



DEPARTMENT ORDER

**IDEXX Laboratories, Inc.
Cumberland County
Scarborough, Maine
A-1169-71-A-N**

**Departmental
Findings of Fact and Order
Air Emission License**

FINDINGS OF FACT

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

IDEXX Laboratories, Inc. (IDEXX) has applied for an Air Emission License for the operation of emission sources associated with their biomedical research and manufacturing facility.

The equipment addressed in this license is located at 240 Innovation Way, Scarborough, Maine.

B. Title, Right, or Interest

In their application, IDEXX submitted copies of a property deed demonstrating ownership of the facility. IDEXX has provided sufficient evidence of title, right, or interest in the facility for purposes of this air emission license.

C. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
HZC-BLR-001	6.2	6,000 cuft/hr	natural gas	2022	2023	1
HZC-BLR-002	6.2	6,000 cuft/hr	natural gas	2022	2023	2
HZC-BLR-003	6.2	6,000 cuft/hr	natural gas	2022	2023	3

Stationary Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW or HP)	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Fire Pump	1.7	132 HP	distillate fuel	12.0	2023	2023
Emergency Generator	4.9	600kW	distillate fuel	35.4	2023	2023

IDEXX may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department’s website at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, IDEXX may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

Process Equipment

Equipment	Pollution Control Equipment	Stack #
Dust Collection #1	Cartridge Filter	6
Dust Collection #2	Cartridge Filter	7
Central Vacuum	Cartridge Filter	8

D. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Records or Logs mean either hardcopy or electronic records.

E. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the date this license was issued.

A new source is considered a major source based on whether or not total licensed annual emissions exceed the “Significant Emission” levels as defined in the Department’s *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100.

Pollutant	Total Licensed Annual Emissions (tpy)	Significant Emission Levels
PM	4.3	100
PM ₁₀	4.3	100
PM _{2.5}	4.3	100
SO ₂	0.1	100
NO _x	9.1	100
CO	7.1	100
VOC	0.7	50

IDEXX is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emission level for VOC is 50 tpy.

The Department has determined the facility is a minor source, and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

F. Facility Classification

With the annual operating hours restriction on the emergency engines, the facility is licensed as follows:

- As a synthetic minor source of air emissions for NO_x, because IDEXX is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. **BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Boilers HZC-BLR 001, 002, and 003

IDEXX will operate Boilers HZC-BLR-001, 002, and 003 for heat. The boilers are rated at 6.2 MMBtu/hr each and fire natural gas. The boilers will be installed in 2023, and each exhausts through its own stack.

1. BACT Findings

Following is a BACT analysis for control of emissions from HZC-BLR-001, 002, and 003.

a. Particulate Matter (PM, PM₁₀, PM_{2.5})

IDEXX has proposed to burn only low-ash content fuel (natural gas) in the boilers and to ensure proper combustion by following maintenance practices recommended by the manufacturer. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀/PM_{2.5} emissions from HZC-BLR-001, 002, and 003 is the use of natural gas, proper operation and maintenance, and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

IDEXX has proposed to fire only natural gas. The use of this fuel results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from HZC-BLR-001, 002, and 003 is the use of natural gas and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

IDEXX considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), water/steam injection, flue gas recirculation (FGR), Low NO_x Burners, the use of high efficiency boilers to reduce fuel usage, and use of a modulating burner system.

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. Both methods include injection of a NO_x reducing agent, typically ammonia or urea, into the boiler combustion gases, where the reagent reacts with NO_x to form nitrogen and water. Each technology is effective within a specific temperature range, 500 – 1,200 °F for SCR and 1,400 – 1,600 °F for SNCR. However, both SCR and SNCR have the negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than HZC-BLR-001, 002, and 003.

Water/steam injection and FGR can attain similar NO_x reduction efficiencies through lowering burner flame temperature and thereby reducing thermal NO_x formation. However, both control strategies reduce the boiler's fuel efficiency.

A modulating Low NO_x burner system varies the fuel and air admittance rates into the burner to optimize the air-to-fuel ratio for efficient combustion and low NO_x emissions. The use of a high efficiency heat exchanger in the boiler design will reduce the total amount of fuel used, thus reducing the total fuel burned and emissions produced. The use of a modulating Low NO_x burner and a high efficiency heat exchanger system on HZC-BLR-001, 002, and 003 has been determined to be feasible and has been selected as part of the BACT strategy.

BACT for NO_x emissions from HZC-BLR-001, 002, and 003 is firing natural gas, the use a modulating Low NO_x burner and a high efficiency heat exchanger system, and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

IDEXX considered several control strategies for the control of CO and VOC including oxidation catalysts and thermal oxidizers.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs. Considering the size of the boilers in question, these controls were determined to not be economically feasible.

BACT for CO and VOC emissions from HZC-BLR-001, 002, and 003 is firing natural gas and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for HZC-BLR-001, 002, and 003 were based on the following:

Natural Gas

- PM/ PM₁₀/PM_{2.5} – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
 - SO₂ – 0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
 - NO_x – 100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
 - CO – 84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
 - VOC – 5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
 - Visible – 06-096 C.M.R. ch. 115, BACT
- Emissions

The BACT emission limits for HZC-BLR-001, 002, and 003 are the following:

Unit	Pollutant	lb/MMBtu
HZC-BLR-001	PM	0.05
HZC-BLR-002	PM	0.05
HZC-BLR-003	PM	0.05

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
HZC-BLR-001	0.31	0.31	0.31	0.01	0.60	0.50	0.03
HZC-BLR-002	0.31	0.31	0.31	0.01	0.60	0.50	0.03
HZC-BLR-003	0.31	0.31	0.31	0.01	0.60	0.50	0.03

2. Visible Emissions

Visible emissions from each boiler shall not exceed 10% opacity on a six-minute block average basis.

3. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to their size, HZC-BLR-001, 002, and 003 are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

4. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart JJJJJ

HZC-BLR-001, 002, and 003 are not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. The units are considered gas fired units.
[40 C.F.R. § 63.11237]

C. Emergency Generator and Fire Pump

IDEXX operates one emergency generator. The Emergency Generator is a generator set consisting of an engine and an electrical generator. The Emergency Generator has an engine rated at 4.9 MMBtu/hr which fires distillate fuel. The Emergency Generator was manufactured in 2023.

IDEXX operates a Fire Pump. The Fire Pump has an engine rated at 1.7 MMBtu/hr which fires distillate fuel. The Fire Pump was manufactured in 2023.

1. BACT Findings

The BACT emission limits for the Emergency Generator and the Fire Pump are based on the following:

Emergency Generator

PM/PM ₁₀ /PM _{2.5}	– 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO ₂	– Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	– 3.2 lb/MMBtu from AP-42, Table 3.4-1 dated 10/96
CO	– 0.85 lb/MMBtu from AP-42, Table 3.4-1 dated 10/96
VOC	– 0.09 lb/MMBtu from AP-42, Table 3.4-1 dated 10/96
Visible Emissions	– 06-096 C.M.R. ch. 115, BACT

Fire Pump

PM/PM ₁₀ /PM _{2.5}	– 0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT
SO ₂	– Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	– 4.41 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
CO	– 0.95 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
VOC	– 0.36 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
Visible Emissions	– 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the Emergency Generator and the Fire Pump are the following:

Unit	Pollutant	lb/MMBtu
Emergency Generator	PM	0.12

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator	0.58	0.58	0.58	0.01	15.52	4.12	0.44
Fire Pump	0.20	0.20	0.20	0.01	7.25	1.56	0.59

Visible emissions from Emergency Generator and the Fire Pump shall each not exceed 20% opacity on a six-minute block average basis.

2. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to the Emergency Generator. It is an emergency generator powered by an engine with a rated output of less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

For the Emergency Generator, IDEXX shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart IIII. [06-096 C.M.R. ch. 169, § 4(B)(1)]

There are no stack height requirements in Chapter 169 applicable to the Emergency Generator because it exhausts through its own stack and its rated output is less than 747 kW. [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to the emergency engines listed above since the units were ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the units also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart IIII requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart III, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 60, Subpart III, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year 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 Administrator 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 more than 100 hours per calendar year.

- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§ 60.4211(f) and 60.4219]

b. 40 C.F.R. Part 60, Subpart III Requirements

(1) Manufacturer Certification Requirement

The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement

The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirements

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. IDEXX may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

IDEXX shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(5) Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement

No initial notification is required under 40 C.F.R. Part 60, Subpart IIII for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping

IDEXX shall keep records that include the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

D. Dust Collectors and Central Vacuum

The manufacturing operations at the IDEXX facility will include two Dust Collector systems as well as a Central Vacuum. The Dust Collector systems are used for PM emission control from the milling and mixing of granular materials used in the manufacturing activities at IDEXX. The Central Vacuum is used for general housekeeping activities. All three systems vent externally from the building through individual exhaust points.

All three systems shall be equipped with cartridge filters with a PM control efficiency of greater than 95%. Visible emissions from each exhaust point shall be limited to less than 20% opacity.

Additionally, IDEXX shall maintain records of inspections of the Dust Collector systems and the Central Vacuum system, cartridge filter failures, and all maintenance conducted the systems.

E. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.

F. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

G. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Operating the emergency engines for 100 hrs/yr each;
- Operating the boilers for 8,760 hr/yr.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility
Tons/year
 (used to calculate the annual license fee)

	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	CO	VOC
Boilers	4.1	4.1	4.1	0.1	7.9	6.7	0.5
Emergency Generator	0.1	0.1	0.1	-	0.8	0.3	0.1
Fire Pump	0.1	0.1	0.1	-	0.4	0.1	0.1
Total TPY	4.3	4.3	4.3	0.1	9.1	7.1	0.7

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
PM _{2.5}	15
SO ₂	50
NO _x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require IDEXX to submit additional information and may require an ambient air quality impact analysis at that time.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-1169-71-A-N subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction,

reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
 - A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. Pursuant to any other requirement of this license to perform stack testing.

- B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 C.M.R. ch. 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]

- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]
- (16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Boilers**

A. Fuel

Boilers HZC-BLR-001, HZC-BLR-002, and HZC-BLR-003 are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BACT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
HZC-BLR-001	PM	0.05	06-096 C.M.R. ch. 115, BACT
HZC-BLR-002	PM	0.05	06-096 C.M.R. ch. 115, BACT
HZC-BLR-003	PM	0.05	06-096 C.M.R. ch. 115, BACT

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

Emission Unit	PM (lb/hr)	PM₁₀ (lb/hr)	PM_{2.5} (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
HZC-BLR-001	0.31	0.31	0.31	0.01	0.60	0.50	0.03
HZC-BLR-002	0.31	0.31	0.31	0.01	0.60	0.50	0.03
HZC-BLR-003	0.31	0.31	0.31	0.01	0.60	0.50	0.03

D. Visible emissions from each boiler shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(18) **Emergency Generator and Fire Pump**

A. IDEXX shall keep records of all maintenance conducted on the Emergency Generator and Fire Pump. [06-096 C.M.R. ch. 115, BACT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Emergency Generator	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT/BACT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator	0.58	0.58	0.58	0.01	15.52	4.12	0.44
Fire Pump	0.20	0.20	0.20	0.01	7.25	1.56	0.59

D. Visible Emissions

Visible emissions from each of the emergency engines shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

E. The Emergency Generator and Fire Pump shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following:
 [incorporated under 06-096 C.M.R. ch. 115, BACT]

1. Manufacturer Certification

The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)]

2. Ultra-Low Sulfur Fuel

The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115, BPT]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

4. Annual Time Limit for Maintenance and Testing

a. As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by

providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours.

[40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115, BPT]

- b. IDEXX shall keep records that include the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time.

5. Operation and Maintenance

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. IDEXX may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

IDEXX shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(19) **Dust Collectors and Central Vacuum**

- A. Dust Collectors #1, #2, and the Central Vacuum shall be equipped with cartridge filters with a PM control efficiency of greater than 95%. [06-096 C.M.R. ch. 115, BACT]
- B. Visible emissions from each exhaust point for Dust Collectors #1, #2, and the Central Vacuum shall be limited to less than 20% opacity. [06-096 C.M.R. ch. 115, BACT]
- C. IDEXX shall maintain records of inspections of the Dust Collector systems and the Central Vacuum system, cartridge filter failures, and all maintenance conducted the systems. [06-096 C.M.R. ch. 115, BACT]

(20) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis. [06-096 C.M.R. ch. 101, § 3(C)]

(21) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

- (22) If the Department determines that any parameter value pertaining to construction and operation of the proposed emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, IDEXX may be required to submit additional information. Upon written request from the Department, IDEXX shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter. [06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 19th DAY OF JULY, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/24/23

Date of application acceptance: 5/25/23

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

