

## Operations and Maintenance Plan Overview

### 1. What is an O&M Plan?

An O&M Plan specifies key system operating parameters and limits, maintenance procedures and schedules, and documentation methods necessary to demonstrate proper operation and maintenance of an approved emission control device or system.

### 2. Why is an O&M Plan required?

An Operation and Maintenance Plan is an indication that a facility is in continued compliance with applicable regulations and permit conditions.

### 3. Who needs an O&M Plan?

O&M Plans are required for a wide variety of industries and equipment. The most common equipment requiring O&M Plans are scrubbers, catalytic or thermal oxidizers, baghouses, and VOC abatement systems. Other equipment may also require the submittal of an O&M Plan. Permit conditions and applicable regulations will provide specific requirements for a facility.

### 4. What are the benefits of having an O&M Plan?

Besides complying with applicable regulations and permit conditions, the facility is ensured that the equipment is being properly operated and maintained. Early detection of problems may decrease repair and replacement costs, prevent malfunctions and minimize downtime. With proper performance and documentation, an O&M Plan may also be used as an affirmative defense in the case of a malfunction.

### 5. What information is included in an O&M Plan?

An O&M Plan is broken up into four sections: General Information, Operation Plan, Maintenance Plan, and Additional Information. The General Information section contains general information about the facility, the process ducted to the control device, the pollutants controlled and the control device. The Operation Plan section contains information about the operating parameters to be monitored including limits, monitoring frequency and instrumentation. The Maintenance Plan section contains information about the maintenance procedures to be performed and their frequencies. The Additional Information section contains any additional information that may be required by permit conditions, such as training requirements or any supplemental information the facility feels is necessary to help in the understanding of the O&M Plan. Copies of all operations log sheets and maintenance checklists are also included with the O&M Plan. Certain Industries, such as the chrome-plating industry, may have additional requirements specified in the regulations.

## **6. What is the difference between operating parameters and maintenance procedures?**

Operating parameters are quantifiable parameters that, once properly defined, are considered indicators that a control device is functioning as designed. Examples of operating parameters are pressures and/or pressure drops, temperatures, flow rates, pH level, and visible emissions checks. Operating limits for each parameter may initially be suggested by the equipment manufacturer but may later be modified by the facility based on experience or operation during a performance test.

Maintenance procedures are performed on a routine basis to ensure the equipment remains in peak operating condition. Examples of maintenance procedures are inspections, cleanings, lubrications, adjustments, replacements and calibrations. Maintenance procedures may initially be suggested by the equipment manufacturer but may later be modified by the facility based on experience. A weak maintenance plan may not be acceptable as an affirmative defense in the case of a malfunction.

## **7. What if a parameter is outside of the operating limits?**

Being outside of the operating limits is not necessarily a violation unless repeated and ignored. It only requires corrective action such as the adjustment or replacement of a worn part. If a device operates differently until conditioned, such as a baghouse containing newly replaced bags, it should be noted in the O&M Plan and on the operations log sheet to explain the lower pressure drop.

## **8. Are O&M Plan guidelines available?**

The Air Quality Department has prepared O&M Plan guidelines and forms, as well as templates for operations log sheets and maintenance checklists to assist in the preparation of the documents.

[O&M Plan Guidelines](#)  
[Tips for Preparing an O&M Plan](#)

The guidelines and forms are also available on the department website at [maricopa.gov/1818](http://maricopa.gov/1818).