

AIR EMISSIONS SUMMARY

The air contaminant sources listed below comprise the Permit to Install for **U.S. Gypsum Company** in **Ottawa County**. The source listed below shall not exceed the emission limits/control requirements contained in the table below. This condition in no way limits applicability of any other state and federal regulations. Additionally this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Emissions Unit #	Identification/ Description	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emission or Control & Usage Requirements
F004	synthetic gypsum unloading, storage and conveying	use of water spray and inherent moisture in the material and compliance with the terms and conditions of this permit	3745-31-05	11.78 tons fugitive particulate emissions (PE)/yr; opacity restrictions (see AST&Cs)
F005	paved roadways and parking areas	use of a street sweeper with vacuum and compliance with the terms and conditions of this permit	3745-31-05	0.20 ton fugitive PE/yr; opacity restrictions (see AST&Cs)
P026	sanders, brushes and saws-finishing operations	use of a baghouse and compliance with the terms and conditions of this permit	3745-31-05 3745-17-07(A) 3745-17-11(B) (3)	0.020 gr/scf, 10.20 lbs PE/hr, 44.70 tons PE/yr; opacity restrictions (see AST&Cs) *

P027	112 MMBtu/hr 28 zone direct fired natural gas kiln	use of natural gas exclusively, low NO _x burners and compliance with the terms and conditions of this permit	3745-31-05	1.57 lbs PE/hr, 6.88 tons PE/yr; 0.11 lb NO _x /MMBtu heat input, 12.32 lbs NO _x /hr, 53.96 tons NO _x /yr; 20.16 lbs CO/hr, 88.30 tons CO/yr; 0.65 lb OC/hr, 2.85 tons OC/yr;
			3745-17-07(A)	opacity restrictions (see AST&Cs)
			3745-17-11(B) (3)	*
P031	3 MMBtu/hr input natural gas fired dryer (for spray booth #3)	use of natural gas exclusively and compliance with the terms and conditions of this permit	3745-31-05	0.30 lb NO _x /hr 1.31 tons NO _x /yr
			3745-21-07(G) (9)(c)	no OC limit established per exemption
P032	6 MMBtu/hr input natural gas fired dryer (for spray booth #2)	use of natural gas exclusively and compliance with the terms and conditions of this permit	3745-31-05	0.60 lb NO _x /hr, 2.63 tons NO _x /yr
			3745-21-07(G) (9)(c)	no OC limit established per exemption

R003	spray booth #1	use of water wash for PM control, use of water based, non-photochemically reactive coatings and compliance with the terms and conditions of this permit	3745-31-05	1.06 lb PE/hr, 4.64 tons PE/yr;
				2.55 lbs OC/hr, 11.20 tons OC/yr,
				opacity restrictions (see AST&Cs);
			3745-21-07(G) (9)(c)	no limit established per exemption;
			3745-17-07(A)	*
			3745-17-11(B)	*
R004	double sided spray booth #2	use of water wash for PM control, use of water based, non-photochemically reactive coatings, use of add on controls for a 95% reduction in OC emissions and compliance with the terms and conditions of this permit	3745-31-05	1.06 lb PE/hr, 4.64 tons PE/yr;
				4.94 lbs OC/hr, 21.64 tons OC/yr (see AST&Cs);
				2.24 lb NO _x /hr, 9.8 tons NO _x /yr 0.56 lbs CO/hr, 2.45 tons CO/yr (from incinerator);
			3745-21-07(G) (9)(c)	no limit established per exemption;
			3745-17-07(A)	*
			3745-17-11(B)	*

