



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.ohio.gov

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

11/18/2009

Certified Mail

C. Mark Miller
Columbus Southerly Wastewater Treatment Plant
910 Dublin Road
Rm 4164
Columbus, OH 43215

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0125040420
Permit Number: 01-12099
Permit Type: OAC Chapter 3745-31 Modification
County: Franklin

| | |
|-----|----------------------|
| No | TOXIC REVIEW |
| No | PSD |
| No | SYNTHETIC MINOR |
| No | CEMS |
| No | MACT |
| Yes | NSPS |
| Yes | NESHAPS |
| No | NETTING |
| No | MAJOR NON-ATTAINMENT |
| No | MODELING SUBMITTED |

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Central District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.ohio.gov>.

Sincerely,

Michael W. Ahern
Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA DAPC, Central District Office

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

Air Pollution Permit-to-Install
for
Columbus Southerly Wastewater Treatment Plant

Facility ID: 0125040420
Permit Number: 01-12099
Permit Type: OAC Chapter 3745-31 Modification
Issued: 11/18/2009
Effective: 11/18/2009



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Permit-to-Install
 for
 Columbus Southerly Wastewater Treatment Plant

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 01-12099
Facility ID: 0125040420
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Authorization

Facility ID: 0125040420
Facility Description: Sewerage systems
Application Number(s): A0000589
Permit Number: 01-12099
Permit Description: Incinerator #3 and wet scrubber, incinerator #4 and wet scrubber.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$400.00
Issue Date: 11/18/2009
Effective Date: 11/18/2009

This document constitutes issuance to:

Columbus Southerly Wastewater Treatment Plant
6977 South High Street
Box 95C, Rt#3
Lockbourne, OH 43137-9702

Of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants 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

Chris Korleski
Director



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 01-12099
Facility ID: 0125040420
Effective Date: 11/18/2009

Authorization (continued)

Permit Number: 01-12099

Permit Description: Incinerator #3 and wet scrubber, incinerator #4 and wet scrubber.

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

| | |
|-----------------------------------|----------------|
| Emissions Unit ID: | N003 |
| Company Equipment ID: | Incinerator 3 |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | N004 |
| Company Equipment ID: | Incinerator 4 |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 01-12099
Facility ID: 0125040420
Effective Date: 11/18/2009

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) and A. 6.d), 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 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) The permittee must comply with all terms and conditions of this permit. 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, Central 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, Central District Office. The written reports shall be submitted (i.e., postmarked) 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 (i.e., postmarked) to the Ohio EPA DAPC, Central 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 semi-annual 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, Central 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) 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.

c) 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.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Central 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, Central 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, Central 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 (i.e.,



postmarked) 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).

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 by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party 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 through completion of the annual PER covering the last period of operation 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 shutdown 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 PER covering the last period the emissions unit operated.



No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, air fee emission report, or other any 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 (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 01-12099
Facility ID: 0125040420
Effective Date: 11/18/2009

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Central District Office must be notified in writing of any transfer of this permit.

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.



State of Ohio Environmental Protection Agency
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Final Permit-to-Install
Permit Number: 01-12099
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Effective Date: 11/18/2009

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 01-12099
Facility ID: 0125040420
Effective Date: 11/18/2009

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 01-12099
Facility ID: 0125040420
Effective Date: 11/18/2009

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group – Multiple Hearth Incinerators: N003 and N004

| EU ID | Operations, Property and/or Equipment Description |
|-------|--|
| N003 | one natural gas/No. 2 fuel oil/digester gas-fired multiple hearth sewage sludge incinerator (rated at 43.550 million Btu per hour, 3.0 dry tons per hour) controlled by one venturi scrubber (ID CE01-N003) in series with one impingement scrubber (ID CE02-N003) |
| N004 | one natural gas/No. 2 fuel oil/digester gas-fired multiple hearth sewage sludge incinerator (rated at 43.550 million Btu per hour, 3.0 dry tons per hour) controlled by one venturi scrubber (ID CE01-N004) in series with one impingement scrubber (ID CE02-N004) |

