



**CALIFORNIA**  
AIR RESOURCES BOARD

**AIR MONITORING QUALITY ASSURANCE**

**VOLUME V**

**STANDARD OPERATING PROCEDURES  
CORRECTIVE ACTION NOTIFICATION**

Appendix AN

MONITORING AND LABORATORY DIVISION

November 2020



**Standard Operating Procedure Approval**

Title: Corrective Action Notification

SOP: QMB SOP, Revision (5)

Section: Quality Management Section

Branch: Quality Management Branch

Division: Monitoring and Laboratory Division

Approval: This SOP has been reviewed and approved by:

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11/20/2020  
Date

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**CORRECTIVE ACTION NOTIFICATION**

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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 California Air Resources Board (CARB) 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 CARB Primary Quality Assurance Organization (PQAO) are encouraged to adopt this CAN process.

NOTE: Some agencies have decided to use the CAN process as an internal process and CARB has approved district quality management documents that identify this practice. The procedures identified in this document do not all apply to districts that use the CAN process internally.

## 2.0 CAN PROCESS

### 2.1 INITIATING THE CAN PROCESS

Any person in CARB or a local air monitoring organization that comprises the CARB 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; not correctly performing the internal zero and span; missed or invalid samples; failed quality control checks; 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:  
<https://ww2.arb.ca.gov/resources/documents/mldqms-064-correction-action-notification-form>.

NOTE: See Figure 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.

NOTE: The CARB point of contact will assign the CAN number; see Section 1.1.4.

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

## 2.2 INITIATING THE CAN PROCESS ANONYMOUSLY

Any person in CARB, a local air monitoring organization that comprises the CARB 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:  
<https://ww2.arb.ca.gov/resources/documents/mldqms-064-correction-action-notification-form>

NOTE: See Figure 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 CARB Point of Contact.

NOTE: Issues identified in CAN forms submitted anonymously will be investigated by the CARB Point of Contact. If the CARB Point of Contact determines an issue may impact data quality, completeness, storage, or reporting, the CARB 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 CARB Point of Contact regarding questions and the resolution of the issue.

If the CARB 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.

## 2.2 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, by either filling out the form or by sending an email to the CARB point of contact with necessary information (include CAN number in email).

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

3. Forward the completed form or reply by email with necessary information (include CAN number in email) to all affected parties, including the CARB Point of Contact, within 45 days of issuance.

NOTE: See Figure 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 or reply by email to the CARB Point of Contact.

## 2.4 CARB POINT OF CONTACT

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

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

NOTE: If the CARB 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.

## 2.5 CARB PQAO CAN REVIEW

CARB'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. Auditors in the Quality Assurance Section of QMB will help resolve issues that have been identified in the CAN process by collecting documentation of implemented corrective actions when visiting air monitoring sites, as appropriate.

## 2.6 CARB 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 are summarized in an annual report.

NOTE: See Figure 3 for an example CAN database query CANs.



STATE OF CALIFORNIA  
 CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
 CALIFORNIA AIR RESOURCES BOARD  
**CORRECTIVE ACTION NOTIFICATION FORM**  
 MLD/QMS-064 (REV. 11/2020) PAGE 1 OF 1

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

Issued by:

**SECTION I: (to be completed by Initiator)**

Issued to:	Date:	
Subject:	Agency:	
Reason for Corrective Action Notification (continue on an attachment if needed):  		
Start Date & Time:	End Date & Time:	Estimated? <input type="checkbox"/>
Parameter(s) affected:	Expected Completion Date: (*Up to 45 days from Initiation Date)	
Supervisor:	Date:	

**SECTION 2: (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: PQAQ Point of Contact; PO BOX 2815, Sacramento, California 95812; [QA@arb.ca.gov](mailto:QA@arb.ca.gov)  
 For questions regarding the CAN process, contact [QA@arb.ca.gov](mailto:QA@arb.ca.gov)

CAN # assigned (For QMS use only):

FIGURE 1. CAN FORM

STATE OF CALIFORNIA  
 CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
 CALIFORNIA AIR RESOURCES BOARD  
**CORRECTIVE ACTION NOTIFICATION FORM**  
 MLD/QMS-064 (REV. 11/2020) PAGE 1 OF 1

