11/24/2026

Eric Taylor
Marietta Industrial Enterprises
17943 State Route 7
Marietta, OH 45750

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0684000148
Permit Number: P0141475
Permit Type: Initial Installation
County: Washington

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (Ohio EPA) ***Weekly Review and Public Notices*** website. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Ohio EPA document search webpage: ***https://edocpub.epa.ohio.gov/publicportal/edochome.aspx***. The permit can also be commented on and accessed electronically at: ***https://ohioepa.commentinput.com***. Search by entering the permit # (P0141475) in the "Search Projects" search box and selecting “Review Document” or “Draft Permit.” Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Written (paper) comments must be sent to the following:

Andrea Moore
Permitting Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Southeast District Office
2195 Front St.
Logan, OH 43138

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published on the Ohio EPA ***Weekly Review and Public Notices*** website. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501.

Sincerely,



Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-SEDO; Pennsylvania; West Virginia

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: ***Weekly Review and Public Notices | Ohio Environmental Protection Agency*** or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-3037 email: ***HClerk@epa.ohio.gov***

Draft Air Pollution Permit-to-Install Initial Installation

Marietta Industrial Enterprises
110 Blue Knob Road
Marietta, OH 45750

ID#: P0141475
Date of Action: 11/24/2026
Permit Desc: This is an initial installation federally enforceable permit-to-install and operate for a biochar crushing and sizing operation with particulate emissions controlled by a baghouse at an existing Title V facility.

The permit can be accessed electronically and comments may be submitted at: https://ohioepa.commentinput.com - Search by entering the permit P0141475 in the "Search Projects" search box.

Ohio Environmental Protection Agency

Draft Permit-to-Install
Marietta Industrial Enterprises
Permit Number: P0141475
Facility ID: 0684000148
Effective Date: To be entered upon final issuance

Permit Strategy Write-Up

1. Check all that apply:

   ☒ Synthetic Minor Determination

   ☐ Netting Determination

2. Source Description:

   Marietta Industrial Enterprise (MIE) is material handling, transloading, processing and storage facility for several types of materials including coal, sand, manganese ore among other things. This federally enforceable permit-to-install and operate (P0141475) consists of P938 which is the biochar crushing and resizing operations, consisting of a feed hopper, crusher, conveyors, screens, cyclones and a baghouse, with a maximum throughput of 2.0 tons of biochar per hour.

3. Facility Emissions and Attainment Status:

   MIE is an existing Title V material handling, transloading, processing and storage facility located in Washington County. The county is currently in attainment for all NAAQS pollutants. This facility is not one of the 28 source categories, so the fugitive emissions do not count toward major stationary source status. The majority of the emissions are fugitive PM_{10} and fugitive $PM_{2.5}$. The sand drying operations generate PM_{10}, $PM_{2.5}$, NO_x, CO, VOC and SO_2 emissions from a stack. The uncontrolled stack PM_{10} and $PM_{2.5}$ emissions from emissions unit P938 would make the facility subject PSD requirements. Federally enforceable restrictions will lower the PTE to less than 250 tons per year for PM_{10} and $PM_{2.5}$ emissions. These restrictions will keep the company from becoming subject to the requirements of PSD permitting.

4. Source Emissions:

   MIE has requested federally enforceable restrictions to limit the PM_{10} and $PM_{2.5}$ emissions from P938. The uncontrolled emissions from P938 would trigger PSD requirements and make the facility a major stationary source of PM_{10} and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions from P38 shall not exceed 4.52 tons, based on a rolling 12-month summation. The emissions factors used to calculate the controlled emissions are based on the manufacturer's specifications of the bags used in the baghouse, which are rated at 0.001 gr/dscf. As such, the company will need to perform detailed parametric monitoring and recordkeeping as required by the permit to ensure compliance, and will be required to conduct compliance testing to demonstrate compliance. These restrictions allow the avoidance of PSD requirements.

5. Conclusion:

   The operational restrictions, emission limits, recordkeeping, and reporting requirements of this permit are sufficient to provide federally enforceable limitations to limit the potential to emit from P938 to below major stationary source thresholds.

6. Please provide additional notes or comments as necessary:

   None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
$PM_{10}/PM_{2.5}$	4.52

Ohio Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Marietta Industrial Enterprises

Facility ID:	0684000148
Permit Number:	P0141475
Permit Type:	Initial Installation
Issued:	11/24/2026
Effective:	To be entered upon final issuance

Environmental Protection Agency

Division of Air Pollution Control

Permit-to-Install

for

Marietta Industrial Enterprises

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Authorization

Facility ID:	0684000148
Facility Description:	Material handling, drying, crushing, processing, storage and loading
Application Number(s):	A0082716
Permit Number:	P0141475
Permit Type:	Permit-To-Install
Permit Fee:	$750.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	11/24/2026
Effective Date:	To be entered upon final issuance

This document constitutes issuance of a Permit-to-Install for the emissions unit(s) identified on the following page to:

