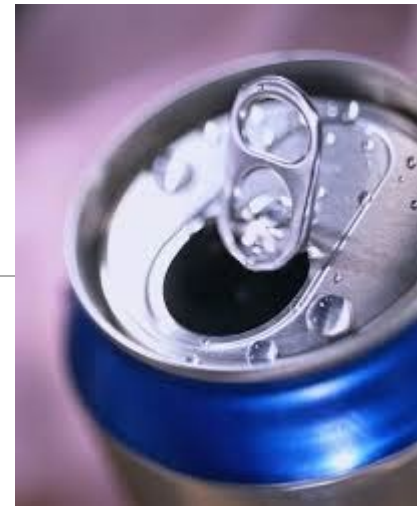


Corrective Action Processes

- What triggered Corrective Action Process
 - EPA TSA findings
- Three agencies' different Corrective Actions
 - CARB
 - SCAQMD
 - BAAQMD
- Examples of when to issue Corrective Action

Corrective Action Notifications: *Crack Open That CAN*



PRESENTED BY AMAN BAINS
CARB Quality Management Section
2019 PQAQO Training, Davis, CA

Outline

- Why a Corrective Action process?
- What is a Corrective Action?
- District options for issuing Corrective Actions
- CAN example form
- When to issue Corrective Actions exercise

Why a Corrective Action Process?

- TSA Audits are finding that there isn't a corrective process
- Example TSA findings
 - District had not established procedures to initiate corrective actions for resolution of internal matters.
 - CARB PM Laboratory does not have a formal corrective action process for addressing issues with PM filter collection.

What is a CAN? What can it do?

- Not used to discredit personnel/operations
- Identify and correct issues to avoid reoccurrence
- Document corrective actions
- Determine if a common issue may appear

District Options

- District can develop its own corrective action process
- Must be reviewed and approved by CARB
- Some have adopted CARB's process

District Options (continued)

- Or, follow and accept CARB's process
 - Submit letter to CARB
- CARB's CAN form and SOP are available on the QA website review
- Districts can view CANs in Precision and Accuracy (PandA) page

Dist

N Use

DATE: June 1, 2017
TO: Air Monitoring Staff
FROM: [REDACTED]
SUBJECT: Review of Corrective Action Notification (CAN) Material

To address the corrective action recommendation for one of the findings of our 2015 TSA, the District will adopt the ARB CAN process. The EPA recommendation for "Finding Number: 14" states:

"The [REDACTED] and CARB R&R document states that [REDACTED] will "Utilize CARB's CAN process to report instrument malfunctions, operational problems, data quality issues..." It is unclear whether [REDACTED] intends to utilize CARB's CAN process to resolve internal matters as well. During the audit, the staff relayed several ongoing instrument issues. Such systemic problems are the type that both [REDACTED] and CARB indicated would be appropriate to raise in a corrective action plan. [REDACTED] have been used in the past. [REDACTED] had not yet [REDACTED]

All monitoring stations [REDACTED]. Please review the [REDACTED] in the table below.

- https://www.arb.ca.gov/aaqm/qa/pqao/can/can_sop.pdf
- https://www.arb.ca.gov/aaqm/qa/pqao/can/can_form.pdf
- <https://www.arb.ca.gov/aaqm/qa/pqao/can/can-letter.pdf>
- <https://www.arb.ca.gov/aaqm/qa/pqao/can/2014cans.pdf>
- <https://www.arb.ca.gov/aaqm/qa/pqao/can/2015cans.pdf>
- <https://www.arb.ca.gov/aaqm/qa/pqao/pdfs/qab002-can.pdf>

Name	Date	CAN SOP	CAN Form	2013 CAN	2014 CAN	2015 CAN	QA Bulletin	Signature
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

ARB
Not
• Befo
SOP



CALIFORNIA
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)

Issued by: _____

Issued to: _____

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;
michael.miguel@arb.ca.gov

For questions regarding the CAN process, contact PQAO@arb.ca.gov

CAN # assigned: _____

d the

ARB Not

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: Wendy Caruso

Issued to: _____ Date: 08-09-2017
Subject: BAM1020 Tape Breakage Agency: North Coast Unified AQMD

