



Department of
**Environment &
Conservation**

Monitoring, Recordkeeping, and Reporting for Non-Title V Facilities

Types of Non-Title V Sources

By definition, each non-Title V facility falls into one of two general categories:

“**True Minor**” (TM) facility (emissions are below major source thresholds based on design capacity or Federally enforceable limits)

“**Conditional Major**” (CM) facility (agrees to limit emissions, and/or throughput, or take other limits to avoid Title V status), also referred to by EPA as federally enforceable state operating permit (FESOP) or as a synthetic minor by some agencies

Why Keep Records?

- Recordkeeping requirements, if any, are intended to demonstrate that the source is meeting all emission and/or production limits for that source. Some additional records may apply such as MACT, GACT, other permit records depending on nature of source which may not be associated with Title V thresholds or deal with pollutants of concern.

Why Keep Records? Cont.'

True minor sources:

Recordkeeping may be minimal since allowable limits are typically below the Title V thresholds due to low emitting sources or operations with a small capacity. Some additional records may apply depending on the nature of source.

Conditional major sources:

Recordkeeping is required for “pollutants of concern” to abide by an emission limit, production limits, control device monitoring/maintenance records or other related records used to avoid Title V emission thresholds for one or more pollutants and/or HAPs or assure compliance. Other records may apply.

“Opting Out” of a Title V permit TAPCR 1200-03-09-.02(11)(a)

“... sources that are subject to this paragraph 1200-03-09-.02(11) may opt out of being subject to the provisions of paragraph 1200-03-09-.02(11) by limiting their potential to emit such that they are below the applicability threshold. In order to exercise this option, the source must agree to be bound by a permit which specifies the more restrictive limit, and to be subject to detailed monitoring, reporting and recordkeeping requirements that prove the source is abiding by its more restrictive emission and/or production limits.”

These are for “pollutants of concern” which would otherwise cause the facility to become Title V .

What Kind of Records?

In general, recordkeeping may include:

- Calculation of emissions
- Measurement of a surrogate limit
- Parametric monitoring
- Supporting documentation
- Inspection and maintenance of control equipment
- Other records such as NESHAPS such as GACT or miscellaneous records not necessarily for the purpose of limiting emissions below Title V threshold values

Permits require records to be retained at a CM and TM site(s) for 5 years. In some cases, records may be retained at an offsite location.

VOC & HAP Emission Calculations

- Permits for VOC/HAP emission sources (e. g., surface coating operations) commonly require calculations of emissions.
- VOC/HAP emissions are calculated based on a measured quantity (typically solvent and coating usage and the associated VOC or HAP material content).
- Records must include:
 - Measured values
 - Emission calculations
 - Supporting documentation such as Safety Data Sheets (SDS) or formulation data sheets

Permit Conditions for Emission Calculations

1. Volatile organic compounds (VOC) emitted from this facility shall not exceed 97 tons during any period of 12-consecutive months.

Compliance Method: The permittee shall calculate the actual quantities of VOC emitted from the coating operation during each calendar month. The permittee shall maintain records of these emissions in a form that readily shows compliance with **Condition 1** of this permit. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or a Division representative. These records must be retained for a period of not less than 5 years.

Permit Conditions for Emission Calculations (cont)

2. The as-supplied VOC content of all VOC-containing materials to be used by this source shall be determined from the current Safety Data Sheets (SDS) or manufacturer or vendor formulation data which explicitly list the VOC content by weight. The results of these determinations shall be compiled in the following tabular format.

This table, along with the SDS, or other supporting documentation for each material used, shall be maintained at the source location.

Material Description	Material Density (lb/gal)	VOC Content (lb/gal)

Summary for records of VOC/HAP sources

1. Compile monthly usage of coatings and solvents (gallons or pounds)
2. Retain records of SDS or formulation data for VOC and HAP emitting material as supporting documents
3. Calculate monthly emissions for VOC and/or HAPs
4. Prepare on-going calculations on spreadsheets for any period of 12-consecutive months
5. Retain TM & CM records for 5 years

Any Period of 12-Consecutive Months...