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

Issued by:  
 CARB

**SECTION 1: (to be completed by Initiator)**

Issued to: Jane Doe	Date: 10/11/2020
Subject: PM10 Filter corner missing	Agency: Any Agency
Reason for Corrective Action Notification (continue on an attachment if needed): PM10 filter received from Anywhere monitoring site October 8, 2020 had a corner ripped off which resulted in a final wt less than the tare wt and invalidation of sample. Sample collection data was September 30, 2020.	
Start Date & Time: 00:01 09/30/2020	End Date & Time: 23:59 9/30/2020
Parameter(s) affected: 81102 PM10	Expected Completion Date: (*Up to 45 days from Initiation Date) 11/11/2020
Supervisor: <i>Jane Doe Supervisor</i>	Date: 10/18/2020

**SECTION 2: (to be completed by responsible section or organization)**

Corrective Action Taken (continue on an attachment if needed): An investigation determined that the filter holder had become sticky on the corner and the filter had stuck and ripped during sample recovery.	
Action taken by: <i>Jane Doe Supervisor</i>	Date: 10/23/2020
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. Make-up sample could not be collected within allowable period and sample will be invalidated.	
Resolved by: <i>Jane Doe Supervisor</i>	Date: 10/28/2020

Forward to: PQAO Point of Contact; PO BOX 2815, Sacramento, California 95812; [QA@arb.ca.gov](mailto:QA@arb.ca.gov)

For questions regarding the CAN process, contact [QA@arb.ca.gov](mailto:QA@arb.ca.gov)

CAN # assigned (For QMS use only):  
 001

FIGURE 2. EXAMPLE COMPLETED CAN FORM

**This is the Corrective Action Notification (CAN) Status Screen.**

\*Note: Only staff with appropriate access can make changes to the CAN status.

CAN Number	Issue Date	Site Number	Parameter	Category	Receiving Agency	CLOSED*
<a href="#">380</a>	2018-10-04		Database, Excel, Folder	Data management	California Air Resources Board	<input type="checkbox"/>
<a href="#">391</a>	2019-01-25		Sabio Gas Calibrator S/N:19700617	Calibrations and certifications	Monterey Bay Unified APCD	<input type="checkbox"/>
<a href="#">395</a>	2019-04-24	06646	61104	Sensor malfunction	California Air Resources Board	<input type="checkbox"/>
<a href="#">400</a>	2019-05-31		Thermo 146i SN:917736526	Calibrations and certifications	Great Basin Unified APCD	<input type="checkbox"/>
<a href="#">405</a>	2019-07-25		Ozone	Data management	California Air Resources Board	<input type="checkbox"/>
<a href="#">408</a>	2019-08-28	70060,80114,33144	Xontech 924	Calibrations and certifications	California Air Resources Board	<input type="checkbox"/>
<a href="#">412</a>	2019-09-24	29800, 29794	PM 2.5	Calibrations and certifications	Northern Sierra AQMD	<input type="checkbox"/>
<a href="#">413</a>	2019-09-24	32821	PM 2.5	Siting	Northern Sierra AQMD	<input type="checkbox"/>
<a href="#">414</a>	2019-10-18		Teledyne API T750 MFC	Calibrations and certifications	Sacramento Metropolitan AQMD	<input type="checkbox"/>
<a href="#">418</a>	2019-10-25		Teledyne API T750U SN:51	Calibrations and certifications	San Joaquin Valley Unified APCD	<input type="checkbox"/>
<a href="#">419</a>	2019-10-29	06646	BAM2.5 & BAM10	Maintenance	California Air Resources Board	<input type="checkbox"/>
<a href="#">422</a>	2019-11-14		Teledyne API T400. SN:169	Calibrations and certifications	California Air Resources Board	<input type="checkbox"/>
<a href="#">423</a>	2019-11-19	99915	PM10 and PM2.5	Calibrations and certifications	California Air Resources Board	<input type="checkbox"/>
<a href="#">424</a>	2019-12-06		Sabio Gas Calibrator S/N:16100714	Calibrations and certifications	California Air Resources Board	<input type="checkbox"/>
<a href="#">427</a>	2019-12-10	24531	BAM10 and BAM2.5	Maintenance	San Joaquin Valley Unified APCD	<input type="checkbox"/>
<a href="#">429</a>	2020-01-31	15301	61103	Calibrations and certifications	Eastern Kern APCD	<input type="checkbox"/>
<a href="#">430</a>	2020-01-27		88101	Data Flagging	California Air Resources Board	<input type="checkbox"/>

[Change CAN Status](#)

Number of CANs = 17  
Number of OPEN/PENDING CANs = 17

**FIGURE 3. EXAMPLE CAN DATABASE QUERY**