



Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE:

Masters Land Clearing, Inc.
252 Ucita Street
St. Augustine, Florida 32084

Air Permit Number: 1090035-003-AO
Date of Issue: March 23, 2010
Expiration Date: March 23, 2015

Authorized Representative:
Mr. Thomas B. Masters, Owner

Renewal Air Operation Permit

PROJECT AND LOCATION

This is the air operation permit renewal, which authorizes operation of an air curtain incinerator (ACI) for Masters Land Clearing, Inc. The burning site is located at Deer Run Road, approximately ½ mile south of Thompson Bailey Road, St. Augustine, St. Johns County. The Standard Industrial Classification No. is 4953 for an ACI. The UTM coordinates are Zone 17, 464.7km East; 3307.5 km N. Latitude: 29° 53' 56", Longitude: 81° 21' 56"

This final permit is organized by the following sections.

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution operation permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to operate the facility in accordance with the conditions of this permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

AIR OPERATION PERMIT

Executed in Jacksonville, Florida



3/23/2011

Christopher L. Kirts, P. E.
District Air Program Administrator

Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) or by certified mail with received receipt requested before the close of business on March 23, 2011 to the persons listed below.

Thomas B. Masters, Owner, Masters Land Clearing, Inc.
Mr. Lynn Robinson, P.E. : lrobinson@sesfla.com

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.



(Clerk)

3/23/2011
(Date)

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

The applicant has an existing air curtain incinerator (ACI) (Manufacturer: McPherson Systems, Inc. Model: M20 F). The unit is a refuse disposal system (Standard Industrial Classification No. 4953).

In accordance with Rule 62-210.200(16), F.A.C., an air curtain incinerator is a portable or stationary combustion device that directs a plane of high velocity forced draft air through a manifold head into a pit with vertical walls in such a manner as to maintain a curtain of air over the surface of the pit and a re-circulating motion of air under the curtain.

The facility will use the ACI to burn land clearing debris (*wood waste* and *yard waste*).¹ The ACI is equipped with a blower manufactured by Air Burners, Inc. Model T359 and powered by a 85 hp Cummins (Model B3.3, 3.3L) Industrial Diesel Engine. The refractory lined firebox is approximately 20 feet long, 9 feet wide and 12 feet deep. The blower supplies air velocities at the nozzle exits in excess of 10,500 feet per minute (120 mph). The air volume is in excess of 1,000 cubic feet per linear foot of nozzle, i.e. 20,000 cubic feet per minute for a 20 foot nozzle. Utilizing proper firebox loading procedures and sufficient air flow to create an oxygen rich environment, fire box combustion temperatures may reach upwards of 2200 °F.

REGULATED EMISSIONS UNITS AFFECTED BY PROJECT:

Facility ID No. 1090035	
ID No.	Emission Unit Description
001	Air Curtain Incinerator
002	85 HP Diesel Engine (manufactured by Cummins, Inc.)

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

Applicable Unit Specific Rule(s)

The ACI is subject to the emissions standards of Florida Administrative Code (F.A.C.) Rule 62-296.401 (7) – Air Curtain Incinerators. The ACI is subject to New Source Performance Standards (NSPS), 40 CFR 60 Subpart DDDD – Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999.

Internal Combustion Engine

The diesel engine is subject to NSPS, Subpart IIII-Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The engine is a Cummins, Inc., Model B3.3, manufacture date of 07/09/2007, maximum rated speed of 2600 rpm, and 85 horsepower.

The engine is certified to the emissions standards stated in Table 1 of 40 CFR 89.112(a) as required by 40 CFR 60 Subpart IIII. The EPA Certification Family is 7CEXL03.3ABB.