R005	single sided spray booth #3	use of water wash for PM control, use of water based, non - photochemically reactive coatings, use of add on controls for a 95% reduction in OC emissions and compliance with the terms and conditions of this permit	3745-31-05	1.06 lb PE/hr, 4.64 tons PE/yr; 3.44 lbs OC/hr, 15.07 tons OC/yr (see AST&Cs); 2.24 lb NO _x /hr, 9.8 tons NO _x /yr 0.56 lbs CO/hr, 2.45 tons CO/yr (from incinerator);
			3745-21-07(G) (9)(c)	no limit established per exemption;
			3745-17-07(A)	*
			3745-17-11(B)	*
B008	125 MMBTU / hr natural gas fired boiler	use of natural gas as sole fuel source and low NO _x burners and compliance with the limitations of this permit	3745-31-05	0.63 lb PE/hr, 2.76 tons PE/yr; 29.25 lbs CO/hr, 128.12 tons CO/yr; 0.21 lb OC/hr, 0.93 ton OC/yr; 7.5 lbs NO _x /hr, 32.85 tons NO _x /yr; 0.06 lb NO _x / MMBtu heat input (see AST&Cs);
			3745-17-07(A)	visible emissions not to exceed 20% opacity as a six minute average, except as provided by rule
			40 CFR Part 60, Subpart Db	*
			3745-17-10(B) (1)	*

* Applicable requirement established by this OAC rule is less stringent than the requirement established by OAC rule 3745-31-05.

SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PE	80.23
NO _x	110.35
CO	221.32
OC	51.69

ADDITIONAL SPECIAL TERMS AND CONDITIONS

INTRODUCTION

U.S. Gypsum Corporation has submitted a permit to install application for a new gypsum wood fiber board line consisting of eleven (11) new emissions units. The follow is a list of all emissions units included in this PTI:

<u>Emissions Unit Number</u>	<u>Emissions Unit Identification</u>
F004	Synthetic gypsum unload, store and convey
F005	Roadways and parking areas
P026	Finishing operations
P027	112 MMBtu/hr 28 zone direct fired natural gas kiln
P031	3 MMBtu/hr input dryer (for spray booth # 3)
P032	6 MMBtu/hr input dryer (for spray booth #2)
R003	Single sided spray booth #1
R004	Double sided spray booth #2
R005	Single sided spray booth #3
B008	125 MMBtu/hr natural gas boiler

A. Applicable Emission Limitations and/or Control Requirements

1. Emissions from synthetic gypsum unloading, storage and conveying operations, Ohio EPA emissions unit F004, shall not exceed the following rates:
 - a. 11.78 tons fugitive particulate emissions (PE)/yr
 - b. The permittee shall employ reasonably available control measures to minimize and/or eliminate visible emissions of fugitive dust to the extent possible utilizing good engineering practices. Visible PE emissions of fugitive dust from unloading, storage, and conveying operations shall not exceed 10% opacity as a six-minute average.
2. Emissions from paved roadways and parking areas, Ohio EPA emissions unit F005, shall not exceed the following rates:
 - a. 0.2 tons fugitive PE/yr
 - b. The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of

ensuring compliance with the requirements of this permit. Specifically, there shall be no visible PE emissions of fugitive dust from paved roadways and parking areas except for a period of time not to exceed one minute during any sixty-minute observation period. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- c. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the BAT requirements of OAC rule 3745-31-05. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
 - d. The permittee shall promptly remove, in such a manner as to minimize or prevent suspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
 - e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
 - f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the BAT requirements of OAC rule 3745-31-05.
3. Emissions from finishing operations, Ohio EPA emissions unit P026, shall not exceed the following rates:
- a. 0.020 gr/scf from the baghouse outlet. This equates to 10.2 lbs PE/hr and 44.7 TPY PE at a maximum flow rate of 60,000 scfm and 8760 hours of operation per year.

- b. Visible PE emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.
4. Emissions from the natural gas direct fired, 28 zone kiln rated at 112 MMBtu/hr heat input, Ohio EPA emissions unit P027, shall not exceed the following rates:
 - a. 1.57 lbs PE/hr and 6.88 TPY PE
 - b. 0.11 lb NO_x/MMBtu heat input. This equals to 12.32 lbs NO_x/hr and 53.96 TPY NO_x at a maximum heat input of 112 MMBtu/hr and 8760 hours of operation per year.
 - c. 20.16 lbs CO/hr and 88.3 TPY CO
 - d. 0.65 lb OC/hr and 2.85 TPY OC
 - e. Visible PE emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.
5. Emissions from the natural gas fired coating drying oven rated at 3 MMBtu/hr heat input, Ohio EPA emissions unit P031, shall not exceed the following rates:
 - a. 0.3 lb NO_x/hr and 1.31 TPY NO_x
6. Emissions from the natural gas fired coating drying oven rated at 6 MMBtu/hr heat input, Ohio EPA emissions unit P032, shall not exceed the following rates:
 - a. 0.6 lb NO_x/hr and 2.63 TPY NO_x
7. Emissions from the single sided spray booth #1, Ohio EPA emissions unit R003, double sided spray booth #2, Ohio EPA emissions unit R004, and the single sided spray booth #3, Ohio EPA emissions unit R005, shall not exceed the following rates:

