



5/1/2015

Certified Mail

Mike Novotny  
City of Newton Falls Waste Water Treatment Plant  
500 Warren Road  
Newton Falls, OH 44444

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	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: 0278052005  
Permit Number: P0118542  
Permit Type: Initial Installation  
County: Trumbull

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](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.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](http://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)963-1200 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
City of Newton Falls Waste Water Treatment Plant**

Facility ID:	0278052005
Permit Number:	P0118542
Permit Type:	Initial Installation
Issued:	5/1/2015
Effective:	5/1/2015
Expiration:	5/1/2025





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
City of Newton Falls Waste Water Treatment Plant

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## Authorization

Facility ID: 0278052005  
Application Number(s): A0052801  
Permit Number: P0118542  
Permit Description: Initial installation for a 1300 HP (10.35 MMBtu/hr) RICE with diesel oxidation catalyst (DOC).  
Permit Type: Initial Installation  
Permit Fee: \$150.00  
Issue Date: 5/1/2015  
Effective Date: 5/1/2015  
Expiration Date: 5/1/2025  
Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15

This document constitutes issuance to:

City of Newton Falls Waste Water Treatment Plant  
500 Warren Road  
Newton Falls, OH 44444

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

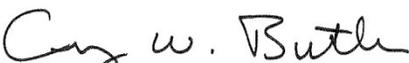
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)963-1200

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

  
Craig W. Butler  
Director



**Final Permit-to-Install and Operate**  
City of Newton Falls Waste Water Treatment Plant  
**Permit Number:** P0118542  
**Facility ID:** 0278052005  
**Effective Date:** 5/1/2015

## Authorization (continued)

Permit Number: P0118542  
Permit Description: Initial installation for a 1300 HP (10.35 MMBtu/hr) RICE with diesel oxidation catalyst (DOC).

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

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	1300 HP Emergency Electrical Generator
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
City of Newton Falls Waste Water Treatment Plant  
**Permit Number:** P0118542  
**Facility ID:** 0278052005  
**Effective Date:** 5/1/2015

## **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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 taken by 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 of this permit 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 [DO/LAA] 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 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 emission 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.



**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.



**Final Permit-to-Install and Operate**  
City of Newton Falls Waste Water Treatment Plant  
**Permit Number:** P0118542  
**Facility ID:** 0278052005  
**Effective Date:** 5/1/2015

## **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, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines. At this time the Ohio EPA is not accepting the delegating authority to enforce NESHAP standards for area sources. The requirements of this rule, that are applicable to the area source (for hazardous air pollutants) identified in this permit, shall be enforceable by U.S. EPA. Region 5. The complete requirements of this rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA Northeast District Office.



**Final Permit-to-Install and Operate**  
City of Newton Falls Waste Water Treatment Plant  
**Permit Number:** P0118542  
**Facility ID:** 0278052005  
**Effective Date:** 5/1/2015

## **C. Emissions Unit Terms and Conditions**



**1. P001, 10.35 MMBtu/hr Electric Generator**

**Operations, Property and/or Equipment Description:**

Electric Generator Unit–10.35 MMBtu/hr(1300 HP) Caterpillar Model No: 3508fired with No. 2 oil (diesel) and controlled with diesel oxidation catalyst (DOC) with 100% capture efficiency and 70% control efficiency for CO

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) June 30, 2008	For carbon monoxide (CO):  The Best Available Technology (BAT) requirement for CO emissions established pursuant to this rule are equivalent to the requirements established pursuant to 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary reciprocating internal combustion engines (RICE).  Exhaust particulate emissions (PE) from this engine shall not exceed 0.03 lb/MMBtu.  Exhaust nitrogen oxides (NO <sub>x</sub> ) emissions