- For each month, you have to do two calculations:
 - VOC emissions for the current month, and
 - Total VOC emissions for the current month, plus the 11 preceding months (or rolling 12-month emissions).
- For July 2024, your 12-month total emissions would be the sum of all VOC emissions from August 2023 through July 2024.
- For August 2024, your 12-month total emissions would be the sum of all VOC emissions from September 2023 through August 2024.

Your Records Might Look Like This

Month, Year	VOC Emissions (tons/month)	VOC Emissions (tons / 12 months*)
January, Year		
February, Year		
etc.		

Recordkeeping for Surrogate Limits

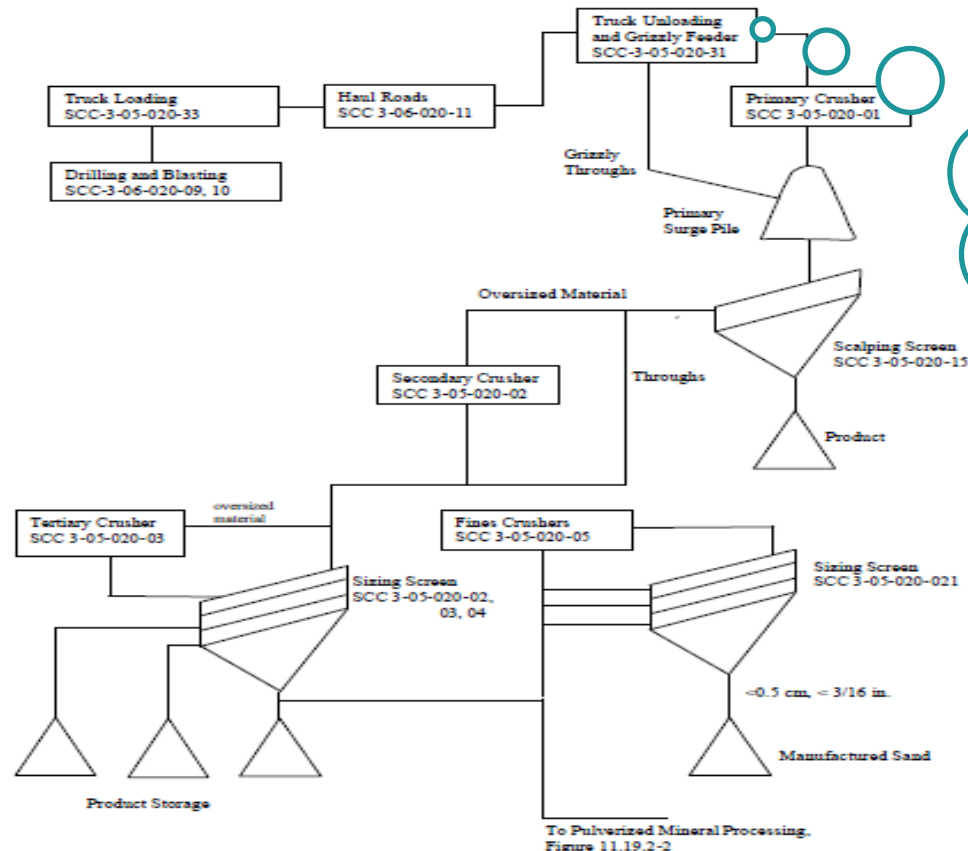
- Typically used when the permit contains:
 - An emission limit, and
 - Another limit that is directly related to the emission limit.
- Rock crushing operations and asphalt plants typically use surrogate limits for recordkeeping.
- A facility such as a clay plant with established emission factors per ton of material processed, e.g. pounds of PM per ton of clay processed x tons processed for that month

Surrogate Limit Example (cont)

1. Particulate matter emitted from this source shall not exceed 48.9 pounds per hour, on a daily average basis.
2. The maximum material input rate of the feeder/crusher for this source shall not exceed 450 tons per hour on a daily average basis.

