

## STATE OF TENNESSEE AIR POLLUTION CONTROL BOARD DEPARTMENT OF ENVIRONMENT AND CONSERVATION NASHVILLE, TENNESSEE

## GENERAL PERMIT TO CONSTRUCT / MODIFY AND OPERATE AIR CONTAMINANT SOURCE(S)

Permit Number: G00004

Facility Classification: True Minor

Facility Requirements: 40 CFR 60 Subpart OOO, as applicable

## Facility Description: Nonmetallic Mineral Crushing and Sizing Operation with Wet Suppression

SIC/NAICS: Nonmetallic Mineral Processing, typical Standard Industrial Classification (SIC) codes and North American Industry Classification System (NAICS) codes are listed in the process description.

General Permit G00004, consisting of 22 pages, is hereby issued on April 18, 2024, pursuant to the Tennessee Air Quality Act and by the Technical Secretary, Tennessee Air Pollution Control Board, Department of Environment and Conservation. This permit supersedes all previously issued permits for this/these source(s). This permit expires on April 17, 2034. The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations (TAPCR).

Michelhe W. averly

Michelle W. Owenby Technical Secretary Tennessee Air Pollution Control Board

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

Rev. 04/18/2024

RDA-1298

# **Table of Contents**

Permit	Cover and Signature Page	1
Table	of Contents	2
Nonme	etallic Mineral Crushing and Sizing Process Description	2
Section	ns of the General Permit	
I.	Permit Applicability	4
II.	General Permit Conditions	4
III.	Source Specific Permit Conditions	9
Appen	dix 1: Notification of Change in Responsible Person and Contacts	16
Appen	dix 2: Startup Certification	
Appen	dix 3: Notification of Ownership Change	
Appen	dix 4: Fees	
Appen	dix 5: Example Logs – Input and Operating Hours and Portable Unit Location	
Appen	dix 6: Example Logs – Wet Suppression	
Appen	dix 7: General Provisions for 40 CFR Part 60, Subpart OOO	
	Table of Nonmo Section I. II. III. Appen Appen Appen Appen Appen	II. General Permit Conditions

#### **Permit Record**

Permit Type	Description of Permit Action	Issue Date
Initial	Initial General Permit issuance	April 18, 2024

## Nonmetallic Mineral Crushing and Sizing Process Description

Quarried stone is typically delivered to the process, and the stone is passed through various crushing and screening operations to produce gravel of the desired size. Mechanical conveyors are used to transport the material throughout the facility. Once aggregate of the desired size is formed and sorted, it is conveyed to storage piles, and the finished product is shipped offsite or used at co-located facilities (such as asphalt or concrete batch plants). The primary emission points from Nonmetallic Mineral crushing and sizing operations include crushers, screens, conveyor transfer points, stockpiles, and roads and parking areas. Particulate matter emissions from the process and storage piles are typically controlled through the use of water sprays, and a water truck is typically used to control emissions from vehicle traffic. Nonmetallic mineral processing plants include the following SIC and NAICS Categories:

NAICS Code	SIC Code	Description	
212311	1411	Dimension Stone Mining and Quarrying	
212312	1422	Crushed and Broken Limestone Mining and Quarrying	
212313	1423	Crushed and Broken Granite Mining and Quarrying	
212319	1429, 1499	Other Crushed and Broken Stone Mining and Quarrying	
212321	1442	Construction Sand and Gravel Mining	
212322	1446	Industrial Sand Mining	

212324	1455	Kaolin and Ball Clay Mining
212325	1459	Clay and Ceramic and Refractory Minerals Mining
212391	1474	Potash, Soda, and Borate Mineral Mining
212393	1479	Other Chemical and Fertilizer Mineral Mining
212399	1499	All Other Nonmetallic Mineral Mining

Fixed or portable nonmetallic mineral processing plants that commenced construction, modification, or reconstruction after August 31, 1983, are subject to New Source Performance Standards (NSPS), 40 CFR 60 Subpart A (General Provisions) and 40 CFR 60 Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants). These sources shall comply with all applicable requirements of Subparts A and OOO.

Portable Nonmetallic Mineral crushing and sizing operations may include wheel-mounted or track-mounted equipment powered by nonroad engines. Pursuant to the pertinent provisions of 40 CFR §1068.30, for the purposes of this permit, a nonroad engine is an internal combustion engine that:

- A. Is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or
- B. By itself or in or on a piece of equipment, is portable or transportable (designed to be and capable of being carried or moved from one location to another). Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
- C. An internal combustion engine is **<u>not</u>** a nonroad engine if it is regulated under 40 CFR Part 60 or otherwise regulated by a federal New Source Performance Standard promulgated under section 111 of the Clean Air Act (this criterion does not apply to nonroad engines that are voluntarily certified under 40 CFR part 60). An internal combustion engine is not a nonroad engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. For any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced, include the time period of both engines in calculating the consecutive time period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. As a condition of issuance of this general permit, the permittee agrees that such engines will not stay for more than 12 consecutive months in one location at this facility, or a shorter period of time for any engine located at a seasonal source.