For Emissions Unit R003:

- a. 1.06 lb PE/hr and 4.64 TPY PE

- b. visible emissions shall not exceed 0% opacity as a six-minute average
- c. 2.55 lbs OC/hr and 11.20 TPY OC

For Emissions Unit R004:

- a. 1.06 lb PE/hr and 4.64 TPY PE
- b. visible emissions shall not exceed 0% opacity as a six-minute average
- c. 4.94 lbs OC/hr and 21.64 TPY OC
- d. 2.24 lbs NO_x/hr and 9.8 TPY NO_x (from thermal oxidizer)
- e. 0.56 lbs CO/hr and 2.45 TPY CO (from thermal oxidizer)

The design capture efficiency for spray booth, conveyor and drying oven will be 100% and the design destruction efficiency will be 95% for an overall efficiency of 95% (capture efficiency X control efficiency).

For Emissions Unit R005:

- a. 1.06 lb PE/hr and 4.64 TPY PE
- b. visible emissions shall not exceed 0% opacity as a six-minute average
- c. 3.44 lbs OC/hr and 15.07 TPY OC
- d. 2.24 lbs NO_x/hr and 9.8 TPY NO_x (from thermal oxidizer)
- e. 0.56 lbs CO/hr and 2.45 TPY CO (from thermal oxidizer)

The design capture efficiency for spray booth, conveyor and drying oven will be 100% and the design destruction efficiency will be 95% for an overall efficiency of 95% (capture efficiency X control efficiency).

- 8. Emissions from the natural gas fired boiler rated at 125 MMBtu/hr heat

input, Ohio EPA emissions unit B008, shall not exceed the following rates:

- a. 0.63 lb PE/hr and 2.76 TPY PE
 - b. 0.06 lb NO_x/ MMBtu heat input (7.50 lbs NO_x/hr) and 32.85 TPY NO_x
 - c. 29.25 lbs CO/hr and 128.12 TPY CO
 - d. 0.21 lb OC/hr and 0.93 TPY OC
 - e. Visible PE emissions shall not exceed 20% opacity, except as provided by rule.
9. The permittee shall properly install and operate low NO_x burners in emissions units P027 and B008 that are capable of complying with the NO_x limits established in this permit.

B. Operational Restrictions

1. This permit allows for the use of the coatings, in emissions units R003, R004 and R005, specified by the permittee in PTI application #03-11030. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the coating formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from ISC3 model and a comparison of the predicted 1 hour maximum ground level concentration to the MAGLC. The following table summarizes the results of the modeling for each pollutant:

Ohio EPA Emission s <u>Unit #</u>	<u>Pollutant</u>	TLV (<u>ug/m³</u>)	Maximum Hourly Emission Rate (<u>lbs/hr</u>)	Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (<u>ug/m³</u>)
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P026 shall be maintained within the ranges specified by the baghouse manufacturers while the emissions units are in operation.

3. The permittee shall not employ cleanup materials in emissions units R003, R004 and R005 that result in the emissions of organic compounds.
4. All coating materials employed in emissions units R003, R004, and R005 shall be formulated to meet the volatile content specifications contained in OAC rule 3745-21-07(G)(9)(c) on an "as applied" basis. The permittee shall obtain a VOC data sheet/material safety data sheet (MSDS) from the coating supplier for each coating, prior to their application in these emissions units, to verify compliance with these restrictions.
5. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1350 degrees Fahrenheit.
6. The permittee shall burn only natural gas in emissions units P027, P031, P032, and B008
7. Emission units R004, and R005 shall be totally enclosed such that OC emissions are captured and contained for discharge through the thermal incinerator. Compliance with the following criteria, identified by USEPA Method 204, shall satisfy the total enclosure requirement:
 - a. Any natural draft opening (NDO) shall be at least 4 equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator.
 - b. The total area of all NDO's shall not exceed 5% of the surface area of the enclosure's 4 walls, floor, and ceiling.
 - c. The average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm). The direction of air flow through all NDO's shall be into the enclosure.
 - d. All access doors and windows whose areas are not included in section (b) and are not included in the calculation in section (c) shall be closed during routine operation of the process.
 - e. All OC emissions must be captured and contained for discharge