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>from this engine shall not exceed 1.88 lb/MMBtu.</p> <p>Exhaust organic compounds (OC) emissions from this engine shall not exceed 0.14 lb/MMBtu.</p> <p>See b)(2)a, b)(2)c and b)(2)d.</p>
b.	<p>OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008</p>	<p>The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub>, OC, and PE emissions from this air contaminant source since the restricted potential to emit is each less than 10 tons per year.</p> <p>The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions from this air contaminant source taking into account the federally enforceable rule requirement of 23 ppmvd at 15% O<sub>2</sub> or emissions of CO reduced by 70% or more pursuant to 40 CFR Part 63, Subpart ZZZZ</p> <p>See b)(2)b.</p>
c.	<p>OAC rule 3745-31-05(E)</p>	<p>See c)(1).</p>
d.	<p>OAC rule 3745-17-07(A)(1)</p>	<p>Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.</p>
e.	<p>OAC rule 3745-17-11(B)(5)(b)</p>	<p>The PE emission limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
f.	<p>OAC rule 3745-110-03(F)(3)</p>	<p>Exempt, pursuant to OAC rule 3745-110-03(K)(17).</p>
g.	<p>OAC rule 3745-18-06(G)</p>	<p>The sulfur dioxide (SO<sub>2</sub>) emission limitation specified by this rule is less stringent than the SO<sub>2</sub> limitation established pursuant to 40 CFR Part 63, Subpart ZZZZ and 40 CFR 80.510(b).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		[The SO <sub>2</sub> emission limitation specified by this rule is 0.5 lb/MMBtu actual heat input.]
h.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 to 63.6675)  In accordance with 40 CFR 63.6585, this emissions unit is a stationary internal combustion engine (ICE) subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.	The existing stationary compression ignition (CI) reciprocating internal combustion engine (RICE), located at an area source for hazardous air pollutants (HAPs), shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ.
i.	40 CFR 63.6603(a)  Table 2d #3 to Subpart ZZZZ	Emissions of CO shall not exceed 23 ppmvd at 15% O <sub>2</sub> or emissions of CO shall be reduced by 70% or more.  See b)(2)f through b)(2)k.
j.	40 CFR 63.6604(a)  40 CFR 80.510(b)	The sulfur content of the diesel fuel burned in this emissions unit shall not exceed 15 ppm or 0.0015% sulfur, by weight.  See b)(2)e.

(2) Additional Terms and Conditions

- a. The BAT emission limits apply until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than ten tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than ten tons per year BAT exemption) into the Ohio SIP.
- c. The emission limitations for OC, PE, and NO<sub>x</sub> are based on the potential to emit (PTE) for this emissions unit, therefore, no monitoring or record keeping is required to document compliance with the emission limitations.
- d. All PE is assumed to be PM<sub>10</sub>.
- e. The quality of the diesel fuel burned in this emissions unit shall meet the following specifications on an “as received” basis:



- i. a sulfur content which is sufficient to comply with the allowable SO<sub>2</sub> emission limitation of 0.0015 pound SO<sub>2</sub>/MMBtu actual heat input and 15 ppm sulfur or 0.0015% sulfur, by weight; and
- ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

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.

- f. The stationary compression ignition (CI)reciprocating internal combustion engine (RICE) is subject to and shall be operated in compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines. Requirements of the NESHAP include: performance testing to demonstrate compliance with the CO limit or the control requirement identified in #3 of Table 2d to the subpart; and demonstrating continuous compliance (through the options in Table 6) by monitoring and maintaining either a record of the concentration of CO using a CEMS in accordance with 40 CFR 63.6625(a); or monitoring and maintaining the pressure drop across the catalyst and continuously monitoring the temperature at the catalyst inlet and recording the average 4-hour rolling temperature using a continuous parameter monitoring system (CPMS) in accordance with 40 CFR 63.6625(b).
- g. The permittee shall control the emissions of CO from the stationary RICE exhaust using an oxidation catalyst control device. The permittee shall either limit the concentration of CO to 23 ppmvd or less at 15% O<sub>2</sub> at the outlet of the control device or the average reduction of CO, calculated according to 40 CFR 63.6620(e), shall not be less than 70% of the uncontrolled CO emissions.
- h. As required by 40 CFR 63.6612and 63.6615, the permittee of the existing RICE shall demonstrate compliance with the CO emission standards specified in Subpart ZZZZ through the following methods:
  - i. conduct an initial performance test to demonstrate compliance with the CO emission standards according to the requirements specified in Tables 4 and 5 to the subpart within 180 days of completion of construction of the diesel oxidation catalyst control device and in accordance with 40 CFR Part 63, Subpart ZZZZ.
- i. The permittee is installing a continuous parameter monitoring system (CPMS) to measure and collect the inlet temperature of the catalyst to the control device. The pressure drop across the catalyst shall also be monitored and recorded monthly using the CPMS.
- j. If demonstrating compliance using CPMS, a site-specificmonitoring plan must be prepared for the CPMS that addresses the monitoring system design, data