Compliance Method: The permittee shall maintain a log of the daily material input rate and hours of operation of the feeder/crusher in a form that readily shows compliance with **Condition 2** shall be maintained at the source location and kept available for inspection by the Technical Secretary or a Division representative. This record must be retained for a period of not less than 5 years.

Surrogate Limit Example (cont)



This is where
material
input is
measured

Figure 11.19.2-1. Typical stone processing plant

8/04

Mineral Products Industry

11.19.2-3

Parametric Monitoring

- Records are kept to demonstrate proper operation of a control device.
- Common examples include:
 - Daily Baghouse pressure drop
 - Daily Scrubber water flow rate and/or pH of scrubber liquid
 - Hourly Thermal oxidizer temperature
 - Weekly Cyclone inspection

Baghouse Pressure Drop

1. Particulate matter emitted from this source shall not exceed 11.1 pounds per hour, on a daily average basis.

Compliance method: The permittee shall maintain an approved minimum pressure drop of 1.2 inches of water across the baghouse. The permittee shall record a minimum of one pressure drop reading per day in a log. The log shall include the time of the reading, the value read, the name of the plant operator recording the value, and any relevant comments as needed. The permittee shall note all days when the source is not operating. This log shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than 5 years.

If the pressure drop reading falls below the minimum value, the permittee shall inspect the baghouse and initiate corrective actions to bring the pressure drop to above the minimum value. The permittee shall note all inspection findings and corrective actions in the log.

(Note comments by the operator are very important in denoting what has occurred and may result in a consideration for a legitimate excusal based on the circumstances.)

Questions

- What is being recorded?
- How often?
- What happens if there is an excursion (reading below minimum value)?

Example Log Sheet for Baghouse Pressure Drop

Date & Time	Operator Initials	Pressure Drop (inches H ₂ O)	Process Source Operating?	Comments

Parametric Monitoring for Thermal Oxidizer

The thermal oxidizer shall operate with a minimum temperature of 1,500°F based on three-hour block average periods during production. Compliance with this condition shall be assured as specified below:

- (a) The permittee shall install, calibrate, operate, and maintain continuous monitoring equipment to monitor the combustion chamber temperature. Sensors shall be installed, maintained, and operated such that the flames from the burners do not impinge upon the sensors.
- (b) Using data obtained from the continuous recorder or digital temperature readout, the permittee shall record the hourly average combustion chamber temperature and use the hourly temperatures to calculate the three-hour block average temperature.

Parametric Monitoring for Thermal Oxidizer (cont)

- (c) All three-hour block periods of operation during which the average combustion temperature is more than 50° F below the minimum operating temperature shall be reported to the Division as specified in **Condition _____**. Excursions below the minimum operating temperature shall not be considered violations of this condition unless the three-hour block average temperature is more than 50° F below the minimum operating temperature of 1,500° F. Three-hour block periods shall start at midnight unless designated otherwise. Production or operation shall not begin until the set point temperature of 1,500° F is attained. Excursions below the minimum operating temperature resulting from startups, shutdowns, or malfunctions shall not be considered violations of this condition.
- (d) Records of the combustion chamber temperature monitoring shall be documented in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than 5 years. Records of temperature excursions must be retained at the facility for a period of not less than 5 years.