No stationary engine subject to the requirements of 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines), 40 CFR 60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines), or 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)<sup>1</sup> is eligible for coverage under the terms of this general permit. Instead, the permittee must apply for and obtain a traditional construction permit as set forth in TAPCR 1200-03-09-.01(1), and an operating permit as set forth in TAPCR 1200-03-09-.02(1) through (4), for any such engines<sup>2</sup>.

TAPCR 00-03-09-.03(8), 40 CFR §1068.30, 40 CFR §63.6585(a)

<sup>&</sup>lt;sup>1</sup> Pursuant to 40 CFR §63.6585(a), portable diesel engines powering rock crushing plants are not subject to Subpart ZZZZ, provided that the engines meet the definition of "nonroad engine" pursuant to 40 CFR Part 1068.

 $<sup>^{2}</sup>$  The rock crushing and sizing equipment powered by stationary engines remain eligible for coverage under the terms of this permit, but any non-exempt stationary or portable engine must obtain a traditional permit prior to construction or operation.

## Section I - Permit Applicability and Authorization

- **P1**. Permit G00004 is hereby issued and made available to persons who operate eligible Nonmetallic Mineral crushing and sizing operations subject to regulation under the Tennessee Air Pollution Control Regulations (TAPCR) 1200-03 and 0400-30, with the exception of non-state-owned sources located in areas issued a Certificate of Exemption from the Tennessee Air Pollution Control Board; sources subject to TAPCR 1200-03-09-.02(11); and
  - A. New or modified sources located in areas designated as non-attainment for particulate matter by the U.S. Environmental Protection Agency (U. S. EPA) or the Tennessee Air Pollution Control Board.
  - B. Existing sources (as defined in TAPCR 1200-03-02-.01(1)(q)) located in areas that have been designated as nonattainment under the National Ambient Air Quality Standards for primary or secondary  $PM_{2.5}$  or  $PM_{10}$  are eligible for coverage under this permit if no source-specific conditions have been established due to their location in a nonattainment area.

This permit authorizes the construction, operation, and modification of all equipment associated with Nonmetallic Mineral crushing and sizing operations eligible for coverage under this permit as defined in **Condition G1**, and the resulting air emissions provided all requirements of this permit and applicable provisions of TAPCR 1200-03 and 0400-30 are met.

TAPCR 1200-03-09-.06

P2. Nonmetallic Mineral crushing and sizing operations with a cumulative capacity of all initial material input point(s) above 3500 tons per hour are not eligible for coverage under Permit G00004.

TAPCR 1200-03-09-.06

## Section II - General Permit Conditions

## G1. Eligibility

Only Nonmetallic Mineral crushing and sizing operations which are subject to regulation under the TAPCR 1200-03 and 0400-30 and which are not excluded by **Condition P1** of this permit are eligible for coverage under this general permit, as follows:

A. Only fugitive emission sources are eligible for coverage, and this permit is not valid for any emissions that could reasonably pass through a stack, chimney, vent, roof monitor, or other functionally equivalent opening.

TAPCR 1200-03-02-.01(1)(t), TAPCR 1200-03-09-.01(4)(b)21, TAPCR 1200-03-09-.01(4)(d)1.(i), TAPCR 1200-03-09-.01(5)(b)1(ix), TAPCR 1200-03-09-.01(8)(b)4.(ii), TAPCR 1200-03-09-.02(11)(b)14.(ii)

B. For Nonmetallic Mineral crushing and sizing operations powered by internal combustion engines, only internal combustion engines that qualify as nonroad engines pursuant to 40 CFR Part 1068, Subpart A are eligible for coverage.

TAPCR 1200-03-09-.03(8) and 40 CFR Part 1068, Subpart A

## G2. Permission to Construct and Operate

This general permit shall serve as both a construction and operating permit for eligible sources as identified in condition P1 of this permit provided the provisions of **Condition G6** are met.

TAPCR 1200-03-09-.06(3)

## **G3.** Requirement to Obtain Traditional Permit(s)

Notwithstanding the provisions of this permit, the Technical Secretary of the Tennessee Air Pollution Control Board (Technical Secretary) may require any person to apply for and obtain a traditional construction permit as set forth in TAPCR 1200-03-09-.01(1), and an operating permit as set forth in TAPCR 1200-03-09-.02(1) through (4), should it be deemed necessary by the Technical Secretary.

TAPCR 1200-03-09-.03(8)

## G4. Comply with Regulations

A. This source shall comply with all applicable state and federal air pollution regulations as specified in Condition P1. This includes, but is not limited to, federal regulations published under 40 CFR Part 60, New Source Performance Standards, and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories.

TAPCR 1200-03-09-.03(8)

B. Operation of each air contaminant source shall be in accordance with the provisions and stipulations set forth in this general permit, all provisions of the TAPCR 1200-03 and 0400-30, and all provisions of the Tennessee Air Quality Act.