through a control device.

8. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential (inches of water) established during the most recent emission test that demonstrated emissions units R004, and R005 were in compliance, whenever these emissions units are in operation.
9. The permittee shall operate the water wash whenever R003, R004, or R005 are in operation.

C. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of the paved roadways and parking areas, emissions unit F005, in accordance with the following frequencies:

<u>paved roadways</u>	<u>minimum inspection frequency</u>
all	daily

The purpose of the inspections, of emissions unit F005, is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

2. The permittee shall maintain records for emissions unit F005 which include the following information for paved roadways and parking areas:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- 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 and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 2.d. shall be updated on a calendar quarter basis within 30 days after the end of each quarter.

3. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouses associated with emission unit P026. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain a maintenance log for each baghouse and shall record the pressure drops across each baghouse on, at least, a daily basis. The permittee shall also note all instances where the pressure drop reading fell outside the acceptable range, the duration of the exceedance, and the corrective action taken to return the baghouse to its proper operating condition. The permittee shall maintain the information at the facility for a period of not less than five years.
4. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when emissions units R005 and R006 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each

day for the control equipment:

- a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.
 - b. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions units were in operation, was less than 1350 degrees Fahrenheit.
5. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure for R004 and R005. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
6. The permittee shall record and maintain the following information on a daily basis:
- a. The difference in pressure between the permanent total enclosure and the surrounding area(s).
 - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
7. The permittee shall collect and record the following information each month for the coating usage in emissions units R003, R004 and R005 and maintain the information at the facility for a period of not less than five years:

For coating usage in emissions unit R003

- a. The name and identification number of each coating material employed.
- b. Verification that each coating complies with section B.4 above on "as applied" basis.
- c. The OC content of each coating material, in pounds/gallon.

- d. The number of gallons of each coating material employed.
- e. The OC emission rate from each coating material employed, in pounds/month [(b) x (c)].
- f. The OC emission rate from all coating material employed, in tons/month [summation of (d)].

For coating usage in emissions unit R004

- g. The company identification for each coating.
- h. Verification that each coating complies with section B.4 above on "as applied" basis.
- i. The number of gallons of each coating material employed.
- j. The organic compound content of each coating, in pounds per gallon.
- k. The total controlled organic compound emission rate for all coatings, in pounds or tons per month calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance.
- l. Total controlled organic compound emission rate for all coatings, for the calendar year-to-date, in tons per year.

For coating usage in emissions unit R005

- m. The company identification for each coating employed.
- n. Verification that each coating complies with section B.4 above on "as applied" basis.
- o. The number of gallons of each coating employed.
- p. The organic compound content of each coating, in pounds per gallon.

- q. The total controlled organic compound emission rate for all coatings, in pounds or tons per month calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance.
 - r. Total controlled organic compound emission rate for all coatings, for the calendar year-to-date, in tons per year.
8. The permittee shall properly install, calibrate, maintain, and operate a continuous emissions monitoring system for measuring NO_x emissions from emissions unit B008 and record the output of the system in accordance with the requirements of 40 CFR Part 60, Subpart Db, section 60.48b. Specific monitoring requirements are as follows:
- a. The continuous monitoring system shall be operated and data recorded during all periods of operation of emissions unit B008 except for continuous monitoring system breakdowns and repairs.
 - b. The procedures under 40 CFR Part 60, section 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system.
 - c. The 1-hour average nitrogen oxides emissions rates measured by the continuous nitrogen oxides monitor shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR Part 60, section 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR Part 60, section 60.13(b). At least two (2) data points must be used to calculate each 1-hour average.
 - d. The span value for the continuous nitrogen oxide monitoring system shall be 500 ppm.
 - e. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, the permittee shall obtain emissions data using standby monitoring systems, Method 7, Method 7a, or other approved reference methods to provide emissions data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

