

Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports

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c.1 Guidance for Preparation of Summary, Excess Emission,
and Continuous Monitoring System Reports

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Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports

General Instructions

Special Note:

Be aware that a Summary Report (SR), and if applicable, an Excess Emission Report (EER) and/or a Continuous Monitoring System Report (CMSR) is required for EACH POLLUTANT from EACH UNIT under the purview of NSPS. This means that for a unit regulated for opacity, NO_x, and SO₂, a total of three SRs and possibly three EERs and/or CMSRs would be required to be submitted each calendar quarter or half.

General:

In this document, text in bold type indicates a defined term, while text in *italics and bold* indicate the name of a field on one of the three forms, SR, EER, or CMSR.

General guidelines for determining format and content of SRs, EERs, and CMSRs may be found in the General Provisions of 40 CFR 60. Additional specific reporting requirements for particular facilities are found in the respective subpart(s) of NSPS regulations and in the special provisions of Texas Air Control Board State or PSD permits.

Definitions:

Continuous Monitoring System Performance Report (CMSR)

A Continuous Monitoring System Performance Report is required to be submitted by NSPS regulations as described in NSPS Subpart A, General Provisions, Section 60.7) when monitor system downtime $\geq 5\%$ of reporting period total source operating time. This report will contain, at a minimum, the date and time of the downtime occurrence(s), a reason for each occurrence, and measures taken to resolve the problem. When required, it is submitted along with the SR and EER for a calendar quarter or half. See Appendix C for a sample form.

Excess Emission (EE)

A period of time during which emissions of a regulated pollutant at a given source exceed the limit, in units of the standard. Both duration and magnitude values are defined for each pollutant for each source in the applicable subparts of NSPS.

Excess Emission Report (EER)

A report required to be submitted by NSPS regulations detailing the reporting of incidents of Excess Emissions (EE) of a particular unit during a quarterly or semi-annual reporting period. Required information includes, but is not limited to, date and time of the excess emission, the reason for the exceedance, and measures taken to reduce or control the excess emission. Specific information for this report can be found in NSPS Subpart A, Section 60.7. See Appendix B for an example of one of these report forms.

NSPS or 40 CFR 60

Title 40 Code of Federal Regulations Part 60, Standards of Performance for New Stationary Sources. There are several subparts to this title, Subpart

A (General Provisions) of which contains specific information relating to reporting requirements.

Prevention of Significant Deterioration (PSD) Permit

A permit required under certain conditions as defined in Title 1, Part C, Subpart 1 of the 1990 Clean Air Act Amendments (42 USC 7401, et seq., as amended).

Summary Report (SR)

A report summarizing air pollutant excess emissions and continuous monitoring system downtime by specific categories. The reports are required to be submitted either on a calendar quarter or half basis by the regulated community. The requirement to submit, as well as the content and format of the report is found in 40 CFR 60 Subpart A. See Appendix A for a sample form.

Particular Instructions - SR Form

Descriptions and instructions for each blank on the SR form are given below. Text in *bold italics* type indicates actual SR form text, with each subparagraph giving examples of appropriate information for the parameter.

Pollutant(NO_x, SO₂, TRS, H₂S, CO, Opacity): _____

Enter the appropriate single pollutant from the selection listed in parentheses.

Reporting Period Dates From: _____ To: _____

Use dates for calendar quarters or, for semi-annual reports, calendar half-years. For example, first quarter of 1992 would have dates from Jan 1, 1992 to Mar 31, 1992; while first half of 1992 would have dates from Jan 1, 1992 to Jun 30, 1992.

Emission Limit: _____

This information must be reported in units of the standard as defined in each applicable subpart of NSPS or in the special provisions of your permit. For example, NSPS Subpart Db (relating to Industrial-Commercial-Institutional Steam Generating Units) defines the unit of emissions standard for SO₂ to be reported in nanograms/joule (ng/j) or pounds per million BTU (lb/ million Btu). The methods used to convert stack emissions (e.g., ppmv @ 15% O₂) or fuel pollutant concentration (e.g., 0.5% S by wt) to units of the standard are found in the applicable subparts. This limit, along with duration of the exceedance, is the basis for defining an Excess Emission.

Total Source Operating Time in Reporting Period: _____

The total number of units of time that the referenced facility was in operation during the reporting period. This value is reported in minutes for opacity and in hours for any other listed pollutant. For example, a facility that operates a boiler continuously (24 hours/day, 7 days/week) during the first quarter of 1992 [a leap year], (01Jan92 through 31Mar92) would report a total operating time of 131,040 minutes (60 min/hr x 24hr/d x 91 days) for opacity or 2184 hours (24 hr/d x 91 d) for NO_x or SO₂ EEs. You must be consistent in your use of units in any given SR form; ie, if you reported Total Operating Time in hours, report all other time values (e.g., startup/shutdown, CMS malfunction) in hours on that same form. as well.