TAPCR 1200-03-09-.02(6)

#### **G5.** Approved Notice of Intent

This source shall operate in accordance with the terms of this permit, the information submitted in the approved Notice of Intent (NOI) referenced in **Condition G6**, changes made in accordance with **Conditions S1-3** and **F1-2** and any documented agreements made with the Technical Secretary.

TAPCR 1200-03-09-.01(1)(d), 1200-03-09-.02(6) and 1200-03-09-.06(9)(b)

#### **G6.** Notice of Intent Requirements:

A. Initial Coverage: Existing facilities requesting coverage under this general permit shall submit an NOI to the Technical Secretary at the address specified in **Condition G7**. The NOI must be made on forms available from the Technical Secretary.

TAPCR 1200-03-09-.06(5)

B. Construction and Modification: New facilities requesting to be covered under this general permit must submit an NOI to the Technical Secretary no less than 60 days prior to the estimated starting date of construction. The NOI must be made on forms available from the Technical Secretary.

TAPCR 1200-03-09-.06(6)

- C. Renewal of Coverage Under the General Permit: For a source covered by this general permit, an NOI shall be submitted no less than 30 days prior to the expiration date of this General Permit to ensure continued coverage.
- D. If any of the contact information included in the NOI changes during the term of the general permit, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification provided in Appendix 1 must be submitted within 30 days after being assigned as the Responsible Person or contact person. A separate notification shall be submitted for each subsequent change in Responsible Person or contact person. The notification shall include all new information and must be signed by the responsible person. All representations, agreement to terms and conditions and covenants made by the former responsible person

that were used in the establishment of the Notice of Coverage (NOC) limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

- E. Off-Permit Changes: For a source covered by this general permit, an NOI shall be submitted for any changes covered under condition S1-3 in accordance with the requirements of that condition.
- F. Like-for-Like Replacements: For a source covered by this general permit, an NOI shall be submitted for like-for-like replacements covered under **Condition F1-2**.

TAPCR 1200-03-09-.03(8) and 1200-03-09-.06(6)

#### G7. Submittals

Unless otherwise specified within this permit, the permittee shall submit all applicable plans, checklists, certifications, notifications, test protocols, reports, applications, and application fees to the attention of the following Tennessee Department of Environment and Conservation, Division of Air Pollution Control (Division) Programs at the addresses indicated in the table below:

Permitting Program	Compliance Validation Program
Notifications including NOIs	Test protocols
Startup certifications	Emission test reports
Applications	Visible emission evaluation reports
Replacement Equipment Reports	
Off-Permit Change Notifications	
Application Fees	
	Mail to:
	State of Tennessee
Email to:	Department of Environment and Conservation
	<b>Dr</b> Division of Air Pollution Control
Air.Pollution.Control@tn.gov	Davy Crockett Tower, 7th Floor
	500 James Robertson Parkway
	Nashville, TN 37243

The permittee shall submit the information identified above as requested in this permit. In lieu of submitting this information to the email address above, the permittee may submit the information to the attention of the respective Division programs at the mailing address listed above.

TAPCR 1200-03-09-.03(8)

## **G8.** Termination of Coverage

If either the owner or operator of a source covered by this general permit or the Technical Secretary determines that the source no longer qualifies for coverage under this general permit, the source shall submit a notice of the change in status within 30 days of either such determination by the source or notification by the Technical Secretary. In the event that this occurs, the permittee shall apply for the appropriate permit in accordance with **Condition G3**.

TAPCR 1200-03-09-.06(7)

## **G9.** Permit Transference

A. This general permit is not transferable from one air contaminant source to another air contaminant source or from one location to another location.

TAPCR 1200-03-09-.03(6)(b)

B. In the event an ownership change occurs at this facility, the new owner must submit the notification provided in Appendix 3 of this general permit and request an amendment to their NOC to reflect said ownership change. The written notification must be submitted by the new owner to the Technical Secretary no later than 30 days after the ownership change occurs. If the change in ownership results in a change in responsible person for the facility, notification of the change in Responsible Person must also be submitted, as specified in Condition G6.D. The Notification of Ownership Change must be submitted to the Technical Secretary using the email or mailing address specified in Condition G7.

TAPCR 1200-03-09-.03(6)

C. In the event of a name change not associated with a change in ownership at a facility covered under this general permit, a responsible person must notify the Technical Secretary, at the address specified in **Condition G7**, in writing of such change. A copy of this notification must be attached to the NOC.

TAPCR 1200-03-09-.03(6)

## G10. Fees

The air contaminant source(s) covered under this general permit shall comply with the requirements for payment of applicable annual emission fees to the Division on the Administrative Fees SCHEDULE I provided in **Appendix 4** of this permit. The fee must be paid to the Division in full by the first day of the month that the fee is due.

TAPCR 1200-03-26-.02

## G11. General Recordkeeping Requirements

A. All recordkeeping requirements for all data required to be recorded shall follow the following schedules:

For Daily Recordkeeping	For Weekly Recordkeeping	For Monthly Recordkeeping
No later than seven days from the	No later than seven days from the	No later than 30 days from the end
end of the day for which the data	end of the week for which the	of the month for which the data is
is required.	data is required.	required.

