



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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217/785-1705

CONSTRUCTION PERMIT -- NSPS and NESHAP SOURCE

PERMITTEE

Equinix LLC
Attn: Haley Smith, MBA, HSE Compliance Operations Senior Analyst
2001 Lunt Avenue
Elk Grove Village, Illinois 60007

Application No.: 23080013 I.D. No.: 031440AVZ
Applicant's Designation: Date Received: August 17, 2023
Subject: CH-5 Data Center
Date Issued: January 15, 2025
Location: 2001 Lunt Avenue, Elk Grove Village, Cook County, 60007

This permit is hereby granted to the above-designated Permittee to CONSTRUCT emission unit(s) and/or air pollution control equipment consisting of twelve (12) 3,500 kW Diesel-Powered Emergency Generators Controlled by Diesel Particulate Filters, two (2) 3,500 kW Diesel-Powered Emergency Generators, and one (1) 800 kW Diesel-Powered Emergency Generator pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This permit is issued based on the construction of the fifteen (15) Diesel-Powered Emergency Generators not constituting a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203 (Major Stationary Sources Construction and Modification). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the emissions of Nitrogen Oxides (NO_x) from the above-listed equipment below the levels that would trigger the applicability of these rules.
- b. For purposes of this Construction Permit, Equinix CH-5 Data Center is considered a single source with Equinix CH-3 Data Center, I.D. No. 031440ANI, located at 1905 Lunt Avenue, Elk Grove Village. The source has elected to obtain separate FESOPs for these locations.
- c. Operation of the fifteen (15) Diesel-Powered Emergency Generators is allowed under this Construction Permit until the Illinois EPA takes final action on a timely submitted Federally Enforceable State Operating Permit (FESOP) or Clean Air Act Permit Program (CAAPP) application, as applicable.
- 2a. The fifteen (15) Diesel-Powered Emergency Generators are subject to the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60 Subparts A and IIII. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States Environmental Protection Agency (USEPA) under a

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delegation agreement. Pursuant to 40 CFR 60.4200(a), the provisions of 40 CFR 60 Subpart IIII are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in 40 CFR 60.4200(a) (1) through (4). For the purposes of 40 CFR 60 Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator.

- i. Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

Manufactured after April 1, 2006, and are not fire pump engines,

- ii. The provisions of 40 CFR 60.4208 are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005
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- b. Pursuant to 40 CFR 60.4202(b) (2), stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in 40 CFR 60.4202(b) (1) through (2).

For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105.

- c. Pursuant to 40 CFR 60.4205(b), owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
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- 3a. The Diesel-Powered Emergency Generators are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subparts A and ZZZZ. The Illinois EPA is administering the NESHAP in Illinois on behalf of the USEPA under a delegation agreement. Pursuant to 40 CFR 63.6590(a), an affected source is any existing, new or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
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- b. Pursuant to 40 CFR 63.6590(c) (1), a new or reconstructed stationary RICE located at an area source must meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60 Subpart IIII, for compression ignition engines or 40 CFR 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR Part 63.

4a. The Diesel-Powered Emergency Generators are subject to 40 CFR 1039, appendix I and 40 CFR 1039.5 per 40 CFR 60.4202(b)(2) and 40 CFR 60.4205(b). Pursuant to 40 CFR Part 1039 Appendix I, the following standards, which EPA originally adopted under 40 CFR Part 89, apply to nonroad compression-ignition engines produced before the model years specified in 40 CFR 1039.1:

i. Tier 2 standards apply as summarized in the following table:

Table 2 to Appendix I - Tier 2 Emission Standards [g/kW-hr]

Rated power (kW)	Starting model year	NO _x +NMHC	CO	PM
kW > 560	2006	6.4	3.5	0.20

b. Pursuant to 40 CFR 1039.105(a), the smoke standards in 40 CFR 1039.105 apply to all engines subject to emission standards under 40 CFR Part 1039, except for the following engines:

i. Single-cylinder engines.

ii. Constant-speed engines.

iii. Engines certified to a PM emission standard or FEL of 0.07 g/kW-hr or lower.

c. Pursuant to 40 CFR 1039.105(b), exhaust opacity from compression-ignition nonroad engines for which 40 CFR 1039 Subpart B is applicable must not exceed:

i. 20 percent during the acceleration mode;

ii. 15 percent during the lugging mode; and

iii. 50 percent during the peaks in either the acceleration or lugging modes.