collection, and the quality assurance and quality control requirements, as identified in 40 CFR 63.6625(b); the plan shall include:

- i. the performance criteria and design specifications for the monitoring system equipment, including the sample interface, the detector signal analyzer, and data acquisition and calculations;
- ii. the thermocouple location, assuring it will provide representative measurements and an accurate temperature for the inlet of the catalyst control device;
- iii. equipment performance evaluations, and/or system accuracy audits or other audit procedures;
- iv. ongoing operation and maintenance procedures in accordance with the provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); and
- v. ongoing reporting and record keeping procedures in accordance with the provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).

The permittee shall conduct performance evaluations and/or system accuracy audits for the CPMS in accordance with the site-specific monitoring plan and prior to the compliance demonstration with the NESHAP. The CPMS shall be maintained in continuous operation according to 40 CFR 63.8.

- k. If the stationary RICE is not equipped with a closed crankcase ventilation system, the permittee shall install either a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere or an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals. The open or closed crankcase ventilation system shall be operated and maintained according to the manufacturer's specifications, to include the frequency of crankcase filter replacement.

c) Operational Restrictions

- (1) The maximum annual operating hours for this emissions unit shall not exceed 500, based upon a rolling, 12-month summation of the operating hours.
- (2) The stationary CI ICE shall be installed, operated, and maintained according to the manufacturer's specifications, written instructions, and procedures; and/or according to a maintenance plan developed by the permittee, which shall provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The permittee shall operate and maintain the stationary CI ICE to achieve the CO emission standards from #3 in Table 2d to Part 63, Subpart ZZZZ, as required per 40 CFR 63.6603(a).
- (3) The permittee shall minimize the engine's time spent at idle during startup and shall minimize the engine's startup time to a period needed for appropriate and safe loading of



the engine, not to exceed 30 minutes, after which the non-startup CO emission limitations apply.

- (4) The temperature of the stationary RICE exhaust at the inlet of the oxidation catalyst shall be maintained at greater than or equal to 450 degrees Fahrenheit and less than or equal to 1,350 degrees Fahrenheit; and the pressure drop across the catalyst shall be maintained at no more than 2 inches of water, plus or minus 10% of the pressure drop measured during the initial performance test, at 100% load. The temperature measurement device must meet the following requirements:
- a. the temperature sensor shall be located in a position that provides an accurate reading of the exhaust gas temperature at the inlet to the catalyst of the control device;
  - b. the temperature sensor shall have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1% of the temperature value, whichever is larger; and
  - c. an equipment performance evaluation or system accuracy audit shall be conducted for the temperature measurement device on an annual basis.

System accuracy audits could include redundant temperature sensors or a temperature gauge may be inserted in a thermal well co-located with the CPMS sensor. Records of the results of each inspection, performance evaluation, and/or accuracy audit for the CPMS shall be maintained for a period of 5 years.