- 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) b)(1)i, .b)(2)i, d)(19), (20), (21) and (22), and e)(5).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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 3745-17-07(A)(1) | See b)(2)a. |
| b. | OAC rule 3745-17-09(B) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| c. | OAC rule 3745-17-09(C) | Incinerators, including all associated equipment and grounds, shall be designed, and operated and maintained so as to prevent the emission of objectionable odors. |
| d. | OAC rule 3745-18-06(C) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| e. | OAC rule 3745-21-08(B) | All stationary carbon monoxide emissions sources shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with best available technology. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|--|
| | | See b)(2)b. |
| f. | OAC rule 3745-31-05(A)(3) | <p>Particulate matter emissions shall not exceed 1.12 pounds of particulate matter per ton of dry sludge input.</p> <p>Particulate emissions (PE) shall not exceed 3.36 pounds per hour and 14.72 tons per year.</p> <p>Sulfur Dioxide (SO₂) emissions shall not exceed 7.69 pounds per hour and 33.70 tons per year.</p> <p>Nitrogen Oxide (NO_x) emissions shall not exceed 22.80 pounds per hour and 99.86 tons per year.</p> <p>Volatile Organic Compound (VOC) emissions shall not exceed 5.06 pounds per hour and 22.16 tons per year.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 21.22 pounds per hour and 92.94 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart O, OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), OAC rule 3745-17-09(B), and OAC rule 3745-18-06(C).</p> |
| g. | 40 CFR 60, Subpart O, New Source Performance Standards | <p>Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average. This requirement is equivalent to OAC rule 3745-17-07(A)(1).</p> <p>The particulate matter emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>See b)(2)g and b)(2)h.</p> |
| h. | 40 CFR 61, Subpart E, National Emission Standards for Hazardous Air Pollutants (NESHAP) | Mercury emissions from emission units N003 and N004 combined shall not exceed 7.1 pounds (3200 grams) of mercury per 24-hour period. |
| i. | OAC rule 3745-114 | See b)(2)i, d)(19), (20), (21) and (22), and e)(5). |



(2) Additional Terms and Conditions

- a. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except:
 - 1. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but
 - 2. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
 - 3. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.

[OAC rule 3745-17-07(A)(1) and (2)]

- b. All stationary carbon monoxide emissions sources shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with best current technology.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revisions occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally approved SIP for Ohio.

- c. The emissions from each emissions unit shall be vented to the corresponding wet scrubber at all times the emissions unit is in operation.

[OAC rule 3745-77-07(C)(1)]

- d. 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.
- e. The application and enforcement of the provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.
- f. The emissions units are not subject to the beryllium NESHAP (40 CFR Part 61, Subpart C) because the sewage sludge processed in this emissions unit does not contain any "beryllium containing waste." As defined in 40 CFR 61.31(g), "Beryllium containing waste" means material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation



performed by a source subject to this subpart (40 CFR Part 61, Subpart C). See e)(3).

- g. The continuous emission monitoring systems consist of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and [Appendix F to 40 CFR Part 60]

- h. The permittee shall maintain a written quality assurance/quality control plan for the continuous O₂ monitoring system, designed to ensure continuous valid and representative readings of O₂ emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous O₂ monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

- i. In order to demonstrate compliance with the "Toxic Air Contaminant Statute", the Director has established, per ORC 3704.03(F)(4)(c), a limit for sulfuric acid, which shall not exceed 14.64 pound(s) per day. This daily allowable emissions rate was calculated by multiplying the approved daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration). In addition, the Director has established, per ORC 3704.03(F)(4)(c), a limit for mercury, which shall not exceed 410 grams per day. This daily allowable emissions rate was established at 80% of the Maximum Acceptable Ground Level Concentration for this compound.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

c) Operational Restrictions

- (1) The incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[OAC 3745-17-09]
- (2) The emissions from each emissions unit shall be vented to the Venturi and Impingement wet scrubbers at all times the emissions unit is in operation.
[OAC rule 3745-31-05]
- (3) No changes in the operation shall be made, which would potentially increase mercury emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to Ohio EPA, Central District Office.