¹ Terms are defined within this permit, refer to Section 3., Subsection A, Specific Condition No. 4.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Northeast District Air Program, Florida Department of Environmental Protection (Department). The Northeast District's mailing address is 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256-7590. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the North East District Office. The mailing address and telephone number of the District Office is: 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256. The Permitting Authority's telephone number is 904/256-1700.
3. Appendices: The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats and Glossary of Common Terms;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions; and
 - d. Appendix D. Common Testing Requirements.
 - e. Appendix E. Subpart A of NSPS – General Provisions
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]
6. Modifications: No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.
[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Application for Non - Title V Permit Renewal: A completed **Application for Non Title V Air Permit Renewal** (DEP Form No. 62-210.900(4), F.A.C.), shall be submitted to the Department at least 60 days prior to the expiration date of this permit. To properly apply for an operation permit, the permittee shall submit the appropriate application form, processing fee, and compliance test reports as required by this permit.
[Rules 62-4.050 and 62-4.090, F.A.C.]
8. The I.D. No. and Project name for this source shall be used on all correspondence.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
001	Air Curtain Incinerator manufactured by McPherson Systems Inc. Model M20F with a refractory lined firebox that is approximately 20 feet long, 9 feet wide and 12 feet deep. The ACI is equipped with an Air Burners, Inc., Model T359 air curtain blower.

This air curtain incinerator is subject to Rule 62-296.401(7), F.A.C. for Air Curtain Incinerators; Part 60—Standards of Performance for New Stationary Sources Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999 (adopted and incorporated by reference at Rule 62-204.800, F.A.C.); 40 CFR 60, Subpart A - General Provisions. Also included in this permit are applicable Rule 62-701 Solid Waste Rules.

EQUIPMENT

1. **Air Curtain Incinerator:** The permittee is authorized to operate an above ground ACI with a refractory lined firebox system.

[Application No. 1090035-003-AO]

APPLICABILITY OF STATE RULE 62-296.401(7), F.A.C.

2. Any air curtain incinerator subject to 40 CFR Part 60, Subpart DDDD adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall be constructed and operated so as to comply with all standards, limitations, and requirements of the applicable subpart, and with the requirements of paragraph 62-296.401(7)(b), F.A.C., to the extent that those requirements are stricter than, or supplemental to, the requirements of the applicable subpart.

[Rule 62-296.401(7)(a)1., F.A.C.]

PERFORMANCE RESTRICTIONS

3. **Maximum Incineration Rate:** The maximum charging rate of the unit shall be limited to 15 tons/hour.

[Rule(s) 62-210.200(PTE), 62-210.200(303), 62-4.070(3), F.A.C., Construction Permit AC55-262485]

4. **Hours of Operation:** The hours of operation are restricted to 1,092 hours per 12 consecutive months.

[Rules 62-4.070(3), 62-210.200(PTE), F.A.C., Operation Permit AO55-273698, and Application No. 1090035-003-AO]

5. **Material:** Except as provided herein and at Specific Condition No. 6, the only materials that shall be burned in the air curtain incinerator is: 100% wood waste (excluding sawdust¹), 100% clean lumber, and 100% mixture of wood waste, clean lumber, and/or yard waste. Sawdust¹ shall not be burned in the ACI.

Definitions are as follows:

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

Specific Condition No. 5 Continued:

Clean Lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

Wood waste and yard waste are defined as:

Wood waste means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust¹, chips, scraps, slabs, millings, and shavings.

Wood waste does not include:

- (1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.
- (2) Construction, renovation, or demolition wastes.
- (3) Clean lumber.

Yard waste means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

Yard waste does not include two items:

- (1) Construction, renovation, and demolition wastes that are exempt from the definition of "municipal solid waste" in this section.
- (2) Clean wood.

¹ *Rule 62-296.401(7)(b)3., F.A.C. excludes sawdust as a material authorized to be burned in an ACI.*

[Rules 62-4.070(3), 62-296.401(7)(b)3., and 62-204.800(9)(f)13., F.A.C.; 40 CFR 60.2265; 40 CFR 60.2875]

6. **Materials - Prohibitions:** The air curtain incinerator shall not be used to burn any biological waste, hazardous waste, asbestos-containing materials, mercury-containing devices, pharmaceuticals, tires, rubber material, residual oil, used oil, asphalt, roofing material, tar, treated wood, plastics, garbage, trash or other material prohibited to be open burned as set forth in Rule 62-256.300(2), F.A.C.

[Rule 62-296.401(7)(b)3., F.A.C.]

7. **Fuels:** Only kerosene, diesel fuel, drip-torch fuel (as used to ignite prescribed fires), untreated wood, virgin oil, natural gas, or liquefied petroleum gas shall be used to start the fire in the air curtain incinerator. The use of used oil, chemicals, gasoline, or tires to start the fire is prohibited.

