



Incorporating the CAM Plan into an ROP

The CAM Rule (40 CFR Part 64) specifies which elements should be included in the emission unit table in the ROP. The conditions below specify which elements may be from the CAM Plan and which elements come directly from the CAM Rule (generally 40 CFR 64.6). The CAM Rule should be consulted along with these instructions.

This document contains example language and monitoring conditions for control devices. It should be used in conjunction with the "[ROP CAM Example Table](#)" document which contains more precise template language.

Other information about CAM can also be found in the [CAM Fact Sheet](#) available at the [AQD Title V permitting website](#). For questions concerning CAM please contact the AQD CAM Specialist. All CAM plans and CAM language in draft Staff Reports and the Working Draft ROP need to be sent to the AQD CAM Specialist for review prior to company review.

For printing facilities, see Chapter 4 and Appendix D of the USEPA's [Technical Support Document For Title V Permitting Of Printing Facilities](#).

If a facility has proposed Presumptively Acceptable Monitoring in the CAM Plan, then the monitoring needs to be verified that it meets the requirements in the NSPS or NESHAP (see [CAM Fact Sheet](#)). If it does, then the monitoring can be used for CAM in the ROP. Use appropriate CAM rule citations. For monitoring language, use underlying applicable requirements from 40 CFR Part 64 and from the NSPS or NESHAP. Add other CAM template language from this document to the ROP table. This includes defining a CAM excursion, CAM reporting, and QA/QC requirements.

In the ROP, identify the table with the emission unit subject to CAM. This table should include the following as applicable requirements if appropriate. They can be combined with other requirements. The language should be adapted to fit the emission unit. The recommended section in the ROP table where the conditions may be inserted is given below. The CAM Plan does not need to be attached as an Appendix to the ROP.

A. ADD CONTROL DEVICE PARAMETERS

The ROP should have a condition stating the control device parameters to be measured (pressure drop, opacity, voltage, VOC removal efficiency, scrubber liquid pH, etc.) as defined in the CAM Plan, including the method of measuring or recording, and the appropriate ranges or conditions that have been chosen for the parameters. The measuring or recording device should be identified. For VOC control devices, monitoring for the capture system should be included. **(40 CFR 64.6(c)(1)(i) and (ii)) FROM CAM PLAN** (see ROP CAM Example Table)

Example ROP condition, for Section VI. Monitoring/Recordkeeping:

The permittee shall continuously measure the pressure drop and record the pressure drop once per shift as an indicator of proper operation of the dust collector. The indicator range is a pressure drop of 1 - 6" WC. **(40 CFR 64.6(c)(1)(i) and (ii))**

B. ADD PERFORMANCE CRITERIA, QA/QC PROCEDURES

The ROP should have a condition stating the performance criteria used to obtain representative data. This includes the data collection frequency, data averaging methods, the minimum data availability requirement for the averaging periods in a reporting period, and appropriate QA/QC procedures. This may be combined with the recordkeeping requirements or used as a separate condition. **(40 CFR 64.6(c)(1)(iii)) FROM CAM PLAN** (see ROP CAM Example Table)

Example ROP condition for Section VI. Monitoring/Recordkeeping:

The permittee shall utilize pressure drop as an indicator of proper operation of the baghouse. The indicator range defining proper operation is 1 – 6" WC. The pressure gauge shall be calibrated at least annually. **(40 CFR 64.6(c)(1)(i), (ii), and (iii))**

C. DEFINE EXCURSION OR EXCEEDANCE

The ROP should state an indicator range at which an excursion or exceedance will be defined. Check to see if an excursion/exceedance level has already been defined in a Permit to Install. To define an excursion, the ROP may either include the specific value(s) or condition(s) at which an excursion will occur or specific procedures that will be used to establish that value or condition. If the latter, then the permit shall specify procedures for the establishment or reestablishment of the excursion value. An excursion is a departure from an indicator range. An exceedance is an indication that an emission limitation or standard has not been met. **(40 CFR 64.6(c)(2)) FROM CAM PLAN** (see ROP CAM Example Table)

Example ROP Condition for Section VI. Monitoring/Recordkeeping:

An excursion is defined as a departure from the indicator range of 1 – 6" WC. **(40 CFR 64.6(c)(2))**

D. ADD TEMPLATE LANGUAGE #1

A condition stating the obligation to conduct the monitoring and satisfy the requirements specified in 40 CFR 64.7 through 64.9. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c)) FROM CAM RULE** (see ROP CAM Example Table)

