*Commonwealth of Virginia*

*VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY*

NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703)583-3800 FAX (804) 698-4178
www.deq.virginia.gov

Andrew R. Wheeler
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4000

Thomas A. Faha
Regional Director

March 3, 2022

Mr. Brian Warren
Senior Vice President Development & Product Engineering
CoreSite Real Estate Sunrise Technology Park, LLC
1001 17th Street, Suite 500
Denver, CO 80265

Location: Fairfax County
Registration No.: 74130

Dear Mr. Warren:

Attached is a minor amendment to your new source review permit dated March 2, 2018 to construct and operate emergency diesel engine generator sets (gen-sets) at CoreSite Reston Campus in accordance with the provisions of the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on January 31, 2022.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to construct and operate shall not relieve CoreSite Real Estate Sunrise Technology Park, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

The diesel engine generator sets may be subject to the requirements of 40 CFR Part 60, New Source Performance Standards (NSPS) Subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (MACT) Subpart ZZZZ – *National Emissions*

*Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.* In summary, the units may be required to comply with certain federal emission standards and operating limitations. The Department of Environmental Quality (DEQ) advises you to review the NSPS and MACT to ensure compliance with applicable emission and operational limitations. As the owner/operator you are also responsible for any monitoring, notification, reporting and recordkeeping requirements of the NSPS and MACT. Notifications shall only be sent to EPA, Region III.

To review any federal rules referenced in the above paragraph or in the attached permit, the US Government Publishing Office maintains the text of these rules at **www.ecfr.gov**, Title 40, Part 60 and 63.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

Michael S. Rolband, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Ms. Cameron Stewart at (571) 866-6093 or via e-mail at cameron.stewart@deq.virginia.gov.

Sincerely,

Justin A. Wilkinson
Regional Air Permit Manager

TAF/JAW/CLS/74130 mNSR (2022-03-03)

Attachment: Permit

*Commonwealth of Virginia*

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Michael S. Rolband, PE, PWD, PWS Emeritus
Director
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Thomas A. Faha
Regional Director

**STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE**
This amended permit supersedes your permit dated March 2, 2018.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

CoreSite Real Estate Sunrise Technology Park, LLC
12369 Sunrise Valley Drive
Reston, VA 20191
Registration No.: 74130

is authorized to construct and operate

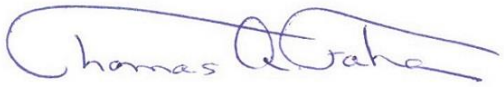
emergency diesel engine generator sets (gen-sets)

located at

CoreSite Reston Campus
12369 Sunrise Valley Drive
Reston, VA 20191

in accordance with the Conditions of this permit.

Approved on: March 2, 2018
Amended on: March 3, 2022



Thomas A. Faha
Regional Director

Permit consists of 15 pages (w/o attachment).
Permit Conditions 1 to 34.
Attachment A - Source Testing Report Format (1 page).

## INTRODUCTION

This permit approval is based on the permit application dated August 1, 2017 and supplemental information dated November 1, 2017, November 3, 2017, December 6, 2017, December 20, 2017 and January 11, 2018, and the application dated November 29, 2021. Any changes in the permit application specifications or any existing facilities, which alter the impact of the facility on air quality, may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

**Equipment List** – Equipment at this facility consist of the following:

| **Equipment to be constructed:** | | | | | |
|---|---|---|---|---|---|
| **Phase Nos.** | **Ref. No.** | **Equipment Description** | **Standby Rated Capacity** | **Delegated Federal Requirements** | **Original Permit Date** |
| Phase 1 | EG029, EG030, EG031, EG032, EG033, EG034 | Six (6) Volvo Penta TWD1643GE emergency diesel engine gen-sets | 904 bhp 674 ekW (each unit) | None | March 2, 2018 |
| Phase 2a | EG001, EG003, EG005, EG007 | Four (4) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |
| Phase 2b | EG002, EG004, EG006, EG008 | Four (4) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |
| Phase 2c | EG009, EG010, EG011, EG012, EG013 | Five (5) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |
| Phase 3a | EG014, EG016, EG018, EG020, EG022 | Five (5) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |
| Phase 3b | EG015, EG017, EG019, EG021 | Four (4) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |
| Phase 3c | EG024, EG026, EG028 | Three (3) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |
| Phase 3d | EG023, EG025, EG027 | Three (3) Cummins C3000 D6e Model QSK95-G9 emergency diesel engine gen-sets | 4,307 bhp 3,212 ekW (each unit) | None | March 2, 2018 |

The specifications included in the table above are for informational purposes only and do not form enforceable terms or conditions of the permit.