- (5) Where demonstrating continuous compliance through the use of a CPMS, the rolling 4-hour average temperature of the stationary RICE exhaust at the inlet of the oxidation catalyst shall be monitored and maintained at greater than or equal to 450 degrees Fahrenheit and less than or equal to 1,350 degrees Fahrenheit; and the pressure drop across the catalyst shall be maintained at no more than 2 inches of water, plus or minus 10% of the pressure drop measured during the initial performance test, at 100% load and monitored and recorded monthly.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain a record of the sulfur content of each shipment of diesel fuel received for burning in this emissions unit.
  - (2) The permittee shall record the following information each month for each emissions unit:
    - a. the total operating time, in hours; and
    - b. the rolling, 12-month summation of the monthly operating time, in hours.
  - (3) The permittee shall install, operate, and maintain the CPMS to measure and collect the catalyst inlet temperature according to the requirements of 40 CFR 63.8, 40 CFR 63.6625(b), and the site-specific monitoring plan. The permittee shall continuously monitor the catalyst inlet temperature at all times the unit is in operation and reduce the data to 4-hour rolling averages. The CPMS shall collect data at least every 15-minutes.



For purposes of calculating data averages, data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or quality control activities shall not be used in calculating the rolling 4-hour average catalyst inlet temperature. The data collected during all other periods of operation shall be used in assessing compliance.

The engine is in compliance when the rolling 4-hour average temperature of the stationary RICE exhaust at the inlet of the catalyst is greater than or equal to 450 degrees Fahrenheit and less than or equal to 1,350 degrees Fahrenheit. Each record must be maintained for a period of 5 years.

- (4) For each shipment of oil received for burning in this emissions unit, 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 percent 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.
- (5) Except during malfunctions, repairs, and required quality assurance and/or quality control activities, the permittee shall continuously monitor that the stationary RICE is operating; and all valid data (not recorded during malfunctions, repairs, or required quality assurance or control activities) shall be used in calculations used to report emissions or operating levels.
- (6) The permittee shall keep the following records as required by 40 CFR 63.6655:
  - a. operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
  - b. develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions;
  - c. a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart ZZZZ;
  - d. records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment;
  - e. records of performance tests and performance evaluations as required per 40 CFR 63.10(b)(2)(viii);
  - f. records of all required maintenance performed on the air pollution control and monitoring equipment;
  - g. records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore the malfunctioning process and air pollution control and monitoring equipment to normal operations;



- h. records of performance tests conducted to demonstrate compliance;
  - i. a record of each idle and/or startup time that exceeded 30 minutes; and
  - j. the records required in Table 6 to 40 CFR Part 63, Subpart ZZZZ.
- (7) The permittee shall record the pressuredrop across the oxidation catalyst at least once per month and the control device shall be maintained so that the pressure drop across the catalyst does not change by more than 2 inches of water, plus or minus 10% of the pressure drop measured during the initial or any subsequent performance test operating at 100% load. The requirement to monitor and maintain the pressure drop according to these requirements shall be included in the site-specific monitoring plan.
- e) Reporting Requirements
- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA Northeast District Office by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.
- 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 appropriate district office or local air agency.
- (2) The permittee shall identify in the annual PER and semiannual report any period of time (date and number of hours) that the quality of oil burned in this emissions unit 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.
- (3) A comprehensive written report on the results of the performance tests, conducted to demonstrate compliance with 40 CFR 63.6603(a), shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.
- (4) The permittee shall submit semiannual compliance reports that identify any exceedance of the emission limitation, CO reduction requirement, and/or deviation from the operating limitations on the temperature and pressure drop of the oxidation catalyst control. The semiannual compliance report shall contain the following information:
- a. the facility name, address, facility ID number, and emission unit number(s) identified in the report;
  - b. a statement by a responsible official certifying the accuracy of the content of the report;
  - c. the date of report and beginning and ending dates of the reporting period;
  - d. a brief description of the stationary RICE, at a minimum, the horsepower, year of manufacturer, and use;