[40 CFR 61.53]

- (4) Municipal solid waste shall not be fired in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions units are in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the visible particulate emissions are representative of normal operations;
 - c. if the visible particulate emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible particulate emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If visible particulate emissions are present, a visible particulate emission incident has occurred. The observer does not have to document the exact start and end times for the visible particulate emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible particulate 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 particulate 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 particulate emissions.

[OAC rule 3745-77-07(A)(3)]

- (2) The permittee shall install, calibrate, maintain, and operate a flow measuring device which can be used to determine the mass of sludge charged to each incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of plus or minus 5 percent over its operating range. The flow measuring device shall be operated continuously and data recorded during all periods of operation of the incinerator.

[40 CFR 60.153(a)(1)]

- (3) The permittee shall record the daily total tons of dry sludge fed to each of the emissions units. This information shall be maintained for a period of not less than five (5) years.

[40 CFR 60.153(c)(3)]



- (4) The permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained.

[40 CFR 60.153(a)(2)]

- (5) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range or limit for the pressure drop across the scrubbers shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[OAC rule 3745-31-05(A)(3)] and [OAC rule 3745-77-07(C)(1)]

- (6) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubbers (in water column inches) during operation of this/these emissions unit(s), including periods of startup and shutdown. The permittee shall record and maintain a continuous record of the pressure drop of the gas flow through the scrubbers and the 15 minute average of the pressure drop. 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. The acceptable range or limit for the pressure drop across the scrubbers shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for this parameter is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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; and
- d. 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- a. a description of the corrective action;
- b. the date the corrective action was completed;
- c. the date and time the deviation ended;



- d. the total period of time (in minutes) during which there was a deviation; and
- e. the pressure drop and flow rate readings immediately after the corrective action was implemented.

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.

These range(s) and/or limit(s) for the pressure drop are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit 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.

[OAC rule 3745-31-05(A)(3)] and [OAC rule 3745-77-07(C)(1)]

- (7) The permittee shall collect and record the following information and maintain in its files for a period of not less than five (5) years.
 - a. a continuous record of the pressure drop of the gas flow through the scrubbers and the 15 minute average of the pressure drop;
 - b. records of the downtimes for the monitoring equipment when the emissions units are in operation;
 - c. records of monitoring equipment calibration checks; and
 - d. records of a pressure drop reduction of:
 - i. more than 30 percent from the average pressure drop recorded during the most recent stack test which demonstrated the emissions units to be in compliance, or
 - ii. more than the value calculated using the equation in 40 CFR 60.155(a)(1)(ii) from the average pressure drop recorded during the most recent stack test which resulted in an average particulate matter emission rate of greater than 0.75 lb/ton (0.38 kg/Mg) dry sludge input.

[40 CFR 60.153(b)(1), 40 CFR 60.155(a)(1) and 40 CFR 60.7]

- (8) The permittee shall properly install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas while the emissions units are in operation. The oxygen monitor shall be located upstream of any source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of plus or minus 5 percent over its



operating range and shall be calibrated according to the methods prescribed by the manufacturer at least once each 24-hour operating period.

The permittee shall collect and record the following information and maintain in its files for a period of not less than five (5) years:

The permittee shall maintain records of data obtained by the continuous O₂ monitoring system including, but not limited to:

- a. percent O₂ on an instantaneous (one-minute) basis;
- b. results of quarterly cylinder gas audits;
- c. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- d. results of required relative accuracy test audit(s);
- e. hours of operation of the emissions unit, continuous O₂ monitoring system;
- f. the date, time, and hours of operation of the emissions unit without the continuous O₂ monitoring system;
- g. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous O₂ monitoring system;
- h. the reason (if known) and the corrective actions taken (if any) for each such event in (f) and (g), and
- i. records of the average oxygen content in the incinerator exhaust gas for each period of one-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the most recent performance test which demonstrated the emissions unit to be in compliance by more than three percent.

