

TENNESSEE AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243



OPERATING PERMIT Issued Pursuant to Tennessee Air Quality Act

Date Issued: January 16, 2014

Permit Number:
068109P

Date Expires: January 15, 2024

Issued To:

American Towers - Seymour TN #308919

Installation Address:

2452 McCleary Road
Sevierville

Installation Description:

One 131 Hp (80-kW) Diesel-Fired Emergency Generator

Emission Source Reference No.

78-0317-01
NSPS Subpart IIII
NESHAP Subpart ZZZZ

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

CONDITIONS:

1. The application that was utilized in the preparation of this permit is dated November 26, 2013, and signed by Scot Sandefur, Director EH&S for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

(Conditions continued on next page)

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

The design rated power for this compression ignition engine is 131 Hp (80-kW). This source is subject to the requirements of 40 CFR part 60 Subpart IIII, 40 CFR §89.112, §89.113, and TAPCR 1200-03-09-.03(8).

3. Only No. 2 fuel oil and diesel fuel shall be used as fuels for this source.
4. Particulate Matter (TSP) emitted from this source shall not exceed 0.30 gram per kilowatt-hour (0.06 lb/hr). 40 CFR §60.4205(b)
5. Carbon Monoxide (CO) emitted from this source shall not exceed 5.0 grams per kilowatt-hour (0.88 lb/hr). 40 CFR §60.4205(b)
6. Non-Methane Hydrocarbons and Nitrogen Oxides (NMHC + NO_x) emitted from this source shall not exceed 4.0 grams per kilowatt-hour (0.71 lb/hr). 40 CFR §60.4205(b)
7. Sulfur Dioxide (SO₂) emitted from this source shall not exceed 0.27 pound per hour. TAPCR 1200-03-14-.03(5)
8. Volatile Organic Compounds (VOCs) emitted from this source shall not exceed 0.32 pound per hour. TAPCR 1200-03-07-.07(2)
9. Compliance with the emission limits in **Conditions 7 and 8** is based on compliance with **Conditions 2 and 3** of this permit and AP-42, Chapter 3, Section 3, emission factors.
10. Compliance with the Particulate Matter, Carbon Monoxide and Non-Methane Hydrocarbons and Nitrogen Oxides emission limits are based on compliance with **Condition 2** of this permit and the manufacturer's certification of compliance with 40 CFR §89.112.
11. On the permit application dated August 22, 2013, the permittee stated this is an emergency generator; therefore based on EPA's policy the allowable emissions were calculated using 500 hours per calendar year.
12. Pursuant to 40 CFR §60.4211(f), the permittee must operate the emergency stationary ICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
 - (2) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).
 - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Technical Secretary for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(Conditions continued on next page)

- (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) of this condition. Except as provided in paragraph (3)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

13. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).
TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

14. Pursuant to 40 CFR §60.4207(b), the permittee shall purchase diesel fuel that meets the requirements of 40 CFR §80.510(b), as follows:

- (1) Sulfur content shall not exceed 15 parts per million (ppm) maximum for nonroad diesel fuel.
- (2) Cetane index or aromatic content, as follows:
 - (i) A minimum cetane index of 40; or
 - (ii) A maximum aromatic content of 35 volume percent.

15. The permittee shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. 40 CFR §60.4211(a)

(Conditions continued on next page)

16. The permittee shall comply with the PM, CO, and (NMHC + NOx) emission limitations by purchasing an engine certified to the emission standards in 40 CFR §60.4205(b) for the same model year and maximum engine power. The permittee shall maintain a record of this certification at the source location. The engine shall be installed and configured according to the manufacturer's specifications. 40 CFR §60.4211(c)
17. The source (78-0317-01) is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ). Pursuant to 40 CFR §63.6590(c), this affected source (which is a new stationary RICE located at an area source of HAP emissions) shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR Part 60, Subpart IIII. No further requirements apply for this engine under 40 CFR Part 63.
18. The permittee must keep monthly records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for the following categories: (a) emergency operation, as specified in Condition 12, Paragraph(1), including what classified the operation as emergency; (b) maintenance checks and readiness testing, demand response, as specified in Condition 12, Paragraph(2); and (c) non-emergency operation, as specified in Condition 12, Paragraph(3). The permittee shall calculate the operating hours per calendar year. The permittee shall maintain the following log format or an alternative format which readily provides the same required information.

