John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

12/19/2012

Certified Mail

John Nisley
Millcreek Lumber
33844 CR 126
Millersburg, OH 44654

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0238000216
Permit Number: P0112072
Permit Type: OAC Chapter 3745-31 Modification
County: Holmes

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to “Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General’s Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

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. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-NEDO

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
Millcreek Lumber

Facility ID:	0238000216
Permit Number:	P0112072
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	12/19/2012
Effective:	12/19/2012
Expiration:	12/19/2022

Division of Air Pollution Control
Permit-to-Install and Operate
for
Millcreek Lumber

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Authorization

Facility ID:	0238000216
Application Number(s):	A0046196
Permit Number:	P0112072
Permit Description:	Chapter 31 modification to 220 hp ICE. Engine was converted from diesel to dual fuel (natural gas & diesel), and is now subject to 40 CFR Part 60 Subpart IIII
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$50.00
Issue Date:	12/19/2012
Effective Date:	12/19/2012
Expiration Date:	12/19/2022

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Millcreek Lumber
1617 TR 106
Millersburg, OH 44654

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

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)425-9171

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0112072
Permit Description: Chapter 31 modification to 220 hp ICE. Engine was converted from diesel to dual fuel (natural gas & diesel), and is now subject to 40 CFR Part 60 Subpart IIII

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

Emissions Unit ID:	**P003**
Company Equipment ID:	Chipper Motor
Superseded Permit Number:	02-22561
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement.Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is takenby Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northeast District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting[1] a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

[1]Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

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

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) None.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) None.

2. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: http://www.epa.gov/ttn/atw/area/arearules.html.

C. Emissions Unit Terms and Conditions

1. P003, Chipper Motor

Operations, Property and/or Equipment Description:

220 hp 4-stroke natural gas/diesel stationary ICE

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

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic Compound (VOC) emissions shall not exceed 1.56 tons/year Carbon Monoxide (CO) emissions shall not exceed 1.70 tons/year The hourly emission limitations specified by this rule are equivalent to the limitations established by 40 CFR Part 60 Subpart IIII. See b)(2)a.
b	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)b.
c	ORC 3704.03(T)	The NOx emission limitation specified by this rule is equivalent to the emission limitation established by 40 CFR Part 60 Subpart IIII

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d	OAC rule 3745-18-06(G)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(B).
e	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
f	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established for PE pursuant to 40 CFR Part 60, Subpart IIII.
g	40 CFR Part 60, Subpart IIII 40 CFR 60.4204(a) Table 1 to Subpart IIII	The exhaust emissions from this engine shall not exceed: 0.40 gram (g)/hp-hr of Particulate Matter (PM); 6.9 g/hp-hr of Nitrogen Oxides (NOx); 8.5 g/hp-hr of Carbon Monoxide (CO); and 1.0 g/hp-hr of Hydrocarbons (HC) See b)(2)c-e.
h	40 CFR 60.4207(b) and 80.510(b)	The sulfur content of the diesel fuel burned in this engine shall not exceed 15 ppm or 0.0015% sulfur, by weight. See b)(2)f.
i	40 CFR 63 Subpart ZZZZ 40 CFR 63.6590(c)	An affected area source operating in compliance with 40 CFR Part 60 Subpart IIII is in demonstration of compliance for 40 CFR 63 Subpart ZZZZ.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. 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 revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, VOC, SO_2, and CO emissions from this air contaminant source since the uncontrolled potential to emit for each is less than 10 tons/year.

c. The stationary compression ignition (CI) internal combustion engine (ICE) is subject to and shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

d. The pre-2007 stationary CI ICE is not certified to the applicable emission standards specified in 40 CFR 60.4204(a); and there is no evidence of certification under 40 CFR 89.112, as applicable to the model year and rated power. Compliance with the emission standards in Table 1 to Subpart IIII, based on the maximum rated engine power, shall be demonstrated according to one of the methods specified in paragraphs (b)(2) through (5) of 40 CFR 60.4211, as detailed in b)(2)e.

e. As required by 40 CFR 60.4211(b), the permittee shall demonstrate compliance with the emission standards specified in Subpart IIII, for the pre-2007 model year ICE, through one of the following methods:

   i. demonstrate that the engine was once certified according to 40 CFR Part 89, for the same model year and maximum engine power;

   ii. maintain records of performance test results for each pollutant, obtained through the performance test methods required in 40 CFR 60.4212 or 40 CFR 60.4213 and conducted on a similar engine;

   iii. maintain records of the engine manufacturer's data showing compliance with the standards;

   iv. maintain records of control device vendor data demonstrating compliance with the standards; or

   v. conduct an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212 or 60.4213.