Parametric Monitoring for Thermal Oxidizer (cont)

Temperature Log Date: _____		
Block (24-hr time)	Hourly Avg. Temp. (°F)	Comments
0:00 - 1:00	850	Start-up at midnight
1:00 - 2:00	1,200	Allowance given for startup
2:00 - 3:00	1,500	Allowance given for startup
3:00 - 4:00	1,500	Start production 3:00 AM, Part of 1 st 3 hour block
4:00 - 5:00	1,475	Part of 1 st 3 hour block
5:00 - 6:00	1,460	Part of 1 st 3 hour block
6:00 - 7:00	1,500	2 nd 3 hour block begins
7:00 - 8:00	1,470	Part of 2 nd 3 hour block
8:00 - 9:00	1,495	Part of 2 nd 3 hour block

Routine Maintenance

“Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than 5 years.”

Data Entry Requirements

For monthly logs:

All data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required.

For weekly logs:

All data, including all required calculations, must be entered in the log no later than 7 days from the end of the week for which the data is required.

For daily logs:

All data, including all required calculations, must be entered in the log no later than 7 days from the end of the day for which the data is required.

Reporting Requirements

- Typically not required for True Minor sources, unless required by an area source NESHAP (e. g., chromium electroplating) or for special purposes such as a complaint.
- An annual compliance report is required for all Conditional Major Facilities.

“A report stating the compliance status of this facility with **Conditions 5, 6, and 7** shall be submitted by March 31 of every year. This report shall cover the preceding calendar year and shall include the records required by **Conditions 8, 9, and 10**. The first report shall cover the calendar year 2024 and will be due March 31, 2025. These reports shall be submitted to the _____ Environmental Field Office at the following address...”

Example Conditional Major Report

Conditional Major Report for _____
Permit Number: _____
Report Period: January 1 – December 1, 2024
Due Date: March 31, 2025

Condition	Requirement	Compliance Status
5	VOC emission limit of 90 tons per 12 consecutive months	In compliance for the entire year. Max. value was 65.9 tons for 12 consecutive months
6	Coating usage limit of 8,000 gallons per 12 consecutive months	In compliance for the entire year. Max. value was 7132 gals for 12 consecutive months
7	Thermal oxidizer minimum temperature	Out of compliance for two 3-hour periods on June 30, 2025, and August 1, 2025. In compliance for the remainder of the year.

Copies of all records required by Conditions 8, 9, and 10 of permit number _____ are included in the attachments to this report.

VOC and NO_x Reporting for Knoxville, Memphis, and Nashville Areas

Annual reporting of VOC and NO_x emissions is required for facilities that:

- Are located in Anderson, Blount, Davidson, Knox, Rutherford, Shelby, Sumner, Williamson or Wilson county, and
- Have actual emissions of VOC and/or NO_x of 25 tons or more during a calendar year.

The report must:

- Be submitted before March 31 of each year
- Cover the preceding calendar year,
- Be signed by responsible official, and
- Include a truth and accuracy statement.

For your consideration

1. Don't forget to keep records and/or log days when a process/operation did not operate marking such days as NIO (not in operation). No entry indicates that data or logging was overlooked for the day.
2. APC sets a reporting format for the proposed permit. You, your consultant, or representative may propose similar or alternate permit conditions or data tables amenable to your facility for APC to consider as long as it contains the same essential and relevant information and data. Comment on this during the permit draft or request it later as a permit amendment. Be sure and check with your permit writer.
3. Always make relevant comments/justification/explanation on log entries when denoting a control equipment or operating parameter excursion. APC will review such excursions and if properly documented and explained, it may result in an excusal.

For your consideration (cont)

4. Audit or spot check your spreadsheets to see if entry values are correct, there is no missing information, formulas and equations are transposed correctly, and the table results represent what the permit conditions require. Do an independent calculation to see if you arrive at the same values.
5. If plant emission studies exist for your industry, present them to APC as a suggested emission factor. If the study has technical merit and appropriate documentation, these may be more representative of your facility. Also, if your plant has established an effective control technique(s) or work practice(s), submit this to APC for consideration.
6. Make sure the records that are required of you are representative of your operation.
7. Maintain backup records by scanning handwritten logs or entering them in computer storage. Lost records have resulted in NOVs.

Questions?