[Rule 62-296.401(7)(b)3., F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

8. **Use of ACI- Destruction of Animal Carcasses:** Notwithstanding the provisions of Specific Condition No. 5, the air curtain incinerator may be used for the destruction of animal carcasses in accordance with the provisions of Rule 62-256.700(6), F.A.C. When using an air curtain incinerator to burn animal carcasses, untreated wood may also be burned to maintain good combustion.

[Rule 62-296.401(7)(b)4., F.A.C.]

EMISSIONS STANDARDS

9. **Permitted Open Burning:** Open burning is allowed only if such burning is conducted using a Department permitted ACI operated in compliance with the requirements of this permit.

[Rules 62-296.320(3) and 62-256.700, F.A.C.]

10. **Opacity Limitations:** The owner or operator shall meet the two limitations specified in paragraphs (1) and (2) of this condition.

(1) The opacity limitation shall not exceed 10 percent (6-minute average), except as described in paragraph (2) of this condition.

(2) The opacity limitation shall not exceed 35 percent (6-minute average) during the startup period, which shall not exceed the first thirty (30) minutes of operation.

[Rule 62-296.401(7)(b)1., F.A.C.; 40 CFR 60.2860(a)]

11. Except during malfunctions, the opacity limitations stated in Specific Condition No. 10 apply at all times. Each malfunction must not exceed 3 hours. The State general excess emissions rule, Rule 62-210.700, F.A.C., addressing startups, shutdowns, and malfunctions shall not apply.

[Rule 62-296.401(7)(b)1., F.A.C.; 40 CFR 60.2860(b)]

12. **Unconfined Particulate Matter Emissions:** Unconfined particulate matter emissions shall be controlled by the wetting of ash that is removed from the pit and by the application of dust suppressants, unless an alternative method is requested and approved, to all areas necessary to reasonably control such emissions.

[Rule 62-296.320(4)(c), F.A.C.; Construction Permit AC55-262485; Application No. 1090035-003-AO]

13. The owner or operator shall comply with the applicable requirements of 40 CFR 60, Subpart A- General Provisions (see attached Appendix E of the permit).

[40 CFR 60.1(a)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

WORK PRACTICE AND OPERATION STANDARDS

14. If the air curtain incinerator employs an earthen trench, the pit walls (width and length) shall be vertical, and maintained as such, so that combustion of the waste within the pit is maintained at an adequate temperature and with sufficient air recirculation to provide enough residence time and mixing for proper combustion and control of emission. The following dimensions for the pit must be strictly adhered to: no more than twelve feet (12') wide, between eight feet (8') and fifteen (15') feet deep, and no longer than the length of the manifold. The pit shall not be dug within a previously active portion of a landfill.

[Rule 62-296.401(7)(b)2., F.A.C.]

15. In no case shall the air curtain incinerator be started before sunrise. All charging shall end no later than one (1) hour after sunset. After charging ceases, air flow shall be maintained until all material within the air curtain incinerator has been reduced to coals, and flames are no longer visible. A log shall be maintained onsite that documents daily beginning and ending times of charging [see Specific Condition No. 26.b)].

[Rule 62-296.401(7)(b)5., F.A.C.]

16. The air curtain incinerator shall be attended at all times while materials are being burned or flames are visible within the incinerator.

[Rule 62-296.401(7)(b)6., F.A.C.]

17. The air curtain incinerator shall be located at least fifty (50) feet from any wildlands, brush, combustible structure, or paved public roadway.

[Rule 62-296.401(7)(b)7., F.A.C.]

18. The material shall not be loaded into the air curtain incinerator such that it protrudes above the air curtain.

[Rule 62-296.401(7)(b)8., F.A.C.]

19. Ash shall not be allowed to build up in the pit of the air curtain incinerator to higher than one third (1/3) the pit depth or to the point where the ash begins to impede combustion, whichever occurs first.

[Rule 62-296.401(7)(b)9., F.A.C.]

20. **Operation and Maintenance Guide**: An operation and maintenance guide shall be available to the operators of the air curtain incinerator at all times, and the owner shall provide training to all operators before they work at the incinerator. This guide shall be made available to the Department or for an inspector's onsite review upon request.

[Rule 62-296.401(7)(b)10., F.A.C.]

TESTING REQUIREMENTS

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

21. **Annual Performance Test:** Except as provided in Specific Condition No. 23., a performance test for visible emissions shall be conducted on an annual basis, no more than 12 calendar months following the date of the previous test.