f. The quality of the diesel fuel burned in this engine shall meet the following specifications on an "as received" basis:

   i. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.0015lb SO_2/mmbtu actual heat input; and 15 ppm sulfur or 0.0015% sulfur by weight;

   ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume %; and

   iii. a heating value greater than 135,000 Btu/gallon.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil.

c) Operational Restrictions

(1) The stationary CI ICE and any control device shall be installed, operated, and maintained according to the manufacturer's emission-related written instructions and the permittee shall only change those emission–related settings that are allowed by the manufacturer. The CI ICE must also be installed and operated to meet the applicable requirements from 40 CFR Part 89, Control of Emissions from New and In-use Non-road CI ICE; and Part 1068, the General Compliance Provisions for Engine Programs. The permittee shall operate and maintain the stationary CI ICE to achieve the emissions standards established in 40 CFR 60.4204 over the entire life of the engine(s).

(2) Diesel fuel burned in the CI, ICE shall not exceed the limit for sulfur as specified by 40 CFR 80.510(b), i.e., the maximum sulfur content of diesel fuel shall not exceed 15 ppm or 0.0015% sulfur by weight.

(3) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain a weekly record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall maintain documentation of the annual operating hours for this emission unit.

(3) For each shipment of oil received for burning in this engine, the permittee shall maintain records of the total quantity of the diesel oil received and the oil supplier's (or permittee's) analyses for sulfur content, in parts per million (40 CFR 80.510) or % by weight. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR 80.580, using the appropriate ASTM methods. These records shall be retained for a minimum of 5 years and shall be available for inspection by the Director or his/her representative.

(4) The permittee shall maintain the performance test data for this ICE or for a similar ICE, that adequately demonstrates compliance with the applicable emission standards in Table 1 to Subpart IIII, on site or at a central location for all facility CI ICE and it shall be made available for review upon request. If the compliance test data is not kept on site, the permittee shall maintain a log for the location of each ICE and it shall identify the agency-assigned emissions unit number, the manufacturer's identification number, and the specific test data used to demonstrate compliance. If test data from a similar engine is used to demonstrate compliance, the test results shall identify the model year, the cylinder displacement and rated power of the tested ICE, the test methods and

procedures followed, and the percent(s) of maximum torque/power and speed(s) (rpm) maintained or attained during the emissions test. The manufacturer's operations manual and any written instructions or procedures developed by the permittee and approved by the manufacturer shall be maintained at the same location as the ICE.

(5) The permittee shall maintain records of the following information:

a. a copy of all notifications submitted to comply with 40 CFR Part 60, Subpart IIII, and the documentation supporting the report;

b. maintenance conducted on the engine; and

c. documentation from the manufacturer that the engine meets the emission standards in CFR 89.112; or

d. documentation that the engine meets the emission standards in 40 CFR Part 60, Subpart IIII, Table 1, as required by 40 CFR 60.4211(b).

(6) The permittee shall maintain a record of the diesel fuel burned in this ICE during each calendar year. The fuel oil usage can be calculated at the end of each year using the best method available to estimate the annual throughput which might include, but shall not be limited to: any flow meter installed on the engine, records of the volume of diesel fuel oil received with each delivery, the fuel oil levels recorded from the diesel storage tank, and/or the recorded or estimated hours of operation along with the manufacture's documentation of the fuel flow rate.

(7) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the permittee shall keep records of the date, time, and any corrective action(s) taken in response to the notification from the backpressure monitor, that the high backpressure limit of the engine has been approached or exceeded.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Northeast District Office.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

(3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements in section d) above:

a. the total quantity of each fuel used;

b. the total annual operating hours for this emissions unit;

c. any period of time (date and number of hours) that the quality of oil burned in this engine did not meet the requirements established in 40 CFR 80.510(b), based upon the required fuel records; and the amount of non-compliant fuel burned on each such occasion; and

d. if the engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the permittee shall include any records of the date, time, and any corrective action(s) taken in response to the notification from the monitor that the backpressure has been approached or exceeded.