## PROCESS REQUIREMENTS

1. **Emission Controls –** Except as provided in Condition 18, emissions from the emergency diesel engine-sets shall be controlled by the following:

   a. Nitrogen oxides ($NO_X$) emissions from the emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034) shall be controlled by electronic fuel injection and turbocharged engines. The permittee shall maintain documentation that demonstrates the control devices have been installed on each emergency diesel engine gen-set.

   b. Carbon monoxide (CO) emissions, particulate matter ($PM_{10}/PM_{2.5}$) emissions, volatile organic compounds (VOC) emissions, nitrogen oxides ($NO_X$) emissions, and visible emissions from the emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034) shall be controlled by the use of good operating practices and performing maintenance in accordance with the manufacturer recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not degrade the air emissions from the emergency diesel engine gen-sets.

   (9 VAC 5-80-1180 and 9 VAC 5-50-260)

2. **Monitoring –**

   **Engine Operating Hours**: Each emergency diesel engine gen-set (Ref. Nos. EG001 through EG034) shall be equipped with a non-resettable hour meter which measures the duration of time that each engine gen-set is operated.

   Each monitoring device (as required above) shall be observed by the permittee with a frequency of not less than once each day the emergency diesel engine gen-set is operated. The permittee shall keep a log of these observations.

   Each monitoring device shall be installed, maintained, calibrated (as appropriate), and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The details of the monitoring device calibrations are to be arranged with the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO).

   Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the engine gen-sets are operating.
   (9 VAC 5-80-1180 D, 9 VAC 5-50-20 C, and 9 VAC 5-50-260)

## OPERATING/EMISSION LIMITATIONS

3. **Operation of the Emergency Diesel Engine Gen-Sets –** The permittee shall operate and maintain each emergency diesel engine gen-set (Ref. Nos. EG001 through EG034) 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 and does not increase air emissions.
(9 VAC 5-80-1180)

4. **Emergency Power Generation –** The emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034) shall only be operated in the following modes:

   a. In situations that arises from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:

      i. A failure of the electrical grid;

      ii. On-site disaster or equipment failure; or

      iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.

   b. For participation in an ISO-declared emergency, where an ISO emergency is:

      i. An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;

      ii. Capacity deficiency or capacity excess conditions;

      iii. A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;

      iv. Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or

      v. An abnormal event external to the ISO service territory that may require ISO action.

   c. For periodic maintenance, testing and operational training.

   (9 VAC 5-80-1180)

5. **Operating Hours –** Each emergency diesel engine gen-set (Ref. Nos. EG001 through EG034) shall not operate more than 100 hours per year.

The annual limits for hours of operation shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)

6. **Fuel Specification –** The approved fuel for the emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034) is ultra-low sulfur diesel fuel oil, and shall meet the specifications below:

   ULTRA LOW SULFUR DIESEL FUEL OIL:

   a. Does not exceed the American Society for Testing and Materials (ASTM) specification, D975, for grade ultra low sulfur 2-D or grade 2-D S15, or,

   b. Has a maximum sulfur content not to exceed 0.0015% by weight (15 ppm), and either a minimum cetane number of 40 or maximum aromatic content of 35 volume percent.

   Exceedance of these specifications may be considered credible evidence of an exceedance of emission limits. A change in the fuel type or the fuel sulfur content may require a permit to modify and operate.
   (9 VAC 5-80-1180 and 9 VAC 5-50-260)

7. **Fuel Certification –** The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the diesel fuel was received;

   c. The quantity of diesel fuel delivered in the shipment; and

   d. A statement that the diesel fuel:

      i. complies with the ASTM specifications for Grade No. 1-D S15 or Grade No. 2-D S15 (also known as ultra low sulfur diesel (ULSD)); or

      ii. has a sulfur content per shipment not to exceed 0.0015% by weight (15 ppm) and either a minimum cetane number of forty or maximum aromatic content of thirty-five percent by volume.