5a. The Diesel-Powered Emergency Generators Sets are subject to 35 Ill. Adm. Code Part 212 Subpart B (Visible Emissions). Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.

b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

6a. The Diesel-Powered Emergency Generators are subject to 35 Ill. Adm. Code Part 214 Subpart K (Process Emission Sources). Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm.

b. Pursuant to 35 Ill. Adm. Code 214.305(a)(2), except as provided in 35 Ill. Adm. Code 214.305(b), (c), and (d), on and after January 1, 2017, the owner or operator of a process emission source must comply with the following:

The sulfur content of all distillate fuel oil used by the process emission source must not exceed 15 ppm;

7a. This permit is issued based on the Emergency Generators not being subject to 35 Ill. Adm. Code 218 Subpart G (Use of Organic Material) because the Emergency Generators do not use organic material as defined in 35 Ill. Adm. Code 211.4250(b).

b. This permit is issued based on the Diesel-Powered Emergency Generators not being subject to the control requirements of 35 Ill. Adm. Code Part 218 Subpart TT (Other Emission Units). Pursuant to 35 Ill. Adm. Code 218.980(f), the control requirements in 35 Ill. Adm. Code Part 218 Subpart TT shall not apply to fuel combustion units.

8a. Pursuant to 40 CFR 60.11(b), compliance with opacity standards in 40 CFR Part 60 shall be determined by conducting observations in accordance with Method 9 in appendix A of 40 CFR Part 60, any alternative method that is approved by the Illinois EPA or USEPA, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

b. Pursuant to 40 CFR 60.11(c), the opacity standards set forth in 40 CFR Part 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

c. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

9a. Pursuant to 40 CFR 60.4206, owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 according to the

manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

- b. Pursuant to 40 CFR 60.4207(b), beginning October 1, 2010, owners and operators of stationary CI ICE subject to 40 CFR 60 Subpart IIII with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel.
- c. Pursuant to 40 CFR 60.4211(a), if you are an owner or operator and must comply with the emission standards specified in 40 CFR 60 Subpart IIII, you must do all of the following, except as permitted under 40 CFR 60.4211(g):
 - i. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions;
 - ii. Change only those settings that are permitted by the manufacturer; and
 - iii. Meet the requirements of 40 CFR Part 1068, as they apply to you.
- d. Pursuant to 40 CFR 60.4211(c), if you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in 40 CFR 60.4204(b) or 40 CFR 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to 40 CFR 60 Subpart IIII and must comply with the emission standards specified in 40 CFR 60.4205(c), you must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b), or 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.
- e. Pursuant to 40 CFR 60.4211(f), if you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f) (1) through (3). 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 40 CFR 60.4211(f) (1) through (3), is prohibited. If you do not operate the engine according to the requirements in 40 CFR 60.4211(f) (1) through (3), the engine will not be considered an emergency engine under 40 CFR 60 Subpart IIII and must meet all requirements for non-emergency engines.
 - i. There is no time limit on the use of emergency stationary ICE in emergency situations.
 - ii. You may operate your emergency stationary ICE for any combination

of the purposes specified in 40 CFR 60.4211(f) (2) (i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f) (3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f) (2).

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 Illinois EPA or USEPA 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.

- iii. 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 40 CFR 60.4211(f) (2). Except as provided in 40 CFR 60.4211(f) (3) (i), 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.

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.