- f. Within 180 days of the initial date of operation for emissions unit B008, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
9. The permittee shall record the following information for each steam generating unit operating day for emissions unit B008 and shall maintain the information for a period of two (2) years following the date of such record:
 - a. The calendar date;
 - b. The amount of natural gas combusted;
 - c. The average hourly nitrogen oxides emissions rates, expressed as NO₂ in ng/J or lb/MMBtu heat input, as measured or predicted;
 - d. The 30-day average nitrogen oxides emission rate, in ng/J or lb/MMBtu heat input, calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
 - e. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the permit limitation of 0.06 lb NO_x/ MMBtu heat input, with the reasons for such excess emissions as well as a description of corrective actions taken;
 - f. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - g. Identification of the times when emission data have been excluded

- from the calculation of average emission rates and the reasons for excluding data;
- h. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - i. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system;
 - j. Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3; and
 - k. The results of daily continuous emissions monitoring system (CEMS) drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
10. The permittee shall maintain a statement of certification of the existing continuous NO_x monitoring system for emissions unit B008 on site. The statement of certification shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
11. The permittee shall maintain monthly records of the amount of natural gas combusted in emissions unit P027. These records shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
12. For each day during which the permittee burns a fuel other than natural gas for emissions units P027, P031, P032, or B008, the permittee shall maintain a record of the type and quantity of fuel burned in these emissions units.
13. The permittee shall maintain daily records that document any period of time when the water wash was not in service when emissions unit R003, R004, or R005 was in operation.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify any/or all of the following:

For Emissions Unit F005

- a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
- b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

For Emissions Units R004 and R005

- c. summaries which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.

For Emissions Unit P026

- d. all periods of time during which pressure drop across the baghouse did not comply with the acceptable ranges specified by the baghouse manufacturer.

For Emissions Unit B008

- e. the information specified in condition C.9 above.
- f. all periods of time when the emissions exceeded the limits outlined in condition A.8 of this permit. If the emissions limitations are not exceeded during the calendar quarter, the permittee shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. Excess emissions are any calculated 30-day rolling average nitrogen oxides emissions rate, as determined under 40 CFR Part 60, Subpart Db, sections 60.46b(e), which exceeds the applicable emissions limit of 0.06 lb NO_x/MMBtu heat input. Semiannual reports shall be submitted by January 30 and July 30 of each year

Quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.

The permittee shall specify the probable cause of such deviations and any corrective actions or preventive measures which have been or will be taken. The notification shall include a copy of the pertinent daily record and shall be sent to the appropriate Ohio EPA District Office or local air agency within 45 days after the exceedance occurs.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in emissions units P027, P031, P032, or B008. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall notify the Director (the appropriate District Office) in writing of any daily record showing that the water wash was not in service when emission unit R003, R004 or R005 was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office) within 30 days after the event occurs.
5. Except as otherwise provided in the conditions D.1. D.2. D.3. and D.4. above, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping 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, Northwest 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, i.e., 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.)

6. The permittee shall submit notifications for emissions unit B008 in accordance with the provisions of 40 CFR Part 60, section 60.7. In addition, when submitting the date of initial startup, the permittee shall include the following additional information:
 - a. The design heat input capacity of the emissions unit and identification of the fuels to be combusted in the emissions unit;
7. Prior to the installation of the continuous NO_x monitoring system on emissions unit B008, the permittee shall submit information detailing the proposed location of the sampling site, in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
8. The permittee shall submit to the Northwest District Office of the Ohio EPA the performance test data from the initial performance test and the performance evaluation of the CEMS in accordance with the performance specifications in 40 CFR Part 60, Appendix B, Performance Specifications 1, 2 and 6.
9. Within 90 days after completion of installation of emission unit P026, the permittee shall submit a report documenting the normal pressure drop range for the baghouse controlling this emissions unit.
10. The actual annual emissions data for emissions units F004, F005, P026, P027, P031, P032, R003, R004, R005, and B008 shall be reported pursuant to the fee emissions report required by OAC rule 3745-78-02(A).
11. The compliance status of emissions units F004, F005, P026, P027, P031, P032, R003, R004, R005, and B008 shall be reported pursuant to the annual certification required by OAC rule 3745-77-07(C)(5).

