



Florida Department of Environmental Protection

Statewide Corrective Action Process

March 22, 2016





Overview

- Purpose
- Basic Content
- Types of Corrective Action
- Process
- Outcomes





Purpose

The corrective action process is used to:

- Enhance the documentation involved in the collection of defensible air quality data.
- Identify and document conditions outside control limits or normal operating parameters, while keeping the appropriate levels of management informed.
- Reduce or prevent the collection of poor quality data and/or the loss of data.





General Objective

P

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PROBLEM

RECTIFICATION

INVESTIGATION

CORRECTION



Basic Content

- The corrective action report is a summary of specific problem(s) affecting the collection of ambient air data at a monitoring site.
- Additional documentation such as emails, purchase orders, photos, etc., are recommended to be appended to the corrective action report to serve as additional supporting documentation.





Types of Corrective Action

- **On-the Spot or Immediate:** On the spot corrective actions are made by field personnel and require no specific documentation other than notations in the site and analyzer logbooks. It could be as simple as leak check failure or possible recalibration due to control limits exceedance.
- **Long-Term:** The purpose of long term corrective action is to identify and eliminate systemic or systematic nonconformance in a permanent manner. Issues which involve loss of data (72 hours or more) should be documented on corrective action form. The QA coordinator and other appropriate personnel are to be notified and included in corrective action process.





Long-Term Corrective Action

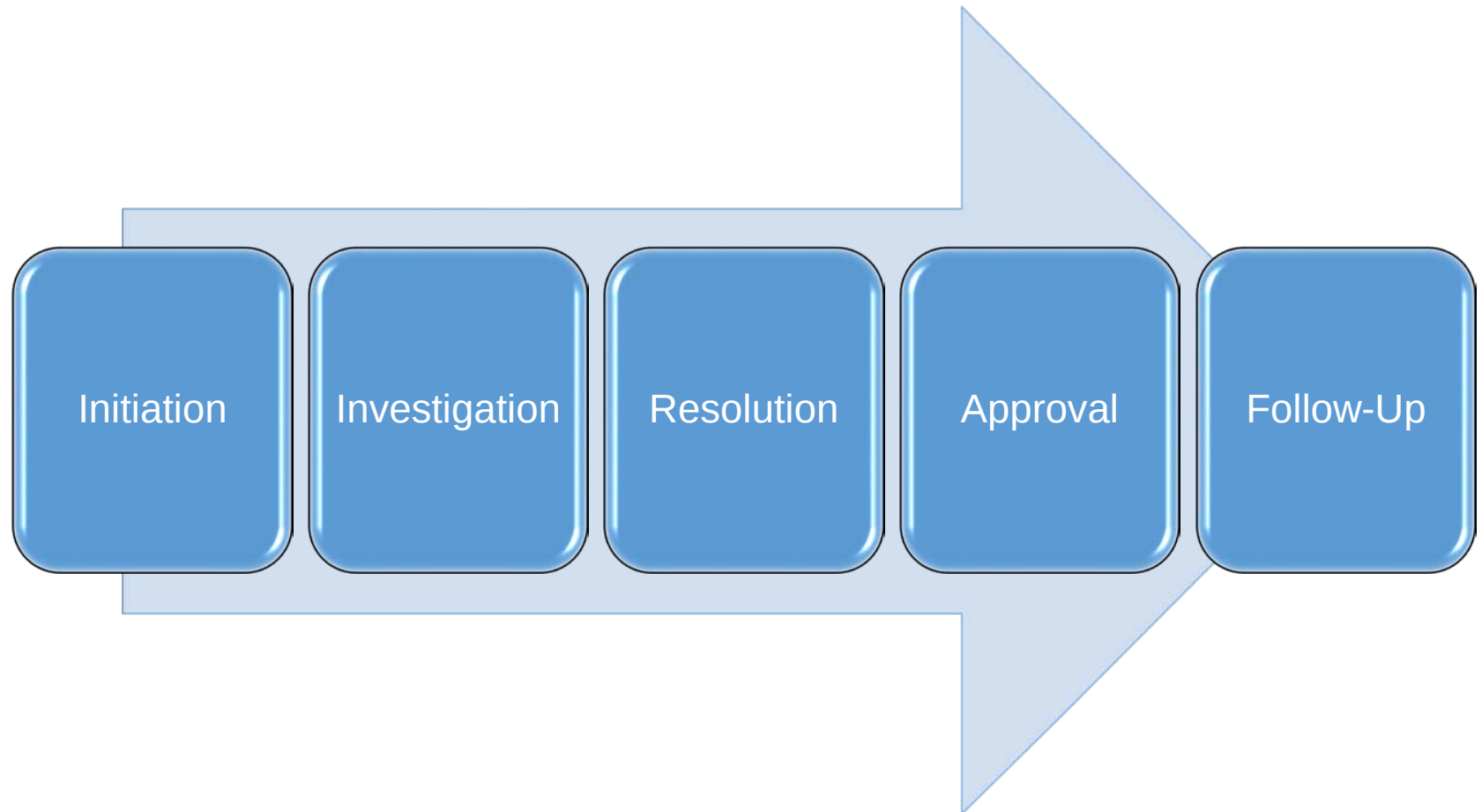
- Long term corrective action **must** include:
 - Narrative in site records and equipment log books.
 - Missing data report and narrative identifying details. If it results in data capture of less than 75%, be sure to provide the following to the Data Validation Team:
 - Missing data reports and narrative as part of your required quarterly reports.
 - Include pollutant screen shot as below (<75%)