Example ROP condition for Section VI. Monitoring/Recordkeeping:

Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for 40 CFR Part 64 compliance, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

E. ADD IF TESTING, INSTALLATION, OR FINAL VERIFICATION OF OPERATIONAL STATUS IS REQUIRED

If the monitoring proposed by the permittee requires installation, testing or final verification of operational status, include an enforceable schedule in the ROP with appropriate milestones for installation, testing or final verification of operational status of equipment. **(40 CFR 64.4(e), 40 CFR 64.6(d)) FROM CAM PLAN** (see ROP CAM Example Table)

F. ADD IF CAM PLAN IS BEING REQUESTED IN THE ROP

If AQD determines that the submitted CAM plan is inadequate, a revised plan should be requested. If a revised CAM Plan is not received before the ROP is issued, the AQD should include appropriate monitoring in the ROP if necessary. According to the CAM Rule the submittal date for the revised CAM Plan should not exceed 180 days after the ROP is issued. **(40 CFR 64.6(e)(2)) FROM CAM RULE** (see ROP CAM Example Table)

Example ROP condition for Section IX. Other Requirements:

The permittee shall submit a revised CAM Plan within 180 days of the issuance of the ROP. **(40 CFR 64.6(e)(2))**

G. ADD TEMPLATE LANGUAGE #2 AND CORRECTIVE ACTION IN RESPONSE TO AN EXCURSION OR EXCEEDANCE

The ROP should specify corrective actions to be taken in response to an excursion or exceedance (40 CFR 64.7(d)). Include the statement: "Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions)." Then include specific actions in regard to the control device. **(40 CFR 64.7(d)) FROM CAM RULE** (see ROP CAM Example Table)

Example ROP condition for Section VI. Monitoring/Recordkeeping:

Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). See Appendix 3 for the corrective action plan. **(40 CFR 64.7(d))**

H. ADD TEMPLATE LANGUAGE #3

This should be added to the ROP in regard to the documentation of the need for improved monitoring.

A statement that the permittee shall promptly notify EGLE of the need to modify the monitoring plan if it is found to be inadequate and submit a proposed modification to the ROP if necessary. **(40 CFR 64.7(e)) FROM CAM RULE** (see ROP CAM example Table)

Example ROP condition for Section IX. Other Requirements:

If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the ROP and CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

I. ADD TEMPLATE LANGUAGE #4

A general statement should be added for compliance with the CAM Rule. **(40 CFR Part 64)**
(see ROP CAM Example Table)

Example ROP condition for IX. Other Requirements:

The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

J. ADD TEMPLATE LANGUAGE #5

This should be added to the ROP in regard to proper maintenance of the monitoring system. A statement that the permittee shall maintain the monitoring system, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b)) FROM CAM RULE**
(see ROP CAM Example Table)

Example ROP condition for Section VI. Monitoring/Recordkeeping:

The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

K. ADD TEMPLATE LANGUAGE #6

A general statement should be added for recordkeeping requirements: **FROM CAM RULE**
(see ROP CAM Example Table)

Example ROP condition for Section VI. Monitoring/Recordkeeping:

The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) and any activities undertaken to implement a QIP, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

L. ADD OPTIONAL QIP LANGUAGE

Quality Improvement Plan (QIP). *Optional.* Generally, this should be included only if problems with the monitoring is anticipated. Please refer to 40 CFR 64.8 and/or Section 2.4 of the CAM Technical Guidance Document at the AQD CAM website mentioned above. **FROM CAM RULE** (see ROP CAM Example Table)

Example ROP condition for Section IX. Other Requirements:

The permittee shall submit a QIP if 6 excursions occur in any 3-month period. **(40 CFR 64.8(a))**

M. ADD REQUIRED REPORTING CONDITIONS

Reporting requirements as required for all ROPs (semiannual). Reporting forms are available on the AQD CAM website. **FROM CAM RULE** (see ROP CAM Example Table)

In Section VII. REPORTING, of the ROP table containing CAM requirements, add the following language:

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
6. Each semiannual report of monitoring and deviations shall include a description of the actions taken to implement a QIP during the reporting period (if appropriate). If a QIP has been completed the report shall include documentation that the plan has been implemented and if it has reduced the likelihood of excursions or exceedances. **(40 CFR 64.9(a)(2)(iii))**

Note: If there is not a monitor or a QIP, the language for these (5. OR 6.) may be deleted.

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