E. Testing Requirements/Compliance Method Determinations

1. Upon the initial startup of emissions unit B008, the permittee shall

conduct certification tests of the continuous emissions monitoring system for measuring NO_x emissions pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

The permittee shall conduct the performance test to determine compliance with the NO_x emissions limit of 0.06 lb NO_x/ MMBtu heat input for emissions unit B008, as required by 40 CFR Part 60, section 60.8, using the continuous emissions monitoring system. Testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but no later than 180 days after initial startup of the emissions unit. For the initial compliance test, nitrogen oxides from emissions unit B008 shall be monitored for 30 successive steam generating unit operating days.

The 30-day average emission rate shall be used to determine compliance with the NO_x emissions limit. The 30-day average emission rate shall be calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. Following the date on which the initial performance test is completed or required to be completed under 40 CFR Part 60, section 60.8, whichever date comes first, the permittee shall, upon request, determine compliance with the NO_x emissions limit through the use of a 30-day performance test.

During periods when performance tests are not requested, NO_x emissions data collected by the continuous emissions monitoring system shall be used to calculate a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emissions rate shall be calculated each steam generating unit operating day as the average of all the hourly NO_x emissions data for the preceding 30 steam generating unit operating

days. This data shall be used to prepare excess emissions reports, but will not be used to determine compliance with the NO_x emissions limit.

2. The permittee shall conduct, or have conducted, emission testing for emissions unit P026 in accordance with the following requirements:
 - a. The emissions testing shall be conducted to demonstrate compliance with the PE emission limitation in condition A.3.
 - b. The following test method shall be employed to demonstrate compliance with the above emission limitation: Method 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA Northwest District Office.
 - d. The emissions testing shall be conducted within 180 days of the initial startup of the emissions unit.

No later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time and date of the test and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's refusal to accept the results of the emissions test.

Personnel from the Ohio EPA Northwest District Office shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northwest District Office within 30

days following completion of the test. The permittee may request additional time for the submittal of the written report, when warranted, with prior approval from the Ohio EPA Northwest District Office.

3. The permittee shall conduct, or have conducted, emission testing for emissions unit P027 in accordance with the following requirements:
 - a. The emissions testing shall be conducted to demonstrate compliance with the NO_x emission limitation in condition A.4.
 - b. The following test method shall be employed to demonstrate compliance with the above emission limitation: Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA Northwest District Office.
 - d. The emissions testing shall be conducted within 180 days of the initial startup of the emissions unit.

No later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time and date of the test and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's refusal to accept the results of the emissions test.

Personnel from the Ohio EPA Northwest District Office shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test

shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northwest District Office within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, when warranted, with prior approval from the Ohio EPA Northwest District Office.

4. The permittee shall conduct, or have conducted, emission testing for emissions units R004, and R005 in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days after the completion of the modification but not later than 180 days after initial startup.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable hourly mass emission rates, capture efficiencies and control efficiency limitations for organic compounds.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for organic compounds, Method 18 of 40 CFR Part 60, Appendix A, Method 25 of 40 CFR Part 60, Appendix A, or Method 25a of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for organic compounds are specified below. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions units are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. The overall control efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request,

including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units 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 District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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 emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency 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 District Office or local air agency.

5. Compliance with the emission limitation(s) in conditions A.1 through A.8 above shall be determined in accordance with the following method(s):

a. **For Emissions Unit F004**

Emission Limitation: 10% opacity as a six-minute average

Applicable Compliance Method: Visible emission reading performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

Emission Limitation: 11.78 TPY PE

Applicable Compliance Method: Annual emissions may be calculated using RACT equations and 85% control efficiency.

b. **For Emissions Unit F005**

Emission Limitation: No visible emissions except for a period of time not to exceed one minute during any sixty-minute observation period.