- e. each instance in which the general provisions identified in Table 8 of Part 63, Subpart ZZZZ were not met;
- f. the number, duration, cause, and description of each exceedance, deviation, and/or malfunction which caused or may have caused an exceedance of the emission limitation or a deviation from the operating limitations for the temperature and pressure drop monitored for the control device;
- g. the corrective actions taken during each/any deviation or exceedance to minimize emissions and to correct the malfunction;
- h. the total operating time of the stationary RICE if an exceedance or deviation occurred during the reporting period that did not involve a continuous monitoring system (CMS);
- i. if there is/are no exceedance(s) or deviation(s) from the emission limitations or operating limitations during the reporting period, a statement to that effect;
- j. if there were no periods of time during which the CPMS was out-of-control during the reporting period, a statement to that effect;
- k. for each deviation from operating limitation for the temperature at the inlet of the catalyst recorded by the CPMS, the following information:
  - i. identification of the CPMS, i.e., the type, model, and manufacturer, and the exact location of the probe;
  - ii. the date and time that each malfunction started and stopped;
  - iii. the date, time, and duration that each CPMS was inoperative, except for zero (low-level) and high-level checks;
  - iv. the date, time, and duration that each CPMS was out-of-control (including the information in 40 CFR 63.8(c));
  - v. the date and time each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
  - vi. a summary of the total duration of the deviation during the reporting period, and the total duration of the deviation as a percent of the engine's total operating time during the reporting period;
  - vii. a breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, and other known or unknown causes;
  - viii. a summary of the total duration of CPMS downtime during the reporting period, and the total duration of CPMS downtime as a percent to the total operating time of the stationary engine during the reporting period;



- ix. the date of the latest certification or audit of the temperature CPMS; and
- x. a description of any changes to the engine, CPMS, processes, or controls since the last reporting period.

The semiannual compliance reports shall cover the reporting periods from January 1 through June 30 and July 1 through December 31 of each year and shall be postmarked or delivered no later than July 31 or January 31 following each reporting period.

f) Testing Requirements

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

- a. Emission Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

- b. Emission Limitation:

Exhaust PE from this engine shall not exceed 0.03 lb/MMBtu.

Applicable Compliance Method:

The PE emission limitation is based on using the manufacturer's "Not to Exceed" emission factor plus a 5% allowance for degradation.

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and OAC rule 3745-17-03(B)(7).

- c. Emission Limitation:

Exhaust NO<sub>x</sub> emissions from this engine shall not exceed 1.88lb/MMBtu.

Applicable Compliance Method:

The NO<sub>x</sub> emission limitation is based on using the manufacturer's "Not to Exceed" emission factor plus a 5% allowance for degradation.



If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7, 7A, 7C, 7D, or 7E, as appropriate.

d. Emission Limitation:

Exhaust OC emissions from this engine shall not exceed 0.14lb/MMBtu.

Applicable Compliance Method:

The OC emission limitation is based on using the manufacturer's "Not to Exceed" emission factor plus a 5% allowance for degradation.

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25, or 25A, as appropriate.

e. Emission Limitation:

Emissions of CO shall not exceed 23 ppmvd at 15% O<sub>2</sub> or emissions of CO shall be reduced by 70% or more.

Applicable Compliance Method:

Unless a performance test is submitted that meets the requirements of 40 CFR 63.6612(b), the permittee shall conduct an initial performance test within 180 days after the compliance date as specified in f)(2), to demonstrate compliance with the CO limitation. The appropriate test methods from Table 4 to Subpart ZZZZ shall be conducted based on the option chosen for compliance, i.e., the part per million concentration or percent reduction. The appropriate emission and/or operating limitations, required per 40 CFR 63.6630 and identified in Table 5, shall be established and compliance demonstrated during each performance test.

The temperature at the inlet to the catalyst shall be monitored during the performance test and maintained between 450 °F and 1350 °F. The 3-hour block average temperature at the inlet to the catalyst shall be documented during performance tests and the pressure drop shall be recorded to establish the operating range for the pressure drop across the catalyst. Per 63.6640(b), if the catalyst is changed or the control device replaced, a new performance test must be conducted to demonstrate compliance with the emission limitation and to reestablish the values for or compliance with the operating parameters.