   Alternatively, the permittee must obtain approval from DEQ-NRO's Regional Air Compliance Manager, if other documentation will be used to certify the diesel fuel type.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 6. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-1180)

## EMISSION LIMITS

8. **Emission Limits –** Emissions from the operation of the emergency diesel engine gen-sets (Ref. Nos. EG029-EG034) shall not exceed the limits specified below:

| Pollutant | Volvo Penta TWD1643GE (each unit) | Volvo Penta TWD1643GE 6 units combined |
|---|---|---|
| Nitrogen Oxides ($NO_x$ as $NO_2$) | 8.37 lb/hr | 2.51 tpy |
| Carbon Monoxide (CO) | 0.61 lb/hr | 0.18 tpy |
| Volatile Organic Compounds (VOC) | 0.16 lb/hr | 0.05 tpy |
| Particulate Matter ($PM_{10}$) | 0.16 lb/hr | 0.05 tpy |
| Particulate Matter ($PM_{2.5}$) | 0.16 lb/hr | 0.05 tpy |

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these pollutant limits may be determined as stated in Conditions 5, 6, and 7.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

9. **Emission Limits –** Except as provided in Condition 18, emissions from the operation of the emergency diesel engine gen-sets (Ref. Nos. EG001-EG013) shall not exceed the limits specified below:

| Pollutant | Cummins C3000 D6e Model QSK95-G9 (each unit) | Cummins C3000 D6e Model QSK95-G9 (13 units combined) |
|---|---|---|
| Nitrogen Oxides ($NO_x$ as $NO_2$) | 56.97 lb/hr | 37.03 tpy |
| Carbon Monoxide (CO) | 1.99 lb/hr | 1.29 tpy |
| Volatile Organic Compounds (VOC) | 0.88 lb/hr | 0.57 tpy |
| Particulate Matter ($PM_{10}$) | 0.77 lb/hr | 0.50 tpy |
| Particulate Matter ($PM_{2.5}$) | 0.77 lb/hr | 0.50 tpy |

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these pollutant limits may be determined as stated in Conditions 5, 6, and 7.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

10. **Emission Limits –** Except as provided in Condition 18, emissions from the operation of the emergency diesel engine gen-sets (Ref. Nos. EG014-EG028) shall not exceed the limits specified below:

| Pollutant | Cummins C3000 D6e Model QSK95-G9 (each unit) | Cummins C3000 D6e Model QSK95-G9 (15 units combined) |
|---|---|---|
| Nitrogen Oxides ($NO_x$ as $NO_2$) | 56.97 lb/hr | 42.73 tpy |
| Carbon Monoxide (CO) | 1.99 lb/hr | 1.50 tpy |
| Volatile Organic Compounds (VOC) | 0.88 lb/hr | 0.66 tpy |
| Particulate Matter ($PM_{10}$) | 0.77 lb/hr | 0.57 tpy |
| Particulate Matter ($PM_{2.5}$) | 0.77 lb/hr | 0.57 tpy |

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these pollutant limits may be determined as stated in Conditions 5, 6, and 7.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

11. **Visible Emission Limit –** Visible emissions from each emergency diesel engine gen-set (Ref. Nos. EG001 through EG034) exhausts shall not exceed 5% opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 10% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

During startup and shutdown, visible emissions from each emergency diesel engine gen-set shall not exceed 10% opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

## INITIAL COMPLIANCE DETERMINATION

12. **Stack Test –** Initial performance tests shall be conducted for nitrogen oxides (as $NO_2$) and carbon monoxide (CO) from the exhaust of two (2) of the 28 emergency diesel engine gen-sets (Ref. No. EG001 through EG028) to determine compliance with the emission limits contained in Conditions 9 and 10. The testing on a selected engine gen-set shall be performed, reported and demonstrate compliance within 60 days after achieving the maximum power demand rate at which the unit will be operated but in no event later than 180 days after startup of that unit. The tests shall be conducted, reported, and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410.