Reason for Corrective Action Notification (continue on an attachment if needed):
Repeated Tape Breakage in BAM1020

Start Date/Time: 02-01-2017 End Date/Time: _____ Estimated? Y
Parameter(s) affected: PM2.5 Expected Completion Date: 09-23-2017
*Up to 45 days from Initiation Date
Supervisor: Brain Wilson Date: 08-09-2017

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

Corrective Action Taken (continue on an attachment if needed):
NCUAQMD Actions: a)Notified ARB b:) ARB lab observed instrument for two days, no tape breakage c)ARB sent NCUAQMD a different BAM1020 d)that different Bam1020 had the tape break after about 4 days e) NCUAQMD reset the tape and ordered a new ball-side for the unit, which will be installed on the next tape breakage event.

Action taken by: Randy Dickau Date: 08-09-2017

Resolution (continue on an attachment if needed): *Include changes to prevent recurrence, and any effect on data.
There has been no tape breakage for four months. While no cause for the breakage was ever identified, the current CAN should be closed. Tape has been purchased from a new vendor. In an event of further breakage, new CAN should be initiated.

Resolved by: Brian Wilson Date: 04-25-2018

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

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

CAN # assigned: 285

District CANs Panda Access

Air Monitoring District Precision and Accuracy Programs Access Page

This page last reviewed on February 20, 2013

Precision and Accuracy Results

To access an individual air monitoring agency's precision and accuracy results, please select an air monitoring agency from the pull down menu and type in the associated password. If your district password is unknown, please contact [Mr. Ranjit Bhullar](#), Manager, Quality Assurance Section.

Click "Submit" Below to Access Results

<input type="text" value="-- Select Your District --"/>	PASSWORD: <input type="text"/>
<input type="submit" value="Submit"/>	

[Site Information Menu Top Page](#)

[P and A - District Access Page](#)

[Search QA Site Information Database](#)

<https://ww3.arb.ca.gov/qaweb/panda/panda.php>

Audience Exercise

Examples to issue a CAN?

1. Data impact
2. Monitoring related issues
 - Siting
 - Malfunctions
3. Incomplete chain-of-custody forms
4. Documentation of correction

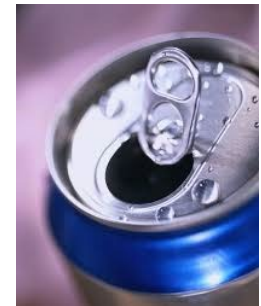
Scenario 1

- Hourly ozone data missing from a nearby site
- Should a CAN be initiated?
 - **No**
 - **Call the site supervisor to gather information on the issue**
 - **Issue was noted in logbook and site was up and running in few hours**



Scenario 2

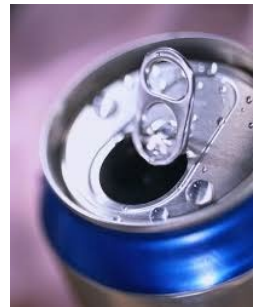
- Multiple monthly flow checks on BAM repeatedly drops or exceeds the allowable range.
- Should a CAN be initiated?
 - **Yes, Initiate CAN and describe resolution to prevent reoccurrence. Flow checks are conducted at higher frequency and data was nulled with AN-(Machine Malfunction).**



Scenario 3

- Historical data of ozone unit was reviewed. Unit was not operating properly during a specific period.
- Should a CAN be initiated?

Yes, null codes were used where instrument was suspected of error.



