

Facility ID: 0684000215 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0684000215 Emissions Unit ID: F003 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Material Handling, including coal conveying, and transfer and Synfuel conveying and transfer.	OAC rule 3745-31-05(A)(3) PTI # 06-07027 issued September 11, 2003	Particulate emissions (PE) shall not exceed 2.4 tons/yr. PM10 emissions shall not exceed 1.1 ton/yr. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b and A.2.c)
	40 CFR Part 60 Subpart Y	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart Y. The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal*, gases which exhibit 20 percent opacity or greater.
	OAC rule 3745-17-07(B) OAC rule 3745-17-08 (B)	* "coal" as used in this standard would include Synfuel which is coal after treatment with the Synfuel reagent. The emission limitation and control measures specified by these rules are less stringent than the emission limitation and control measures established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) The coal/Synfuel handling operations, including conveyors and transfer points, that are covered by this permit and subject to the requirements of OAC rule 3745-31-05(A)(3), OAC rule 3745-17-07(B), OAC rule 3745-17-08 (B), and 40 CFR Part 60 Subpart Y are listed below:

Reclaim Conveyor
 Transfer from Reclaim Conveyor to Crusher Feed Conveyor
 Post Crusher Conveyor
 Transfer from Post Crusher Conveyor to Plant Feed Conveyor
 Plant Feed Conveyor
 Transfer from Plant Feed Conveyor to Synfuel Plant
 Transfer from Synfuel Plant to Synfuel Collecting Conveyor
 Synfuel Collecting Conveyor
 Transfer from Synfuel Collecting Conveyor to Synfuel Transfer/Direct Sales Conveyors
 Synfuel Transfer Conveyor
 Direct Sales Synfuel Conveyor

The permittee shall employ best available control measures for all the coal/Synfuel material handling operations listed above, for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, Synfuel contains a chemical reagent that acts as a dust suppressant. Each coal/Synfuel handling operation listed above shall be adequately enclosed to sufficiently minimize particulate emissions to levels that will demonstrate compliance; and transfer from the plant feed conveyor to the Synfuel plant will be a wet process.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily inspections, when the coal/Synfuel handling operations, conveyors, and transfer points are in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points covered in this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. At a minimum, the log shall maintain a record of the date of each inspection and/or the reason why the inspection was not completed at the frequency required in this permit (daily or adjusted per the following section). If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. The location and color of the emissions;
 - b. Whether the emissions are representative of normal operations;
 - c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. The total duration of any visible emission incident; and
 - e. Any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee may, upon receipt of written approval from the Ohio EPA Southeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which:
 - a. Identify all days during which any visible fugitive particulate emissions that were not representative of normal operations were observed from the egress points serving this emissions unit;
 - b. Describe any corrective actions taken to minimize or eliminate such visible fugitive particulate emissions; and
 - c. Identify any days in which an inspection was not conducted as required by this permit.

These reports shall be submitted to the Ohio EPA Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period. If no visible emissions are observed during a given period, the permittee shall submit a report which states that no visible emissions were observed during that period. (These reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and
 - d. Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Southeast District Office of the Ohio EPA
Division of Air Pollution Control
2195 Front Street

Logan, Ohio 43138

E. **Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:
PE shall not exceed 2.4 tons/yr.

Applicable Compliance Method:

Compliance with the tons per year emission limitation shall be demonstrated by the following one time calculation based on the emission factor calculation in AP-42 section 13.2.4, January, 1995.

Material Handling Emissions (per operation)

$$E = k (0.0032) [(U/5)^{1.3} / (M/2)^{1.4}]$$

E = emission factor expressed in pounds (lbs) / ton
k = particle size multiplier (dimension less) = 0.74
U = mean wind speed expressed in miles per hour (MPH) = 9.1
M = material moisture content (%) = 6

E = 0.0011079 lb/ton
Maximum annual throughput = 3,504,000 tons
Control efficiency
(CE1) 80% for full enclosure,
(CE2) 82.5% additional for Synfuel dust suppression;
(CE3) 95% for wet suppression (transfer to Synfuel plant)

Number of coal handling operations = 3 conveyors + 2 transfers = 5 operations
Coal handling emissions = 5 operations x 0.0011079 pound/ton x 3,504,000 tons x 1 ton/2000 pounds x (1-CE1) = 1.94 tons/yr

Transfer to Synfuel plant = 0.0011079 pound/ton x 3,504,000 tons x 1 ton/2000 pounds x (1-CE3) = 0.10 ton/yr

Number of Synfuel handling operations = 2 conveyors + 2 transfers = 4 operations
Synfuel handling emissions = 4 operations x 0.0011079 pound/ton x 3,504,000 tons x 1 ton/2000 pounds x (1-CE1) x (1-CE2) = 0.27 ton/yr

Total PE = Coal handling + Transfer to Synfuel plant + Synfuel handling
= 1.94 + 0.10 + 0.27 = 2.31 tons PE/yr

Emission Limitation:
PM10 emissions shall not exceed 1.1 tons/yr.

Applicable Compliance Method:

Compliance with the ton/yr emission limitation shall be demonstrated by the following one time calculation based on the emission factor calculation in AP-42 section 13.2.4, January, 1995.

Material Handling Emissions (per operation)

$$E = k (0.0032) [(U/5)^{1.3} / (M/2)^{1.4}]$$

E = emission factor expressed in pounds (lbs) / ton
k = particle size multiplier (dimension less) = 0.35
U = mean wind speed expressed in miles per hour (MPH) = 9.1
M = material moisture content (%) = 6

E = 0.000524 lb/ton
Maximum annual throughput = 3,504,000 tons
Control efficiency
(CE1) 80% for full enclosure,
(CE2) 82.5% additional for Synfuel dust suppression;
(CE3) 95% for wet suppression (transfer to Synfuel plant)

Number of coal handling operations = 3 conveyors + 2 transfer = 5 operations
Coal handling emissions = 5 operations x 0.000524 pound/ton x 3,504,000 tons x 1 ton/2000 pounds x (1-CE1) = 0.92 ton/yr

Transfer to Synfuel plant = 0.000524 pound/ton x 3,504,000 tons x 1 ton/2000 pounds x (1-CE3) = 0.05 ton/yr

Number of Synfuel handling operations = 2 conveyors + 2 transfer = 4 operations
Synfuel handling emissions = 4 operations x 0.000524 pound/ton x 3,504,000 tons x 1 ton/2000 pounds x (1-CE1) x (1-CE2) = 0.13 ton/yr

Total PM10 emissions = Coal handling + Transfer to Synfuel plant + Synfuel handling = 0.92 + 0.05 + 0.13 = 1.1 ton PM10/yr

Emission Limitation:
The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, and coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

Compliance Method:

Compliance with the above visible emission limitation shall be based upon the monitoring / record keeping requirements outlined in Section C.1. above. If required compliance shall be demonstrated based upon the visible particulate emission observations specified in Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03. This

standard would apply the same to Synfuel, the coal after treatment with the reagent.

F. **Miscellaneous Requirements**

1. None