

217/785-1705

JOINT CONSTRUCTION AND LIFETIME OPERATING PERMIT- NSPS Source

PERMITTEE

Comcast of Illinois XI, LLC  
Attn: George Tomak  
1201 Feehanville Road  
Mount Prospect, Illinois 60056

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| <u>Application No.:</u> 11080038   | <u>I.D. No.:</u> 031198ACR               |
| <u>Applicant's Designation:</u>  | <u>Date Received:</u> August 11, 2011    |
| <u>Subject:</u> One (1) 2,000 kW Diesel Emergency Generator Set            |  |
| <u>Date Issued:</u> October 12, 2011                                       | <u>Expiration Date:</u> See Condition 1. |
| <u>Location:</u> 1201 Feehanville Road, Mount Prospect, Cook County, 60056 |  |

This permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of one (1) 2,000 kW (2,682 HP) diesel emergency generator set pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- la. This operating permit is effective only if the Permittee has complied with all standard conditions of the construction permit.
- b. Operation of the emission units included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.
- c. This operating permit shall expire 180 days after the Illinois EPA sends a written request for the renewal of this permit.
- d. This permit shall terminate if it is withdrawn or is superseded by a revised permit.
2. Pursuant to 35 Ill. Adm. Code 214.301, the Permittee shall not allow the emission of sulfur dioxide into the atmosphere from the diesel generator set to exceed 2,000 ppm.
3. The Permittee shall comply with the requirements of 35 Ill. Adm. Code 212.123 and 212.301.
4. The Illinois EPA shall be allowed to sample fuel stored at the source associated with the diesel generator set.
5. This permit is issued based on the potential to emit (PTE) for hazardous air pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act being less than 10 tons per year of any single HAP and 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA.

6. The generator set is subject to a New Source Performance Standard (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subparts A and IIII. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
7. The Permittee shall comply with the fuel requirements in 40 CFR 60.4207.
8. Pursuant to 40 CFR 60.4205(b), the generator shall comply with the following emission limits for 2007 model year and later emergency stationary engines with displacement of less than 30 liters per cylinder;

|  | <u>g/kW-Hour</u> | <u>g/HP-Hour</u> |
|--|------------------|------------------|
| Nonmethane Hydrocarbon + Nitrogen Oxides (NMHC + NO <sub>x</sub> ) | 6.4              | 4.8              |
| Particulate Matter (PM)  | 0.2              | 0.15             |
| Carbon Monoxide (CO)   | 3.5              | 2.6              |

9. Pursuant to 40 CFR 60.4209(a), the Permittee must install a non-resettable hour meter prior to startup of the engine.
10. The Permittee shall comply with the compliance requirements of 40 CFR 60.4211(a) and (c).
11. The Permittee shall comply with the applicable testing requirements in 40 CFR 60.4212.
12. The diesel generator set runtime shall not exceed 500 hours/year.
13. Emissions and operation of the one (1) 2,000 kW diesel generator set combined will not exceed the following:

| <u>Pollutant</u>                   | <u>Emission Rate</u> |                 |                 |
|------------------------------------|----------------------|-----------------|-----------------|
|                                    | <u>(lb/kW-hr)</u>    | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| Nitrogen Oxides (NO <sub>x</sub> ) | 0.0134               | 6.70            | 6.70            |
| Carbon Monoxide (CO)               | 0.0077               | 3.85            | 3.85            |
| Particulate Matter (PM)            | 0.0004               | 0.22            | 0.22            |
| Volatile Organic Material (VOM)    | 0.0007               | 0.35            | 0.35            |
| Sulfur Dioxide (SO <sub>2</sub> )  | -----                | 0.30            | 0.30            |

The above emission factors are derived from 40 CFR 89.112 and 89.113 as referenced in 40 CFR 60.4202(a) for units kW > 560 KW (750 HP) up to 2,237 KW (3,000 HP) with the exception of sulfur dioxide which was calculated from fuel sulfur content (0.05%) and AP-42 Table 3.4-1. Emission totals shall be calculated by multiplying the diesel generator set runtime and the emission factors for each pollutant. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

14. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic inspections and maintenance on the equipment covered under this permit such that the equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
- 15a. The Permittee shall maintain monthly records of the following items:
  - i. Diesel generator set runtime (hours/month, hours/year);
  - ii. Certification from the fuel supplier of weight percent sulfur content of each fuel shipment received;
  - iii. Amount of fuel used (gallons/month, gallons/year);
  - iv. Emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM, and VOM with supporting calculations (tons/month, tons/year); and
  - v. An inspection, maintenance and repair log of the generators listing each activity performed with date.
- b. The Permittee shall comply with the notification, reporting and recordkeeping requirements in 40 CFR 60.4214(b).
16. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
17. If there is an exceedance of or deviation from the requirements of this permit the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance/deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
18. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

19. Persons with lifetime operating permits must obtain a revised permit for any of the following changes at the source:
- a. An increase in emissions above the amount the emission unit or the source is permitted to emit;
  - b. A modification;
  - c. A change in operations that will result in the source's noncompliance with conditions in the existing permit; or
  - d. A change in ownership, company name, or address, so that the application or existing permit is not longer accurate.

If you have any questions on this permit, please contact Jocelyn Stakely at 217/785-1705.

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

ECB:JRS:jws

cc: Region 1