Site:L0573002 Parameter:PM25M Interval:001d

	Oct	Nov	Dec	Quarter 4
Percentage	*67.74	*73.33	*45.16	61.96
Readings Expected	31	30	31	92
Readings Collected	21	22	14	57



Corrective Action Process (CAP)





CAP - Initiation

- Initiation
 - Initiated when non-conformance issue is discovered.
 - Corrective actions may be initiated by field personnel, quality assurance coordinators, supervisors or managers.





CAP - Investigation

- Investigation
 - Discrepancies are investigated and documented in site log books and on corrective action forms.
 - The process should take place for any issues that involves loss of data for an extended period of time; or, in some instances, questionable data identified by staff.





CAP - Resolution

- Resolution

- A statement of the desired situation going forward for improvement or prevention of repeat occurrence is documented.
- Immediate determination is made of the impact issue will have on collection of ambient air monitoring data.
- The correction action form should provide clear details of steps/actions taken to rectify the problem.
- Good corrective action practice is an essential component to assuring legal and defensible data being collected and pre- and post- equipment problems.
- It serves as a historical record for future reference.





CAP – Approval and Follow-Up

- Approval
 - The QA coordinator should review and approve the final documented corrective action.
- Follow-Up
 - The development of technical notes can also be derived from the corrective action process.





CAP - Follow Up (continued)

- A review must be conducted in sufficient detail to assess whether the corrective actions that have been implemented are effective as implemented and are truly preventing recurrence of event.
- Example:
 - TEOM flow check required monthly
 - Failed flow check results in a month of data being lost
 - TEOM calibration performed to correct flow failure
 - Follow-up to corrective action - perform bi-weekly or more frequent TEOM flow checks for remainder of quarter, to prevent reoccurrence of a month of data being lost at the associated site.



CORRECTIVE ACTION FORM

Required Signatures: Adobe Signature

Form DEP 01-4 Corrective Action Form

SITE NAME:

SITE AQS #:

DATE OF PROBLEM:

NATURE OF PROBLEM:

Clearly Detailed
Documentation

CONTACTED WHO?