Each performance test shall consist of 3 separate test runs and each test run shall last a minimum of 1 hour and shall be conducted during normal operations. The engine percent load, during the performance test, shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load and the estimated percent load shall be included in the notification of compliance.



A compliant performance test shall demonstrate that either the CO emissions have been reduced by at least 70% or that the average CO concentration is less than or equal to 23 ppmvd, corrected to 15 percent O<sub>2</sub> on a dry basis, and from three 1-hour or longer performance test runs.

If demonstrating compliance with the 70% control requirement for CO, the permittee may use a portable CO and O<sub>2</sub> analyzer at the inlet and outlet of the control device and use ASTM Method D6522-00 to meet the performance testing requirement in Table 4 to Subpart ZZZZ. The CO concentrations at the inlet and outlet of the control device must be normalized to a dry basis and to 15% oxygen, or an equivalent percent CO<sub>2</sub>, as required in 40 CFR 63.6620(e).

The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of each scheduled performance test date or RATA for the CEMS at least 60 calendar days before it is scheduled, to allow the agency time to review and approve the site-specific test plan and to arrange for an observer to be present during the compliance demonstration.

Personnel from the Ohio EPA Northeast 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.

f. Emission Limitation:

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

- i. a sulfur content which is sufficient to comply with the allowable SO<sub>2</sub> emission limitation of 0.0015 pound SO<sub>2</sub>/MMBtu actual heat input and 15 ppm sulfur or 0.0015% sulfur, by weight; and
- ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

Applicable Compliance Method:

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

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emissions testing shall be conducted within 180 days of completion of construction of the diesel oxidation catalyst control device and in accordance with 40 CFR Part 63, Subpart ZZZZ for CO and the following methods for all other associated pollutants.



- b. The emission testing shall be conducted to demonstrate compliance with the 23 ppmvd CO at 15% O<sub>2</sub> or reduce CO by 70% or more emission limitations.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

- 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 or ASTM Method D6522-00 to measure O<sub>2</sub> at the inlet and outlet of the control device to normalize the CO concentration(s).
- iii. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 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 RICE exhaust.
- iv. Method 10 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D 6348-03 to measure CO at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure CO at the exhaust of the stationary RICE.
- v. The following equation shall be used to normalize the CO concentrations to a dry basis and to 15 percent oxygen (O<sub>2</sub>)\*\*:

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

where:

C<sub>adj</sub>= calculated CO concentration adjusted to 15 percent O<sub>2</sub>;

C<sub>d</sub>= measured concentration of CO, uncorrected;

5.9 = 20.9 percent O<sub>2</sub> – 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent; and

%O<sub>2</sub> = measured O<sub>2</sub> concentration, dry basis, percent.

\*\* Optionally, the pollutant concentrations can be corrected to 15% O<sub>2</sub> using a CO<sub>2</sub> correction factor, by calculating the fuel factor (F<sub>o</sub> value) using Method 19 results obtained during the performance test (40 CFR 63.6620(e)(2)).

- vi. If compliance is demonstrated for the control efficiency for CO, the following equation shall be used to determine the percent reduction:

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



where:

$C_i$  = concentration of CO at the control device inlet;

$C_o$  = concentration of CO at the control device outlet; and

R = percent reduction of CO emissions.

If using CEMS to monitor and comply with the CO concentration limitation or requirement to reduce CO emissions, the permittee shall conduct annual relative accuracy test audits (RATA) using Performance Specifications 3 and 4A of 40 CFR Part 60 Appendix B and daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, Procedure 1.

If using CPMS to demonstrate compliance, the permittee shall conduct subsequent performance tests for CO (concentration or % reduction) every 8,760 hours of operation or every 3 years, whichever comes first.

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 those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Northeast District Office. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast 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 Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast 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 Northeast District Office within 30 days following completion of the



**Final Permit-to-Install and Operate**  
City of Newton Falls Waste Water Treatment Plant  
**Permit Number:** P0118542  
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test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

- g) Miscellaneous Requirements
  - (1) None.