(4) If not previously submitted with the permit application, the permittee shall submit an initial notification to the Ohio EPA, Northeast District Office, Division of Air Pollution Control, to include the following information:

a. name and address of the facility;

b. address of the CI ICE;

c. the make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

d. any emission control equipment;

e. the fuel used; and

f. the method used to demonstrate that the engine meets the emission standards in 40 CFR Part 60, Subpart IIII, Table 1, as required by 40 CFR 60.4211(b).

f) Testing Requirements

(1) Compliance with the emissions limitations specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>
VOC emissions shall not exceed 1.56 tons/year

<u>Applicable Compliance Method</u>
Compliance with the annual emission limitation shall be determined by multiplying the hourly emissions by the actual operating hours (hrs/yr) by the conversion (1 ton/2,000 lbs) using the following equation(s):

tons/year = (diesel, lbs/hr + natural gas, lbs/hr)(hrs/yr)(1 ton/2,000 lbs)

diesel, lbs/hr = (1.0 g/hp-hr)(220 hp)(0.02204616 lb/g)(0.4)

where:
1.0 = 40 CFR 60 Subpart IIII, Table 1 emission standard, grams/horsepower-hour
220 = engine's rated horsepower
0.02204616 = conversion factor, pound/gram
0.4 = percent diesel usage

natural gas, lbs/hr = (1.47 lbs/mmbtu)(0.0025 mmbtu/hp-hr)(220 hp)(0.6)

where:
1.47 = AP 42 Table 3.2-2 emission factor, lb/mmbtu
0.0025 = conversion factor, mmbtu/horsepower
220 = engine's rated horsepower
0.6 = percent natural gas usage

b. Emission Limitation
CO emissions shall not exceed 1.70 tons/year

Applicable Compliance Method
Compliance with the annual emission limitation shall be determined by multiplying the hourly emissions by the actual operating hours (hrs/yr) by the conversion (1 ton/2,000 lbs) using the following equation(s):

tons/year = (diesel, lbs/hr + natural gas, lbs/hr)(hrs/yr)(1 ton/2,000 lbs)

diesel, lbs/hr = (8.5 g/hp-hr)(220 hp)(0.02204616 lb/g)

where:
8.5 = 40 CFR 60 Subpart IIII, Table 1 emission standard, grams/horsepower-hour
220 = Engines rated horsepower
0.02204616 = conversion factor, pound/gram
hrs/yr = actual operating hours/year

natural gas, lbs/hr = (0.56 lb/mmbtu)(0.0025 mmbtu/hp-hr)(220 hp)(0.6)

where:
0.56 = AP 42 Table 3.2-2 emission factor, lb/mmbtu
0.0025 = conversion factor, mmbtu/horsepower
220 = engine's rated horsepower
0.6 = percent natural gas usage

c. Emission Limitation
0.40 g/hp-hr of PM

Applicable Compliance Method
Compliance with the emission limitation shall be based on PE emissions testing data submitted for this engine or a similar engine, and by maintaining the ICE according to the manufacturer's specifications.

If required, the permittee shall demonstrate compliance with the PM emission limitation through performance tests conducted in accordance with the provisions in term f)(2*)* below.

d. Emission Limitation
6.9 g/hp-hr of NOx

Applicable Compliance Method
Compliance with the emission limitation shall be based on NOx emissions testing data submitted for this engine or a similar engine, and by maintaining the engine according to the manufacturer's specifications.

If required, the permittee shall demonstrate compliance with the NOx emission limitation through performance tests conducted in accordance with the provisions in term f)(2)below.

e. Emission Limitation
8.5 g/hp-hr of CO

Applicable Compliance Method
Compliance with the emission limitation shall be based on CO emissions testing data submitted for this engine or a similar engine, and by maintaining the engine according to the manufacturer's specifications.

If required, the permittee shall demonstrate compliance with the CO emission limitation through performance tests conducted in accordance with the provisions in term f)(2)below.

f. Emission Limitation
1.0 g/hp-hr of HC

Applicable Compliance Method
Compliance with the emission limitation shall be based on HC emissions testing data submitted for this engine or a similar engine, and by maintaining the engine according to the manufacturer's specifications.

If required, the permittee shall demonstrate compliance with the HC emission limitation through performance tests conducted in accordance with the provisions in term f)(2) below.

g. Sulfur Content Limitations for Diesel Fuel:
Sulfur content 15 ppm or $\leq$ 0.0015% by weight sulfur

Applicable Compliance Method:
Compliance shall be demonstrated through the record keeping requirements for the sulfur content of each shipment of diesel oil received. If meeting the standards in 40 CFR 80.510(b), this calculates to approximately 0.0015lb SO_2/mmbtu.