B. The information contained in logs, records, and submittals required by this general permit shall be kept at the facility's address, unless otherwise noted, and provided to the Technical Secretary or a Division representative upon request. Computer-generated logs are acceptable. Compliance is assured by retaining the logs, records, and submittals specified in this permit for a period of not less than five years at the facility's address.

TAPCR 1200-03-10-.02(2)(a)

## G12. Routine Maintenance Requirements

The permittee shall maintain and repair the emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

**Compliance Method:** Records of all repair and maintenance activities required above 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 five years. The date each maintenance and repair activity began shall be entered in the log no later than seven days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than seven days after activity completion.

TAPCR 1200-03-10-.02(2)(a)

## G13. Visible and Fugitive Emissions

A. Unless otherwise specified, visible emissions from this facility shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(1) and 1200-03-05-.03(6)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A-4 (six-minute average).

- B. The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, but are not limited to, the following:
  - 1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
  - 2. Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;
  - 3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR 1200-03-20.

TAPCR 1200-03-08-.01(1) and (2)

**Compliance Method:** When required to demonstrate compliance, fugitive emissions shall be determined by Tennessee Visible Emissions Evaluation Method 4 as adopted by the Tennessee Air Pollution Control Board on April 16, 1986.

C. Fugitive emissions from roads and parking areas shall not exhibit greater than 10% opacity.

TAPCR 1200-03-09-.01(1)(d) and 1200-08-.03

**Compliance Method:** When required to demonstrate compliance, fugitive emissions from roads and parking areas shall be determined by utilizing Tennessee Visible Emissions Evaluation (TVEE) Method 1, as adopted by the Tennessee Air Pollution Control Board on April 29, 1982, as amended on September 15, 1982, and August 24, 1984.

## G14. Malfunction or Failure

Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by the rules contained in TAPCR 1200-03-20 entitled Limits on Emissions due to Malfunctions, Startups, and Shutdowns. A malfunction is defined as, any sudden and unavoidable failure of process equipment or for a process to operate in an abnormal and unusual manner. Failures that are caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

TAPCR 1200-03-09-.03(8) and 1200-03-02-.01(1)(z)

## G15. Startup Certification for New Source(s)

The startup certification provided in Appendix 2 shall be submitted to the Permitting Program once an air contaminant source has started up. Startup of the air contaminant source shall be the date the new air contaminant source began operation for the production of product for sale, use as raw materials, or steam or heat production under the terms of this permit. For a combination of pieces of equipment in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Technical Secretary.

TAPCR 1200-03-09-.03(8)

**Compliance Method:** The startup certification provided in Appendix 2 shall be submitted no later than 15 days after each air contaminant source has begun startup.

## Section III - Source Specific Permit Conditions

#### S1-1. Input Limitation(s) or Statement(s) of Rated Capacity

The cumulative rated capacity of all initial material input point(s) at this Nonmetallic Mineral crushing and sizing facility shall not exceed 3500 tons per hour. Should the permittee need to modify the source(s) in a manner that increases the maximum input rate above this threshold, the permittee shall apply for and receive a construction permit in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.06(6) and 1200-03-09-.03(8)

**Compliance Method**: Compliance with this condition shall be assured as follows:

- 1. The permittee shall maintain documentation to demonstrate the capacity of all initial material input point(s) at this Nonmetallic Mineral crushing and sizing facility.
- 2. The permittee shall maintain documentation to demonstrate the design capacity of the feeders, crushers, grinding mills, bucket elevators, bagging operations, or enclosed truck or railcar loading stations (in tons per hour), width of conveyors, diameter of screws, total surface area of the top screen for each screen unit, and capacity or volume of the bins and pugmills.
- 3. Documentation for compliance method 1 and 2 may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. If documentation is not available upon request for all equipment, measurements and calculations (which may include computations made by computer plant flow programs) shall be provided which confirm the capacity or size of the equipment.

These documents, measurements, and calculations shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

- The permittee shall maintain a log of the daily material input measured at the initial input point(s) of each process emission source and operating hours for each process emission source, as defined in Condition S1-2, as shown in Appendix 5, or in an alternative format that provides the same information. These logs shall be retained in accordance with Condition G11.
- 5. For portable process emission sources that have been permitted to operate at more than one facility, the permittee shall maintain a log to demonstrate when any or all portable units are located at the facility as shown in Appendix 5, or an alternative format that provides the same information. These logs shall be retained in accordance with **Condition G11**.

TAPCR 1200-03-10-.02(2)(a)

## S1-2. Emission Limitations

Particulate matter (PM) emitted from each process emission source at this nonmetallic mineral crushing and sizing facility shall not exceed the limits determined in accordance with the following equation:

 $E = 17.31(P)^{0.16}$ 

where:

E = allowable PM emission rate in lb/hr P = the process weight rate in tons/hr

The process weight shall be equivalent to the rated capacity of the initial material input point(s) for the process emission source as specified in the NOI.

