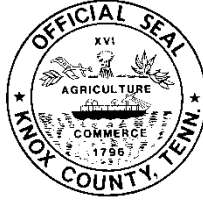


COUNTY OF KNOX

FACILITY DESCRIPTION:

CI ICE (< 30 liters per cylinder)



PERMIT NO: 0512-03R2

SOURCE NO: 0512

DRAFT PERMIT TO OPERATE A POTENTIAL AIR CONTAMINANT SOURCE

ISSUED BY

KNOX COUNTY DEPARTMENT OF AIR QUALITY MANAGEMENT

140 DAMERON AVENUE
KNOXVILLE, TN 37917

ISSUED TO: Knoxville Utilities Board - Kuwahee

MAILING ADDRESS: P.O. Box 59017, Knoxville, TN 37950-9017

SOURCE LOCATION: 2015 Neyland Drive, Knoxville, TN 37916

THIS IS TO CERTIFY THAT AN INSPECTION AND REVIEW OF THE POTENTIAL AIR CONTAMINANT SOURCE AS DESCRIBED HEREIN HAS BEEN MADE AND THAT SAID POTENTIAL AIR CONTAMINANT SOURCE IN OUR OPINION HAS BEEN FOUND TO BE IN COMPLIANCE WITH ALL KNOX COUNTY AIR QUALITY MANAGEMENT REGULATIONS AS PER ISSUANCE DATE. THE APPLICANT IS THEREFORE GRANTED, UNDER THE CONDITIONS DESCRIBED HEREIN, A PERMIT TO OPERATE SAID POTENTIAL AIR CONTAMINANT SOURCE.

THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE STATE OF TENNESSEE AIR POLLUTION CONTROL REGULATIONS; PUBLIC CHAPTER NO. 367 AMENDED; PRIVATE CHAPTER NO. 37; AND SECTION 25 OF THE KNOX COUNTY AIR QUALITY MANAGEMENT REGULATIONS.

THIS PERMIT IS ISSUED SUBJECT TO THE ACCURACY OF ALL INFORMATION SUBMITTED RELATING TO THE PERMIT APPLICATION AND TO ANY CONDITIONS NOTED.

THIS PERMIT MAY BE REVOKED AT ANY TIME A VIOLATION OF THE KNOX COUNTY AIR QUALITY MANAGEMENT REGULATIONS OR THE TENNESSEE AIR POLLUTION CONTROL REGULATIONS, WHICHEVER IS APPLICABLE, OCCURS.

DATE PERMIT ISSUED: _____

APPROVED BY: _____

PERMIT EXPIRATION DATE: December 31, 2020

BRIAN RIVERA, P.E.
KNOX COUNTY DEPARTMENT OF
AIR QUALITY MANAGEMENT

THE CONDITIONS UNDER WHICH THIS POTENTIAL AIR CONTAMINANT SOURCE IS PERMITTED TO OPERATE ARE LISTED ON THE FOLLOWING PAGE(S) OF THIS PERMIT.

THIS PERMIT OR A LEGIBLE PHOTOCOPY THEREOF SHALL BE KEPT ON-SITE AND BE READILY AVAIABLE FOR INSPECTION BY THE DEPARTMENT.

The following table lists the permitted Compression Ignition (CI) Internal Combustion Engines (ICE) located at this facility.

Emission Unit #	Source(s)	Control(s)
03-01	3634 hp CI ICE #1	NSPS Tier 2
03-02	3634 hp CI ICE #2	NSPS Tier 2
03-03	3634 hp CI ICE #3	NSPS Tier 2

CONDITIONS

- Each emergency CI ICE is permitted to operate subject to continuous compliance with Knox County Air Quality Management Regulations including, but not limited to: 15.0 (Prohibitions of Air Pollution), 16.0 (Regulation of Open Burning), 17.0 (Regulation of Visible Emissions), 18.0 (Regulation of Non-Process Emissions), 21.0 (Regulation of Odors), 25.0 (Permits), 26.0 (Monitoring, Recording, and Reporting), 34.0 (Malfunction of Equipment) and 40.0 (Regulation for the Performance of New Stationary Sources).
- Emissions of NO_x from the facility, including exempted sources, shall not exceed 79.9 tons during any consecutive 12-month period. (KCAQMR Section 25.3-I)
- Each CI ICE shall not discharge visible emissions of an opacity in excess of 20 percent for a six (6) minute average. (KCAQMR Section 17.1)
- Emissions from emission units 03-01 through 03-03 (CI ICE) shall not exceed the following emission limits:

