 2012

Forward to: Michael Miguel, PQAO Point of Contact; PO BOX 2815, Sacramento, California 95812; mmiguel@arb.ca.gov

For questions regarding the CAN process, contact PQAO@arb.ca.gov CAN # assigned: _____

California Air Resources Board MLD/QMS-064 (new)

FIGURE 1.2 EXAMPLE COMPLETED CAN FORM



Parameter	Reason_for_Corrective_Action_Notification	Corrective_Action_Taken	Resolution
Zero Air/Autocal	701G zero air not holding pressure	Replaced 4-way valve	Nightly autocals, at Anywhere, were invalid, from 7/14/12 to 7/20/12
Zero Air/Autocal	Autocals high	Calibrated O3 Gen in 400E.	
Autocal	Autocals high	Found a leak in the O3 gen. lamp. Replaced lamp leak checks good. Needs calibration.	No affect on data

FIGURE 1.3 EXAMPLE CAN DATABASE QUERY