**Compliance Method**: Compliance with this condition shall be assured as follows:

- 1. Compliance with this emission limitation shall assured by compliance with Condition S1-1 and, if applicable, Condition F1-3.
- 2. Wet suppression must be applied at every transition (crushers, all other equipment items) and on storage piles, roads, and parking areas as needed to comply with all applicable standards. The wet suppression system shall be maintained in good working condition in order to provide sufficient water pressure and water flow to effectively control fugitive emissions. The permittee shall maintain a daily log of wet suppression control while the source is in operation (see **Appendix 6** for example log). If the facility is using a control mechanism to reduce fugitive emissions other than the water spray system, the log entry must specify the control mechanism being used instead of the water spray system. Days that the source is not in operation shall be noted. These records shall be retained in accordance with **Condition G11**.

TAPCR 1200-03-09-.03(8) and 1200-03-10-.02(2)(a)

## S1-3. Off-Permit Changes

Owners and operator of sources covered by this general permit may add, remove, or replace equipment in accordance with the following procedures:

- A. The following must be submitted to the Technical Secretary as specified in **Condition G7** at least seven days in advance of the proposed replacement or addition:
  - a. A completed, signed, and dated NOI which includes information for **all** sources following the replacement or addition.

- b. A list of all equipment being removed including a reference number (assigned by the facility), rated capacity in tons per hour (for every crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station), total surface area of the top screen (for screens), belt width (for conveyor belts), date of manufacture, and NSPS Subpart OOO status (applicable or not applicable).
- c. A list of all equipment being added (including all replacement equipment) including a reference number (assigned by the facility and used in the flow diagram(s)), equipment make and model, whether the equipment is the initial input point for the process emission source, rated capacity or size in tons per hour (for every feeder, crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station), total surface area of the top screen for each screen unit (for screens), belt width (for conveyor belts), screw diameter (for screw conveyors), or capacity or volume (for each bin and pug mill), date of manufacture, and NSPS Subpart OOO status (applicable or not applicable, depending on date of construction, modification, or reconstruction and whether the change is a like-for-like replacement of existing, non-NSPS equipment), whether a conveyor discharges to stockpiles only, and if a performance test has been completed (for added equipment only).
- d. The planned date of installation or removal of each piece of equipment.
- e. A flow diagram for the Nonmetallic Mineral crushing and sizing operation prior to the replacement or addition showing each piece of equipment labeled with a reference number.
- f. A flow diagram for the Nonmetallic Mineral crushing and sizing operation following the replacement or addition showing each piece of equipment labeled with a reference number.
- B. For any added and replacement equipment, the owner or operator shall submit a notification of the actual date of initial startup to the Technical Secretary (Appendix 2). For a combination of pieces of equipment in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Technical Secretary. The notification shall be postmarked within 15 days after such date and shall include a description of each piece of equipment, equipment manufacturer, and serial number of the equipment, if available. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.
- C. All added and replaced equipment must comply with Conditions F1-3, F1-4, F1-5, and F1-6, as applicable.
- D. As long as the proposed change qualifies for an Off-Permit Change and the permittee has submitted a complete, signed, and dated NOI that complies with all of the provisions of S1-3A, the permittee may make the change following the seven-day advance notice period.
- E. The burden of proof for a change made in accordance with this condition S1-3 is on the owner or operator.

TAPCR 1200-03-09-.03(8) and 1200-03-02-.01(1)(aa)

# Federal and/or State Requirements

## 40 CFR 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

## F1-1. Applicability of Subpart OOO

Except as provided in 40 CFR §§ 60.670(a)(2), (b), (c), and (d), the provisions of Subpart OOO are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. The provisions of Subpart OOO do not apply to facilities located in underground mines, plants

without crushers or grinding mills above ground, and wet material processing operations<sup>3</sup>. The provisions of Subpart OOO do not apply to fixed sand and gravel plants and crushed stone plants with capacities<sup>4</sup> of 25 tons per hour or less; portable sand and gravel plants and crushed stone plants with capacities of 150 tons per hour or less; and common clay plants and pumice plants with capacities of 10 tons per hour or less. The provisions of Subpart OOO do not apply to facilities that commenced construction, modification, or reconstruction on or before August 31, 1983.

TAPCR 1200-03-09-.03(8) and 40 CFR §§ 60.670(a) and (c)

## F1-2. Replacement of Affected Equipment

- A. When an existing facility<sup>5</sup>, as designated in 40 CFR § 60.2 and 40 CFR § 60.670, is replaced by a piece of equipment of equal or smaller size<sup>6</sup> and having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the **Conditions F1-3, F1-4, and F1-5** except as provided for in paragraph C of this condition. This type of change is referred to as a "like-for-like replacement."
- B. An owner or operator complying with this condition of this section shall submit a completed, signed, and dated NOI which includes information for all sources following the like for like replacement. This NOI shall be submitted to the Technical Secretary as specified in **Condition S1-3**.
- C. An owner or operator replacing all existing facilities in a production line<sup>7</sup> with new facilities does not qualify for the exemption described in paragraph A of this condition and must comply with **Conditions F1-3, F1-4, and F1-5**.