Applicable Compliance Method: Compliance with the emission limitation for the paved roadways and parking areas shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996.

Emission Limitation: 0.2 TPY PE

Applicable Compliance Method: Annual emissions may be calculated using appropriate AP-42 sections 13.2.1 and 13.2.2 equations and the actual annual vehicle miles traveled.

c. **For Emissions Unit P026**

Emission Limitation: 10.2 lbs PE/hr; 44.7 TPY PE

Applicable Compliance Method: Stack testing as outlined in condition E.2 of this permit. Annual emissions may be based on the most recent stack test and hours of operation.

Emission Limitation: Visible PE emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method: OAC rule 3745-17-03(B)(1).

d. **For Emissions Unit P027**

Emission Limitation: 1.57 lbs PE/hr; 6.87 TPY PE

Applicable Compliance Method: Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of AP-42 emission factors from Table 1.4-2 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation: Visible PE emissions shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method: OAC rule 3745-17-03(B)(1).

Emission Limitation: 0.11 lb NO_x/MMBtu heat input; 12.32 lbs NO_x/hr; 53.96 TPY NO_x

Applicable Compliance Method: Stack testing as outlined in condition E.3 of this permit. Annual emissions may be based on the most recent stack test and hours of operation.

Emission Limitation: 20.16 lbs CO/hr; 88.30 TPY CO

Applicable Compliance Method: Compliance with the CO emission limitation shall be determined by calculating the hourly and annual CO emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 10 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.65 lbs OC/hr; 2.85 TPY OC

Applicable Compliance Method: Compliance with the OC emission limitation shall be determined by calculating the hourly and annual OC emission rates through use of AP-42 emission factors from Table 1.4-3 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 25 or 25A of 40

CFR Part 60, Appendix A.

e. **For Emissions Unit P031**

Emission Limitation: 0.3 lbs NO_x/hr; 1.31 TPY NO_x

Applicable Compliance Method: Compliance with the NO_x emission limitation shall be determined by calculating the hourly and annual NO_x emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 7 of 40 CFR Part 60, Appendix A.

f. **For Emissions Unit P032**

Emission Limitation: 0.6 lbs NO_x/hr; 2.63 TPY NO_x

Applicable Compliance Method: Compliance with the NO_x emission limitation shall be determined by calculating the hourly and annual NO_x emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 7 of 40 CFR Part 60, Appendix A.

g. **For Emissions Unit B008**

Emission Limitation: 0.63 lbs PE/hr; 2.76 TPY PE; percent opacity

Applicable Compliance Method: Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of AP-42 emission factors from Table 1.4-2 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation: Visible PE emissions shall not exceed 20% opacity.

Applicable Compliance Method: Compliance shall be determined in accordance with OAC rule 3745-17-03(B).

Emission Limitation: 7.50 lbs NO_x/hr (based on 0.06 lb NO_x/MMBtu); 32.85 TPY NO_x

Applicable Compliance Method: Stack testing as outlined in condition E.1 of this permit. Annual emissions may be based on most the recent stack test and hours of operation.

Emission Limitation: 29.25 lbs CO/hr; 128.12 TPY CO

Applicable Compliance Method: Compliance with the CO emission limitation shall be determined by calculating the hourly and annual CO emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 10 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.21 lbs OC/hr; 0.93 TPY OC

Applicable Compliance Method: Compliance with the OC emission limitation shall be determined by calculating the hourly and annual OC emission rates through use of AP-42 emission factors from Table 1.4-3 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 25 or 25A of 40 CFR Part 60, Appendix A.

h. **For Emissions Unit R003**

Emission Limitation: 1.06 lbs PE/hr; 4.64 TPY PE

Applicable Compliance Method: The permittee may calculate actual PE rate from the unit utilizing the following equation:

$$E = (\text{maximum coating solids usage rate}) \times (1-TE) \times (1-CE)$$

where:

E = particulate emissions rate (pounds/hour)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated board to the amount of coating solids used

CE = control efficiency of the control equipment (water wash)

If required, compliance with the PE limitation shall be determined in

accordance with the test methods and procedures in USEPA Method 5, which is located in 40 CFR Part 60, Appendix A.