[40 CFR 60.13] and [40 CFR Part 60, Appendices B & F] and [40 CFR 60.153(b)(2), 40 CFR 60.155(a)(2) and 40 CFR 60.7]

- (9) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O₂ monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 3. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]



- (10) The permittee shall install, calibrate, maintain and operate continuous temperature measuring devices to measure and record temperatures in every hearth of the incinerators. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of plus or minus 5 percent over its operating range. The temperature monitoring devices shall be operated continuously and data recorded during all periods of operation in the incinerators.

[40 CFR 60.153(b)(3)]

- (11) The permittee shall collect and record the measured temperature of the incinerators and maintain this information for a period of not less than five (5) years.

[40 CFR 60.153(c)(3)]

- (12) The permittee shall install calibrate, maintain and operate continuous device to measure and record fuel flow to the incinerators. The flow measuring device shall be certified by the manufacturer to have an accuracy of plus or minus 5 percent over its operating range. The fuel flow monitoring device shall be operated continuously and data recorded during all periods of operation in the incinerators.

[40 CFR 60.153(b)(4)]

- (13) The permittee shall collect and record the fuel flow to the incinerators and maintain this information for a period of not less than five (5) years.

[40 CFR 60.153(c)(3)]

- (14) The permittee shall collect and analyze a grab sample of the sludge fed to the incinerator once per day. The dry sludge content and the volatile solids content of the sample shall be determined in accordance with the method specified under 60.154(b)(5) as referenced in 40 CFR 60.153(b)(5).

[40 CFR 60.153(b)(5)]

- (15) The permittee shall collect and record the total solids and volatile solids content of the sludge charged to the incinerator and maintain this information for a period of not less than five (5) years.

[40 CFR 60.153(c)(3)]

- (16) In the event that the particulate matter emission rate measured during the most recent performance test required under 60.154(d) is less than or equal to 0.75 lb/ton (0.38 g/kg) of dry sludge input, then the following requirements shall not be required:

- a. the continuous operation of the monitoring devices and data recorders in 60.153(a)(1),(b)(3), and (b)(4) which are listed in d)(2), d)(10), and d)(12) above,
- b. daily sampling and analysis of sludge feed in 60.153(b)(5) which is listed in d)(14) above, and
- c. record keeping requirements contained in d)(3), d)(11), and d)(13) above.



- (17) If mercury emissions exceed 3.5 lbs per 24-hour period for this facility, the permittee shall monitor mercury emissions at intervals of at least once per year by use of Method 105 of Appendix B or the procedures specified in 40 CFR Part 61.53(d)(2) and (4). The results of monitoring shall be reported and retained according to 40 CFR Part 61.53(d)(5) and (6) or 40 CFR Part 61.54(f) and (g).

[40 CFR Part 61.55(a)]

- (18) Whenever the monitored value for any parameter, such as sludge input rate, pressure drop of the gas flow through the wet scrubbing device, oxygen content of the incinerator exhaust gas, or hearth temperatures, deviates from the range(s) or minimum limit(s) 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; and
 - d. 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 control equipment parameters, including pressure drop of the gas flow through the wet scrubbing device, within the acceptable range(s), or at or above the minimum limit(s) 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:

- a. a description of the corrective action;
- b. the date the corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation; and
- e. the pressure drop readings immediately after the corrective action was implemented.

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.

These range(s) and/or limit(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future emission tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s).