[Rules 62-4.070 and 62-296.401(7)(d)1., F.A.C.; 40 CFR 60.2865(c)]

22. **Compliance Test Method:** The reference test method for opacity shall be EPA Method 9, as described at 40 CFR Part 60, Appendix A, adopted and incorporated by reference at Rule 62-204.800, F.A.C. Compliance testing shall be conducted for a minimum period of one hour.

[Rules 62-296.401(7)(c)1., and 62-297.310(4)(a)2., F.A.C.; 40 CFR 60.2865(a)]

23. **New Earthen Trench:** The owner or operator of any air curtain incinerator and using an earthen trench shall have a performance test conducted for opacity no later than thirty (30) days after it commences operation at any new trench location, and annually thereafter. However, if the air curtain incinerator will be operated for less than thirty (30) days at the new trench location, and the owner or operator has demonstrated compliance with the emissions limiting standards of paragraph 62-296.401(7)(b), F.A.C., through a opacity test conducted and submitted to the Department within the previous twelve (12) months, the requirement for testing within thirty (30) days of commencing operation at the new trench location shall not apply.

[Rule 62-296.401(7)(d)2., F.A.C.]

NOTIFICATION, RECORDS AND REPORTS

24. **Compliance Test Procedures & Notification:** The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.

[Rules 62-296.401(7)(c)2., and 62-297.310(7)(a)9., F.A.C.]

25. **Compliance Test Reports:** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit.

[Rules 62-296.401(7)(c)2., and 62-297.310(8), F.A.C.]

26. **Record Keeping:** The owner or operator shall keep the following records onsite and shall be made available to the Department or for an inspector's onsite review upon request:

- a) The results of all initial and annual visible emissions tests onsite in either paper copy or electronic format, unless the Department approves another format.
- b) Daily hours of operation for the unit (including beginning and ending charging times), total hours of operation for the month, and 12 consecutive month running total.
- c) Daily average hourly (in tons) charging rate, daily total material (in tons) charged and 12 consecutive month running total (tons) of material charged.
- d) All maintenance that is performed.

[Rules 62-4.070(3), and 62-296.401(7)(c)3., F.A.C.; 40 CFR 60.2870; Construction Permit AC55-262485;]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

27. **Record Retention:** The owner or operator shall keep records as described by Specific Condition No. 26, for at least 5 years.

[Rule 62-4.070(3), and 62-296.401(7)(c)3.,F.A.C.; 40 CFR 60.2870(a) and (e)]

SOLID WASTE CONDITIONS (i.e. conditions provided by the Department's Solid Waste Section)

In addition to the rules and regulations that the air portion of the permit is issued under, the solid waste portion of the permit is issued under Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 62-4 and 62-701.

28. **Acceptable Waste:** The facility shall be limited to accepting clean lumber, wood waste, and yard waste as defined in Section 3., Subsection A, Specific Condition No. 5 of this permit. Any other waste is prohibited waste. Please note that land clearing debris, as defined by F.A.C. Rule 62-701.200(56), is included under the definition of wood waste.
29. **Access Control:** The facility shall control access to the facility and shall maintain the access control structures such as the field fence and gate.

[Rule 62-701.803(7), F.A.C.]

30. **Non-authorized Activities:**

- a. This permit does not authorize any waste disposal activities; no waste storage shall be within the seasonal high or low groundwater table. [Rule 62-701.300(2)(e), F.A.C.]
- b. No waste shall be placed within 100 feet of any existing or approved off-site potable water well; no setback is required from on-site water well. [Rule 62-701.300(12) (a), F.A.C.]
- c. No waste shall be placed within 50 feet of any natural or artificial body of water, including wetlands within the jurisdiction of the Department, except bodies of water contained completely within the property boundaries of the disposal site and that do not have a discharge. [Rule 62-701.300(12)(b), F.A.C.]

31. **Spotters:** At all times the facility is accepting land clearing debris, a trained spotter shall be present to inspect the waste as it is being discharged. The spotter shall inspect the loads for unacceptable materials that may inadvertently be accepted and shall remove from the waste stream and place into appropriate containers for disposal at a permitted facility.

[Rule 62-701.803(8), F.A.C.]