Emission Unit #	Source(s)	PM (g/KW-hr)	CO (g/KW-hr)	NO_x (g/KW-hr)	HC (g/KW-hr)
03-01	3634 hp CI ICE #1	0.54	11.4	9.2	1.3
03-02	3634 hp CI ICE #2	0.54	11.4	9.2	1.3
03-03	3634 hp CI ICE #3	0.54	11.4	9.2	1.3

(40 CFR 60.4204 by reference in KCAQMR Section 40.2-III)

- Emissions from emission units 03-01 through 03-03 (CI ICE) shall not exceed the following emission limits:

Emission Unit #	Source(s)	SO₂ (lb/hr)	CO (lb/gal)	NO_x (lb/gal)	VOC (lb/gal)
03-01	3634 hp CI ICE #1	0.036	0.15	0.29	0.031
03-02	3634 hp CI ICE #2	0.036	0.15	0.29	0.031
03-03	3634 hp CI ICE #3	0.036	0.15	0.29	0.031

These emission limits are based on AP 42 (Fifth Edition) Table 3.4-1 SO₂ emission factor for diesel engines >600 hp, manufacturer specifications, and the maximum rated fuel input capacity listed in the permit application. (KCAQMR Section 18.3-B)

- Emission units 03-01 through 03-03 (CI ICE) shall not burn more than a combined total of 260,250 gallons of diesel fuel during any consecutive 12-month period. (KCAQMR Section 25.3-I)
- The owner or operator shall only use diesel with a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent as fuel for each CI ICE. (40 CFR 60.4207(b) by reference in KCAQMR Section 40.2-III)
- The owner or operator shall operate and maintain each CI ICE and control device according to the manufacturer’s emission-related written instructions and change only those emission-related settings that are permitted by the manufacturer. (40 CFR 60.4211(a) by reference in KCAQMR Section 40.2-III)

9. The owner or operator shall keep a record of the monthly and 12-month rolling total gallons of diesel consumed by emission units 03-01 through 03-03 (CI ICE). The data must be entered into the record no later than thirty (30) days from the end of the month for which the data is required. This records shall be kept for five (5) years and be readily available for inspection or submittal to the Department. (KCAQMR Section 26.5-B)
 10. For each CI ICE that is equipped with a diesel particulate filter, the owner or operator shall keep a record of any corrective actions taken after the backpressure monitor has notified the owner or operator that the high back pressure limit of the engine is approached. The data must be entered into the record no later than 30 days from the end of the month in which the back pressure limit of the engine is approached. This record shall be kept for at least five (5) years from the date of entry and be readily available upon request by the Department. (40 CFR 60.4214(c) by reference in KCAQMR Section 40.2-III)
 11. The owner or operator shall keep a record of the sulfur content of any diesel fuel used as a fuel for each CI ICE. This records shall be kept for five (5) years from the date of purchase and be readily available for inspection or submittal to the Department. (KCAQMR Section 26.5-B)
 12. The owner or operator shall keep a monthly record of any maintenance performed on each CI ICE. The data must be entered into the record no later than 30 days from the end of the month for which the data is required. These records shall be kept for five (5) years from the date of entry and be readily available for inspection or submittal to the Department. (40 CFR 60.4214(a)(2)(ii) by reference in KCAQMR Section 40.2-III)
 13. The owner or operator shall keep a record of the following information for each CI ICE:
 - (a) The notifications submitted to comply with permit condition 14 and all documentation supporting the notification.
 - (b) If the CI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.
 - (c) If the CI ICE is not a certified engine, documentation that the engine meets the emission standards.
- (40 CFR 60.4214(a)(i) & (iii)-(iv) by reference in KCAQMR Section 40.2-III)
14. The owner or operator shall within 30 days of this permit issuance send an initial notification to the Department and EPA Region IV (addressed to Director, Air, Pesticides, and Toxics Management Division, 61 Forsyth Street, SW, Atlanta, GA 30303). The notification shall include the following information:
 - (a) Name and address of the owner or operator;
 - (b) The address of the affected source;
 - (c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - (d) Emission control equipment; and
 - (e) Fuel used.

(40 CFR 60.4214(a) by reference in KCAQMR Section 40.2-III)