The heating value of the diesel fuel may be adjusted to that provided by the supplier.

h. Emission Limitation
Visible PE from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

(2) Where compliance is demonstrated through performance testing, it shall be conducted using one of the following test methods or procedures:

i. in accordance with 40 CFR 60.4212, conduct exhaust emissions testing using the in-use testing procedures found in 40 CFR Part 1039, Subpart F, measuring the emissions of the regulated pollutants as specified in 40 CFR 1065; or

ii. in accordance with 40 CFR 60.4213, conduct exhaust emissions testing using the test methods identified in Table 7 to Subpart IIII of Part 60.

If demonstrating compliance through the in-use testing procedures in 40 CFR part 1039, subpart F, exhaust emissions from the pre-2007 model year stationary CI ICE shall not exceed the "not to exceed" (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 1 to Subpart IIII, determined from the following equation:

NTE requirement for each pollutant = 1.25 x STD

Where:

STD = the standard specified for the pollutant in Table 1 to Subpart IIII.

<u>Applicable Compliance Method using 40 CFR 60.4213 for PE and/or NOx:</u>
An initial performance test shall be conducted according to the testing procedures found in 40 CFR 60.8 and under the specific conditions specified in 40 CFR 60.4213 and Table 7 to Subpart IIII. Three separate test runs, of at least an hour each, shall be conducted for each performance test method. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations or control requirements:

i. Method 1 or 1A of 40 CFR Part 60, Appendix A to select the sampling port location and the number of traverse points

ii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A to measure O_2 at the inlet and outlet of the control device if demonstrating compliance through the percent control or to determine the O_2 concentration of the stationary ICE exhaust.

iii. Method 4 of 40 CFR Part 60, Appendix A to measure the moisture content at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure the moisture content of the stationary ICE exhaust.

iv. Method 7E of 40 CFR Part 60, Appendix A; Method 320 of 40 CFR Part 63, Appendix A; or ASTM D 6348-03 to measure NOx at the inlet and outlet of the control device if demonstrating compliance through the percent control or to determine the NOx concentration of the stationary ICE exhaust.

v. Method 5 of 40 CFR Part 60, Appendix A to measure PM (PE) at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure PE at the exhaust of the stationary ICE.

vi. If using a control device, the following equation shall be used to normalize the NO_X or PE concentrations at the inlet and outlet of the control device to a dry basis and to 15% oxygen (O_2)*:

$C_{adj} = C_d\ (5.9 / 20.9 - \%\ O_2)$

Where:

C_{adj}= calculated NO_X or PE concentration adjusted to 15 % O_2.
C_d= measured concentration of NO_X or PE, uncorrected.
5.9 = 20.9−15% O_2, the defined O_2 correction value,%.

%O_2 = measured O_2 concentration, dry basis, %.
* Optionally, the pollutant concentrations can be corrected to 15% O_2 using a CO_2 correction factor, by calculating the fuel factor (F_o value) using Method 19 results obtained during the performance test (40 CFR 60.4213(d)(3)).

vii. If compliance is demonstrated for a control efficiency, the following equation shall be used to determine the % reduction:

$R = (C_i - C_o) / C_i \times 100$

Where:

C_i= concentration of NO_X or PE at the control device inlet,
C_o= concentration of NO_X or PE at the control device outlet, and
R = % reduction of NO_X or PE emissions.

viii. The measured concentration of NO_X in the engine exhaust shall be converted to units of the standard (g/kW-hr) using the following equation:

$ER = (C_d \times 1.912 \times 10^{-3} \times Q \times T) / kW\text{-}hr$

Where:
ER = emission rate in grams per kW-hr.
C_d= measured NO_X concentration in ppm.
1.912×10^{-3}= conversion constant for ppm NO_X to grams/standard cubic meter (g/scm) at 25° Celsius.
Q = stack gas volumetric flow rate, in scm/hr.
T = time of test run, in hours.
kW-hour = brake work of the engine, in kW-hr.

ix. The measured concentration of PEin the engine exhaust shall be converted to units of the standard (g/kW-hr) using the following equation:

$ER = (C_{adj} \times Q \times T) / kW\text{-}hr$

Where:
ER = emission rate in grams per KW-hour.
C_{adj}= calculated PE concentration in g/scm.
Q = stack gas volumetric flow rate, in scm/hr.
T = time of test run, in hours.
kW-hour = energy output of the engine, in kW.

g) Miscellaneous Requirements

(1) None.