TAPCR 1200-03-09-.03(8) and 40 CFR §60.670(d) and §60.676(a)

## F1-3. Standard for particulate matter (PM)

Affected facilities must meet the fugitive emission limits and compliance requirements in **Table F1-3** within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR §60.11. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this condition. EPA Method 9 (40 CFR Part 60, Appendix A–4) and the procedures in 40 CFR §60.11 shall be used to determine opacity.

<sup>4</sup> 40 CFR §60.671 defines *capacity* as the cumulative rated capacity of all initial crushers that are part of the plant.

<sup>&</sup>lt;sup>3</sup> 40 CFR §60.671 defines wet material processing operation(s) as any of the following: (1) wet screening operations (screening operations that remove unwanted material or separate marketable fines from the product by a washing process designed and operated at all times such that the product is saturated with water) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (material with sufficient surface moisture such that particulate matter emissions are not generated from processing through screening operations, bucket elevators and belt conveyors, excluding material that is wetted solely by wet suppression systems) up to the first crusher, grinding mill or storage bin in the production line; or (2) screening operation designed and operated to extract nonmetallic mineral from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water) that process saturated materials up to the first crusher, grinding mill or storage bin in the production line.

<sup>&</sup>lt;sup>5</sup> For the purpose of condition F1-2, an "existing facility" is an affected facility as specified in 40 CFR 60.670(a) that commenced construction, modification, or reconstruction after August 31, 1983.

<sup>&</sup>lt;sup>6</sup> Pursuant to 40 CFR §60.671, *size* means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

<sup>&</sup>lt;sup>7</sup> Pursuant to 40 CFR §60.671, *production line* means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Table F1-3: 40 CFR 60 Subpart OOO Fugitive Emission Limits			
Affected Facility Description	Fugitive	Fugitive	Compliance Method
	emissions limit	emissions limit	
	for facilities other	for crushers	
	than crushers**		
Affected facilities that commenced	10% opacity	15% opacity	Initial performance test (see
construction, modification, or			<b>Condition F1-5</b> )
reconstruction after August 31, 1983, but			
before April 22, 2008.			
Affected facilities that commence	7% opacity	12% opacity	Initial and repeat
construction, modification, or			performance test (see
reconstruction on or after April 22, 2008.			Condition F1-5). Periodic
			inspections of water sprays
			(see Condition F1-4)
** Fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt			

\*\* Fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility

TAPCR 1200-03-09-.03(8) and 40 CFR §§60.672(b), (d) and Table 3 to Subpart OOO

## **F1-4.** Monitoring of operations

The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required by **Condition F1-6**. If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays.

TAPCR 1200-03-09-.03(8) and 40 CFR §60.674(b)

## F1-5. Test methods and procedures.

Except as specified in 40 CFR §§ 60.8(a)(1),(2), (3), and (4), within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the permittee shall conduct initial performance test(s) in accordance with this condition and furnish the Technical Secretary a written report of the results of such performance test(s). For affected facilities that commence construction, modification, or reconstruction on or after April 22, 2008, the permittee shall conduct a repeat performance test according to 40 CFR §60.11 and §60.675 within five years from the previous performance test for fugitive emissions from affected facilities without water sprays.

- A. If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the five-year repeat testing requirement specified in this condition, provided that the affected facility meets the following criteria:
  - 1. The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections shall be conducted as required by **Condition F1-4**.

- 2. The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required by this condition.
- B. In determining compliance with the particulate matter standards in **Condition F1-3**, the owner or operator shall use EPA Method 9 (Appendix A-4 of 40 CFR Part 60) and the procedures in 40 CFR §60.11, with the following additions:
  - 1. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
  - 2. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun must be followed.
  - 3. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
  - 4. The duration of the Method 9 observations must be 30 minutes (five six-minute averages), and compliance with the emission limits in **Condition F1-3** must be based on the average of the five six-minute averages.
- C. If emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
  - 1. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
  - 2. Separate the emissions so that the opacity of emissions from each affected facility can be read.
- D. A single visible emission observer may conduct visible emission observations for up to three fugitive emission points within a 15-second interval if the following conditions are met:
  - 1. No more than three emission points may be read concurrently.
  - 2. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
  - 3. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.
- E. The owner or operator of an affected facility shall provide at least seven days prior notice of any performance test to afford the Technical Secretary the opportunity to have an observer present. If after there is a delay in conducting the scheduled performance test due to operational problems, the owner or operator shall notify the Technical Secretary of the delay as soon as possible and shall arrange a rescheduled date with the Technical Secretary by mutual agreement.
- F. If the initial performance test date for an affected facility falls during a seasonal shutdown<sup>8</sup> of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

TAPCR 1200-03-09-.03(8) and 40 CFR §60.7(a)(6), §60.8(d), §§60.675(c)(1) and (3), §§60.675(e)(1) and (2), §60.675(g), §60.675(i)

<sup>&</sup>lt;sup>8</sup> 40 CFR §60.671 defines a *seasonal shutdown* as shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

## F1-6. Reporting and recordkeeping.

- A. Owners or operators of affected facilities for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under **Condition F1-4**, including dates and any corrective actions taken, in a written or electronic logbook. The owner or operator must keep the logbook onsite and make hard or electronic copies of the logbook available to the Technical Secretary upon request.
- B. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with **Condition F1-3**, including reports of opacity observations made using Method 9.
- C. The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in **Condition F1-3** and the emission test requirements of **Condition F1-5**.
- D. A notification of the actual date of initial startup of each affected facility shall be submitted to the Technical Secretary (Appendix 2). For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Technical Secretary. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

40 CFR §60.676(b)(1), (f), (g), (i)

## F1-7. General Provisions Applicability

The permittee shall comply with the General Provisions (40 CFR 60 Subpart A) applicable to Nonmetallic Mineral Processing Plants, as specified in **Appendix 7** of this permit.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subparts A and OOO

(End of conditions)

# **Appendix 1: Notification of Change in Responsible Person(s) and Contacts**

Facility (Permittee)		
Facility ID		
Former Responsible Person or Contact		
	Name	Title
Date Former Responsi this duty:	ble Person or Contact ceased	
New Responsible Perso	on	
	Name	Title
	New Responsible Person Email	
-	e Person was assigned this duty:	
New Technical Contac	t	
	Name	Title
	New Technical Contact Email	
New Billing Contact		
	Name	Title
	New Billing Contact Email	
Date New Billing Co	ontact was assigned this duty:	
contained in this Notifica	on of the above-mentioned facility (permitte tion is accurate and true to the best of my kno 39-16-702(a)(4), <b>THIS DECLARATION I</b>	ee), I certify that the information wledge. As specified in Tennessee

Signature	Date	
Signer's name (print)	Title	Phone (with area code)

## **Appendix 2: Startup Certification**

Facility (Permittee):

Facility ID:

Provide the following information for equipment in table below (or in a separate attachment if necessary):

Equipment Name (Make and Model Number)	Reference ID # (equipment list/flow diagram)

The permittee shall certify the startup date for each new or modified air contaminant source regulated by this general permit G00004 by submitting this document.

Date of startup:		//	/
	Month	Day	Year

As the Responsible Person of the above-mentioned facility (permittee), I certify that the information contained in this Startup Certification is accurate and true to the best of my knowledge. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), **THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY**.

Signature	Date	
Signer's name (print)	Title	Phone (with area code)

## **Appendix 3: Notification of Ownership Change**

Facility (Permittee):	(Previous Owner)				
Facility ID:					
Facility (Permittee):	(New Owner) Date of Ownership Change				
Secretary of State Control Number:	[as registered with the TN Secretary of State (SOS)]				
<b>Responsible Person/Authorized Contact</b>	Email Address				
Mailing Address	Phone with area code				
Principal Technical Contact	Email Address				
Mailing Address	Phone with area code				
Billing Contact	Email Address				
Mailing Address	Phone with area code				

As the responsible person for the new owner or operator of the above-mentioned facility (permittee):

- I agree to not make any changes to the stationary source(s) that meet the definition of modification as defined in Division 1200-03 or Division 0400-30<sup>9</sup>, and
- I agree to comply with the conditions contained in **the permits listed below**, Division 1200-03 and Division 0400-30 of the Tennessee Air Pollution Control Regulations, the Tennessee Air Quality Act, and any documented agreements made by the previous owner to the Technical Secretary.

List all active permits issued to the facility for which the owner wishes to assume ownership:

The information contained in this Notification is accurate and true to the best of my knowledge. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENTALTY OF PERJURY.

Signature	Date	
Signer's name (print)	Title	Phone (with area code)

<sup>&</sup>lt;sup>9</sup> Appropriate application forms must be submitted prior to modification of the stationary source(s).

## Appendix 4: Fees

All minor and conditional major source annual emission fees are due and payable to the Division in full according to SCHEDULE I below unless otherwise specified in TAPCR 1200-03-26-.02(6)(c). The county that a source is located in determines when the minor source annual emission fee is due. Fees are due the first day of the month listed. If a source is located on contiguous property in more than one county, the county appearing earliest in the calendar year shall be used to determine the due date of the annual emission fee.

## SCHEDULE I Month the Annual Emissions Fee is Due (Accounting Period) Counties in the Monthly Grouping

January	Anderson, Bedford, Benton, Bledsoe, Blount, Bradley and Campbell
February	Cannon, Carroll, Carter, Cheatham, Chester, Claiborne, Clay and Cocke
March	Coffee, Crockett, Cumberland, Davidson, Decatur, DeKalb, Dickson, Dyer and Fayette
April	Fentress, Franklin, Gibson, Giles, Grainger, Greene and Grundy
May	Hamblen, Hamilton, Hancock, Hardeman, Hardin, Hawkins, Haywood and Henderson
June	Henry, Hickman, Houston, Humphreys, Jackson, Jefferson, Johnson, Knox, Lake, Lauderdale, Lawrence and Lewis
July	Lincoln, Loudon, McMinn, McNairy, Macon and Madison
August	Marion, Marshall, Maury, Meigs, Monroe, Montgomery, Moore and Morgan
September	Obion, Overton, Perry, Pickett, Polk, Putnam and Rhea
October	Roane, Robertson, Rutherford, Scott, Sequatchie, Sevier, and Shelby
November	Smith, Stewart, Sullivan, Sumner, Tipton, Trousdale, Unicoi and Union
December	Van Buren, Warren, Washington, Wayne, Weakley, White, Williamson and Wilson

# **Appendix 5: Example Logs – Input and Operating Hours and Portable Unit Location**

Daily Input, Operating Hours, and Daily	y Average Input Rate Log
---	--------------------------

Date	Daily input (tons)	Hours of operation	Daily average input rate (ton/hr) <sup>10</sup>	Date	Daily input (tons)	Hours of operation	Daily average input rate (ton/hr)	Date	Daily input (tons)	Hours of operation	Daily average input rate (ton/hr)
1				12				23			
2				13				24			
3				14				25			
4				15				26			
5				16				27			
6				17				28			
7				18				29			
8				19				30			
9				20				31			
10				21							
11				22							

## PORTABLE UNIT LOCATION LOG

	Make and Model Number of Portable Equipment										
Location	Date Moved to	Date Removed	Date Moved to	Date Removed	Date Moved to	Date Removed	Date Moved to	Date Removed			
	Site	from Site	Site	from Site	Site	from Site	Site	from Site			
Site Name											

<sup>&</sup>lt;sup>10</sup> Where daily average input rate = (daily input in tons)/(daily operating hours)

## **Appendix 6: Example Logs – Wet Suppression**

20XX DAILY FUGITIVE EMISSION CONTROL FOR NONMETALLIC MINERAL CRUSHING AND SIZING											
OPERATION											
JA	N□ FE	BD MA	$AR \square A$	PR□ MA	Y□ JU	ND JULD	AUG□	SEP□	OCT□	NOV□	DEC□
		Fac			pression	Monthly					
Dov	Time	opera Yes	ting? No	operat Yes	No	Inspection Conducted? <sup>12</sup>	Con	amanta /	Corrective	Actions	Initials
Day 1	Time					Conducted?		innents /	Confective	Actions	IIIItiais
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											

<sup>&</sup>lt;sup>11</sup> As needed to effectively control fugitive emissions. If the facility is using a control mechanism to reduce fugitive emissions other than the water spray system, specify the control mechanism being used instead of the water spray system in comment section.
<sup>12</sup> The monthly inspection requirement applies to any affected facility for which construction, modification, or reconstruction

commenced on or after April 22, 2008, that uses wet suppression to control emissions.

## **Appendix 7: General Provisions for 40 CFR Part 60, Subpart OOO**

You are required to comply with the following General Provisions (40 CFR Part 60, Subpart A) of the federal Standards of Performance for New Stationary Sources:

40 CFR Rule Citation	Subject	Applies to Subpart	Explanation
§60.1	General applicability of the General Provisions	Yes 🛛 No 🗆	
§60.2	Definitions	Yes 🛛 No 🗆	
§60.3	Units and abbreviations	Yes 🛛 No 🗆	
§60.4	Address	Yes 🛛 No 🗆	Except in § 60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§ 60.676(k)).
§60.5	Determination of construction or modification	Yes 🛛 No 🗆	
§60.6	Review of plans	Yes 🛛 No 🗆	
§60.7	Notification and Recordkeeping	Yes 🛛 No 🗆	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)). Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, appendix A-4) require a seven-day advance notification instead of 30 days (§60.675(g)).
§60.8	Performance tests	Yes 🛛 No 🗆	Except in (d) performance tests involving only Method 9 require a seven-day advance notification instead of 30 days (§60.675(g)).
§60.9	Availability of information	Yes 🛛 No 🗆	
§60.10	State Authority	Yes 🛛 No 🗆	
§60.11	Compliance with standards and maintenance requirements	Yes 🛛 No 🗆	Except in (b) under certain conditions (§60.675(c)), Method 9 observation is reduced from three hours to 30 minutes for fugitive emissions.
§60.12	Circumvention	Yes 🛛 No 🗆	
§60.13	Monitoring requirements	Yes 🛛 No 🗆	
§60.14	Modification	Yes 🛛 No 🗆	
§60.15	Reconstruction	Yes 🛛 No 🗆	
§60.16	Priority list	Yes 🛛 No 🗆	
§60.17	Incorporations by reference	Yes 🛛 No 🗆	
§60.18	General control device and work practice requirements	Yes 🗆 No 🖾	Flares will not be used to comply with the emission limits.
\$60.19	General notification and reporting requirements	Yes 🛛 No 🗆	

TAPCR 1200-03-09-.03(8)