32. **Handling and Removal of Prohibited Waste:** The facility shall remove prohibited waste from the waste being discharged and shall remove it to covered roll-off containers upon discovery. Any containers containing putrescible waste shall have its contents removed within 48 hours. Non-putrescible waste shall be removed within 30 days or when the storage containers become full, whichever occurs first. The prohibited waste shall be removed to the appropriate authorized facilities.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection A: EU001 -Air Curtain Incinerator

[Rule 62-701.803(5), F.A.C.]

33. **Hazardous Waste**: Any hazardous waste that is received by the facility shall be managed in accordance with the provision of F.A.C. Chapter 62-730.

[Rule 62-701.300(4), F.A.C.]

34. **Training**: The Permittee shall ensure that spotters employed at the facility are properly trained to operate the facility and to identify and properly manage any hazardous or other prohibited materials that are inadvertently received at the facility. The facility shall provide initial and continuing training for each employee in accordance with F.A.C. Chapter 62-701.320(15). New employees shall complete the first training course available to them from the date of their employment but no longer than 90 days of the date of employment. Training Certification shall be kept in an office and shall be made available to the Department at the Department's request including during a routine site inspection.

[Rule 62-701.320(15), F.A.C.]

35. **Prohibitions**. No person shall store, process, or dispose of solid waste in a manner or location that causes air quality standards to be violated or water quality standards or criteria of receiving waters to be violated.

[Rule 62-701.300(1)(b), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 –Cummins, Inc., 85 HP Diesel Engine

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
002	Cummins, Inc. 85 HP Diesel Engine, Model B3.3 <i>The engine is a 4-cylinder with a total displacement of 3.3 liters. The date of Manufacture is 07/09/2007. The data plate on the engine states "EPA Cert. Family 7CEXL03.3ABB".</i>

This engine is subject to 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; 40 CFR 60, Subpart A – General Provisions; 40 CFR Part 63, Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

EQUIPMENT

1. Diesel engine: The permittee is authorized to operate and maintain an industrial diesel engine manufactured by Cummins, Model B3.3, with a maximum design rating of 85 HP and 2600 rpm.

[Application No. 1090035-003-AO]

NSPS AND NESHAP APPLICABILITY

2. NSPS Subpart IIII Applicability: This diesel engine is a Stationary Compression Ignition Internal Combustion Engine (Stationary ICE) and shall comply with the applicable provisions of 40 CFR 60, Subpart III, including emission testing or certification.

[40 CFR 60.4200(a)(1)(i)]

3. NESHAP Subpart ZZZZ Applicability: This diesel engine is a new, stationary Liquid Fueled Reciprocating Internal Combustion Engine (RICE) and shall comply with applicable provisions of 40 CFR 63 Subpart ZZZZ. Pursuant to 40 CFR 63.6590(c), the engine must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements of Subpart ZZZZ apply for such engines.

[40 CFR 63.6585; 40 CFR 60.6590(a)(2)(iii); 40 CFR 63.6590(c)(1)]

PERFORMANCE RESTRICTIONS

4. Hours of Operation: The hours of operation are restricted to 1,092 hours per 12 consecutive months.

[Rules 62-4.070(3), 62-210.200(PTE), F.A.C., Operation Permit AO55-273698; Application No. 1090035-003-AO]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 -Cummins, Inc., 85 HP Diesel Engine

5. Authorized Fuel: Diesel fuel is the only authorized fuel for this engine. Beginning October 1, 2010, the owner and operator shall use diesel fuel that meets the following per-gallon standards:

(1) A 15 ppm maximum sulfur content.

(2) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b); 40 CFR 80.510(b)(1)(i) and (2)]

6. Authorized Fuel: Owners and operators of pre-2011 model year stationary CI ICE subject to 40 CFR 60 Subpart III may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of Specific Condition No. 5 beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

[40 CFR 60.4207(c)]

7. Engine Operation: The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

[40 CFR 60.4206]

EMISSION STANDARDS

8. The engine shall comply with the following emission standards for the model year 2007 engine. The manufacturer certification can be provided to the Department in lieu of actual stack testing.

Cummins Engine Model B3.3 Serial No. 68081355	NMHC¹ + NO_x (g/KW-hr) ²	HC (g/KW-hr)	NO_x (g/KW-hr)	SO₂³ (%S)	CO (g/KW-hr)	PM (g/KW-hr)
Subpart III (37 kW ≤ 75 kW)	7.5	---	---	0.0015	5.0	0.40

¹ NMHC means Non-methane hydrocarbons.