[OAC rule 3745-31-05(D) or (E)] [OAC rule 3745-77-07(C)(1)]

(19) The PTI application for this/these emissions unit(s), N003 and N004, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants or "worst case" toxic contaminant(s):

Toxic Contaminant: sulfuric acid

TLV (ug/m3): 200

Maximum Hourly Emission Rate (lbs/hr): 0.61



Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4.37

MAGLC (ug/m3): 4.8

Toxic Contaminant: mercury

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.37

Maximum Hourly Emission Rate (g/day): 410

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.1905

MAGLC (ug/m3): 0.2381

Toxic Contaminant: aluminum

TLV (ug/m3): 10000

Maximum Hourly Emission Rate (lbs/hr): 1.08

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.75

MAGLC (ug/m3): 238

Toxic Contaminant: benzene

TLV (ug/m3): 1597

Maximum Hourly Emission Rate (lbs/hr): 0.25

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.77

MAGLC (ug/m3): 38

The permittee, having demonstrated that emissions of sulfuric acid, from emissions unit(s) N003 and N004, is estimated to be equal or greater than eighty per cent, but less than 100 percent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

The permittee, having demonstrated that emissions of mercury, from emissions unit(s) N003 and N004, is calculated to be less than eighty percent of the maximum acceptable



ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

The permittee, has demonstrated that emissions of aluminum and benzene, from emissions units N003 and N004, are calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (20) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute", ORC 3704.03(F), will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (21) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute":
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)



modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (22) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

- (1) The permittee shall identify the following information in the quarterly deviation report in accordance with the monitoring requirements for visible emissions in term number 2.d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stacks serving these emissions units; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the wet scrubber during the operation of the emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubbers was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubbers;



- c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;
- d. each incident of deviation described in “a” or “b” 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 “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1)]

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

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

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]

- (3) Except as provided below, the permittee shall submit an annual statement as part of its annual compliance certification report that indicates that sewage sludge processed in this emissions unit does not contain any “beryllium containing waste,” as that term is defined in the Beryllium NESHAP, in 40 CFR Part 61, Subpart C. As the basis for this statement, the permittee shall annually review all of its permitted industrial dischargers to determine if any of the industrial dischargers discharge beryllium containing waste to the Columbus sanitary sewers.

If the permittee determines that it will not submit annual statement that its sewage sludge does not contain beryllium containing waste, the permittee shall so notify the Director (the appropriate Ohio EPA District Office or local air agency) and, thereafter, the permittee shall be subject to and shall comply with the requirements of 40 CFR Part 61, Subpart C, including the emission limitation of 10 grams of beryllium in a twenty-four hour period. In addition, whenever particulate emission testing is performed for either incinerator, the permittee also shall demonstrate compliance with the emission limitation for beryllium by performing emission testing in accordance with Method 103 or 104 of 40 CFR Part 60, Appendix B.

- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous O₂ monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of continuous O₂ monitoring system downtime and malfunction while the emissions unit was on line.
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:



- i. the facility name and address;
- ii. the manufacturer and model number of the continuous O₂ and other associated monitors;
- iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
- iv. the total operating time (hours) of the emissions unit;
- v. the total operating time of the continuous O₂ monitoring system while the emissions unit was in operation;
- vi. results and dates of quarterly cylinder gas audits;
- vii. unless previously submitted, results and dates of the relative accuracy test audit(s) (during appropriate quarter(s));
- viii. unless previously submitted, the results of any relative accuracy test audit showing the continuous O₂ monitor out-of-control and the compliant results following any corrective actions;
- ix. the date, time, and duration of any/each malfunction* of the continuous O₂ monitoring system while the emissions unit was in operation;
- x. the date, time, and duration of any downtime* of the continuous O₂ monitoring system while the emissions unit was in operation; and
- xi. the reason (if known) and the corrective actions taken (if any) for each event in (b)(ix) and (x).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* Each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

[40 CFR 60.7]

- (5) The permittee shall submit quarterly deviation reports, to the Ohio EPA Central District Office, documenting any exceedance of the daily limitation on toxic air emissions or any deviation from a restriction on the process or hours of operation, as established by the Director in order to maintain any toxic air contaminant below its MAGLC. The permittee shall also report any changes made, during the calendar quarter, to a parameter or value entered into the dispersion model that demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F). These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70