Emission Limitation: Visible PE emissions shall not exceed 0% opacity as a six-minute average.

Applicable Compliance Method: Method 9 of 40 CFR Part 60, Appendix A.

Emission Limitation: 2.55 lbs OC/hr

Applicable Compliance Method: The hourly OC emission limit is based on the emissions unit's potential to emit. Therefore, no daily record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Emission Limitation: 11.20 TPY OC

Applicable Compliance Method: Compliance shall be determined based on recordkeeping specified in the conditions of this permit.

i. **For Emissions Unit R004**

Emission Limitation: 1.06 lbs PE/hr; 4.64 TPY PE

Applicable Compliance Method: The permittee may calculate actual PE rate from the unit utilizing the following equation:

$$E = (\text{maximum coating solids usage rate}) \times (1-TE) \times (1-CE)$$

where:

E = particulate emissions rate (pounds/hour)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated board to the amount of coating solids used

CE = control efficiency of the control equipment (water wash)

If required, compliance with the PE limitation shall be determined in

accordance with the test methods and procedures in USEPA Method 5, which is located in 40 CFR Part 60, Appendix A.

Emission Limitation: Visible PE emissions shall not exceed 0% opacity as a six-minute average.

Applicable Compliance Method: Method 9 of 40 CFR Part 60, Appendix A.

Emission Limitation: 4.94 lbs OC/hr

Applicable Compliance Method: The hourly OC emission limit is based on the emissions unit's potential to emit. Therefore, no daily record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Emission Limitation: 21.64 TPY OC

Applicable Compliance Method: Compliance shall be determined based on recordkeeping specified in the conditions of this permit.

Emission Limitation: 2.24 lbs NO_x/hr; 9.8 TPY NO_x

Applicable Compliance Method: Compliance with the NO_x emission limitation shall be determined by calculating the hourly and annual NO_x emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 7 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.56 lbs CO/hr; 2.45 TPY CO

Applicable Compliance Method: Compliance with the CO emission limitation shall be determined by calculating the hourly and annual CO emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 10 of 40 CFR Part 60, Appendix A.

j. **For Emissions Unit R005**

Emission Limitation: 1.06 lbs PE/hr; 4.64 TPY PE

Applicable Compliance Method: The permittee may calculate actual PE rate from the unit utilizing the following equation:

$$E = (\text{maximum coating solids usage rate}) \times (1-TE) \times (1-CE)$$

where:

E = particulate emissions rate (pounds/hour)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated board to the amount of coating solids used

CE = control efficiency of the control equipment (water wash)

If required, compliance with the PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 5, which is located in 40 CFR Part 60, Appendix A.

Emission Limitation: Visible PE emissions shall not exceed 0% opacity as a six-minute average.

Applicable Compliance Method: Method 9 of 40 CFR Part 60, Appendix A.

Emission Limitation: 3.44 lbs OC/hr

Applicable Compliance Method: The hourly OC emission limit is based on the emissions unit's potential to emit. Therefore, no daily record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Emission Limitation: 15.07 TPY OC

Applicable Compliance Method: Compliance shall be determined based on recordkeeping specified in the conditions of this permit.

Emission Limitation: 2.24 lbs NO_x/hr; 9.8 TPY NO_x

Applicable Compliance Method: Compliance with the NO_x emission limitation shall be determined by calculating the hourly and annual NO_x emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 7 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.56 lbs CO/hr; 2.45 TPY CO

Applicable Compliance Method: Compliance with the CO emission limitation shall be determined by calculating the hourly and annual CO emission rates through use of AP-42 emission factors from Table 1.4-1 (revised 10/96). If required by Ohio EPA, compliance shall be determined in accordance with Method 10 of 40 CFR Part 60, Appendix A.

NOTE: No term and condition specifying a method for demonstrating compliance with any emission limitation or other requirement of this permit shall preclude the use by any person of any credible evidence to establish compliance with or a violation of this permit, the Clean Air Act, or any implementing regulations or rules promulgated thereunder.

G. Miscellaneous Requirements
None