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**west virginia department of environmental protection**

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Division of Air Quality  
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Charleston, WV 25304  
Phone 304/926-0475

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

**GENERAL PERMIT REGISTRATION APPLICATION  
ENGINEERING EVALUATION / FACT SHEET**

**BACKGROUND INFORMATION**

Registration No.: G65-C549  
Plant ID No.: 025-00108  
Applicant: Cellco Partnership dba Verizon Wireless  
Facility Name: Ronceverte  
Location: Ronceverte, Greenbrier County  
SIC Code: 4812  
Application Type: Construction  
Received Date: February 4, 2015  
Engineer Assigned: William T. Rothwell II, P.E.  
Fee Amount: \$250.00  
Date Received: February 27, 2015  
Complete Date: April 14, 2015  
Applicant Ad Date: *Not Applicable*  
Newspaper: *Not Applicable*  
UTM's: Easting: 547.163 E km      Northing: 4177.170 N km      Zone: 17  
Description: Installation of a 50 kW emergency generator to be used in the event of a power failure.

**TYPE OF PROCESS**

The "after-the-fact" installation (2/28/2013) is an MTU Onsite Energy 50 kW Diesel Generator Set, Model DS 50D6SDA using an 80 bhp John Deere 4024HF285 Tier 3 Certified engine that was manufactured in 2009. The generator is used to supply standby backup power to the wireless communications facility in case of power failure. During normal operation, the generator is exercised once a week for approximately one hour for an annual run time of 52 hours. The generator will not exceed the allowable 500 hours/year allowed by the State of West Virginia.

The generators/ shelters installed on all properties have the following fuel safeguards:

- The generator room has a spill containment pan that is rated at 125% of the fuel stored in the diesel generator.
- The generator fuel tank is a UL 142 and NFPA 30 approved double wall sub base fuel tank and meets all local, state, and federal codes.

- The generators have remote alarms that are monitored 24x7. There is a fuel tank rupture sensor that reports back any fuel spillage that occurs within the fuel containment pan. The network also monitors low-level fuel, generator on, and operating in emergency mode.
- For remote generator installations (generators not installed in a shelter) the entire unit is housed in a “crystal quiet enclosure” with an internally mounted silencer.

SITE INSPECTION

A site inspection was deemed unnecessary by the writer at this time. However, once the emergency generator is installed and operated, it will be placed on the regular inspection list of sources.

*From US-219 traveling SW, go 6.8 miles. Turn right onto River Rd. Rt. 48. Turn left onto Altavist Rd. Rt. 56. Turn left onto Fort Hill Lane and follow road up the mountain and arrive at site.*

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.50	0.13
Carbon Monoxide	0.12	0.03
VOC	0.20	0.05
Sulfur Oxides	0.16	0.04
Particulate Matter	0.04	0.01

Because of the low emission levels, the VOC, Sulfur Oxides and Particulate Matter emissions will not be written into the permit.

GENERAL PERMIT ELIGIBILITY

The proposed construction and operation of this facility meets the eligibility requirements required in Section 1.3 and the storage tank limitation required in Section 2.1.4.b as specified in the General Permit G65-C.

The permittee is subject to 40CFR60 Subpart III because they are an owner and operator of a stationary compression ignition (CI) internal combustion engine (ICE) that commenced construction after July 11, 2005 and the stationary CI ICE was manufactured after April 1, 2006 (9/11/2009) and is not a fire pump engine [§60.4200 (a)(2)(I)].

Certified values for this specific engine were used in the emissions calculations. Since the engine meets EPA Tier 3 requirements, it emits no more than what is specified in 40 CFR §89.112, Table 1. For annual emissions calculations, 500 hrs/year were used.

Section 60.4205b details the emission standards for emergency engines with a displacement less than 30 liters per cylinder that are not fire pump engines. They must meet the emission standards for new non-road CI engines in Section 60.4202. Section 60.4202.a.2 states that engines with a maximum engine power greater than or equal to 37 kW (50 hp) must meet the standards in 40CFR89.112 and 40CFR89.113 for all pollutants beginning in model year 2007. [§60.4202.a.2].

The permittee is subject to 40CFR80 because Section 60.4207 states that owners and operators of stationary CI ICE subject to Subpart III that use diesel fuel must use diesel fuel that meets the requirements of 40CFR 80.510(a) beginning October 1, 2007 [§60.4207.a.].

#### RECOMMENDATION TO ACTING DIRECTOR

The request of Cellco Partnership dba Verizon Wireless to operate an emergency generator near Ronceverte, Greenbrier County, WV site meets the requirements of General Permit G65-C and all applicable rules. It is the recommendation of the writer to grant a General Permit Registration to construct and operate said facility.



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William T. Rothwell II, P.E.  
Engineer

4/15/2015

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Date