Company Name: _____

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Address: _____

List the company name of the facility owner or operator and the mailing address of the facility.

TACB Account Number: _____
TACB Permit Number : _____
PSD Permit Number : _____

The TACB account number has the format of AA-XXXX-A where A's indicate letters and X's indicate numbers. There are often several permits associated with a given account number for a company.

The TACB Permit Number is the state permit number under which the facility or unit is permitted to operate. Often several individual units (boilers, etc.) operate under a single operating or construction permit at a single location. The permit number has the general format of XXXXXA; where A indicates a letter (indicative to a modification of an original permit) and X's indicate numbers.

The PSD Permit number may or may not apply to a given facility. If the facility operates under a PSD permit, include the number; otherwise, enter N/A. Permit numbers for this type permit have the format: PSD-TX-XXXX, where the XXXX are 4 digits. This type of permit may have been revised or modified over time; if this is the case, the permit number format will be : PSD-TX-XXXXMX, where the M indicates "modification" and the trailing X indicates the most current modification number for the unit. Please be sure that the permit number(s) you provide are the correct ones for the unit described below.

Process Unit(s) Description: _____

To describe the particular unit being reported, use the 'Source Name' and 'Emission Point No.' as they appear in the 'EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES' table in the state or PSD permit under which the particular unit operates. The Source Name listed in the permit may be different than the name commonly used day to day at your facility; if so, include both names to identify the process unit with which the SR data should be associated.

Monitor Manufacture and Model Number: _____

Date of Last CMS Certification or Audit: _____

These data refer to the monitor portion of the CMS that is used to monitor pollutant emissions. An example would be a Lear Siegler Model RM 41 Opacity Monitor.

Excess Emission Data Summary

Duration of Excess Emissions in Reporting Period ...

Excess emissions should fall into one of the categories listed below. Due to the diversity of facilities using the SR form, it is not possible to list all the ways an EE might be classified. For your convenience a few examples are listed below. If you have any questions categorizing a particular EE, contact the TACB regional office or TACB Compliance Division in Austin.

Startup/Shutdown

Periods of EEs that occur as a consequence of unit startup or shutdown.

Control Equip Problems

Problems resulting from control equipment failure, e.g., a baghouse bag failure, a scrubber

problem, or a failure of a steam injection system used to control NO_x.

Process Problems

EEs resulting from process problems, such as boiler combustion upset due to fuel related problems or damper problems.

Other Known Causes

Operator error, power supply problems, etc.

Unknown Causes

Use when there is no reasonable way to determine the cause of the EE.

Total Duration of Excess Emissions

Sum the values of all EE categories.

$$\frac{\text{Total EEDuration} \times 100}{\text{Total Operating Time}} = \underline{\hspace{2cm}} \%$$

If the result of this calculation is $\geq 1\%$, then you must submit an EER. The EER will contain detailed information for each EE. The actual content of an EE Report may be found in the appropriate subpart(s) of NSPS or in the Special Provisions of your permit(s).

CMS Performance Summary
CMS Downtime in Reporting Period ...

The continuous monitoring system refers to the entire system used to collect, analyze, and report the status of a pollutant emission. The system includes the equipment used to collect and/or condition the sample (e.g. stack probe, sample line, chillers), analyze the sample (e.g., analyzer or monitor), and report the results of the analysis (e.g., strip chart recorders or data logger).

Each episode of CMS downtime should fall into one of the categories listed below. Again, contact the TACB regional office or TACB Compliance Division if you need assistance in categorizing a downtime event.

Monitor Equipment Malfunction

This category includes problems with the sample collection or analysis equipment; eg., stack probe clogging, monitor electronics problems, failure of monitor lamp.

Non-Monitor Equipment Malfunction

Downtime resulting from data acquisition system or hardcopy output failure.

Quality Assurance Calibration

Daily zero-span checks are not included, unless they are used to calibrate the equipment. Calibrations and annual system audits as well as downtime due to monitor preventive maintenance or repair are included.

Other Known Causes

This category includes power failures, downtime due to equipment delivery, repair problems, operator error, etc.

Unknown Causes

Total CMS Downtime

$$\frac{\text{Total CMS Downtime} \times 100}{\text{Total Operating Time}} = \underline{\hspace{2cm}} \%$$

Unexplainable data losses.

The sum of CMS downtime from all categories.

If the result of this calculation is $\geq 5\%$ then you must submit a CMSR that contains information on each of the periods of downtime. The report would include the date, time, and reason for the downtime, as well as attempts made to correct the problem. NSPS 60.7(c)(3) requires that this information be submitted along with the EER.