² g/kW-hr means grams per kilowatt-hour.

³ SO₂ emission standard will be met by using ULSD fuel oil in the engine with a maximum sulfur (S) content of 15 ppm, i.e. 0.0015% by weight. See Specific Condition No. 5.

[40 CFR 60.4204(b), 40 CFR 60.4201(a), 40 CFR 89.112(a)- Table 1, Tier 2]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 -Cummins, Inc., 85 HP Diesel Engine

9. The engine shall comply with the following smoke emission standard:
- (a) Exhaust opacity from compression-ignition nonroad engines for which this subpart is applicable must not exceed:
 - (1) 20 percent during the acceleration mode;
 - (2) 15 percent during the lugging mode; and
 - (3) 50 percent during the peaks in either the acceleration or lugging modes.
 - (b) Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I. Notwithstanding the provisions of 40 CFR part 86, subpart I, two-cylinder nonroad engines may be tested using an exhaust muffler that is representative of exhaust mufflers used with the engines in use.
 - (c) The following engines are exempt from the requirements of this section:
 - (1) Single-cylinder engines;
 - (2) Propulsion marine diesel engines; and
 - (3) Constant-speed engines.

[40 CFR 60.4201(a); 40 CFR 89.113]

MONITORING REQUIREMENTS

10. Engine with Diesel PM Filter: If the engine is equipped with a diesel particulate filter to comply with the emission standards in Specific Condition No. 8, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[40 CFR 60.4109(b)]

COMPLIANCE REQUIREMENTS

11. The engine and control device shall be operated and maintained according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator shall meet the requirements of 40 CFR parts 89, 94 and/or 1068 as applied to this engine.

[40 CFR 60.4211(a)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 -Cummins, Inc., 85 HP Diesel Engine

12. For a 2007 model year and later engine, compliance with the emission standards stated in Specific Condition No. 8 shall be by purchasing an engine certified to these standards for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

[40 CFR 60.4211(c)]

RECORDKEEPING REQUIREMENTS

13. Engine with Diesel PM Filter: If the engine is equipped with a diesel particulate filter, the owner or operator shall keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

[40 CFR 60.4214(c)]

APPLICABLE DEFINITIONS (40 CFR 60.4219)

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 -Cummins, Inc., 85 HP Diesel Engine

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

(1) The calendar year in which the engine was originally produced, or

(2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

40 CFR 60 SUBPART A GENERAL PROVISIONS APPLICABILITY

15. 40 CFR 60, Subpart A-General Provision: The engine is subject to the requirements of 40 CFR 60, Subpart A-General Provision as specified in Table 8 to 40 CFR 60 Subpart IIII.

[40 CFR 60.4218]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 -Cummins, Inc., 85 HP Diesel Engine

TABLE 8 TO SUBPART III OF PART 60
APPLICABILITY OF GENERAL PROVISIONS TO SUBPART III

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	yes	
§ 60.2	Definitions	yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	yes	
§ 60.4	Address	yes	
§ 60.5	Determination of construction or modification	yes	
§ 60.6	Review of plans	yes	
§ 60.7	Notification and Recordkeeping	yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	yes	
§ 60.10	State Authority	yes	
§ 60.11	Compliance with standards and maintenance requirements.	no	Requirements are specified in subpart III.
§ 60.12	Circumvention	yes	
§ 60.13	Monitoring requirements	yes	Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§ 60.14	Modification	yes	
§ 60.15	Reconstruction	yes	
§ 60.16	Priority list	yes	
§ 60.17	Incorporations by reference	yes	
§ 60.18	General control device requirements	no	
§ 60.19	General notification and reporting requirements	yes	

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS
Subsection B: EU002 -Cummins, Inc., 85 HP Diesel Engine

40 CFR 63 SUBPART A GENERAL PROVISIONS APPLICABILITY

14. 40 CFR 63, Subpart A-General Provision: Pursuant to 40 CFR 63.6665, because the engine is considered to be a new stationary RICE located at an area source of HAP emissions, compliance with the requirements of 40 CFR 63, Subpart A-General Provision as specified in Table 8 to 40 CFR 63 Subpart ZZZZ is not required.

[40 CFR 63.6665]