- (6) The permittee shall submit semi-annual reports, to the appropriate Ohio EPA Central District Office, of the following:
 - a. A record of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than, by a percentage specified below, the average scrubber pressure drop measured during the most recent performance test. The percent reduction in scrubber pressure drop for which a report is required shall be determined as follows:
 - i. For incinerators that achieved an average particulate matter emission rate of 0.75 lb/ton (0.38 kg/Mg) dry sludge input or less during the most recent performance test, a scrubber pressure drop reduction of more than 30 percent from the average scrubber pressure drop recorded during the most recent performance test shall be reported.
 - ii. For incinerators that achieved an average particulate matter emission rate of greater than 0.75 lb/ton (0.38 kg/Mg) dry sludge input during the most recent performance test, a percent reduction in pressure drop greater than that calculated according to the equation in 40 CFR 60.155(a)(ii) shall be reported.
 - b. A record of average oxygen content in the incinerator exhaust gas for each period of one-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the most recent performance test by more than three percent.
- f) Testing Requirements
 - (1) The permittee shall conduct emissions testing for each of the emissions units in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 180 days of the issuance of this permit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the PE, SO₂, VOC, NO_x, CO and visible opacity emission limitations.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Particulate: Methods 1-4 and 5 of 40 CFR Part 60, Appendix A;
SO₂: Methods 1-4 and 6 of 40 CFR Part 60, Appendix A;
VOC: Methods 1-4 and 25 or 25a of 40 CFR Part 60, Appendix A;
NO_x: Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
CO: Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and
Visible emissions: Method 9 of 40 CFR Part 60, Appendix A.

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



- d. The test(s) shall be conducted under representative sewage sludge incinerator conditions at or near its highest expected sewage sludge feed rate within the design capacity of the sewage sludge incinerator, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit 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, Central District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA, Central District Office 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 unit and the testing procedures provide a valid characterization of the emissions from the emissions unit 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 or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 60 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 Ohio EPA, Central District Office.

[Authority for term: OAC rule 3745-31-05]

- (2) As specified in 40 CFR 60.8, each performance test shall consist of at least three separate runs under the same operating conditions.

[Authority for term: 40 CFR 60.8]

- (3) All continuous monitoring systems and monitoring devices shall be operational, and calibrated prior to conducting performance test.

[Authority for term: 40 CFR 60]

- (4) The permittee shall conduct, or have conducted, emissions testing for emissions units N003 and N004 for mercury to comply with 40 CFR 61, Subpart E by either performing an emissions test or by performing sludge sampling:

- a. An emissions test using Method 101A in Appendix B;
 - i. The Ohio EPA Central District Office shall be notified at least 30 days prior to an emissions test.
 - ii. Samples shall be taken over such a period or periods as are necessary to determine accurately the maximum emissions which will occur in a 24-hour period.



- iii. Samples shall be analyzed and emissions determined within 30 days after the emissions unit performance stack test. All determinations shall be reported to Ohio EPA Central District Office by a registered letter dispatched before the close of business day following such determination. Records of emissions test results and other data needed to determine total emissions shall be retained at the source and shall be made available for inspection for a minimum of five years.

[Authority for term: 40 CFR 61.53(d)]

or;

- b. A sludge sampling test using Method 105 of Appendix B and paragraph 61.54 of 40 CFR 61.
 - i. The Ohio EPA Central District Office shall be notified at least 30 days prior to the sludge test.
 - ii. Sludge shall be sampled, the sludge charging rate shall be determined and the sludge analysis shall be performed according to 40 CFR 61.54(c).
 - iii. Mercury emissions shall be determined according to 40 CFR 61.54(d).
 - iv. All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected.
 - v. Records of sludge sampling, sludge charging rate and other data needed to determine mercury content of the wastewater treatment plant sludge shall be retained at the source and shall be made available for inspection of a minimum of five years.