- 10a. Pursuant to 40 CFR 1090.305(a), except as specified in 40 CFR 1090.300(a), diesel fuel must meet the ULSD per-gallon standards of 40 CFR 1090.305.
- b. Pursuant to 40 CFR 1090.305(b), maximum sulfur content of 15 ppm.
- c. Pursuant to 40 CFR 1090.305(c), diesel fuel must meet one of the following standards:
 - i. Minimum cetane index of 40.
 - ii. Maximum aromatic content of 35 volume percent.
- 11a. Episode Action Plan
 - i. Pursuant to 35 Ill. Adm. Code 244.141, the Permittee shall have on file with the Illinois EPA an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The Episode Action Plan shall contain the information specified in 35 IAC 244.144.
 - ii. Any revision to the plan submitted to Illinois EPA while this permit is in effect is automatically incorporated by reference, provided the revision is not expressly disapproved, in writing, by the Illinois EPA within 30 days of receipt of the revision. Upon such automatic incorporation, the revised plan replaces the version of the plan previously incorporated by reference.
 - iii. The plan will address the actions that will be implemented to reduce SO₂, PM₁₀, NO₂, CO and VOM emissions from various emissions units at the source in the event of a yellow alert, red alert or emergency issued under 35 Ill. Adm. Code 244.161 through 244.165.
 - iv. Pursuant to 35 Ill. Adm. Code 244.169, or as may otherwise be required under 35 Ill. Adm. Code 244, Appendix D, the Permittee shall immediately implement the appropriate steps described in the approved Episode Action Plan upon receiving notice from the Illinois EPA.
 - v. Pursuant to 35 Ill. Adm. Code 244.143(d), if an operational change occurs at the source which invalidates the approved Episode Action Plan, a revised Episode Action Plan shall be submitted to the Illinois EPA for review and approval within 30 days of the change.
 - vi. Pursuant to Section 35 Ill. Adm. Code 244.145(b), in the event that the Illinois EPA notifies the Permittee of a deficiency with any Episode Action Plan submitted pursuant to 35 IAC Part 244,

the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency.

- vii. Pursuant to Section 39.5(7)(b) and (e) of the Act, the Permittee shall keep a copy of the approved Episode Action Plan along with a record of activities completed according to the Episode Action Plan.
- b. Within 90 days from date of issuance of this permit, an Episode Action Plan must be submitted by the Permittee and will be incorporated herein by reference. The source shall be operated under and shall comply with the provisions of this Episode Action Plan and any amendments to the Episode Action Plan submitted pursuant to Condition 11(a).
- c. The Episode Action Plan shall be amended from time to time by the owner or operator so that the Episode Action Plan is current. Such amendments shall be consistent with Condition 11(a) and shall be submitted to the Illinois EPA within thirty (30) days of any such amendment. Any future amendment to the Episode Action Plan made by the Permittee during the permit term is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies the Permittee of a deficiency with any revision to the Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within thirty (30) days of receipt of the notification to address the deficiency.
- d. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in material or installation of controls, in order to eliminate the odor nuisance.
- e. The Emergency Generators shall only be operated with distillate fuel oil (Grades No. 1 and 2 (i.e., diesel)) as the fuel. The use of any other fuel in any of the engines powering the Emergency Generators requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- f. Organic liquid by-products or waste materials shall not be used in any emission unit at this source without prior written approval from the Illinois EPA.
- g. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- h. The diesel particulate filters shall be in operation at all times when the associated twelve 3,500 kW Diesel-Powered Emergency Generators are in operation and emitting air contaminants.
- i. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the diesel particulate filters such that the diesel particulate filters are kept

in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.

12a. Emissions from and operation of the twelve (12) 3,500kW (5,051 bhp) diesel-powered emergency generators controlled by the diesel particulate filter shall not exceed the following limits:

- i. Distillate fuel oil consumption: 234 gal/hour (each) and 163,200 gal/year (combined).
- ii. Emissions from the two 3,500 kW (5,051 bhp) diesel-powered emergency generator sets shall not exceed:

<u>Pollutant</u>	<u>Emission Factor (lbs/1000 gal)</u>	<u>Emissions</u>	
		<u>Each Genset (lbs/Hour)</u>	<u>Total for 12 Gensets (Tons/Year)</u>
Carbon Monoxide (CO)	11.33	2.65	0.92
Nitrogen Oxides (NO _x)	379.33	88.76	30.95
Particulate Matter (PM)	2.39	0.56	0.20
Sulfur Dioxide (SO ₂)	0.26	0.06	0.02
Volatile Organic Material (VOM)	7.25	1.70	0.59

These limits are based on the rated output of the engines powering each generator (3,500 kW each), emission factors derived from the manufacturer data, except for sulfur dioxide and condensable particulate matter which are based on the standard emission factors (AP-42 Table 3.4-1 and 3.4-2, AP-42, Fifth Edition, Volume I, Supplement B, October 1996) with a fuel sulfur content of 0.0015%, and 85% control efficiency for particulate matter, 60% control efficiency for volatile organic material, and 70% control efficiency for carbon monoxide from the diesel particulate filters.

b. Emissions from and operation of the two (2) 3,500kW (5,051 bhp) diesel-powered emergency generators shall not exceed the following limits:

- i. Distillate fuel oil consumption: 234 gal/hour (each) and 27,200 gal/year (combined).
- ii. Emissions from the two 3,500 kW (5,051 bhp) diesel-powered emergency generator sets shall not exceed:

<u>Pollutant</u>	<u>Emission Factor (lbs/1000 gal)</u>	<u>Emissions</u>	
		<u>Each Genset (lbs/Hour)</u>	<u>Total for 2 Gensets (Tons/Year)</u>
Carbon Monoxide (CO)	37.75	8.83	0.51
Nitrogen Oxides (NO _x)	379.33	88.76	5.16
Particulate Matter (PM)	10.74	2.51	0.15
Sulfur Dioxide (SO ₂)	0.26	0.06	0.004
Volatile Organic Material (VOM)	18.12	4.24	0.25

These limits are based on the rated output of the engines powering each generator of (3,500 kW each), and emission factors derived from the manufacturer data, except for sulfur dioxide and condensable particulate matter which are based on the standard emission factors (AP-42 Table 3.4-1 and 3.4-2, AP-42, Fifth Edition, Volume I, Supplement B, October 1996) with a fuel sulfur content of 0.0015%.

- c. Emissions from and operation of the 800 kW (3,633 bhp) diesel-powered emergency generator shall not exceed the following limits:
 - i. Distillate fuel oil consumption: 56 gal/hour and 13,600 gal/year.
 - ii. Emissions from the 2,500 kW (1,175 bhp) diesel-powered emergency generator shall not exceed:

<u>Pollutant</u>	<u>Emission Factor (lbs/1000 gal)</u>	<u>Emissions lbs/Hr</u>	<u>Emissions (Tons/Year)</u>
Carbon Monoxide (CO)	51.11	2.86	0.35
Nitrogen Oxides (NO _x)	237.24	13.29	1.61
Particulate Matter (PM)	8.91	0.50	0.06
Sulfur Dioxide (SO ₂)	0.25	0.01	0.002
Volatile Organic Material (VOM)	8.31	0.47	0.06

These limits are based on the rated output of the engines powering each generator (800 kW), and emission factors derived from the manufacturer data, except for sulfur dioxide and condensable particulate matter which are based on the standard emission factors (AP-42 Table 3.4-1 and 3.4-2, AP-42, Fifth Edition, Volume I, Supplement B, October 1996) with a fuel sulfur content of 0.0015%.

- d. The emergency generators at the CH-5 data center will be subject to routine maintenance and testing for each generator for upwards to one-hour per week at up to 100% load and with no more than 8 hours of such testing occurring per day.
- e. In addition to routine maintenance and testing described above, the emergency generators at both the CH-3 and CH-5 data centers will be tested, on a once per year basis, under select operating scenarios where multiple generators are operated simultaneously. As shown below, the switchboard maintenance scenario must occur once annually for a duration of up to eight hours per generator. The pull-the-plug testing scenario must occur once annually for a duration of approximately two hours per generator.
- f. The routine maintenance and testing of generators at the CH-5 data center, and the additional testing of generators at the CH-3 and CH-5 data centers under select operating scenarios, must comply with the following:

Operating Scenario	Annual Duration (hours/year)	Facility Operating	Maximum Number of Generators Operating Simultaneously	Operating Load
Switchboard Maintenance (SBM)	8	CH-3	16	50%
Pull the Plug Test (PTP)	2	CH-3	16	50%
Switchboard Maintenance (SBM)	8	CH-5	8	50%
Pull the Plug Test (PTP)	2	CH-5	8	50%
Routine Maintenance and Testing	52	CH-3	1	100%
Routine Maintenance and Testing	52	CH-5	1	100%