Scenario 4

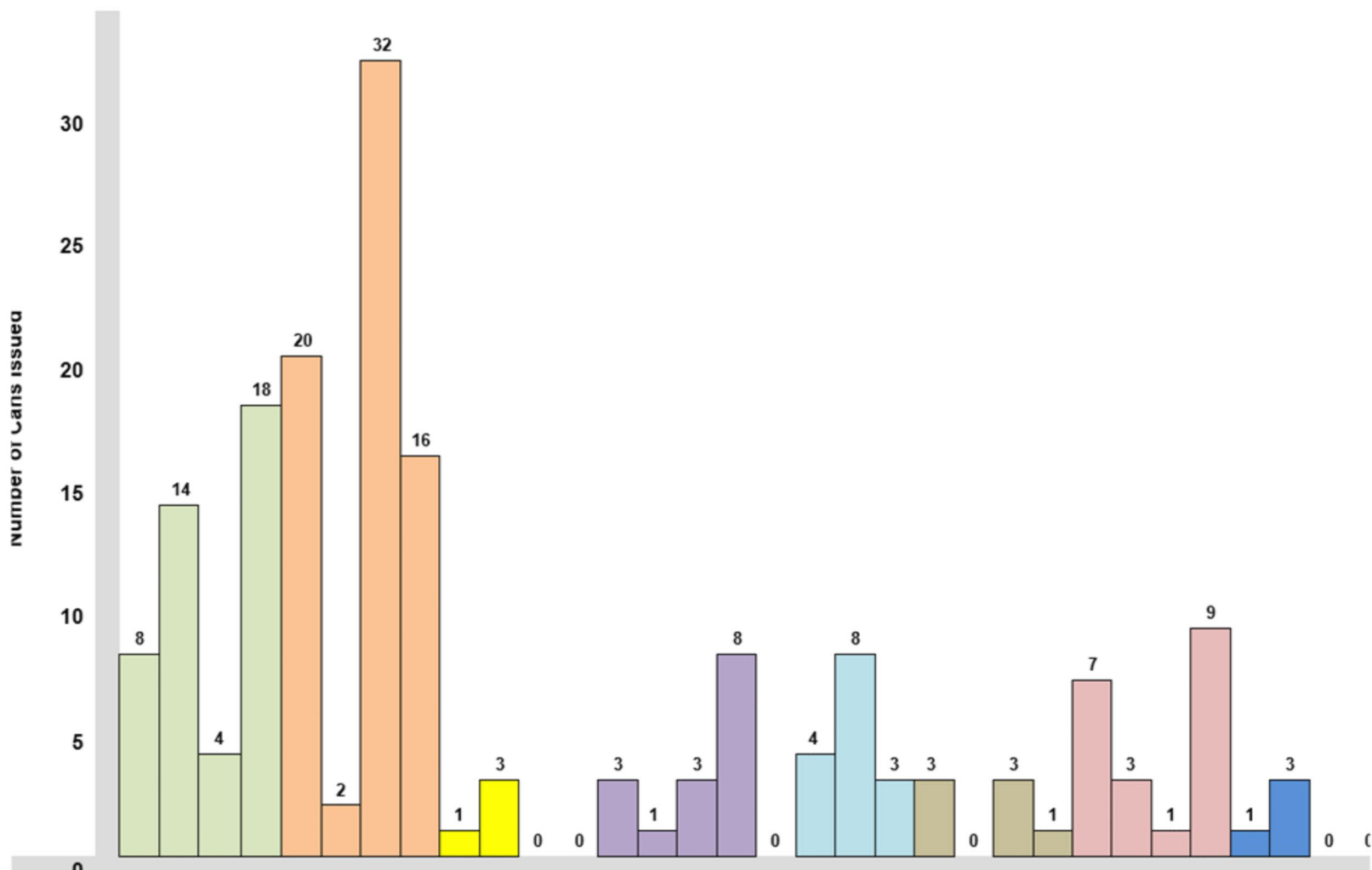
- GPS coordinates listed for a number of sites have been identified to be more than 50 meters from the current location.
- Should a CAN be initiated?

Yes, district will update GPS coordinate and review it annually during network plan review



Summary

- No shame in issuing CANs
- Used to document issue and resolution
- CAN form and SOP are available on the QA website here: <https://ww2.arb.ca.gov/our-work/programs/quality-assurance/data-corrective-action-process>



AQS Update				Calibration & Certificat.				Cylinder				Data Flagging				Flow Rate				Maintenance				Other				PM Lab			
2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
8	14	4	18	2	32	16	0	1	3	0	0	3	1	3	8	4	8	3	3	0	3	1	0	7	3	1	9	1	3	0	0