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

Permit to Construct or Modify an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: July 13, 2015

Permit Number: 970315P

Date Expires: July 15, 2017

Issued To:
Tennessee Valley Authority (TVA) – Newcastle Microwave Station

Installation Address:
4745 Sommerville Road
Whiteville

Installation Description:
One (1) new 43.5 hp propane-powered emergency generator
Engine set

Emission Source Reference No.
35-0107-01
NSPS Subpart JJJJ
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 May 11, 2015, and is signed by Billy R. Hall, Jr., General Manager, Telecom, for the permitted facility. If this person terminates employment or is reassigned 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)

Barry R. Stephens
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

2. The stated design power output capacity for this internal combustion engine (Cummins Model Number QSJ2.4) is 43.5 horsepower. Any increase in this capacity will require a construction permit.

   TAPCR 1200-03-09-.01(1)(d) and the application dated May 11, 2015

3. Only propane shall be used as fuel for this source.

   TAPCR 1200-03-09-.01(1)(d) and the application dated May 11, 2015

4. Particulate Matter (TSP) emitted from this source shall not exceed 0.6 pound per million Btu (lb/MMBtu) (0.16 pound per hour). Compliance with this emission limit shall be assured by compliance with **Conditions 2 and 3** of this permit.

   TAPCR 1200-03-06-.02(2)

5. Carbon Monoxide (CO) emitted from this source shall not exceed 387 grams per horsepower-hour (37.11 lb/hr). The permittee must operate and maintain the emergency engine to achieve this emission standard over the entire life of the emergency engine. Compliance with this emission limit is based on compliance with **Conditions 2, 3, and 8** of this permit.

   TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ - §§60.4233(c), 60.4231(c), & 60.4234

6. Hydrocarbons and Nitrogen Oxides (HC + NO_X) emitted from this source shall not exceed 10 grams per horsepower-hour (0.96 lb/hr). The permittee must operate and maintain the emergency engine to achieve this emission standard over the entire life of the emergency engine. Compliance with this emission limit is based on compliance with **Conditions 2, 3, and 8** of this permit.

   TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ - §§60.4233(c), 60.4231(c), & 60.4234

7. The emergency engine shall be equipped with a non-resettable hour meter prior to startup.

   TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ - §60.4237(c)

8. If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee must also meet the applicable requirements as specified in 40 CFR part 1068, subparts A through D. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the permittee's stationary SI internal combustion engine will not be considered out of compliance.

   or

   If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee's engine will be considered a non-certified engine, and the permittee must demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.

   TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ -§60.4243(a)(1) and (2)

9. The permittee must operate the emergency stationary ICE according to the requirements in paragraphs (a) through (c) of this condition. In order for the engine to be considered an emergency stationary ICE under this subpart, 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 (a) through (c) of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (a) through (c) of this condition, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(a) There is no time limit on the use of emergency stationary ICE in emergency situations.

(b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (1) through (3) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph.

(1) 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 permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(2) 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.

(3) 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.

(c) 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 (b)(2) of this condition. The 50 hours per 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.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ -§60.4243(d)(1) through (3)

10. The permittee shall keep a log of the number of operating hours for each calendar year, in a form that readily shows compliance with **Condition 9** of this permit (see example below). All data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of the year for which the data is required. The permittee shall retain this record at the source location for a period of not less than two (2) years and keep this record available for inspection by the Technical Secretary or their representative.

Table 1				
Year:				
	Operating Hours per Year			**Comments****
Month	**Maintenance checks & readiness testing**	**Other non-emergency operation**	**Emergency operation**	
January				
February				
etc.				
Totals				
** The permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation.				

Table 2	
Year:	
	Operating Hours per Year
Month	**Maintenance checks & readiness testing and other non-emergency operation ****
January	
February	
Etc.	
Total	
** Sum of operating hours in columns 2 and 3 in Table 1 above for each month	

TAPCR 1200-03-10-.02(2)(a)

11. Under the Provisions of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), this facility is considered to be "new" stationary RICE located at an "Area Source." This unit is considered to be new because its construction commenced on or after June 12, 2006. §63.6590(a)(2)(iii)

§63.6590(c) states that a new or reconstructed stationary RICE located at an area source must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for stationary spark ignition internal combustion engines. No further requirements apply for such engines under Subpart ZZZZ.

TAPCR 1200-03-09-.03(8) and 40 CFR 63 Subpart ZZZZ - §63.6590

12. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity except for one six-minute period per one (1) hour or more than twenty four (24) minutes in any twenty four (24) hours. 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-.01(1) and TAPCR 1200-03-05-.03(6)

13. This permit is valid only at this location. TAPCR 1200-03-09-.03(6)

14. 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.

    TAPCR 1200-03-09-.03(8)

15. 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-.01(1)(d) and the application dated May 11, 2015

16. The permittee shall apply for a standard operating permit within thirty (30) days of initial start-up of this emission source.

    TAPCR 1200-03-09-.02(1) and TAPCR 1200-03-09-.02(3)

17. This permit shall serve as a temporary operating permit from the date of issuance to the receipt of a standard operating permit, provided that an application for an operating permit is submitted within the time period specified in **Condition 16** of this permit and that the conditions of this permit and any applicable emission standards are met.

    TAPCR 1200-03-09-.02(2)

18. The permittee shall certify the start-up date of the air contaminant source regulated by this permit by submitting

A COPY OF ALL PAGES OF THIS PERMIT,

with the information required in A) and B) of this condition completed, to the Technical Secretary's representatives listed below:

A) DATE OF START-UP: 11 / 20 / 2015
month day year

B) Anticipated operating rate: 100 percent of maximum rated capacity

For the purpose of complying with this condition, "start-up" of the air contaminant source shall be the date of the setting in operation of the source for the production of product for sale or use as raw materials or steam or heat production.

The undersigned represents that he/she has the full authority to represent and bind the permittee in environmental permitting affairs. The undersigned further represents that the above provided information is true to the best of his/her knowledge and belief.

Signature		Date
		12/02/2015
Signer's name (type or print)	Title	Phone (with area code)
Billy R. Hall, Jr.	General Manager, Telcom	423-751-6963

Note: This certification is not an application for an operating permit. At a minimum, the appropriate application form, usually an APC-100, must be submitted requesting an operating permit. The application must be submitted in accordance with the requirements of this permit.

The completed certification shall be delivered to the West Tennessee Permit Program at the address listed below or via e-mail, no later than thirty (30) days after the air contaminant source is started-up.

West Tennessee Permit Program
Division of Air Pollution Control
William R. Snodgrass TN Tower
312 Rosa L. Parks Ave., 15th Floor
Nashville, TN 37243

or

Adobe Portable Document Format (PDF)
Copy to: Air.Pollution.Control@tn.gov

TAPCR 1200-03-09-.02(3)(b)

(end of conditions)

The permit application gives the location of this source as Latitude: 36.191652° and Longitude: -83.503107°