DATE CONTACTED:

DATE CONTACTED: 

ASSIGNED TO: 

SIGNATURE: 

CURRENT DATE: 

DESCRIPTION OF CORRECTIVE ACTION:

Clearly Detailed
Documentation

DATE COMPLETED: 

SIGNATURE: 

RECEIVED BY AIR PROGRAM ADMINISTRATOR ON: 

SIGNATURE: 



Sample Technical Note

 DARM – Office of Air Monitoring OFFICE OF AIR MONITORING TECHNICAL NOTE	Document # OAM TN 15-01	Date March 16, 2015
	Author(s): Tammy Eagan	
	Office/Section OAM/Quality Assurance	
Document Title Ozone Primary Standard Temperature and Pressure Calibration		

1. PROBLEM DESCRIPTION

Adjustment of the ozone primary standard should be followed by certification of the standard. To date, temperature and pressure calibration, which could include adjustment, have been required annually and without regard to the certification of the ozone primary standard.

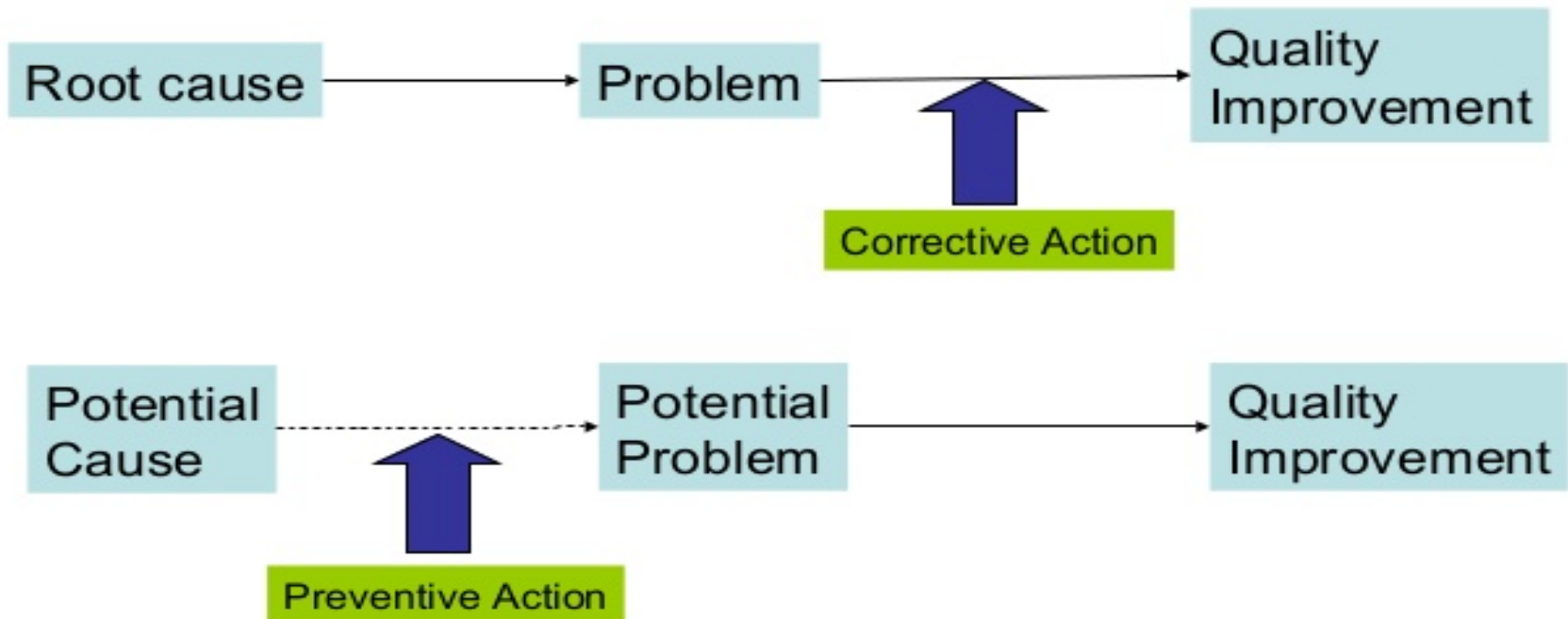
2. SOLUTION

To address the best practice that any adjustment to the primary standard be followed by the certification of the standard, just prior to scheduled annual certification of the ozone primary, the annual temperature and pressure calibration will be performed.