- g. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
13. 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 from the Diesel-Powered Emergency Generators being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from the Diesel-Powered Emergency Generators not triggering the requirements of Section 112(g) of the Clean Air Act.
14. This permit is issued based on the Diesel-Powered Emergency Generators each having a displacement of less than 10 liters per cylinder and has been certified by the manufacturer to meet the standards of 40 CFR 60.60.4202(b)(2). As a result, this permit is issued based on the Diesel-Powered Emergency Generators not being subject to the testing requirements of 40 CFR 60.8.
- 15a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or

operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

- ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
 - b. Testing required by Condition 16 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
16. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
17. Pursuant to 40 CFR 60.4209(a), if you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- 18a. Pursuant to 40 CFR 60.4214(b), if the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to 40 CFR 60 Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
- b. Pursuant to 40 CFR 60.4214(c), if the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

19. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
20. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 21a. Pursuant to 35 Ill. Adm. Code 214.305(a)(3), except as provided in 35 Ill. Adm. Code 214.305(b), (c), and (d), on and after January 1, 2017, the owner or operator of a process emission source must comply with the following:

The owner or operator must:

 - i. Maintain records demonstrating that the fuel oil used by the process emission source complies with the requirements in 35 Ill. Adm. Code 214.305(a)(1) and (a)(2), such as records from the fuel supplier indicating the sulfur content of the fuel oil;
 - ii. Retain the records for at least 5 years, and provide copies of the records to the Illinois EPA within 30 days after receipt of a request by the Illinois EPA; and
- 22a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

- i. Records addressing use of good operating practices for the Diesel Particulate Filters associated with the twelve 3,500 kW Diesel-Powered Emergency Generators;
 - A. Records for periodic inspection of the Diesel Particulate Filters with date, individual performing the inspection, and nature of inspection; and
 - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Diesel generator set runtime (hours/month and hours/year);
 - iii. An inspection, maintenance and repair log of the generators listing each activity performed with date;
 - iv. Monthly and annual emissions of CO, NO_x, PM, SO₂, and VOM from the Diesel-Powered Emergency Generators, with supporting calculations (tons/month and tons/year).
- b. All records and logs required by Condition 22(a) of this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) 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 or USEPA request for records during the course of a source inspection.
23. Pursuant to 40 CFR 60.7(a)(4), any owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Illinois EPA or USEPA written notification or, if acceptable to both the Illinois EPA and USEPA and the owner or operator of a source, electronic notification, as follows:
- i. A notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - ii. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
 - iii. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the

facility before and after the change, and the expected completion date of the change. The Illinois EPA or USEPA may request additional relevant information subsequent to this notice.

24. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

25. Pursuant to 35 Ill. Adm. Code 214.305(a) (3) (C), except as provided in 35 Ill. Adm. Code 214.305(b), (c), and (d), on and after January 1, 2017, the owner or operator of a process emission source must comply with the following:

The owner or operator must notify the Illinois EPA within 30 days after discovery of deviations from any of the requirements in this 35 Ill. Adm. Code 214.305(a). At minimum, and in addition to any permitting obligations, such notification must include a description of the deviations, a discussion of the possible cause of the deviations, any corrective actions taken, and any preventative measures taken.

26. The Permittee shall submit a written notification to the Illinois EPA, Bureau of Air, Compliance Section Manager, of the initial startup of each emission unit and control equipment within thirty (30) calendar days of the initial start-up.

27a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit or otherwise, the Permittee shall submit a report to the Illinois EPA's Bureau of Air Compliance Section in Springfield, Illinois within thirty (30) days after the exceedance or deviation. The report shall identify the duration and the emissions impact of the exceedance or deviation, a copy of the relevant records and information to resolve the exceedance or deviation, and a description of the efforts to reduce emissions from, and the duration of exceedance or deviation, and to prevent future occurrences of any such exceedance or deviation.

b. One (1) copy of required reports and notifications shall be sent to:

i. Via mail or overnight delivery:

Via USPS
Illinois EPA, Bureau of Air
Compliance Section (MC 40)
2520 West Iles Avenue
P.O. Box 19276
Springfield, IL 62794-9276

Via Other Means
Illinois EPA, Bureau of Air
Compliance Section (MC 40)
2520 West Iles Avenue
Springfield, IL 62704

ii. In addition to the paper copy of the test notifications, written test plan and final test report, an electronic copy of the test

notifications, written test plan and final test report shall be sent to:

epa.boa.smu@illinois.gov

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

William D. Marr/AR

William D. Marr
Manager, Permit Section
Bureau of Air

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