Logs for emergency stationary ICE

Month	Emergency Operation (hr/month)	Emergency Operation (hr/calendar year)	Maintenance Checks and Readiness Testing (hr/month)	Maintenance Checks and Readiness Testing (hr/calendar year)	Non-Emergency Operation (hr/month)	Non-Emergency Operation (hr/calendar year)
		Column A		Column B		Column C
January						
February						
Etc.						
December						

	Add Columns B+C	Add Columns C
Limit	100 hours	50 Hours

19. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.
20. This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application. TAPCR 1200-03-09.
21. This permit is valid only at this location. TAPCR 1200-03-09-.03(6).
22. This permittee shall apply for renewal of this permit not less than sixty (60) days prior to the permit's expiration date, pursuant to Division Rule 1200-03-09-.02(3).

(End of Conditions)

Emission Summary

Permit Number: 068109P

Source Status: New ☒ Modification ☐ Expansion ☐ Relocation ☐ Permit Status: New ☒ Renewal ☐

PSD ☐ NSPS ☒ NESHAPs ☒ Previous Permit Number: Construction 967646P Operating _____

	Pounds/Hour			Tons/Year				Date of Data	*	Applicable Standard 1200-03-
	Actual	Potential	Allowable	Actual	Potential	Allowable	Net Cha			
PM	0.06	0.06	0.06	0.02	0.02	0.02		8/22/13	5	40 CFR §89.112
CO	0.88	0.88	0.88	0.2	0.2	0.2		8/22/13	5	40 CFR §89.112
NO _x + NMHC	0.71	0.71	0.71	0.2	0.2	0.2		8/22/13	5	40 CFR §89.112
SO ₂	0.27	0.27	0.27	0.07	0.07	0.07		8/22/13	3	14-.01(3)
VOC	0.32	0.32	0.32	0.08	0.08	0.08		8/22/13	3	07-.07(2)
CO ₂ e					13.6			8/22/13		40 CFR §98.30

*These allowable limit values are based on an EPA guidance emergency generator default usage of 500 hours per year and information in the application dated May 28, 2013.

Regulations addressed:

Rules of the Tennessee Department of Environment and Conservation, Bureau of Environmental Health Services, Division of Air Pollution 1200.03

Title 40: Protection of Environment
CHAPTER I: ENVIRONMENTAL PROTECTION AGENCY
SUBCHAPTER C: AIR PROGRAMS

PART 60: STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines §60.4200 - §60.4219

PART 63--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart A--GENERAL PROVISIONS

PART 63: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

PART 89 -CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES §89.112 & §89.113

PART 98--MANDATORY GREENHOUSE GAS REPORTING, Subpart C—General Stationary Fuel Combustion Sources, Part 98.30 Appendix, Table C-1 & C-2

PERMITTING PROGRAM: SK DATE: January 14, 2014



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
WILLIAM R. SNODGRASS TENNESSEE TOWER
312 ROSA L. PARKS AVENUE, 15th FLOOR
NASHVILLE, TN 37243

January 16, 2014

Mr. Scot Sandefur, Director EH&S
American Towers – Seymour TN # 308919
P. O. Box 63604
Phoenix, AZ 85082

Re: Operating Permit, American Towers – Seymour TN # 308919, 2452 McCleary Rd, Sevierville, Tennessee,
78-0317-01, 068109

Dear Mr. Sandefur:

Please find enclosed Operating Permit # 068109P for the emergency diesel fired engine (131hp) generator located at 2452 McCleary Road, Sevierville, Tennessee. It is important that you read and understand the permit.

If you have any questions concerning this correspondence, please contact Mrs. Sarosh Kaiser at (615) 532-0585.

Sincerely,

A handwritten signature in cursive script, which appears to read "John A. Trimmer", is written over a horizontal line.

John A. Trimmer, Chief
East Tennessee Permit Program