

# FORM E6

## COMPLIANCE ASSURANCE MONITORING (CAM) PLAN (4 pages)

REVISED 09/22/16

NCDEQ/Division of Air Quality - Application for Air Permit to Construct/Operate

E6-1

For CAM-affected emission units, the applicant must submit additional information in the form of a CAM Plan as required under 40 CFR 64.

For information about the CAM rule and this form, please refer to 40 CFR 64 and 15A NCAC 2D .0614.

Additional information (including guidance documents may be found at the following URLs:

<https://www3.epa.gov/ttn/emc/cam.html>

<https://deq.nc.gov/about/divisions/air-quality/air-quality-enforcement/compliance-assurance-monitoring>

### SOURCE INFORMATION

1. Facility Name:

2. Permit Number:

3. Date Form Prepared:

### BASIS OF CAM SUBMITTAL

4. Mark the appropriate box below as to why this CAM Plan is being submitted as part of this application:

- Renewal Application:** ALL Emission Units (Pollutant Specific Emission Units [PSEUs] considered separately with respect to EACH regulated air pollutant) for which a CAM Plan has NOT yet been approved needs to be addressed in this CAM Plan submittal. See Renewal Procedures per 15 A NCAC 2Q .0513.
- Initial Application (Submitted after 4/20/1998):** Only large PSEUs (PSEUs with potential post control device emissions of an applicable regulated air pollutant that are equal to or greater than major source threshold levels) need to be addressed in this CAM Plan submittal. See Initial Application Procedures per 15A NCAC 2Q .0505(1).
- Significant Modification to Large PSEUs:** Only large PSEUs (PSEUs with potential post control device emissions of an applicable regulated air pollutant that are equal to or greater than major source threshold levels) being modified after 4/20/1998 need to be addressed in this CAM Plan submittal. For large PSEUs with an approved CAM Plan, only address the appropriate monitoring requirements affected by the significant modification. See Significant Modification Procedures per 15 A NCAC 2Q .0516.

### CAM APPLICABILITY DETERMINATION

5. To determine CAM applicability, a PSEU must meet ALL of the following criteria (If not, then the remainder of this form need not be completed):

- A. The PSEU is located at a major source;
- B. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is NOT exempt;
- List of EXEMPT Emission Limitations or Standards below OR as provided in 15A NCAC 2Q .0614(b)(1):**
- NSPS (40 CFR Part 60) or NESHAP (40 CFR Part 61 and 63) proposed after 11/15/1990.
  - Stratospheric ozone protection requirements.
  - Acid Rain program requirements.
  - Emission limitations or standards for which a Title V permit specifies a continuous compliance determination method, as defined in the CAM rule (40 CFR 64.1), Continuous Compliance Determination Method.
  - An emission cap that meets the requirements specified in 40 CFR 70.4(b)(12).
- If the PSEU is subject to both **Exempt** and **Not Exempt** emission standards for the same pollutant, then the facility is required to determine the CAM applicability for **Not Exempt** emission standards.*
- C. The PSEU uses an add-on control device to achieve compliance with an emission limitation or standard;
- D. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than major source threshold levels; **and**
- E. The PSEU is **NOT** an exempt backup utility power emission unit that is municipally owned and appropriately documentd as provided in 15A NCAC 2D .0614(b)(2).

Attach Additional Sheets As Necessary

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6. Complete the following table for ALL PSEUs that need to be addressed in this CAM Plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR 64.4. If additional space is needed, please attach and label additional sheets as appropriate.

PSEU Designation	PSEU Description	Pollutant	Control Device	<sup>a</sup> Emission Limitation OR Standard	<sup>b</sup> Monitoring Requirement

<sup>a</sup> Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance. Examples of emission limitations or standards may include a permitted emission limitation, applicable regulations, work practices, process or control device parameters, or other forms of specific design, equipment, operational or maintenance requirements.

<sup>b</sup> Indicate the monitoring requirements for the control device that are required by an applicable regulation or permit condition.

7. Complete this section for EACH PSEU and for each affected pollutant that needs to be addressed in this CAM Plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR 64.3 and 64.4. If more than two indicators are being selected for a PSEU or if additional space is need, attach and label with the appropriate PSEU designation, pollutant, and indicator Nos.

PSEU DESIGNATION		POLLUTANT	<sup>b</sup> INDICATOR NO. 1	<sup>b</sup> INDICATOR NO. 2
<b>7a.</b>	General Criteria Describe the <u>monitoring approach</u> used to measure the indicators.			
	<sup>c</sup> Establish the appropriate <u>indicator range</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance			
	<sup>d</sup> Provide <u>Quality Improvement Plan (QIP)</u> Threshold levels.			
<b>7b.</b>	Performance criteria Provide the <u>Specification for Obtaining Representative Data</u> (Such as <i>detector location and installation specifications</i> ).			
	Provide <u>Quality Assurance and Quality Control (QA/QC) Practices</u> that are adequate to ensure the continuing validity of the data, considering manufacturer's recommendations			
	<sup>e</sup> Provide the <u>Monitoring Frequency</u>			
	Provide the <u>Data Collection Procedures</u> that will be used			
	Provide the <u>Data Averaging Period</u> for the purpose of determining whether an excursion or exceedance has occurred.			

<sup>a</sup> If a Continuous Emission Monitoring System (CEMS), Continuous Opacity Monitoring System (COMS), or Predictive Emission Monitoring System (PEMS) is used, then this section need not be completed **ONLY** for the CEMS, COMS, or PEMS, **EXCEPT** that the Special Criteria Information of 40 CFR 64.3(d) must be provided. Special Criteria Information may be provided on a separate sheet.

<sup>b</sup> Describe all indicators to be monitored which satisfy 40 CFR 64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

<sup>c</sup> Indicator ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. In addition, unless specifically stated otherwise by an applicable requirement, the owner or operator shall monitor the indicators to detect any **bypass** of the control device (or capture system) to the atmosphere.

<sup>d</sup> The QIP threshold is based on the number of excursions identified in a reporting period. (Example: if the historical monitoring data for a facility indicates that the indicator range was exceeded 10 times in a 6-month period, the threshold could be established at no more than 10 excursions outside the indicator range during a 6-month reporting period.) The threshold levels also could be established based on the duration of excursions as a percentage of operating time.

<sup>e</sup> At a minimum, the owner of a large PSEU must collect four or more data values equally spaced over each hour and average the values. All other PSEUs must collect data **at least once** per 24-hour period *or possibly more* to provide reasonable assurance of compliance over the anticipated range of operating conditions.

8. Complete this section for **EACH** PSEU and for each affected pollutant that needs to be addressed in this CAM Plan submittal. This section *may be copied as needed*. Use this section to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR 64.3 and 64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach additional sheets and label with the appropriate PSEU designation, pollutant, and indicator Nos.

PSEU DESIGNATION

POLLUTANT

9. **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed and the manufacturer's recommendations. (If additional space is needed, attach and label with the appropriate PSEU designation and pollutant).

10. **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how **EACH** indicator range was selected by either a Compliance or Performance Test, a Test Plan and Schedule, or by Engineering Assessments. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label with the appropriate PSEU designation and pollutant):

- **COMPLIANCE or PERFORMANCE TEST** (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall **include** a summary of the compliance or performance test results that were used to determine the indicator range and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted and approved by DAQ.
- **TEST PLAN AND SCHEDULE** (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall **include** the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practical after approval of this CAM Plan, but in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- **ENGINEERING ASSESSMENTS** (Indicator ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturer's design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall **include** documentation demonstrating that compliance testing is not required to establish the indicator range.

**RATIONALE AND JUSTIFICATION:**