Changes in CMS, Processes, or Controls

On Page 2 of the SR form, space is provided to describe any changes made to the CMS, process or control system since the last SR was submitted.

Signature

Responsible party signs at the bottom of Page 2 of the SR form affirming that the information contained in the report is true, accurate, and complete.

Particular Instructions - EER Form

Specific minimum requirements apply to all EER forms, as specified in 40 CFR 60.7(c)(1-4). Additional reporting parameters are required in the various subparts of NSPS and in TACB or PSD permit special provisions. An example format for presenting the required information is provided as Appendix B. This example illustrates the content and format for NO_x EER of a steam turbine generator covered under Subpart Db of NSPS.

Company Name : _____
Reporting Period From: _____ To: _____
Unit Description : _____
Texas Permit Number : _____
PSD-TX Permit Number: _____

These parameters should be identical to the information you provided in the SR that this EER will accompany.

Particular Instructions - CMS Form

The requirements for this report are found in 40 CFR 60.7(c)(3). An example of a form used to report this information can be found in Appendix C.

Company Name: _____
Reporting Period From: _____ To: _____
Pollutant Monitored: _____
Name of Unit Monitored: _____

These data should be identical to that on the SR that this CMSR will accompany.

APPENDIX A - Summary Report Form

**Summary Report
Gaseous and Opacity Excess Emission and
Monitoring System Performance**

Pollutant: (NO_x, SO₂, TRS, H₂S, CO, Opacity): _____ Reporting Period Dates From: _____ To: _____
 Emission Limit: _____ Total Source Operating Time in Reporting Period¹: _____

Company Name: _____ TACB Account Number: _____
 Address: _____ TACB Permit Number: _____
 _____ PSD Permit Number: _____
 _____ Emission Point Number: _____

Process Unit(s) Description: _____

Monitor Manufacturer and Model Number: _____
 Date of Last CMS Certification or Audit: _____

Excess Emission Data Summary

1. Duration¹ of Excess Emissions in Reporting Period Due to:
 - a. Startup / Shutdown : _____
 - b. Control Equipment Problems : _____
 - c. Process Problems : _____
 - d. Other Known Causes : _____
 - e. Unknown Causes : _____
2. Total Duration of Excess Emissions: _____
3. $\frac{\text{Total EE Duration} \times 100}{\text{Total Operating Time}} = \text{_____} \%$

CMS Performance Summary

1. CMS Downtime¹ in Reporting Period Due to :
 - a. Monitor Equipment Malfunctions : _____
 - b. Non-Monitor Equipment Malfunctions: _____
 - c. Quality Assurance Calibration : _____
 - d. Other Known Causes : _____
 - e. Unknown Causes : _____
2. Total CMS Downtime : _____
3. $\frac{\text{Total CMS Downtime} \times 100}{\text{Total Operating Time}} = \text{_____} \%$

¹ Units of Time are in Minutes for Opacity, Hours for all Gases.

² If Total EE Duration % ≥ 1% and/or CMS Downtime ≥ 5% of Operating Time, submit Excess Emission Report [per 40 CFR 60.7(c)] in addition to this Summary Report.

APPENDIX B - Example Excess Emission Form

Reporting Period: From _____ To _____

Company Name : _____
 Unit Description : _____

Texas Permit Number : _____
 PSO-TX Permit Number: _____

Date	Time	S:F Ratio ¹ Actual	S:F Ratio ¹ Required	Fuel ² Usage (rate) (g/o)	Turbine Load (MW)	Ambient Temp (°C)	Ambient Humidity (%/H)	Problem Description	Corrective Action Taken
Empty table body content									

1. Steam to Fuel Ratio. Actual: from Continuous Monitoring System; Required: Value Required by Custom Steam : Fuel Ratio designed to limit NO_x to 42ppmv @ 15% O₂.

2. Submit Custom Steam : Fuel Algorithm Documentation (only needs to be submitted once).

3. Fuel use: When Nat Gas (g), rate is cubic feet/hour; When Oil (o), rate is gallons/hour.

4. Problem descriptions should match categories on the Summary Report (SR) form.

APPENDIX C - Continuous Monitoring System Report Form

CONTINUOUS MONITORING SYSTEM DOWNTIME REPORT

Page: _____

Company Name: _____ Texas ACB Permit: _____

Reporting Period: From: _____ To: _____ *

Pollutant Monitored: _____

Name of Unit Monitored: _____

Downtime Began Date Time	Downtime Ended Date Time	Explanation of Downtime	Corrective Action Taken

- 1 Use TACB permit number as it appears on the Summary Report submitted with this CMS Report.
- 2 List pollutant(s) monitored with this instrument at this installation.
- 3 The name of the unit which is monitored with this instrument. It should be the same as reported on the Summary Report submitted with this document.