Corrective Action Preventive Action

The by-product of a thorough corrective action plan is an effective and beneficial preventive action plan.





Preventive Action Concept

- Preventive action is any proactive methodology used to determine potential discrepancies before they occur. The objective is to prevent reoccurrence.
 - Examples : preventive maintenance, staff or management review and other forms of proactive activities.
 - Employs additional safeguards and process changes to help prevent non-conformance items from occurring.
 - Includes a clear trail of actions taken and decisions made.
 - Documents lessons learned and avoids needless reinvention of solutions for future similar items.



Preventive Action

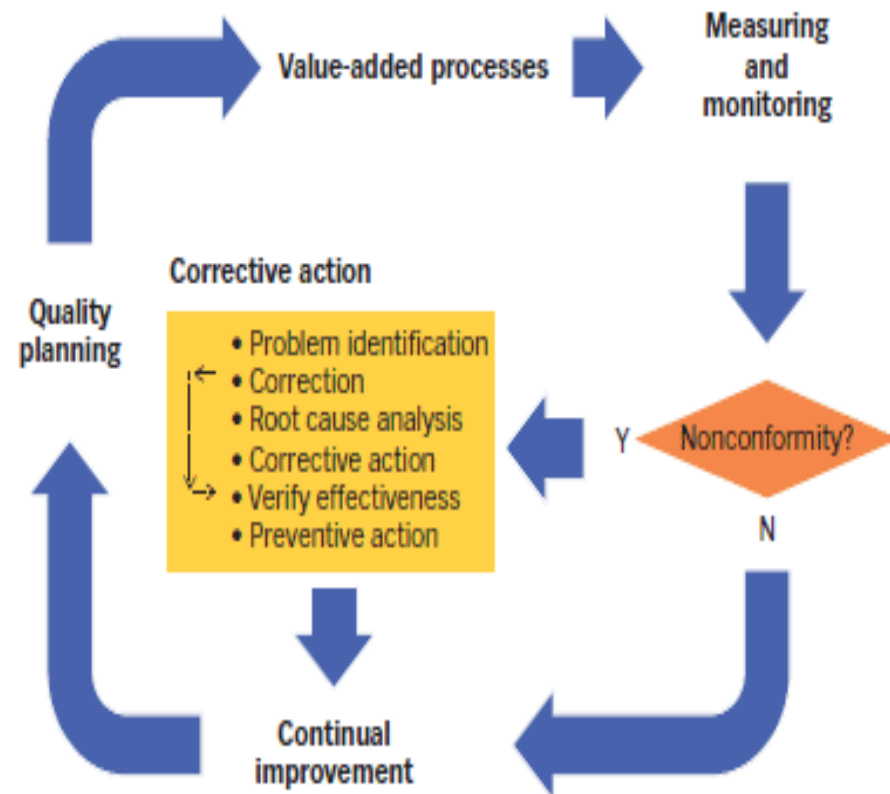
- Preventive action can be a change implemented to address technical requirements related to proficiency-testing results.
- Preventive action could involve operational procedures, analysis of data, including trends and risk analysis.
- Example:
 - TECO 49C SOP requires quarterly internal leak check.
 - Leak check occasionally causes solenoid detector failure.
 - Detector failure requires repair and calibration of TECO 49C.
 - Preventive Action – leak check will only be performed during trouble shooting for problems with equipment. If equipment operation is stable, no leak check needs to be performed. This is also cost effective in savings with the purchase of spare and replacement solenoid detectors.



Summary

- Plan, train and evaluate operations.
- Perform routine maintenance at scheduled intervals.
- Check for status change and root cause analysis.
- Act immediately to minimize prolonged issue.
- Document according to approved CAP.

Quality planning and preventive action





Questions

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