One (1) unit from the engines (Ref. Nos. EG001 through EG013) and one (1) unit from the engines (Ref. Nos. EG014 trough EG028) shall be tested.

The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G)

13. **Visible Emissions Evaluations (VEE) –** Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A-4, Method 9, shall also be conducted by the permittee on the two emergency diesel engine gen-sets selected for the stack tests of Condition 12. The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO. The permittee shall submit a test protocol at least 30 days prior to testing. The VEE shall be performed, reported, and demonstrate compliance within 60 days after achieving the maximum power demand rate at which the unit will be operated but in no event later than 180 days after start-up of that unit. Should conditions prevent concurrent opacity observations, the Regional Air Compliance Manager of the DEQ's NRO shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions as possible as the initial performance tests. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test result shall be submitted to the NRO within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30 and 9 VAC 5-80-1200)

## CONTINUING COMPIANCE DETERMINATION

14. **Facility Construction –** The emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034) shall be constructed so as to allow for emissions testing upon reasonable notice at any times, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9 VAC 5-50-30 F and 9 VAC 5-80-1180)

15. **Emission Testing/Visible Emissions Evaluation –** Upon request by the DEQ, the permittee shall conduct stack tests and/or VEEs of the emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G)

## RECORDS

16. **On Site Records –** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

    a. Documentation from the manufacturer that each emergency diesel engine gen-set is certified to meet the EPA Tier 2 emission standards.

    b. Engine information including make, model, serial number, model year, maximum engine power (bhp), and engine displacement for each emergency diesel engine gen-set.

    c. Scheduled and unscheduled maintenance and operator training.

    d. A monthly log of monitoring device observations as required by Condition 2.

    e. The manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer for each emergency diesel engine gen-set.

    f. Records of the reasons for operation for each emergency diesel engine gen-set, including, but not limited to, the date, cause of operation, cause of the emergency, the ISO-declared emergency notification, and the hours of operation.

    g. Monthly and annual hours of operation of each emergency diesel engine gen-set, with annual hours of operation calculated monthly as the sum of each consecutive 12-month period.

    h. All fuel supplier certifications.

    i. Monthly and annual emissions calculations for $NO_X$ (as $NO_2$), CO, VOCs, $PM_{10}$, and $PM_{2.5}$ from the emergency diesel engine gen-sets (Ref. Nos. EG001 through EG034), with annual emissions, calculated monthly as the sum of each consecutive 12-month period.

    j. Results of all stack tests, and VEEs.

    k. Records of changes in settings that are permitted by the manufacturer of the engine gen-sets.

    Compliance for the consecutive 12-month period in subsections g and i shall be demonstrated monthly by adding the total for the most recently completed month to the individual monthly totals for the preceding 11-months.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-1180 and 9 VAC 5-50-50)

## NOTIFICATIONS

17. **Initial Notifications –** The permittee shall furnish written notification of the items below to the Regional Air Compliance Manager of the DEQ's NRO:

    a. The actual date on which construction of each emergency diesel engine gen-set (Ref. Nos. EG001 through EG034) exhausts commenced within 30 days after such date. Along with this notification, the information below shall be included:

        i. Name and address of the permittee;

        ii. The address of the affected source;

        iii. Engine information, including make, model, engine family, serial number, model, year, maximum engine power and engine displacement; and

        iv. Fuel used.

    b. The anticipated start-up date of each emergency diesel engine gen-set postmarked not more than 60 days nor less than 30 days prior to such date.

    c. The actual start-up date of each emergency diesel engine gen-set within 15 days after such date. The actual start-up date for each emergency diesel engine gen-set shall be the date on which each engine completes manufacturer's trials, but shall be no later than thirty days after the initial start-up for manufacturer's trials.

    (9 VAC 5-50-50 and 9 VAC 5-80-1180)

18. **BACT Evaluation for Phased Construction –** Notwithstanding the permit invalidation provisions of Conditions 20 – 26 of this permit, if a program of continuous construction of the 34 emergency diesel engine generator sets (Ref. Nos. EG001 through EG034) is not commenced within 18 months from the date of this permit or discontinued for a period of 18 months or more, or is not completed within a reasonable time, the emission controls required by Condition 1 of this permit and the NOx emission limits in Conditions 9 and 10 of this permit will be re-evaluated in conjunction with future submittals related to the phased construction (Phase 2a, Phase 2b, Phase 2c, Phase 3a, Phase 3b, Phase 3c, and Phase 3d) activities covered in this permit.