[Authority for term: 40 CFR 61.54 a-g]

(5) Emission Limitation:

Visible particulate emissions from any/the stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using methods and procedures specified in U.S. EPA Method 9.

[OAC rule 3745-17-03(B)(1)(a)]

(6) Emission Limitation:

Particulate emissions shall not exceed 1.12 pounds of particulate emissions per ton of dry sewage sludge and 3.36 pounds per hour of particulate emissions from each of the emissions units N003 and N004.



Applicable Compliance Method(s):

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 5, 201 and 202 and as specified in term f)(1) above. The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

(7) Emission Limitation:

Particulate emissions (PE) shall not exceed 14.72 tons per year of particulate emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance with the annual emission limit shall be determined by multiplying the emission factor derived from the average of the 3 test runs completed during the most recent stack test that demonstrated compliance in terms of pounds of PE per ton dry sludge times the actual amount of tons dry sludge per year incinerated and divided by 2000 pounds per ton.

(8) Emission Limitation:

Sulfur dioxide (SO₂) emissions shall not exceed 7.68 pounds per hour of SO₂ emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6 and as specified in term f)(1) above. The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

(9) Emission Limitation:

SO₂ emissions shall not exceed 33.70 tons per year of SO₂ emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance with the annual emission limit shall be determined by multiplying the emission factor derived from the average of the 3 test runs completed during the most recent stack test that demonstrated compliance in terms of pounds SO₂ per ton dry sludge times the actual amount of tons dry sludge per year incinerated and divided by 2000 pounds per ton.

(10) Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 5.06 pounds per hour of VOC emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 25 or 25a and as specified in term f)(1) above. The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.



(11) Emission Limitation:

VOC emissions shall not exceed 22.16 tons per year of VOC emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance with the annual emission limit shall be determined by multiplying the emission factor derived from the average of the 3 test runs completed during most recent stack test demonstrating compliance in terms of pounds VOC per ton of dry sludge times the actual amount of tons dry sludge per year incinerated and divided by 2000 pounds per ton.

(12) Emission Limitation:

Nitrogen oxide (NOx) emissions shall not exceed 22.80 pounds per hour of NOx emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 and as specified in term f)(1) above. The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

(13) Emission Limitation:

NOx emissions shall not exceed 99.86 tons per year of NOx emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance with the annual emission limit shall be determined by multiplying the emission factor derived from the most recent stack test demonstrating compliance in terms of pounds NOx per ton dry sludge times the actual amount of tons dry sludge per year incinerated and divided by 2000 pounds per ton.

(14) Emission Limitation:

Carbon monoxide (CO) emissions shall not exceed 21.21 pounds per hour of CO emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10 and as specified in term f)(1) above. The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

(15) Emission Limitation:

CO emissions shall not exceed 92.94 tons per year of CO emissions from each of the emissions units N003 and N004.

Applicable Compliance Method(s):

Compliance with the annual emission limit shall be determined by multiplying the emission factor derived from the most recent stack test demonstrating compliance in



terms of pounds CO per ton dry sludge times the actual amount of tons dry sludge per year incinerated and divided by 2000 pounds per ton.

(16) Emission Limitation:

Mercury emissions from emissions units N003 and N004 combined shall not exceed 7.1 pounds of mercury per 24 hour period and 1.29 tons per year.

Applicable Compliance Method(s):

Compliance shall be demonstrated by the emissions testing or sludge sampling as described in f)(4)a. and f)(4)b. above.

The tons per year limitation can be calculated by multiplying the emission factor derived from the most recent stack or sludge test that demonstrated compliance in terms of pounds of mercury per ton dry sludge times the actual tons dry sludge per year incinerated and divided by 2000 pounds per ton.

(17) Ongoing compliance with the O₂ monitoring requirements contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and demonstration of compliance with the quality assurance/quality control plan, which shall meet all of the testing and recertification requirements of 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendices B & F]

g) Miscellaneous Requirements

(1) None.