Marietta Industrial Enterprises
110 Blue Knob Road
Marietta, OH 45750

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front St.
Logan, OH 43138
(740)385-8501

The above-named entity is hereby granted this Permit-to-Install for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

John Logue
Director

Authorization (continued)

Permit Number: P0141475

Permit Description: This is an initial installation federally enforceable permit-to-install and operate for a biochar crushing and sizing operation with particulate emissions controlled by a baghouse at an existing Title V facility.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**P938**
Company Equipment ID:	CMS 300 Crushing System
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	$PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m3 = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH_4 = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO_2 = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m3 = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH_3 = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO_2 = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO_x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO_2 = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H_2S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H_2SO_4 = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible particulate emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m3 = micrograms per cubic meter

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under state law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e), General Requirements

(3) Standard Term and Condition A.6.c), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

b) All terms and conditions designated in parts B. and C. of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the state and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under state law only, only if specifically identified in this permit as such.

3. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semiannual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on

information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located, or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will

be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This permit-to-install is applicable only to the emissions unit(s) identified in the permit-to-install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a permit-to-install.

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended once by twelve months if application is made to the Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a

subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shut down emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or any other reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

   a) None.

C. Emissions Unit Terms and Conditions

1. P938, CMS 300 Crushing System

Operations, Property and/or Equipment Description:

CMS 300 horsepower crushing system including feed hopper, crusher, conveyors, screens, cyclones and a baghouse, with a maximum throughput of 2.0 tons of biochar per hour.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate matter with an aerodynamic diameter less than or equal to 10 micrometers in diameter (PM_{10}) and particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers in diameter ($PM_{2.5}$) emissions from this air contaminant source since the potential to emit is less than 10 tons per year taking into account the federally enforceable restriction established pursuant to OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(D) (Synthetic minor to avoid PSD and state modeling requirements)	Emissions of $PM_{10}/PM_{2.5}$ shall not exceed 4.52 tons, based on a rolling 12-month summation. See c)(1), d)(1), d)(2), e)(3) and f)(1)a.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack serving this emission unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

e.	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a. through b)(2)d. below.
f.	OAC rule 3745-17-11(B) (Table 1)	PE from the stack shall not exceed 6.52 pounds per hour.

(2) Additional Terms and Conditions

a. The material handling operations that are covered by this permit and subject to the following requirements are listed below:

i. Load-in to feed hopper by front end loaded or super sacks

ii. Pre-screen for off-specification material prior to crusher

iii. Load-in to CMS 300 crusher from feed hopper

iv. Crushing

v. CMS 300 crusher to cyclone #1 transfer point

vi. Cyclone #1 load-out to super sack

vii. Cyclone #1 to cyclone #2 transfer point

viii. Cyclone #2 load-out to super sack

ix. Cyclone #2 to baghouse transfer point

x. Baghouse loadout to super sack

Note: The cyclones are not being used as control devices, they are an inherent part of the process and do not vent directly to the atmosphere. The only source of fugitive emissions is from the hopper loading.

b. The permittee shall employ RACM for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee has committed to perform the following control measures to ensure compliance:

i. Maintain building enclosure; and

ii. Minimizing the transfer distance/drop heights including transfers from loader bucket or bags to the machinery and/or receiving point.

c. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control

measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.

d. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

(1) The permittee has requested federally enforceable limitations for the purpose of limiting the potential to emit for PM_{10} and $PM_{2.5}$ to avoid PSD review and state modeling requirements. The permittee shall install and operate a reverse-pulse jet baghouse achieving a $PM_{10}/PM_{2.5}$ outlet concentration grain loading of 0.010 gr/dscf.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the baghouse is 1.0 to 6.0 inches of water column and is based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range is established.

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emission unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. The date and time the deviation began;

b. The magnitude of the deviation at that time;

c. The date the investigation was conducted;

d. The name(s) of the personnel who conducted the investigation; and

e. The findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. A description of the corrective action;

g. The date the corrective action was completed;

h. The date and time the deviation ended;

i. The total period of time (minutes) during which there was a deviation;

j. The pressure drop readings immediately after the corrective action was implemented; and

k. The name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA's SEDO. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emission unit. In addition, approved revisions to the pressure drop range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(3) For each material processing and handling operation that is not adequately enclosed, the permittee shall perform inspections in accordance with the following minimum frequencies in order to determine if control measures need to be implemented:

Material Handling Operations	**Minimum Inspection Frequency**
All operations	Once during each day of operation

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance. The inspections shall be performed during representative, normal operating conditions.

(4) The permittee shall maintain records of the following information for the material processing and handling operations:

a. The date and reason any required inspection was not performed;

b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. The dates the control measures were implemented; and

d. On a calendar quarter basis, the total number of days the control measures were implemented.

The information in d)(4)d. shall be kept separately for each material handling operation identified above and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

(1) The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Section A, Standard Terms and Conditions.

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. Any period of time (start time and date, and end time and date) when the biochar crushing line was in operation and process emissions were not vented to the baghouse;

b. Each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range between 1.0 and 6.0 inches of water column;

c. Each incident of deviation described in "b." (above) where a prompt investigation was not conducted;

d. Each incident of deviation described in "b." (above) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. Each incident of deviation described in "b." (above) where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and recordkeeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions in Section A of this permit.

(3) The permittee shall submit semiannual written reports that identify:

a. Each day during which an inspection of the material processing and handling operations was not performed by the required frequency; and

b. Each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

These reports shall be submitted to the appropriate Ohio EPA DO/LAA by January 31st and July 31st of each year and shall cover the previous six-month period.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

Emissions of $PM_{10}/PM_{2.5}$ shall not exceed 4.52 tons, based on a rolling 12-month summation.

<u>Applicable Compliance Method</u>

Compliance shall be demonstrated by the following calculation and the testing requirements in f)(2) below.

$PM_{10}/PM_{2.5}$ = (stack emissions) + (fugitive emissions)

Stack Emissions

$PM_{10}/PM_{2.5}$ = (emissions factor) x (baghouse maximum flow rate) x (1 lb/7,000 gr) x (60 min/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)

Where:

Emissions factor = 0.010 gr/dscf (based on permittee's application, A0082716, and the testing requirements in f)(2) below.)

Baghouse maximum flow rate = 12,000 ft^3/min (based on permittee's application, A0082716)

$PM_{10}/PM_{2.5}$ = (0.010 gr/dscf) x (12,000 ft^3/min) x (1 lb/7,000 gr) x (60 min/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)

$PM_{10}/PM_{2.5}$ = 4.51 tons/yr

Fugitive Emissions

$PM_{10}/PM_{2.5}$ = (emissions factor) x (maximum throughput) x (8,760 hr/yr) x (1 ton/2,000 lbs)

Where:

Emissions factor = 0.000311 lbs/ton (based on AP-42 Chapter 13.2.4 (11/06) Equation 1 where U = 5 mph, M = 5% and k = 0.35, based on permittee's application, A0082716)

Maximum throughput = 2.0 tons/hr (based on permittee's application, A0082716. The hopper loading throughput is inherently limited based on the throughput capacity of the crusher which has a maximum throughput of 2.0 tons/hr)

$PM_{10}/PM_{2.5}$ = (0.000311 lbs/ton) x (2.0 tons/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)

$PM_{10}/PM_{2.5}$ = 0.01 ton/yr

Total

$PM_{10}/PM_{2.5}$ = (4.51 tons/yr) + (0.01 ton/yr)

$PM_{10}/PM_{2.5}$ = 4.52 tons/yr

b. Emissions Limitation

Visible emissions from any stack serving this emission unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the stack visible emission limitation shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, and OAC rule 3745-17-03(B)(1)(a).

c. Emission Limitation

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method

If required, compliance with the fugitive visible emission limitation shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A, and OAC rule 3745-17-03(B)(1)(a).

d. Emission Limitation

PE from the stack shall not exceed 6.52 pounds per hour.

Applicable Compliance Method

Compliance with the lb/hr PE limitation is demonstrated through use of the required baghouse and the following equation:

PE = (emissions factor) x (baghouse maximum flow rate) x (1 lb/7,000 gr) x (60 min/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs) x (capture efficiency)

Where:

Emissions factor = 0.010 gr/dscf (based on permittee's application, A0082716)

Baghouse maximum flow rate = 12,000 ft^3/min (based on permittee's application, A0082716)

PE = (0.010 gr/dscf) x (12,000 ft^3/min) x (1 lb/7,000 gr) x (60 min/hr)

PE = 1.03 lbs PE/hr

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with OAC rule 3745-31-05(D) and the following requirements:

a. The emissions testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable concentration of PM_{10} and $PM_{2.5}$ in the exhaust stream, in grains per dry standard cubic feet.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emissions rate(s):

U.S. EPA Methods 1 – 4, 201A and 202 of 40 CFR Part 51, Appendix M

Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

d. During the emissions testing, the EU shall be operated under operational conditions approved in advance by the appropriate Ohio DO/LAA. Operational conditions that may

need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.) or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under worst case conditions expected during the life of the permit. As part of the information provided in the Intent to Test (ITT) notification form described below, the permittee shall provide a description of the EU operational conditions they will meet during the emissions testing and describe why they believe worst case operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA DO/LAA that the proposed operating conditions constitute worst case. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an ITT notification to the appropriate Ohio EPA DO/LAA. The ITT notification shall describe in detail the proposed test methods and procedures, the EU operating parameters, the time(s) and date(s) of the test(s) and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA DO/LAA's refusal to accept the results of the emission test(s)

f. Personnel from the appropriate Ohio EPA DO/LAA shall be permitted to witness the test(s), examine the testing equipment and acquire data and information necessary to ensure that the operation of the EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person(s) responsible for the tests and submitted to the appropriate Ohio EPA DO/LAA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA DO/LAA.

g) Miscellaneous Requirements

(1) None.