    To that end, no earlier than 18 months but no later than 6 months prior to the commencement of each phased construction of the diesel engine generator sets (applicable to Phases 2a, 2b, 2c, 3a, 3b, 3c and 3d – as described in the Equipment List of this permit), the permittee shall provide written notification to the DEQ, Northern Regional Office for approval that the

emissions controls and emission limits in this permit are still appropriate. Future emission reduction strategies determined to be applicable to future phased construction activities may require amending this permit to incorporate these strategies on the permitted equipment. (9 VAC 5-80-1180 and 9 VAC 5-50-280 D)

## GENERAL CONDITIONS

19. **Permit Invalidation (Phase 1) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG029 through EG034) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from the 'Original Permit Date' specified in the equipment list in the Introduction section of this permit, or if,

    b. A program of construction is discontinued for a period of 18 months or more, or is not completed within a reasonable time.

    (9 VAC 5-80-1210)

20. **Permit Invalidation (Phase 2a) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG001, EG003, EG005, and EG007) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from July 2018.

    (9 VAC 5-80-1210)

21. **Permit Invalidation (Phase 2b) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG002, EG004, EG006, and EG008) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from July 2019.

    (9 VAC 5-80-1210)

22. **Permit Invalidation (Phase 2c) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG009, EG010, EG011, EG012, and EG013) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from January 2022.

    (9 VAC 5-80-1210)

23. **Permit Invalidation (Phase 3a) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG014, EG016, EG018, EG020 and EG022) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from January 2023.

    (9 VAC 5-80-1210)

24. **Permit Invalidation (Phase 3b) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG015, EG017, EG019, and EG021) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from January 2024.

    (9 VAC 5-80-1210)

25. **Permit Invalidation (Phase 3c) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG024, EG026, and EG028) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from January 2026.

    (9 VAC 5-80-1210)

26. **Permit Invalidation (Phase 3d) –** This permit to construct the emergency diesel engine gen-sets (Ref. Nos. EG023, EG025, and EG027) shall become invalid, unless an extension is granted by the DEQ, if:

    a. A program of continuous construction is not commenced within 18 months from January 2027.

    (9 VAC 5-80-1210)

27. **Permit Suspension/Revocation –** This permit may be suspended or revoked if the permittee:

    a. Knowingly makes material misstatements in the permit application or any amendments to it;

    b. Fails to comply with the conditions of this permit;

    c. Fails to comply with any emission standards applicable to a permitted emissions unit;

d. Causes emissions from the stationary source which result in violations of, or interfere with the attainment and maintenance of, any ambient air quality standard; or

e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emissions limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

(9 VAC 5-80-1210 G)

28. **Right of Entry –** The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

    d. To sample or test at reasonable times.

    For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
    (9 VAC 5-170-130 and 9 VAC 5-80-1180)

29. **Maintenance/Operating Procedures –** At all times, including periods of start-up, shutdown, soot blowing, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20 E and 9 VAC 5-80-1180 D)

30. **Record of Malfunctions –** The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause of malfunction), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-20-180 J and 9 VAC 5-80-1180 D)

31. **Notification for Facility or Control Equipment Malfunction –** The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour. Such notification shall be made no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)

32. **Violation of Ambient Air Quality Standard –** The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-1180)

33. **Change of Ownership –** In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current minor NSR permit issued to the previous owner. The new owner shall notify the Northern Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)

34. **Permit Copy –** The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-1180)

**Attachment A**
**Source Testing Format**

# SOURCE TESTING REPORT FORMAT

**Report Cover**

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

**Certification**

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

**Copy of approved test protocol**

**Summary**

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
   a. Operating rate
   b. Test Methods
   c. Pollutants tested
   d. Test results for each run and the run average
   e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

**Source Operation**

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

**Test Results**

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

**Appendix**

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations