Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Ginger West Data Center – 11100 Booneville Rd
Facility Location: 11100 Booneville Rd, West Des Moines, IA 50266
Air Quality Operating Permit Number: 26-TV-003
Expiration Date: 04/09/2031

Permit Renewal Application Deadline: 10/09/2030

EIQ Number: 92-7022
Facility File Number: 25-17-008

Responsible Official
Name: Rich Massie
Title: Data Center Campus Director
Mailing Address: 550 SE White Crane Rd, West Des Moines, IA 50265
Phone #: 360-633-5051

Permit Contact Person for the Facility
Name: Jake Stockdale
Title: Environmental Compliance Program Manager
Mailing Address: 11100 Booneville Rd. West Des Moines
Phone #: 515-890-8035

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 24, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Marnie Stein — 04/10/2026

Marnie Stein, Supervisor of Air Operating Permits Section — Date

Table of Contents

Abbreviations

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
CE .....control equipment
CEM.....continuous emission monitor
^{o}F .....degrees Fahrenheit
EIQ.....emissions inventory questionnaire
EP.....emission point
EU .....emission unit
gr./dscf .....grains per dry standard cubic foot
IAC.....Iowa Administrative Code
IDNR.....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS .....new source performance standard
ppmv .....parts per million by volume
lb./hr .....pounds per hour
lb./MMBtu .....pounds per million British thermal units
SCC.....Source Classification Codes
scfm.....standard cubic feet per minute
SIC .....Standard Industrial Classification
TPY .....tons per year
USEPA.....United States Environmental Protection Agency

Pollutants
PM.....particulate matter
PM_{10} .....particulate matter ten microns or less in diameter
$PM_{2.5}$ .....particulate matter two and a half microns or less in diameter
SO_2 .....sulfur dioxide
NO_x .....nitrogen oxides
VOC .....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Ginger West Data Center – 11100 Booneville Rd
Permit Number: 26-TV-003

Facility Description: Data Processing and Preparation (SIC 7374)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
1	1	Cummins Diesel IC engine, model QSX15-G9 NR2	21-A-209-S2
22	22	Cummins Diesel IC engine, model QSX15-G9 NR2	23-A-073-S1
43	43	Cummins Diesel IC engine, model QSX15-G9 NR2	24-A-160
64	64	Cummins Diesel IC engine, model QSX15-G9 NR2	24-A-181
85	85	Cummins Diesel IC engine, model QSX15-G9 NR2	24-A-202
106	106	Cummins Diesel IC engine, model QSX15-G9 NR2	24-A-223
2	2	Cummins Diesel IC engine, model QSK95-G9	21-A-210-S2
3	3	Cummins Diesel IC engine, model QSK95-G9	21-A-211-S2
4	4	Cummins Diesel IC engine, model QSK95-G9	21-A-212-S2
5	5	Cummins Diesel IC engine, model QSK95-G9	21-A-213-S2
6	6	Cummins Diesel IC engine, model QSK95-G9	21-A-214-S2
7	7	Cummins Diesel IC engine, model QSK95-G9	21-A-215-S2
8	8	Cummins Diesel IC engine, model QSK95-G9	21-A-216-S2
9	9	Cummins Diesel IC engine, model QSK95-G9	21-A-217-S2
10	10	Cummins Diesel IC engine, model QSK95-G9	21-A-218-S2
11	11	Cummins Diesel IC engine, model QSK95-G9	21-A-219-S2
12	12	Cummins Diesel IC engine, model QSK95-G9	21-A-220-S2
13	13	Cummins Diesel IC engine, model QSK95-G9	21-A-221-S2
14	14	Cummins Diesel IC engine, model QSK95-G9	21-A-222-S2
15	15	Cummins Diesel IC engine, model QSK95-G9	21-A-223-S2
16	16	Cummins Diesel IC engine, model QSK95-G9	21-A-224-S2
17	17	Cummins Diesel IC engine, model QSK95-G9	21-A-225-S2
18	18	Cummins Diesel IC engine, model QSK95-G9	21-A-226-S2
19	19	Cummins Diesel IC engine, model QSK95-G9	21-A-227-S2
20	20	Cummins Diesel IC engine, model QSK95-G9	21-A-228-S2
21	21	Cummins Diesel IC engine, model QSK95-G9	21-A-229-S2
23	23	Cummins Diesel IC engine, model QSK95-G9	23-A-074-S1
24	24	Cummins Diesel IC engine, model QSK95-G9	23-A-075-S1
25	25	Cummins Diesel IC engine, model QSK95-G9	23-A-076-S1
26	26	Cummins Diesel IC engine, model QSK95-G9	23-A-077-S1
27	27	Cummins Diesel IC engine, model QSK95-G9	23-A-078-S1
28	28	Cummins Diesel IC engine, model QSK95-G9	23-A-079-S1
29	29	Cummins Diesel IC engine, model QSK95-G9	23-A-080-S1

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
30	30	Cummins Diesel IC engine, model QSK95-G9	23-A-081-S1
31	31	Cummins Diesel IC engine, model QSK95-G9	23-A-082-S1
32	32	Cummins Diesel IC engine, model QSK95-G9	23-A-083-S1
33	33	Cummins Diesel IC engine, model QSK95-G9	23-A-084-S1
34	34	Cummins Diesel IC engine, model QSK95-G9	23-A-085-S1
35	35	Cummins Diesel IC engine, model QSK95-G9	23-A-086-S1
36	36	Cummins Diesel IC engine, model QSK95-G9	23-A-087-S1
37	37	Cummins Diesel IC engine, model QSK95-G9	23-A-088-S1
38	38	Cummins Diesel IC engine, model QSK95-G9	23-A-089-S1
39	39	Cummins Diesel IC engine, model QSK95-G9	23-A-090-S1
40	40	Cummins Diesel IC engine, model QSK95-G9	23-A-091-S1
41	41	Cummins Diesel IC engine, model QSK95-G9	23-A-092-S1
42	42	Cummins Diesel IC engine, model QSK95-G9	23-A-093-S1
44	44	Cummins Diesel IC engine, model QSK95-G9	24-A-161
45	45	Cummins Diesel IC engine, model QSK95-G9	24-A-162
46	46	Cummins Diesel IC engine, model QSK95-G9	24-A-163
47	47	Cummins Diesel IC engine, model QSK95-G9	24-A-164
48	48	Cummins Diesel IC engine, model QSK95-G9	24-A-165
49	49	Cummins Diesel IC engine, model QSK95-G9	24-A-166
50	50	Cummins Diesel IC engine, model QSK95-G9	24-A-167
51	51	Cummins Diesel IC engine, model QSK95-G9	24-A-168
52	52	Cummins Diesel IC engine, model QSK95-G9	24-A-169
53	53	Cummins Diesel IC engine, model QSK95-G9	24-A-170
54	54	Cummins Diesel IC engine, model QSK95-G9	24-A-171
55	55	Cummins Diesel IC engine, model QSK95-G9	24-A-172
56	56	Cummins Diesel IC engine, model QSK95-G9	24-A-173
57	57	Cummins Diesel IC engine, model QSK95-G9	24-A-174
58	58	Cummins Diesel IC engine, model QSK95-G9	24-A-175
59	59	Cummins Diesel IC engine, model QSK95-G9	24-A-176
60	60	Cummins Diesel IC engine, model QSK95-G9	24-A-177
61	61	Cummins Diesel IC engine, model QSK95-G9	24-A-178
62	62	Cummins Diesel IC engine, model QSK95-G9	24-A-179
63	63	Cummins Diesel IC engine, model QSK95-G9	24-A-180
65	65	Cummins Diesel IC engine, model QSK95-G9	24-A-182
66	66	Cummins Diesel IC engine, model QSK95-G9	24-A-183
67	67	Cummins Diesel IC engine, model QSK95-G9	24-A-184
68	68	Cummins Diesel IC engine, model QSK95-G9	24-A-185
69	69	Cummins Diesel IC engine, model QSK95-G9	24-A-186
70	70	Cummins Diesel IC engine, model QSK95-G9	24-A-187
71	71	Cummins Diesel IC engine, model QSK95-G9	24-A-188
72	72	Cummins Diesel IC engine, model QSK95-G9	24-A-189
73	73	Cummins Diesel IC engine, model QSK95-G9	24-A-190
74	74	Cummins Diesel IC engine, model QSK95-G9	24-A-191
75	75	Cummins Diesel IC engine, model QSK95-G9	24-A-192
76	76	Cummins Diesel IC engine, model QSK95-G9	24-A-193
77	77	Cummins Diesel IC engine, model QSK95-G9	24-A-194

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
78	78	Cummins Diesel IC engine, model QSK95-G9	24-A-195
79	79	Cummins Diesel IC engine, model QSK95-G9	24-A-196
80	80	Cummins Diesel IC engine, model QSK95-G9	24-A-197
81	81	Cummins Diesel IC engine, model QSK95-G9	24-A-198
82	82	Cummins Diesel IC engine, model QSK95-G9	24-A-199
83	83	Cummins Diesel IC engine, model QSK95-G9	24-A-200
84	84	Cummins Diesel IC engine, model QSK95-G9	24-A-201
86	86	Cummins Diesel IC engine, model QSK95-G9	24-A-203
87	87	Cummins Diesel IC engine, model QSK95-G9	24-A-204
88	88	Cummins Diesel IC engine, model QSK95-G9	24-A-205
89	89	Cummins Diesel IC engine, model QSK95-G9	24-A-206
90	90	Cummins Diesel IC engine, model QSK95-G9	24-A-207
91	91	Cummins Diesel IC engine, model QSK95-G9	24-A-208
92	92	Cummins Diesel IC engine, model QSK95-G9	24-A-209
93	93	Cummins Diesel IC engine, model QSK95-G9	24-A-210
94	94	Cummins Diesel IC engine, model QSK95-G9	24-A-211
95	95	Cummins Diesel IC engine, model QSK95-G9	24-A-212
96	96	Cummins Diesel IC engine, model QSK95-G9	24-A-213
97	97	Cummins Diesel IC engine, model QSK95-G9	24-A-214
98	98	Cummins Diesel IC engine, model QSK95-G9	24-A-215
99	99	Cummins Diesel IC engine, model QSK95-G9	24-A-216
100	100	Cummins Diesel IC engine, model QSK95-G9	24-A-217
101	101	Cummins Diesel IC engine, model QSK95-G9	24-A-218
102	102	Cummins Diesel IC engine, model QSK95-G9	24-A-219
103	103	Cummins Diesel IC engine, model QSK95-G9	24-A-220
104	104	Cummins Diesel IC engine, model QSK95-G9	24-A-221
105	105	Cummins Diesel IC engine, model QSK95-G9	24-A-222
107	107	Cummins Diesel IC engine, model QSK95-G9	24-A-224
108	108	Cummins Diesel IC engine, model QSK95-G9	24-A-225
109	109	Cummins Diesel IC engine, model QSK95-G9	24-A-226
110	110	Cummins Diesel IC engine, model QSK95-G9	24-A-227
111	111	Cummins Diesel IC engine, model QSK95-G9	24-A-228
112	112	Cummins Diesel IC engine, model QSK95-G9	24-A-229
113	113	Cummins Diesel IC engine, model QSK95-G9	24-A-230
114	114	Cummins Diesel IC engine, model QSK95-G9	24-A-231
115	115	Cummins Diesel IC engine, model QSK95-G9	24-A-232
116	116	Cummins Diesel IC engine, model QSK95-G9	24-A-233
117	117	Cummins Diesel IC engine, model QSK95-G9	24-A-234
118	118	Cummins Diesel IC engine, model QSK95-G9	24-A-235
119	119	Cummins Diesel IC engine, model QSK95-G9	24-A-236
120	120	Cummins Diesel IC engine, model QSK95-G9	24-A-237
121	121	Cummins Diesel IC engine, model QSK95-G9	24-A-238
122	122	Cummins Diesel IC engine, model QSK95-G9	24-A-239
123	123	Cummins Diesel IC engine, model QSK95-G9	24-A-240
124	124	Cummins Diesel IC engine, model QSK95-G9	24-A-241
125	125	Cummins Diesel IC engine, model QSK95-G9	24-A-242

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
126	126	Cummins Diesel IC engine, model QSK95-G9	24-A-243

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
127	Generator Engine Fuel Tanks (Diesel) (126 total)

II. Plant-Wide Conditions

Facility Name: Ginger West Data Center – 11100 Booneville Rd
Permit Number: 26-TV-003

Permit conditions are established in accord with 567 Iowa Administrative Code rule 24.108. When 567 IAC as amended May 15, 2024, and cited in this permit becomes State Implementation Plan (SIP) approved, it will supersede 567 IAC as amended February 8, 2023. Prior to May 15, 2024, all Title V rule citations in this Title V permit were found and cited in 567 IAC Chapter 22. During the period from May 15, 2024, to the date that 567 IAC as amended May 15, 2024, is approved into the SIP, both 567 IAC as amended May 15, 2024 and 567 IAC as amended February 8, 2023 form the legal basis for the applicable requirements included in this permit. A crosswalk showing the citation changes is attached to this permit in Appendix B.

Permit Duration

The term of this permit is: 5 Years
Commencing on: 04/10/2026
Ending on: 04/09/2031

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 24.110 - 24.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 24.115.

Emission Limits
Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter:
No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed on or after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.
For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from the equation provided in 23.3(2)"a"(2) or amount specified in a permit if based on an emission standard of 0.1

grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

Nitrogen Oxides (NO_x)
Emission Limit(s): 246.9 tons/yr
Authority for Requirement: Synthetic Minor for PSD

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.
4. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

Authority for Requirement: 567 IAC 23.3(2)"c"

Plant-Wide Emission Limits
Total emissions from the facility shall not exceed the levels specified below.

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 246.9 tons/yr
Authority for Requirement: DNR Construction Permits listed in the Equipment List Table

III. Emission Point-Specific Conditions

Facility Name: Ginger West Data Center – 11100 Booneville Rd
Permit Number: 26-TV-003

Emission Point ID Number: See Table: 755 HP Engines

Associated Equipment

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description and ID	Permit #
1	1	Cummins Diesel IC engine,[Error! Bookmark not defined.] model QSX15-G9 NR2	755 HP	None	21-A-209-S2
22	22	Cummins Diesel IC engine,[Error! Bookmark not defined.] model QSX15-G9 NR2	755 HP	None	23-A-073-S1
43	43	Cummins Diesel IC engine,[Error! Bookmark not defined.] model QSX15-G9 NR2	755 HP	None	24-A-160
64	64	Cummins Diesel IC engine,[Error! Bookmark not defined.] model QSX15-G9 NR2	755 HP	None	24-A-181
85	85	Cummins Diesel IC engine,[Error! Bookmark not defined.] model QSX15-G9 NR2	755 HP	None	24-A-202
106	106	Cummins Diesel IC engine,[Error! Bookmark not defined.] model QSX15-G9 NR2	755 HP	None	24-A-223

[1] Each engine is equipped with closed crankcase ventilation.

Applicable Requirements

Emission Limits (lbs/hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines
567 IAC 23.3(2)"d"

(1) An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g. stack testing).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.15 lbs/hr
Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.15 lbs/hr
Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.15 lbs/hr
Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 9.20 lbs/hr,
Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines
567 IAC 23.1(2)"yyy"

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 1.10 lbs/hr
Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines
567 IAC 23.1(2)"yyy"

NSPS/NESHAP Applicability
These emission points are subject to 40 CFR 60 Subpart A *General Provisions* and 40 CFR 60 Subpart IIII *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

NSPS Subpart IIII Requirements
For 2007 and later model year emergency (Except FP) CI engines with Disp. < 30 l/cyl constructed after 7/11/2005 and manufactured after 4/1/2006:

Emission Standards (for engines with displacement (L/cyl) < 10):
According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (l/cyl)	Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM	Opacity	Rule Ref
Disp. < 10	560 < kW ≤ 2237 (751 < HP ≤ 3000)	2007+	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)	(1)	(2)

(1) Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.
(2) 40 CFR 1039 Appendix I.

Fuel Requirements:

You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

Compliance Requirements:

1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
    a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
    b) Changing only those emission-related settings that are permitted by the manufacturer; and
    c) Meeting the requirements of 40 CFR 1068, as they apply to you.
2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).
3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
500 < HP	Within 1 year of engine startup, or non-permitted action [(1)]	Every 8,760 hours or 3 years, whichever comes first

[(1)] Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

Operating and Recordkeeping Requirements

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 60.4209(a)) and, starting with the model years in the following table, you 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. 40 CFR 60.4214(b).

Engine power	Starting model year
19 ≤ KW < 56 (25 ≤ HP < 75)	2013
56 ≤ KW < 130 (75 ≤ HP < 175)	2012
130 ≤ KW (175 ≤ HP)	2011

2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).

3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines
567 IAC 23.1(2)
567 IAC 23.1(2)"yyy"
40 CFR 60 Subpart A
40 CFR 60 Subpart IIII

These emergency engines are subject to 40 CFR 63 Subpart A *General Provisions* and 40 CFR 63 Subpart ZZZZ - *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).* According to 40 CFR 63.6590(a)(2)(iii) these emergency engines, located at an area source, are new stationary RICEs as they were constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart IIII for compression ignition engines. No further requirements apply for this engine under Part 63.

Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines
567 IAC 23.1(4)
567 IAC 23.1(4)"cz"
40 CFR 63 Subpart A
40 CFR 63 Subpart ZZZZ

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be available on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

A. Each engine is limited to burning the following fuels:
   (1) Petroleum diesel fuel oil that meets the specifications of Condition B. below;
   (2) REG 9000/RHD fuel and other Paraffinic fuels [(1)], provided they meet the specifications of Conditions B. and C. below; and
   (3) Blends of petroleum diesel fuel and REG 9000/RHD and other Paraffinic fuels that meet the specifications of Conditions B. and C. below.

   In these construction permits, "diesel fuel oil" or "diesel fuel" shall mean petroleum diesel fuel oil and Paraffinic fuel that meets Condition C. below REG 9000/RHD, a Hydrogenated Vegetable Oil, is a type of Paraffinic fuel. The engines' manufacturer, Cummins, has approved Paraffinic fuels as a fuel that can be used in the QSX15 DFEK

series generator sets and has extended warranty coverage to the engines, provided the Paraffinic fuel meets the fuel specifications applicable to Paraffinic fuels listed in its "*Required Diesel Fuels Specifications*." REG9000/RHD is a Paraffinic fuel that meets Cummins's fuel specifications in its "*Required Diesel Fuels Specifications*." REG 9000/RHD also meets the specifications of ASTM D975, "*Standard Specification for Diesel Fuel Oils*," and therefore meets the definition of "diesel fuel" in 567 IAC 22.1.

[(1)] Paraffinic fuel is a type of synthetic diesel fuel, which can be made from a variety of sources, the most common of which are natural gas, coal, plant oils, or animal fats. Paraffinic fuels made from plant oils and fats are also known as renewable diesel (RD) or hydrogenated vegetable oil (HVO).

B. In accordance with §60.4207(b), the diesel fuel burned in each engine shall meet the following specifications from 40 CFR 1090.305 for ultra-low sulfur diesel (ULSD):

Table 1 - Diesel Fuel Specifications

Parameter	**Limit**
Sulfur (S) content	15 ppm (0.0015%) by weight
Minimum cetane index **or** Maximum aromatic content	40 35% (by volume)

(1) The owner or operator shall comply with the requirements listed above by one of the following methods:
   a. have the fuel supplier certify that the fuel delivered is ULSD as defined in 40 CFR 1090.80; or
   b. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
   c. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

C. The Paraffinic fuels must also meet the following specifications:
   (1) ASTM D975, "*Standard Specification for Diesel Fuel Oils*," or other specifications that enable the fuel to satisfy the definition of "diesel fuel" from 567 IAC 22.1.
   (2) EN 15940, "*Automotive fuels – Paraffinic diesel fuel from synthesis or hydrotreatment – Requirements and test methods*," or other specifications that enable the fuel to meet the paraffinic fuel requirements in the engine manufacturer's "*Required Diesel Fuels Specifications*."

D. The owner or operator of each engine shall comply with the requirements of Condition C. above by one of the following methods:
   (1) Have the fuel supplier certify that the fuel delivered meets all the specifications of Condition C. above;
   (2) Obtain a fuel analysis from the supplier that shows that all specifications of Condition C. above. are met for the fuel delivered;
   (3) Perform an analysis of the fuel to verify that all specifications of Condition C. above are met for the fuel delivered.

E. Prior to using any Paraffinic fuel that is not REG 9000/RHD in an engine, the owner or operator shall submit a determination request to the Department to use the proposed Paraffinic fuel and shall receive written approval by the Department. Information submitted to the Department shall include the following:
   (1) The supplier and name of the Paraffinic fuel;
   (2) A copy of the fuel analysis done on the fuel;
   (3) A statement that the fuel meets the definition of "diesel fuel" from 567 IAC 22.1;
   (4) A statement that the fuel meets the fuel specifications in EN 15940 or meets other specifications that enable the fuel to meet the paraffinic fuel requirements in the engine manufacturer's "*Required Diesel Fuels Specifications*;"
   (5) An evaluation of the impact of air emissions due to the use of the fuel; and
   (6) Any other information that is relevant to the approval request, including stack data or emissions data from the fuel supplier or engine manufacturer.

   If the Department approves the use of the proposed Paraffinic fuel in the engine, the Department may require additional modifications to the construction permit or additional demonstrations of compliance, including stack testing, with any applicable regulation, permit limitation, or permit condition.

F. The stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) are limited to burning a maximum of 3,581,021 gallons of diesel fuel oil in any rolling 12-month period.

G. The following stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) are limited to burning a maximum of 29,981 gallons of diesel fuel oil in any rolling 12-month period: EU-1, EU-22, EU-43, EU-64, EU-85, EU-106.

H. For seven days per calendar year, the owner or operator may operate any or all of the stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) for any amount of time provided that the annual fuel usage limits from Condition F and Condition G. above are not exceeded and the restrictions for an emergency engine operation from Condition K. below are complied with. These seven days are defined as "high activity days" for the purpose of the air dispersion modeling that was conducted for Project 24-180. A "high activity day" shall begin and end at midnight. The definition of "high activity day" does not affect the meaning of "*emergency stationary internal combustion engine*" as that term is defined in NSPS Subpart IIII.

I. A "high activity day" shall be triggered when the total number of hours that any combination of engines at the facility operated in a day exceeded twenty-four (24) engine-hours. This Condition I. establishes when an engine or engines can operate and not trigger a "high activity day."

J. In accordance with U.S. EPA modeling guidance, each engine qualifies as an intermittent source and is not required to demonstrate predicted attainment with the 1-hour NO_2 ambient air quality standard. Per this guidance, scheduled operation of an engine for maintenance and readiness testing should be done during favorable dispersion conditions. Favorable dispersion conditions are generally considered daytime hours between 9 AM and 4 PM. The owner or operator should develop and implement written procedures to ensure operation of each engine for maintenance and readiness testing is done during favorable dispersion conditions to the extent practicable. A copy of these procedures shall be made available to the Department upon request.

K. Each engine:

(1) Is limited to operate as an emergency stationary internal combustion engine as defined in 40 CFR §60.4219 and in accordance with 40 CFR §60.4211(f). There is no time limit on the use of the engine in emergency situations provided that the requested fuel usage limits established in Conditions G. above are not exceeded. In accordance with 40 CFR §60.4211(f)(2), each engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.
(2) Is also allowed to operate up to 50 hours per calendar year in non-emergency situations in accordance with 40 CFR §60.4211(f)(3), but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per calendar year for non-emergency operation cannot be used for peak shaving or non-emergency demand response or to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.

L. In accordance with 40 CFR §60.4209(a), each engine shall be equipped with a non-resettable hour meter.
M. Each engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).
N. In accordance with 40 CFR §60.4211(a), each engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. Except as permitted in 40 CFR §60.4211(g), the owner or operator may only change emission-related engine settings that are permitted by the manufacturer.
O. The owner or operator shall maintain the following daily records:
(1) The total amount of diesel fuel oil burned in all stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) in gallons;
(2) The number of hours each engine at the facility operated;
(3) The total number of hours that all engines at the facility operated;
(4) If an engine was operated, the engine emission unit (EU) identification number, the start-up time and the shutdown time of day that the engine operated, and the reason why the engine was operated during that time [see 40 CFR §60.4214(b)];
(5) Whether the day is a "high activity day" or not a "high activity day" in accordance with Condition I. above.
P. The owner or operator shall maintain the following monthly records:
(1) The number of hours that each engine at the facility operated for maintenance checks and readiness testing;
(2) The number of hours that each engine at the facility operated for allowed non-emergency operations;
(3) The amount of diesel fuel oil burned in each engine at the facility (gallons);
(4) The total amount of diesel fuel oil burned in all stationary internal combustion engines at the facility (gallons);
(5) The rolling 12-month total of the amount of diesel fuel oil burned in all the stationary internal combustion engines at the facility (gallons);
(6) The total amount of diesel fuel oil burned in the following group of stationary internal combustion engines (gallons): EU-1, EU-22, EU-43, EU-64, EU-85, and EU-106;

(7) The rolling 12-month total of the amount of diesel fuel oil burned in the following group of stationary internal combustion engines (gallons): EU-1, EU-22; EU-43, EU-64, EU-85, and EU-106; and

(8) The total amount of Paraffinic fuel burned in all stationary internal combustion engines at the facility (gallons).

Q. The owner or operator shall maintain the following annual records on a calendar year basis:

(1) The number of hours that each engine at the facility operated for maintenance checks and readiness testing;

(2) The number of hours that each engine at the facility operated for allowed non-emergency operations;

(3) The total number of hours that each engine operated for maintenance checks, readiness testing, and allowed non-emergency operations.

(4) The total number of "high activity days," as defined in Conditions I. above that the facility had;

(5) The total of the amount of Paraffinic fuel burned in all the stationary internal combustion engines at the facility (gallons).

R. The owner or operator shall maintain the following records:

(1) A copy of the Certificate of Conformity issued by the US EPA to the engine manufacturer for each stationary diesel engine located at the Ginger West Data Center (facility 25-17-008);

(2) A record of all inspections and maintenance performed on each stationary diesel engine;

(3) A record of any Determination Request that was sent to the Department, seeking review and approval for the use of a Paraffinic fuel that has not been approved for use in the stationary engines. The record shall also include a copy of the Department's written approval letter.

Records required by Condition R.(1) and R.(3) shall be maintained on-site for the life of the equipment.

S. The recordkeeping requirements in this Operating Requirements with Associated Monitoring and Recordkeeping section may be revised at the request of the owner or operator and with the approval of the Department. Revisions to recordkeeping requirements may require the permits to be modified.

T. The owner or operator of the facility shall submit an annual report to the Iowa DNR, Air Quality Bureau for any exceedance of the annual limit of "high activity days". This report shall be submitted no later than January 31 of each calendar year. The report shall identify the number of exceedances, the extent of the exceedance, and the corrective action taken. If no exceedance of this limit occurs, the owner or operator is not required to submit a report. Exceedances of the 12-month fuel usage limits shall be reported in accordance with the Notification, Reporting, and Recordkeeping section of the Construction Permit.

Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines
567 IAC 23.1(2)"yyy"
40 CFR 60 Subpart IIII

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
1	25.93 feet	Vertical, unobstructed	8.0 inches	900°F	1,407 scfm
22	30.00 feet	Vertical, unobstructed	8.0 inches	900°F	1,407 scfm
43	25.93 feet	Vertical, unobstructed	8.0 inches	900°F	1,407 scfm
64	25.93 feet	Vertical, unobstructed	8.0 inches	900°F	1,407 scfm
85	25.93 feet	Vertical, unobstructed	8.0 inches	900°F	1,407 scfm
106	25.93 feet	Vertical, unobstructed	8.0 inches	900°F	1,407 scfm

Authority for Requirement: DNR Construction Permits listed in Table: 755 HP Engines

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: See Table: 4,308/4,309 HP Engines

Associated Equipment

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
2	2	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-210-S2
3	3	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-211-S2
4	4	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-212-S2
5	5	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-213-S2
6	6	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-214-S2
7	7	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-215-S2
8	8	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-216-S2
9	9	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-217-S2
10	10	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-218-S2
11	11	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-219-S2
12	12	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-220-S2
13	13	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-221-S2
14	14	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-222-S2
15	15	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-223-S2
16	16	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-224-S2
17	17	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-225-S2
18	18	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-226-S2
19	19	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-227-S2
20	20	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-228-S2
21	21	Cummins Diesel IC engine, model QSK95-G9[1]	4,308 HP	None	21-A-229-S2
23	23	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-074-S1

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
24	24	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-075-S1
25	25	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-076-S1
26	26	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-077-S1
27	27	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-078-S1
28	28	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-079-S1
29	29	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-080-S1
30	30	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-081-S1
31	31	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-082-S1
32	32	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-083-S1
33	33	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-084-S1
34	34	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-085-S1
35	35	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-086-S1
36	36	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-087-S1
37	37	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-088-S1
38	38	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-089-S1
39	39	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-090-S1
40	40	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-091-S1
41	41	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-092-S1
42	42	Cummins Diesel IC engine, model QSK95-G9[1]	4,309 HP	None	23-A-093-S1

[1] Each engine is equipped with open crankcase ventilation.

Applicable Requirements

Emission Limits (lbs/hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines
567 IAC 23.3(2)"d"

[(1)] An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g. stack testing).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 1.20 lb/hr
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.20 lb/hr
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.20 lb/hr
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 63.62 lb/hr,
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 6.33 lb/hr
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

NSPS/NESHAP Applicability

These emission points are subject to 40 CFR 60 Subpart A *General Provisions* and 40 CFR 60 Subpart IIII *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

NSPS Subpart IIII Requirements

For 2007 and later model year emergency (Except FP) CI engines with Disp. < 30 l/cyl constructed after 7/11/2005 and manufactured after 4/1/2006:

Emission Standards (for engines with displacement (L/cyl) < 10):

According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (l/cyl)	Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM (Federal)	Opacity	Rule Ref
Disp. < 10 2237 < kW	(3000 < HP)	2011+	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)	(1)	(2)

(1) Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.
(2) 40 CFR 1039 Appendix I.

Fuel Requirements:

You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

Compliance Requirements:

1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
    a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
    b) Changing only those emission-related settings that are permitted by the manufacturer; and
    c) Meeting the requirements of 40 CFR 1068, as they apply to you.
2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).
3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days

prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
500 < HP	Within 1 year of engine startup, or non-permitted action [(1)]	Every 8,760 hours or 3 years, whichever comes first

[(1)] Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

Operating and Recordkeeping Requirements

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 60.4209(a)) and, starting with the model years in the following table, you 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. 40 CFR 60.4214(b).

Engine power	Starting model year
130 ≤ KW (175 ≤ HP)	2011

2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines
567 IAC 23.1(2)
567 IAC 23.1(2)"yyy"
40 CFR 60 Subpart A
40 CFR 60 Subpart IIII

These emergency engines are subject to 40 CFR 63 Subpart A *General Provisions* and 40 CFR 63 Subpart ZZZZ - *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).* According to 40 CFR 63.6590(a)(2)(iii) these emergency engines, located at an area source, are new stationary RICEs as they were constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines. No further requirements apply for this engine under Part 63.

Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308HP Engines
567 IAC 23.1(4)
567 IAC 23.1(4)"cz"
40 CFR 63 Subpart A
40 CFR 63 Subpart ZZZZ

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be available on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

A. Each engine is limited to burning the following fuels:
   (1) Petroleum diesel fuel oil that meets the specifications of Condition B. below;
   (2) REG 9000/RHD fuel and other Paraffinic fuels [(1)], provided they meet the specifications of Conditions B. and C. below; and
   (3) Blends of petroleum diesel fuel and REG 9000/RHD and other Paraffinic fuels that meet the specifications of Conditions B. and C. below

In these construction permits, "diesel fuel oil" or "diesel fuel" shall mean petroleum diesel fuel oil and Paraffinic fuel that meets Condition 5.C. REG 9000/RHD, a Hydrogenated Vegetable Oil, is a type of Paraffinic fuel. The engines' manufacturer, Cummins, has approved Paraffinic fuels as a fuel that can be used in the QSK95 C3000 series generator sets and has extended warranty coverage to the engines, provided the Paraffinic fuel meets the fuel specifications applicable to Paraffinic fuels listed in its "*Required Diesel Fuels Specifications*." REG9000/RHD is a Paraffinic fuel that meets Cummins's fuel specifications in its "*Required Diesel Fuels Specifications*." REG 9000/RHD also meets the specifications of ASTM D975, "*Standard Specification for Diesel Fuel Oils*," and therefore meets the definition of "diesel fuel" in 567 IAC 22.1.

[(1)] Paraffinic fuel is a type of synthetic diesel fuel, which can be made from a variety of sources, the most common of which are natural gas, coal, plant oils, or animal fats. Paraffinic fuels made from plant oils and fats are also known as renewable diesel (RD) or hydrogenated vegetable oil (HVO).

B. In accordance with §60.4207(b), the diesel fuel burned in each engine shall meet the following specifications from 40 CFR 1090.305 for ultra-low sulfur diesel (ULSD):

Table 2 - Diesel Fuel Specifications

Parameter	Limit
Sulfur (S) content	15 ppm (0.0015%) by weight
Minimum cetane index **or** Maximum aromatic content	40 35% (by volume)

(2) The owner or operator shall comply with the requirements listed above by one of the following methods:
   a. have the fuel supplier certify that the fuel delivered is ULSD as defined in 40 CFR 1090.80; or
   b. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
   c. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

C. The Paraffinic fuels must also meet the following specifications:
   (1) ASTM D975, "*Standard Specification for Diesel Fuel Oils*," or other specifications that enable the fuel to satisfy the definition of "diesel fuel" from 567 IAC 22.1.
   (2) EN 15940, "*Automotive fuels – Paraffinic diesel fuel from synthesis or hydrotreatment – Requirements and test methods*," or other specifications that enable the fuel to meet the paraffinic fuel requirements in the engine manufacturer's "*Required Diesel Fuels Specifications*."

D. The owner or operator of each engine shall comply with the requirements of Condition C. above by one of the following methods:
   (1) Have the fuel supplier certify that the fuel delivered meets all the specifications of Condition C. above;
   (2) Obtain a fuel analysis from the supplier that shows that all specifications of Condition C. above are met for the fuel delivered;
   (3) Perform an analysis of the fuel to verify that all specifications of Condition C. above are met for the fuel delivered.

E. Prior to using a Paraffinic fuel that is not REG 9000/RHD in an engine, the owner or operator shall submit a determination request to the Department to use the proposed Paraffinic fuel and shall receive written approval by the Department. Information submitted to the Department shall include the following:
   (1) The supplier and name of the Paraffinic fuel;
   (2) A copy of the fuel analysis done on the fuel;
   (3) A statement that the fuel meets the definition of "diesel fuel" from 567 IAC 22.1;
   (4) A statement that the fuel meets the fuel specifications in EN 15940 or meets other specifications that enable the fuel to meet the paraffinic fuel requirements in the engine manufacturer's "*Required Diesel Fuels Specifications*;"
   (5) An evaluation of the impact of air emissions due to the use of the fuel; and

(6) Any other information that is relevant to the approval request, including stack data or emissions data from the fuel supplier or engine manufacturer.

If the Department approves the use of the proposed Paraffinic fuel in the engine, the Department may require additional modifications to the construction permit or additional demonstrations of compliance, including stack testing, with any applicable regulation, permit limitation, or permit condition.

F. The stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) are limited to burning a maximum of 3,581,021 gallons of diesel fuel oil in any rolling 12-month period.

G. The following stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) are limited to burning a maximum of 1,189,440 gallons of diesel fuel oil in any rolling 12-month period: EU-2, EU-3, EU-4, EU-5, EU-6, EU-7, EU-8, EU-9, EU-10, EU-11, EU-12, EU-13, EU-14, EU-15, EU-16, EU-17, EU-18, EU-19, EU-20, EU-21, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, EU-29, EU-30, EU-31, EU-32, EU-33, EU-34, EU-35, EU-36, EU-37, EU-38, EU-39, EU-40, EU-41, EU-42.

H. For seven days per calendar year, the owner or operator may operate any or all of the stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) for any amount of time provided that the annual fuel usage limits from Condition F. and Condition G. above are not exceeded and the restrictions for an emergency engine operation from Condition K. below are complied with. These seven days are defined as "high activity days" for the purpose of the air dispersion modeling that was conducted for Project 24-180. A "high activity day" shall begin and end at midnight. The definition of "high activity day" does not affect the meaning of "*emergency stationary internal combustion engine*" as that term is defined in NSPS Subpart IIII.

I. A "high activity day" shall be triggered when the total number of hours that any combination of engines at the facility operated in a day exceeded twenty-four (24) engine-hours. This Condition I. establishes when an engine or engines can operate and not trigger a "high activity day."

J. In accordance with U.S. EPA modeling guidance, each engine qualifies as an intermittent source and is not required to demonstrate predicted attainment with the 1-hour NO_2 ambient air quality standard. Per this guidance, scheduled operation of an engine for maintenance and readiness testing should be done during favorable dispersion conditions. Favorable dispersion conditions are generally considered daytime hours between 9 AM and 4 PM. The owner or operator should develop and implement written procedures to ensure operation of each engine for maintenance and readiness testing is done during favorable dispersion conditions to the extent practicable. A copy of these procedures shall be made available to the Department upon request.

K. Each engine:

(1) Is limited to operate as an emergency stationary internal combustion engine as defined in 40 CFR §60.4219 and in accordance with 40 CFR §60.4211(f). There is no time limit on the use of the engine in emergency situations provided that the requested fuel usage limits established in Condition 5.G. are not exceeded. In accordance with 40 CFR §60.4211(f)(2), each engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.

(2) Is also allowed to operate up to 50 hours per calendar year in non-emergency situations in accordance with 40 CFR §60.4211(f)(3), but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per calendar year for non-emergency operation cannot be used for peak shaving or non-emergency demand response or to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.

L. In accordance with 40 CFR §60.4209(a), each engine shall be equipped with a non-resettable hour meter.

M. Each engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).

N. In accordance with 40 CFR §60.4211(a), each engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. Except as permitted in 40 CFR §60.4211(g), the owner or operator may only change emission-related engine settings that are permitted by the manufacturer.

O. The owner or operator shall maintain the following daily records:
   (1) The total amount of diesel fuel oil burned in all stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) in gallons;
   (2) The number of hours each engine at the facility operated;
   (3) The total number of hours that all engines at the facility operated;
   (4) If an engine was operated, the engine emission unit (EU) identification number, the start-up time and the shutdown time of day that the engine operated, and the reason why the engine was operated during that time [see 40 CFR §60.4214(b)];
   (5) Whether the day is a "high activity day" or not a "high activity day" in accordance with Conditions I. above.

P. The owner or operator shall maintain the following monthly records:
   (1) The number of hours that each engine at the facility operated for maintenance checks and readiness testing;
   (2) The number of hours that each engine at the facility operated for allowed non-emergency operations;
   (3) The amount of diesel fuel oil burned in each engine at the facility (gallons);
   (4) The total amount of diesel fuel oil burned in all stationary internal combustion engines at the facility (gallons);
   (5) The rolling 12-month total of the amount of diesel fuel oil burned in all the stationary internal combustion engines at the facility (gallons);
   (6) The total amount of diesel fuel oil burned in the following group of stationary internal combustion engines (gallons): EU-2, EU-3, EU-4, EU-5, EU-6, EU-7, EU-8, EU-9, EU-10, EU-11, EU-12, EU-13, EU-14, EU-15, EU-16, EU-17, EU-18, EU-19, EU-20, EU-21, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, EU-29, EU-30, EU-31, EU-32, EU-33, EU-34, EU-35, EU-36, EU-37, EU-38, EU-39, EU-40, EU-41, EU-42;
   (7) The rolling 12-month total of the amount of diesel fuel oil burned in the following group of stationary internal combustion engines (gallons): EU-2, EU-3, EU-4, EU-5, EU-6, EU-7, EU-8, EU-9, EU-10, EU-11, EU-12, EU-13, EU-14, EU-15, EU-16, EU-17, EU-18, EU-19, EU-20, EU-21, EU-23, EU-24, EU-25, EU-26,

EU-27, EU-28, EU-29, EU-30, EU-31, EU-32, EU-33, EU-34, EU-35, EU-36, EU-37, EU-38, EU-39, EU-40, EU-41, EU-42; and

(8) The total amount of Paraffinic fuel burned in all stationary internal combustion engines at the facility (gallons).

Q. The owner or operator shall maintain the following annual records on a calendar year basis:
   (1) The number of hours that each engine at the facility operated for maintenance checks and readiness testing;
   (2) The number of hours that each engine at the facility operated for allowed non-emergency operations;
   (3) The total number of hours that each engine operated for maintenance checks, readiness testing, and allowed non-emergency operations;
   (4) The total number of "high activity days," as defined in Conditions I. above that the facility had; and
   (5) The total of the amount of Paraffinic fuel burned in all the stationary internal combustion engines at the facility (gallons).

R. The owner or operator shall maintain the following records:
   (1) A copy of the Certificate of Conformity issued by the US EPA to the engine manufacturer for each stationary diesel engine located at the Ginger West Data Center (facility 25-17-008);
   (2) A record of all inspections and maintenance performed on each stationary diesel engine;
   (3) A record of any Determination Request that was sent to the Department, seeking review and approval for the use of an Paraffinic fuel that has not been approved for use in the stationary engines. The record shall also include a copy of the Department's written approval letter.

   Records required by Condition R.(1) and R.(3) shall be maintained on-site for the life of the equipment.

S. These recordkeeping requirements may be revised at the request of the owner or operator and with the approval of the Department. Revisions to recordkeeping requirements may require the permits to be modified.

T. The owner or operator of the facility shall submit an annual report to the Iowa DNR, Air Quality Bureau for any exceedance of the annual limit of "high activity days". This report shall be submitted no later than January 31 of each calendar year. The report shall identify the number of exceedances, the extent of the exceedance, and the corrective action taken. If no exceedance of this limit occurs, the owner or operator is not required to submit a report. Exceedances of the 12-month fuel usage limits shall be reported in accordance with Title V General Condition G14.

U. If the consumption of approved Paraffinic fuels in the stationary combustion engines at the facility exceeds 179,100 gallons in a calendar year, the owner or operator shall conduct additional stack tests. To satisfy this requirement, the owner or operator may perform the tests on approved Paraffinic fuels at any time prior to exceeding the 179,100 gallon limit.

(1) The tests shall be done to demonstrate compliance with the emission limits for particulate matter (PM) and oxides of nitrogen (NOx) from the Emission Limits section.
(2) Testing shall be done while burning 100% Paraffinic fuel unless otherwise approved by the Department.
(3) Two of the engines that are part of a QSK95 C3000 series generator set at the facility shall be tested as representative engines.
(4) The tests shall be conducted by no later than March 31 of the year following the calendar year in which consumption of the approved Paraffinic fuels exceeds 179,100 gallons.
(5) The owner or operator shall follow all other general requirements from the Monitoring Requirements Section and the applicable requirements from Construction Permit Condition 12, Notification, Reporting, and Recordkeeping.

This testing requirement is considered a one-time stack test requirement provided that compliance with the emission limits is demonstrated. This requirement does not limit the Department from requiring additional stack testing on proposed Paraffinic fuels in accordance with 567 IAC 21.10(7)"c" and Condition E. above.

Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines
567 IAC 23.1(2)"yyy"
40 CFR 60 Subpart IIII

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
2	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
3	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
4	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
5	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
6	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
7	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
8	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
9	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
10	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
11	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
12	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
13	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
14	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
15	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
16	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
17	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
18	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
19	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
20	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
21	27.1 feet	Vertical, unobstructed	21.5 inches	830°F	9,565 scfm
23	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
24	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
25	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
26	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
27	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
28	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
29	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
30	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
31	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
32	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
33	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
34	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
35	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
36	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
37	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
38	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
39	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
40	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
41	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm
42	30.0 feet	Vertical, unobstructed	21.5 inches	828°F	9,398 scfm

Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing

Pollutant – Particulate Matter (PM) [1]
Stack Test to be Completed by: [2] [3]
Test Method - 40 CFR 60, Appendix A, Method 5
40 CFR 51, Appendix M, Method 202
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

Pollutant – Nitrogen Oxides (NO_x) [4]
Stack Test to be Completed by: [2] [3]
Test Method - 40 CFR 60, Appendix A, Method 7E
Authority for Requirement: DNR Construction Permits listed in Table: 4,309/4,308 HP Engines

[1] A one-time PM stack test is required for the group of engines (i.e. EP-23 to EP-42). The facility may choose to test any two of the twenty engines from the group and use the test results as representative data for all twenty engines. Testing shall not include a measurement of crankcase emissions unless directed through a permitted emission point.
[2] Within 60 days after achieving the maximum production rate but not later than 180 days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.
[3] Additional stack tests may be required for all emission points (EP-2 to EP-21 and EP-23 to EP-42) if Paraffinic fuel is burned in the engines. See Operating Requirements with Associated Monitoring and Recordkeeping Condition U. above.
[4] A one-time NOx stack test is required for the group of engines (i.e. EP-23 to EP-42). The facility may choose to test any two of the twenty engines from the group and use the test results as representative data for all twenty engines. Testing shall not include a measurement of crankcase emissions unless directed through a permitted emission point.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 21.10(7)

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: See Table: 4,309 HP Engines

Associated Equipment

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
44	44	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[2]	24-A-161
45	45	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-162
46	46	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-163
47	47	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-164
48	48	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-165
49	49	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-166
50	50	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-167
51	51	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-168
52	52	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-169
53	53	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-170
54	54	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-171
55	55	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-172
56	56	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-173
57	57	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-174

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
58	58	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-175
59	59	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-176
60	60	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-177
61	61	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-178
62	62	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-179
63	63	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-180
65	65	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-182
66	66	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-183
67	67	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-184
68	68	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-185
69	69	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-186
70	70	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-187
71	71	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-188
72	72	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-189
73	73	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-190

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
74	74	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-191
75	75	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-192
76	76	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-193
77	77	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-194
78	78	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-195
79	79	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-196
80	80	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-197
81	81	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-198
82	82	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-199
83	83	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-200
84	84	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-201
86	86	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-203
87	87	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-204
88	88	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-205
89	89	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-206

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
90	90	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-207
91	91	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-208
92	92	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-209
93	93	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-210
94	94	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-211
95	95	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-212
96	96	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-213
97	97	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-214
98	98	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-215
99	99	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-216
100	100	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-217
101	101	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-218
102	102	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-219
103	103	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-220
104	104	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SC[RError! Bookmark not defined.]	24-A-221

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
105	105	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-222
107	107	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-224
108	108	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-225
109	109	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-226
110	110	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-227
111	111	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-228
112	112	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-229
113	113	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-230
114	114	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-231
115	115	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-232
116	116	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-233
117	117	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-234
118	118	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-235
119	119	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-236
120	120	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-237

EP #	EU #	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
121	121	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-238
122	122	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-239
123	123	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-240
124	124	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-241
125	125	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-242
126	126	Cummins Diesel IC engine[Error! Bookmark not defined.], model QSK95-G9	4,309 HP	DOC, DPF, SCR[Error! Bookmark not defined.]	24-A-243

[1] Each engine is equipped with an open crankcase ventilation.
[2] Each engine is equipped with a Miratech Control System. It consists of a Diesel Oxidation Catalyst (DOC) and a passive Diesel Particulate Filter (DPF) in series with a Selective Catalytic Reduction System (SCR).

Applicable Requirements

Emission Limits (lbs/hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines
567 IAC 23.3(2)"d"

[(1)] An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g. stack testing).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.18 lbs/hr
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.18 lbs/hr
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.18 lbs/hr
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 10.14 lbs/hr,
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines
567 IAC 23.1(2)"yyy"

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 6.33 lbs/hr
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines
567 IAC 23.1(2)"yyy"

NSPS/NESHAP Applicability
These emission points are subject to 40 CFR 60 Subpart A *General Provisions* and 40 CFR 60 Subpart IIII *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

NSPS Subpart IIII Requirements
For 2007 and later model year emergency (Except FP) CI engines with Disp. < 30 l/cyl constructed after 7/11/2005 and manufactured after 4/1/2006:

Emission Standards (for engines with displacement (L/cyl) < 10):
According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (l/cyl)	Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM	Opacity	Rule Ref
Disp. < 10 2237 < kW	(3000 < HP)	2011+	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)	(1)	(2)

(1) Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.
(2) 40 CFR 1039 Appendix I.
(3) Table 2 to Subpart IIII and 40 CFR 1039.105.

Fuel Requirements:
You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

Compliance Requirements:
1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
    a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
    b) Changing only those emission-related settings that are permitted by the manufacturer; and
    c) Meeting the requirements of 40 CFR 1068, as they apply to you.
2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).

3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct

the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
500 < HP	Within 1 year of engine startup, or non-permitted action [(1)]	Every 8,760 hours or 3 years, whichever comes first

[(1)] Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

Operating and Recordkeeping Requirements

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 60.4209(a)) and, starting with the model years in the following table, you 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. 40 CFR 60.4214(b).

Engine power	Starting model year
130 ≤ KW (175 ≤ HP)	2011

2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines
567 IAC 23.1(2)
567 IAC 23.1(2)"yyy"
40 CFR 60 Subpart A
40 CFR 60 Subpart IIII

These emergency engines are subject to 40 CFR 63 Subpart A *General Provisions* and 40 CFR 63 Subpart ZZZZ - *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).* According to 40 CFR 63.6590(a)(2)(iii) these emergency engines, located at an area source, are new stationary RICEs as they were constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart IIII for compression ignition engines. No further requirements apply for this engine under Part 63.

Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines
567 IAC 23.1(4)
567 IAC 23.1(4)"cz"
40 CFR 63 Subpart A
40 CFR 63 Subpart ZZZZ

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be available on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

A. Each engine (EU-44 to EU-63, EU-65 to EU-84, EU-86 to EU-105, and EU-107 to EU-126) shall be equipped with a Diesel Oxidation Catalyst (DOC) and a Diesel Particulate Filter (DPF) in series with a Selective Catalytic Reduction (SCR) System for the control of air contaminant emissions. The DOC/DPF/SCR system is equipped with a controller which monitors system parameters to determine if the control system is operating properly, and it displays alarms to alert the operators when control system parameters are not in range. The controller shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per a written facility specific operation and maintenance plan.
   (1) The DPF is a control technology that traps the particular matter emissions in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (i.e. burning off) the particles in a process called regeneration. The DPF uses a passive regeneration system. The controller shall measure the backpressure of the engine in inches water column. (1)
      a. The engine's backpressure shall be maintained between the low and high setpoints recommended by the DPF manufacturer (Miratech Group LLC) for the different engine loads. A copy of the setpoints shall be maintained on-site for each engine.
      b. The owner or operator shall collect and record the pressure drop across each DPF, in inches of water, continuously while in operation. It is acceptable to average the continuous readings over a 15 minute (or less) time period and to record the average pressure drop.

c. If the pressure drop across the DPF falls outside the range specified in Condition A.(1) above, the owner or operator shall investigate the engine and the DPF and make corrections to them as necessary. The owner or operator shall maintain a record of all corrective actions taken after the backpressure monitor has alerted that the low or high backpressure limit is approached.

(2) Miratech Group LLC, the manufacturer of the DPF, has established the following operating criteria that should be followed to ensure proper control of particulate matter emissions:

a. The engine's minimum exhaust temperature for filter regeneration is 500°F. At 550°F, regeneration takes approximately 45 minutes.

b. The maximum number of consecutive minutes that an engine can operate with an exhaust temperature below 500°F is 720 minutes.

c. The maximum number of cold starts and 40 minute idle sessions that an engine can have before regeneration is required is 18.

d. Each engine's controller shall monitor and record the engine's exhaust temperature continuously at the inlet to the DPF, while in operation. It is acceptable to average the continuous readings over a 15 minute (or less) time period and to record the average temperature. The temperature monitoring sensor and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per a written facility specific operation and maintenance plan.

The owner or operator shall maintain a record on each engine that documents that the engine and the DPF are being operated consistent with the manufacturer's recommended operating criteria to ensure that the DPF is being properly operated and regenerated. This record shall be made available to the Department upon request.

(3) The owner or operator shall develop an operating and maintenance plan for the Diesel Particulate Filters (DPFs), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

a. The DPFs shall be cleaned of ash at the frequency recommended by the DPF's manufacturer. The date of cleaning shall be recorded.

b. The owner or operator shall maintain a record of all inspections and maintenance and any actions resulting from the inspections and maintenance of the DPFs.

c. Before replacing a DPF System entirely, the owner or operator shall apply for and obtain a modification to the engine's construction permit.

(4) As part of the Selective Catalytic Reduction (SCR) control system for controlling NOx emissions, a diesel exhaust fluid (DEF) is injected into the engine's exhaust gases. A DEF tank is located externally and adjacent to the generator and engine enclosure. Per the manufacturer, 18.5 gallons per hour of DEF is consumed per hour at 100% load. The owner or operator shall:

a. Use a DEF that is recommended by the manufacturer of the engine or SCR system.

b. Maintain a record of each engine's DEF injection rate for each engine load. The DEF injection rates, based on engine load, shall be established during the commissioning of each engine.
c. Maintain a record of the identification of the DEF used (i.e. purchase records, SDS, etc.)
d. Maintain a record of the amount of DEF used (gallons) each time the engine is in operation.

(5) Miratech Group LLC, the manufacturer of the SCR system, has established the following operating criteria that should be followed to ensure proper control of NOx:
a. The catalyst's optimum temperature range is 572°F to 977°F.
b. The DEF is injected into the mixing section after the SCR temperature has reached approximately 575°F.
c. Each engine's controller shall monitor and record the SCR temperature continuously at the outlet of the SCR while the engine is in operation. It is acceptable to average the continuous readings over a 15 minute (or less) time period and to record the average temperature. The temperature monitoring sensor and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per a written facility specific operation and maintenance plan.
d. Excluding the initial startup period and once the engine has reached the injection temperature of 575°F, if the SCR temperature falls outside the range specified in Condition A.(5)a. above, the owner or operator shall investigate the engine and the SCR system and make corrections to them as necessary. The owner or operator shall maintain a record of all corrective actions taken.

(6) The owner or operator shall develop an operating and maintenance plan for the SCR system, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
a. The owner or operator shall establish a schedule for replenishing the DEF to ensure that the tank never runs dry. Each engine's controller shall monitor the DEF tank level. A low DEF tank alarm shall be used to indicate when the tank needs to be refilled.
b. A heating system within the DEF tank shall be used to maintain DEF temperatures during cold weather conditions. The owner or operator shall ensure that the temperature of the DEF is maintained at levels conducive to operation during winter conditions.
c. The owner or operator shall establish criteria to validate the condition and effectiveness of the catalyst.
d. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the SCR system.
e. Before replacing an engine's SCR system entirely, the owner or operator shall apply for and obtain a modification to the engine's construction permit.

(7) The owner or operator shall maintain a record of the control equipment parameters measured during any compliance stack test for an engine. The information shall include: identification of the engine, date of test, average engine load, exhaust temperature at the inlet to the DPF, pressure drop across the DPF, DEF injection rate to the SCR, and SCR outlet temperature. This information shall be provided with any stack test report submitted to the Department and a copy shall be maintained on-site.

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(1) The owner or operator may use a different unit of measure for the backpressure without modifying the construction permits for the engines provided that they submit a written notification to the Department prior to making that change. The owner or operator shall also provide the Department the manufacturer's recommended setpoints for the backpressure in the new units of measure.

B. Each engine is limited to burning the following fuels:
   (1) Petroleum diesel fuel oil that meets the specifications of Condition C. below;
   (2) REG 9000/RHD fuel and other Paraffinic fuels, provided they meet the specifications of Conditions C. and D. below; and
   (3) Blends of petroleum diesel fuel and REG 9000/RHD and other Paraffinic fuels that meet the specifications of Conditions C. and D. below.

   In these construction permits, "diesel fuel oil" or "diesel fuel" shall mean petroleum diesel fuel oil and Paraffinic fuel that meets Condition D. below REG 9000/RHD, a Hydrogenated Vegetable Oil, is a type of Paraffinic fuel. The engines' manufacturer, Cummins, has approved Paraffinic fuels as a fuel that can be used in the QSK95 C3000 series generator sets and has extended warranty coverage to the engines, provided the Paraffinic fuel meets the fuel specifications applicable to Paraffinic fuels listed in its "*Required Diesel Fuels Specifications*." REG9000/RHD is a Paraffinic fuel that meets Cummins's fuel specifications in its "*Required Diesel Fuels Specifications*." REG 9000/RHD also meets the specifications of ASTM D975, "*Standard Specification for Diesel Fuel Oils*," and therefore meets the definition of "diesel fuel" in 567 IAC 22.1.

C. In accordance with §60.4207(b), the diesel fuel burned in each engine shall meet the following specifications from 40 CFR 1090.305 for ultra-low sulfur diesel (ULSD):

Table - Diesel Fuel Specifications

Parameter	**Limit**
Sulfur (S) content	15 ppm (0.0015%) by weight
Minimum cetane index **or** Maximum aromatic content	40 35% (by volume)

(3) The owner or operator shall comply with the requirements listed above by one of the following methods:
   a. have the fuel supplier certify that the fuel delivered is ULSD as defined in 40 CFR 1090.80; or
   b. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
   c. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

D. The Paraffinic fuels must also meet the following specifications:
   (1) ASTM D975, "*Standard Specification for Diesel Fuel Oils*," or other specifications that enable the fuel to satisfy the definition of "diesel fuel" from 567 IAC 22.1.
   (2) EN 15940, "*Automotive fuels – Paraffinic diesel fuel from synthesis or hydrotreatment – Requirements and test methods*," or other specifications that enable the fuel to meet the paraffinic fuel requirements in the engine manufacturer's "*Required Diesel Fuels Specifications*."

E. The owner or operator of each engine shall comply with the requirements of Condition C. by one of the following methods:
   (1) Have the fuel supplier certify that the fuel delivered meets all the specifications of Condition C.;
   (2) Obtain a fuel analysis from the supplier that shows that all specifications of Condition C. are met for the fuel delivered;
   (3) Perform an analysis of the fuel to verify that all specifications of Condition C. are met for the fuel delivered.

F. Prior to using any Paraffinic fuel that is not REG 9000/RHD in an engine, the owner or operator shall submit a determination request to the Department to use the proposed Paraffinic fuel and shall receive written approval by the Department. Information submitted to the Department shall include the following:
   (1) The supplier and name of the Paraffinic fuel;
   (2) A copy of the fuel analysis done on the fuel;
   (3) A statement that the fuel meets the definition of "diesel fuel" from 567 IAC 22.1;
   (4) A statement that the fuel meets the fuel specifications in EN 15940 or meets other specifications that enable the fuel to meet the paraffinic fuel requirements in the engine manufacturer's "*Required Diesel Fuels Specifications*;"
   (5) An evaluation of the impact of air emissions due to the use of the fuel; and
   (6) Any other information that is relevant to the approval request, including stack data or emissions data from the fuel supplier or engine manufacturer.

   If the Department approves the use of the proposed Paraffinic fuel in the engine, the Department may require additional modifications to the construction permit or additional demonstrations of compliance, including stack testing, with any applicable regulation, permit limitation, or permit condition.

G. The stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) are limited to burning a maximum of 3,581,021 gallons of diesel fuel oil in any rolling 12-month period.

H. The following stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) are limited to burning a maximum of 2,361,600 gallons of diesel fuel oil in any rolling 12-month period: EU-44, EU-45, EU-46, EU-47, EU-48, EU-49, EU-50, EU-51, EU-52, EU-53, EU-54, EU-55, EU-56, EU-57, EU-58, EU-59, EU-60, EU-61, EU-62, EU-63, EU-65, EU-66, EU-67, EU-68, EU-69, EU-70, EU-71, EU-72, EU-73, EU-74, EU-75, EU-76, EU-77, EU-78, EU-79, EU-80, EU-81, EU-82, EU-83, EU-84, EU-86, EU-87, EU-88, EU-89, EU-90, EU-91, EU-92, EU-93, EU-94, EU-95, EU-96, EU-97, EU-98, EU-99, EU-100, EU-101, EU-102, EU-103, EU-104, EU-105, EU-107, EU-108, EU-109, EU-110, EU-111, EU-112, EU-113, EU-114, EU-115, EU-

116, EU-117, EU-118, EU-119, EU-120, EU-121, EU-122, EU-123, EU-124, EU-125, EU-126.

I. For seven days per calendar year, the owner or operator may operate any or all of the stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) for any amount of time provided that the annual fuel usage limits from Condition G. and Condition H. above are not exceeded and the restrictions for an emergency engine operation from Condition L. below are complied with. These seven days are defined as "high activity days" for the purpose of the air dispersion modeling that was conducted for Project 24-180. A "high activity day" shall begin and end at midnight. The definition of "high activity day" does not affect the meaning of "*emergency stationary internal combustion engine*" as that term is defined in NSPS Subpart IIII.

J. A "high activity day" shall be triggered when the total number of hours that any combination of engines at the facility operated in a day exceeded twenty-four (24) engine-hours. This Condition J. establishes when an engine or engines can operate and not trigger a "high activity day."

K. In accordance with U.S. EPA modeling guidance, each engine qualifies as an intermittent source and is not required to demonstrate predicted attainment with the 1-hour NO_2 ambient air quality standard. Per this guidance, scheduled operation of an engine for maintenance and readiness testing should be done during favorable dispersion conditions. Favorable dispersion conditions are generally considered daytime hours between 9 AM and 4 PM. The owner or operator should develop and implement written procedures to ensure operation of each engine for maintenance and readiness testing is done during favorable dispersion conditions to the extent practicable. A copy of these procedures shall be made available to the Department upon request.

L. Each engine:
   (1) Is limited to operate as an emergency stationary internal combustion engine as defined in 40 CFR §60.4219 and in accordance with 40 CFR §60.4211(f). There is no time limit on the use of the engine in emergency situations provided that the requested fuel usage limits established in Condition H. above are not exceeded. In accordance with 40 CFR §60.4211(f)(2), each engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.
   (2) Is also allowed to operate up to 50 hours per calendar year in non-emergency situations in accordance with 40 CFR §60.4211(f)(3), but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per calendar year for non-emergency operation cannot be used for peak shaving or non-emergency demand response or to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.

M. In accordance with 40 CFR §60.4209(a), each engine shall be equipped with a non-resettable hour meter.

N. Each engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).

O. In accordance with 40 CFR §60.4211(a), each engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. Except as permitted in 40 CFR §60.4211(g), the owner or operator may only change emission-related engine settings that are permitted by the manufacturer.

P. The owner or operator shall maintain the following daily records:
   (1) The total amount of diesel fuel oil burned in all stationary internal combustion engines at the Ginger West Data Center (Facility No. 25-17-008) in gallons;
   (2) The number of hours each engine at the facility operated;
   (3) The total number of hours that all engines at the facility operated;
   (4) If an engine was operated, the engine emission unit (EU) identification number, the start-up time and the shutdown time of day that the engine operated, and the reason why the engine was operated during that time [see 40 CFR §60.4214(b)];
   (5) Whether the day is a "high activity day" or not a "high activity day" in accordance with Conditions J. above.

Q. The owner or operator shall maintain the following monthly records:
   (1) The number of hours that each engine at the facility operated for maintenance checks and readiness testing;
   (2) The number of hours that each engine at the facility operated for allowed non-emergency operations;
   (3) The amount of diesel fuel oil burned in each engine at the facility (gallons);
   (4) The total amount of diesel fuel oil burned in all stationary internal combustion engines at the facility (gallons);
   (5) The rolling 12-month total of the amount of diesel fuel oil burned in all the stationary internal combustion engines at the facility (gallons);
   (6) The total amount of diesel fuel oil burned in the following group of stationary internal combustion engines (gallons): EU-44, EU-45, EU-46, EU-47, EU-48, EU-49, EU-50, EU-51, EU-52, EU-53, EU-54, EU-55, EU-56, EU-57, EU-58, EU-59, EU-60, EU-61, EU-62, EU-63, EU-65, EU-66, EU-67, EU-68, EU-69, EU-70, EU-71, EU-72, EU-73, EU-74, EU-75, EU-76, EU-77, EU-78, EU-79, EU-80, EU-81, EU-82, EU-83, EU-84, EU-86, EU-87, EU-88, EU-89, EU-90, EU-91, EU-92, EU-93, EU-94, EU-95, EU-96, EU-97, EU-98, EU-99, EU-100, EU-101, EU-102, EU-103, EU-104, EU-105, EU-107, EU-108, EU-109, EU-110, EU-111, EU-112, EU-113, EU-114, EU-115, EU-116, EU-117, EU-118, EU-119, EU-120, EU-121, EU-122, EU-123, EU-124, EU-125, EU-126;
   (7) The rolling 12-month total of the amount of diesel fuel oil burned in the following group of stationary internal combustion engines (gallons): EU-44, EU-45, EU-46, EU-47, EU-48, EU-49, EU-50, EU-51, EU-52, EU-53, EU-54, EU-55, EU-56, EU-57, EU-58, EU-59, EU-60, EU-61, EU-62, EU-63, EU-65, EU-66, EU-67, EU-68, EU-69, EU-70, EU-71, EU-72, EU-73, EU-74, EU-75, EU-76, EU-77, EU-78, EU-79, EU-80, EU-81, EU-82, EU-83, EU-84, EU-86, EU-87, EU-88, EU-89, EU-90, EU-91, EU-92, EU-93, EU-94, EU-95, EU-96, EU-97, EU-98, EU-99, EU-100, EU-101, EU-102, EU-103, EU-104, EU-105, EU-107, EU-108, EU-109, EU-110, EU-111, EU-112, EU-113, EU-114, EU-115, EU-116, EU-117, EU-118, EU-119, EU-120, EU-121, EU-122, EU-123, EU-124, EU-125, EU-126; and
   (8) The total amount of Paraffinic fuel burned in all stationary internal combustion engines at the facility (gallons).

R. The owner or operator shall maintain the following annual records on a calendar year basis:

(1) The number of hours that each engine at the facility operated for maintenance checks and readiness testing;
(2) The number of hours that each engine at the facility operated for allowed non-emergency operations;
(3) The total number of hours that each engine operated for maintenance checks, readiness testing, and allowed non-emergency operations;
(4) The total number of "high activity days," as defined in Condition J. above that the facility had; and
(5) The total of the amount of Paraffinic fuel burned in all the stationary internal combustion engines at the facility (gallons).

S. The owner or operator shall maintain the following records:
(1) A copy of the Certificate of Conformity issued by the US EPA to the engine manufacturer for each stationary diesel engine located at the Ginger West Data Center (facility 25-17-008);
(2) A record of all inspections and maintenance performed on each stationary diesel engine;
(3) A record of any Determination Request that was sent to the Department, seeking review and approval for the use of a Paraffinic fuel that has not been approved for use in the stationary engines. The record shall also include a copy of the Department's written approval letter.

Records required by Condition S.(1) and S.(3) shall be maintained on-site for the life of the equipment.

T. The recordkeeping requirements in this section may be revised at the request of the owner or operator and with the approval of the Department. Revisions to recordkeeping requirements may require the permits to be modified.

U. The owner or operator of the facility shall submit an annual report to the Iowa DNR, Air Quality Bureau for any exceedance of the annual limit of "high activity days". This report shall be submitted no later than January 31 of each calendar year. The report shall identify the number of exceedances, the extent of the exceedance, and the corrective action taken. If no exceedance of this limit occurs, the owner or operator is not required to submit a report. Exceedances of the 12-month fuel usage limits shall be reported in accordance with the Notification, Reporting, and Recordkeeping portion of the relevant construction permit.

V. If the consumption of approved Paraffinic fuels in the stationary combustion engines at the facility exceeds 179,100 gallons in a calendar year, the owner or operator shall conduct additional stack tests. To satisfy this requirement, the owner or operator may perform the tests on approved Paraffinic fuels at any time prior to exceeding the 179,100 gallon limit.
(1) The tests shall be done to demonstrate compliance with the emission limits for particulate matter (PM) and oxides of nitrogen (NOx) from the Emission Limits section.
(2) Testing shall be done while burning 100% Paraffinic fuel unless otherwise approved by the Department.
(3) Two of the engines that are part of a QSK95 C3000 series generator set at the facility shall be tested as representative engines.

(4) The tests shall be conducted by no later than March 31 of the year following the calendar year in which consumption of the approved Paraffinic fuels exceeds 179,100 gallons.
(5) The owner or operator shall follow all other general requirements from the Compliance Demonstration(s) and the applicable requirements from the Notification, Reporting, and Recordkeeping sections of the relevant construction permit.

This testing requirement is considered a one-time stack test requirement provided that compliance with the emission limits is demonstrated. This requirement does not limit the Department from requiring additional stack testing on proposed Paraffinic fuels in accordance with 567 IAC 21.10(7)"c" and Condition F.

Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines
567 IAC 23.1(2)"yyy"
40 CFR 60 Subpart IIII

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
44	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
45	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
46	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
47	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
48	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
49	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
50	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
51	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
52	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
53	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
54	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
55	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
56	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
57	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
58	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
59	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
60	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
61	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
62	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
63	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
65	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
66	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
67	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
68	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
69	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
70	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
71	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
72	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
73	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
74	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
75	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
76	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
77	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
78	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
79	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
80	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
81	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
82	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
83	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
84	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
86	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
87	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
88	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
89	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
90	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
91	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
92	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
93	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
94	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
95	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
96	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
97	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
98	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
99	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
100	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
101	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
102	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
103	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
104	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
105	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
107	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
108	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
109	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
110	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
111	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
112	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
113	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
114	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
115	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
116	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
117	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
118	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
119	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
120	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
121	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
122	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
123	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
124	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
125	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm
126	31.94 feet	Vertical, unobstructed	30.0 inches	828°F	9,398 scfm

Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – [(1) (2) (3)]
Test Method - 40 CFR 60, Appendix A, Method 5
40 CFR 51, Appendix M, Method 202
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines

Pollutant – Nitrogen Oxides (NOx)
Stack Test to be Completed by (date) – [(1) (2) (3)]
Test Method - 40 CFR 60, Appendix A, Method 7E
Authority for Requirement: Construction Permits listed in Table: 4,309 HP Engines

[(1)] Within 60 days after achieving the maximum production rate but not later than 180 days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.
[(2)] A one-time PM and NOx stack test is required for this group of engines. The facility may choose to test any eight of the eighty engines from the group and use the test results as representative data for all eighty engines. Testing shall not include a measurement of crankcase emissions unless directed through a permitted emission point.
[(3)] Additional stack tests may be required if Paraffinic fuel is burned in the engines. See Condition V of the Operating Requirements with Associated Monitoring and Recordkeeping section.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 24.108(3)

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code (IAC). When 567 IAC as amended May 15, 2024, and cited in this permit becomes State Implementation Plan (SIP) approved, it will supersede 567 IAC as amended February 8, 2023. Prior to May 15, 2024, all Title V rule citations in this Title V permit were found and cited in 567 IAC Chapter 22. During the period from May 15, 2024, to the date that 567 IAC as amended May 15, 2024, is approved into the SIP, both 567 IAC as amended May 15, 2024, and 567 IAC as amended February 8, 2023 form the legal basis for the applicable requirements included in this permit. A crosswalk showing the citation changes is attached to this permit in Appendix B.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 24.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 24.105(2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 24.108(1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 24.108(14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 24.108(9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 24.108(15)"c"*

G2. Permit Expiration

1. Except as provided in rule 567—24.104(455B), permit expiration terminates a source’s right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—24.105(455B). *567 IAC 24.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 24.105(2). *567 IAC 24.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable

inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 24.107(4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 24.108(15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 24.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 24.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 24.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 24.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges
Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:
1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 24.108 (15)"b"*

G8. Duty to Provide Information
The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 24.108 (9)"e"*

G9. General Maintenance and Repair Duties
The owner or operator of any air emission source or control equipment shall:
1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 21.8(1)*

G10. Recordkeeping Requirements for Compliance Monitoring
1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
    a. The date, place and time of sampling or measurements
    b. The date the analyses were performed.
    c. The company or entity that performed the analyses.
    d. The analytical techniques or methods used.
    e. The results of such analyses; and
    f. The operating conditions as existing at the time of sampling or measurement.
    g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.

b. Maintain a log at the permitted facility of the scenario under which it is operating.

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 24.108(4), 567 IAC 24.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 24;

b. Compliance test methods specified in 567 Chapter 21; or

c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or

b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 24.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a

violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emissions shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 21.10(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 21.10(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
vi. The steps that were taken to limit the excess emission.
vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 21.7(1)-567 IAC 21.7(4)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 24.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the Act, modifications under section 112 of the Act, or major modifications as defined in 567 IAC Chapter 24.
b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—24.140(455B) through 567 - 24.144(455B));.
e. The changes comply with all applicable requirements.
f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,
ii. The date on which the change will occur,
iii. Any change in emission as a result of that change,
iv. The pollutants emitted subject to the emissions trade
v. If the emissions trading provisions of the state implementation plan are

invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 24.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 24.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 24.110(1). *567 IAC 24.110(3)*

4. The permit shield provided in subrule 24.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 24.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 24.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that does any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Title V Permit Modification.

a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:

i. Do not violate any applicable requirement;

ii. Do not involve significant changes to existing monitoring, reporting or

recordkeeping requirements in the Title V permit;
iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
v. Are not modifications under any provision of Title I of the Act; and
vi. Are not required to be processed as significant modification under rule 567 - 24.113(455B).

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
ii. The permittee's suggested draft permit;
iii. Certification by a responsible official, pursuant to 567 IAC 24.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 24.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 24.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 24, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of

the changed source may not commence until the department revises the permit. *567 IAC 24.111-567 IAC 24.113*

G19. Duty to Obtain Construction Permits

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (*567 IAC 23.1(3)"a");* training fires and controlled burning of a demolished building *(567 IAC 23.2).*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. “Held” in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 24.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
    a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
    b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
    c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
    d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 24.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 24.108(17)"a", 567 IAC 24.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 24.114*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 24.114*
5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 24.114*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
a. Such applicable requirements are included and are specifically identified in the permit; or
b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
3. A permit shield shall not alter or affect the following:
a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 24.108 (18)*

G26. Severability
The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 24.108 (8)*

G27. Property Rights
The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 24.108 (9)"d"*

G28. Transferability
This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 24.111(1). *567 IAC 24.111 (1)"d"*

G29. Disclaimer
No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks (42 days) of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 343-6589

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.
567 IAC 21.10(7)"a", 567 IAC 21.10(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.
567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Iowa Compliance Officer
Air Branch
Enforcement and Compliance Assurance Division
U.S. EPA Region 7
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 313-8325

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
1101 Commercial Court, Suite 10
Manchester, IA 52057
(563) 927-2640

Field Office 2
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 725-0268

Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Polk County Public Works Dept.
Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health
Air Quality Branch
1020 6th Street SE
Cedar Rapids, IA 52401
(319) 892-6000

V. Links to Standards

40 CFR 60 Subpart A – General Provisions
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-A?toc=1

40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-IIII

40 CFR 63 Subpart A – General Provisions
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-A

40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ

VI. Executive Order 10 (EO10) Rules Crosswalk

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
20	**20 (Reserved)**	Scope of Title - Definitions	N/A	**Definitions moved** to Ch. 21, 22 and 23. **Rescinded** Ch. 20. (Reserved)
21	**21**	Compliance	Compliance, Excess Emissions, and Measurement of Emissions	**Kept and combined** with rules from Chapters 24, 25, 26, and 29.
22	**22**	Controlling Pollution-Permits	Controlling Air Pollution - Construction Permitting	**Kept construction permit rules and combined** with Ch. 20 (definitions) and Ch. 28 (NAAQS). **Moved operating permit rules** to Chapter 24.
22.100 - 22.300(12)	**(New) 24**	N/A	Operating Permits	**Moved operating permit rules** from Ch. 22 to Ch. 24.
23	**23**	Emission Standards	Air Emission Standards	**Kept**
24	**(New) 21**	Excess Emissions	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Moved TV rules** here (to Ch. 24)**.**
25	**(New) 21**	Emissions Measurement	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 25. (Reserved)
26	**(New) 21**	Emergency Air Pollution Episodes	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 26. (Reserved)
27	**27**	Local Program Acceptance	Local Program Acceptance	**Kept**
28	**22**	NAAQS	N/A	**Moved rules and combined** with Ch. 22. **Rescinded** Ch. 28. (Reserved)
29	**(New) 21**	Opacity Qualifications	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 29. (Reserved)
30	**30**	Fees	Fee	**Kept**
31	**31**	Nonattainment Areas	Nonattainment New Source Review	**Kept**
32	**N/A**	AFO Field Study	N/A	**Rescinded** Ch. 32. (Reserved)
33	**33**	Special regulations and construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD) of air quality	Construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD)	**Kept**
34	**N/A**	Emissions Trading-CAIR-CAMR	N/A	**Rescinded** Ch. 34. (Reserved)
35	**N/A**	Grant Assistance Programs	N/A	**Rescinded** Ch. 35. (Reserved)

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
20	**20 (Reserved)**	**Scope of Title - Definitions**	**N/A**	**Definitions moved** to Ch. 21, 22 and 23. **Rescinded** Ch. 20. (Reserved)
20.1	N/A	Scope of title	N/A	
20.2	Ch. 21, 22, 23	Definitions	Definitions	See beginning of Ch. 21, 22, and 23
20.3	N/A	Air quality forms generally	N/A	
21	**21**	**Compliance**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Kept and combined** with rules from Chapters 24, 25, 26, and 29.
21.1	21.1	Compliance Schedule	Definitions and compliance requirements	Added definitions from Ch. 21, some language updated
21.2	21.2	Variances	Variances	Some language updated
21.3	21.3	Emission reduction program	Reserved	Reserved
21.4	21.4	Circumvention of rules	Circumvention of rules	Minor language updated
21.5	21.5	Evidence used in establishing that a violation has or is occurring	Evidence used in establishing that a violation has occurred or is occurring	21.5(2) Reserved, some language updated
21.6	21.6	Temporary electricity generation for disaster situations	Temporary electricity generation for disaster situations	Minor language updated
24.1	21.7	Excess emission reporting	Excess emission reporting	Moved from Ch. 24, some language updated
24.2	21.8	Maintenance and repair requirements	Maintenance and repair requirements	Moved from Ch. 24, some language updated
N/A	21.9	N/A	Compliance with other requirements	New language
25.1	21.10	Testing and sampling of new and existing equipment	Testing and sampling of new and existing equipment	Moved from Ch. 25, some language updated
25.2	21.11	Continuous emission monitoring under the acid rain program	Continuous emission monitoring under the acid rain program	Moved from Ch. 25, some language updated
25.3	N/A	Mercury emissions testing and monitoring	N/A	Rescinded. Except 25.3(5)
25.3(5)	21.12	Affected sources subject to Section 112(g)	Affected sources subject to Section 112(g)	Moved from Ch. 25, some language updated
29.1	21.13	Methodology and qualified observer	Methodology and qualified observer	Moved from Ch. 29, some language updated
26.1	21.14	Prevention of air pollution emergency episodes - General	Prevention of air pollution emergency episodes	Moved from Ch. 26, some language updated
26.2	21.15	Episode criteria	Episode criteria	Moved from Ch. 26, some language updated
26.3	21.16	Preplanned abatement strategies	Preplanned abatement strategies	Moved from Ch. 26, some language updated
26.4	21.17	Actions taken during episodes	Actions taken during episodes	Moved from Ch. 26, some language updated
Ch 26 Table III	Table I	Abatement strategies emission reduction actions alert level	Abatement strategies emission reduction actions alert level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table IV	Table II	Abatement strategies emission reduction actions warning level	Abatement strategies emission reduction actions warning level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table V	Table III	Abatement strategies emission reduction actions emergency level	Abatement strategies emission reduction actions emergency level	Moved from Ch. 26, reference federal appendix table
22	**22**	**Controlling Pollution-Permits**	**Controlling Air Pollution - Construction Permitting**	**Kept construction permit rules and combined** with Ch. 20 (definitions) and Ch. 28 (NAAQS). **Moved operating permit rules** to Chapter 24.
22.1	22.1	Permits required for new or existing stationary sources	Definitions and permit requirements for new or existing stationary sources	Added definitions from Ch. 20, some language updated
22.2	22.2	Processing permit applications	Processing permit applications	
22.3	22.3	Issuing permits	Issuing permits	
22.4	22.4	Special requirements for major stationary sources located in areas designated attainment or unclassified (PSD)	Major stationary sources located in areas designated attainment or unclassified (PSD)	
22.5	22.5	Special requirements for nonattainment areas	Major stationary sources located in areas designated Nonattainment	
22.6	22.6	Nonattainment area designations	Reserved	

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22.7	22.7	Alternative emission control program	Alternative emission control program	
22.8	22.8	Permit by rule	Permit by rule	
22.9	22.9	Special requirements for visibility protection	Special requirements for visibility protection	A lot of language updated or removed
22.10	22.10	Permitting requirements for country grain elevators, country grain terminal elevators, grain terminal elevators and feed mill equipment	Permitting requirements for country grain elevators, country grain terminal elevators, grain terminal elevators and feed mill equipment	
28.1	22.11	Ambient air quality standards - Statewide standards	Ambient air quality standards	Moved from Ch. 28, minor language updated
22.12 to 22.99	N/A	Reserved	N/A	Removed

22.100 - 22.300(12)	**(New) 24**	**N/A**	**Operating Permits**	**Moved operating permit rules** from Ch. 22 to Ch. 24.
22.100	24.100	Definitions for Title V operating permits	Definitions for Title V operating permits	Moved from Ch. 22, some language updated, many 40 CFR 70 definitions adopted by reference
22.101	24.101	Applicability of Title V operating permit requirements	Applicability of Title V operating permit requirements	Moved from Ch. 22, some language updated to correct punctuation and remove old dates
22.102	24.102	Source category exemptions	Source category exemptions	Moved from Ch. 22, some language updated to correct punctuation
22.103	24.103	Insignificant activities	Insignificant activities	Moved from Ch. 22, some language updated to correct typos and remove old dates
22.104	24.104	Requirement to have a Title V permit	Requirement to have a Title V permit	Moved from Ch. 22, some language updated no changes to rule text
22.105	24.105	Title V permit applications	Title V permit applications	Moved from Ch. 22, updated language to address electronic submissions and remove past application due dates
22.106	24.106	Annual Title V emissions inventory	Annual Title V emissions inventory	Moved from Ch. 22, no changes to rule text
22.107	24.107	Title V permit processing procedures	Title V permit processing procedures	Moved from Ch. 22, some language updated to update locations of public records and remove old CFR amendment dates
22.108	24.108	Permit content	Permit content	Moved from Ch. 22, some language updated to correct punctuation, remove old dates, and adopt 40 CFR 70 rules by reference
22.109	24.109	General permits	General permits	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.110	24.110	Changes allowed without a Title V permit revision (off-permit revisions)	Changes allowed without a Title V permit revision (off-permit revisions)	Moved from Ch. 22, some language updated to remove redundant language
22.111	24.111	Administrative amendments to Title V permits	Administrative amendments to Title V permits	Moved from Ch. 22, no changes to rule text
22.112	24.112	Minor Title V permit modifications	Minor Title V permit modifications	Moved from Ch. 22, no changes to rule text
22.113	24.113	Significant Title V permit modifications	Significant Title V permit modifications	Moved from Ch. 22, no changes to rule text
22.114	24.114	Title V permit reopenings	Title V permit re-openings	Moved from Ch. 22 to Ch. 24, some language updated to adopt 40 CFR 70 rules by reference
22.115	24.115	Suspension, termination, and revocation of Title V permits	Suspension, termination, and revocation of Title V permits	Moved from Ch. 22, no changes to rule text
22.116	24.116	Title V permit renewals	Title V permit renewals	Moved from Ch. 22, no changes to rule text
22.117-22.119	24.117-24.119	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.120	24.120	Acid rain program—definitions	Acid rain program—definitions	Moved from Ch. 22, some language updated to remove old CFR amendment dates and address electronic submissions
22.121	24.121	Measurements, abbreviations, and acronyms	Reserved	Moved from Ch. 22, no changes to rule text
22.122	24.122	Applicability	Applicability	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.123	24.123	Acid rain exemptions	Acid rain exemptions	Moved from Ch. 22, some language updated to correct punctuation
22.124	24.124	Retired units exemption	Reserved	Moved from Ch. 22, no changes to rule text
22.125	24.125	Standard requirements	Standard requirements	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.126	24.126	Designated representative—submissions	Designated representative—submissions	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.127	24.127	Designated representative—objections	Designated representative—objections	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.128	24.128	Acid rain applications—requirement to apply	Acid rain applications—requirement to apply	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference

22.129	24.129	Information requirements for acid rain permit applications	Information requirements for acid rain permit applications	Moved from Ch. 22, no changes to rule text

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22.130	24.130	Acid rain permit application shield and binding effect of permit application	Acid rain permit application shield and binding effect of permit application	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.131	24.131	Acid rain compliance plan and compliance options—general	Acid rain compliance plan and compliance options—general	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.132	24.132	Repowering extensions	Reserved	Moved from Ch. 22, no changes to rule text
22.133	24.133	Acid rain permit contents—general	Acid rain permit contents—general	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.134	24.134	Acid rain permit shield	Acid rain permit shield	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.135	24.135	Acid rain permit issuance procedures—general	Acid rain permit issuance procedures—general	Moved from Ch. 22, no changes to rule text
22.136	24.136	Acid rain permit issuance procedures—completeness	Acid rain permit issuance procedures—completeness	Moved from Ch. 22, no changes to rule text
22.137	24.137	Acid rain permit issuance procedures—statement of basis	Acid rain permit issuance procedures—statement of basis	Moved from Ch. 22, no changes to rule text
22.138	24.138	Issuance of acid rain permits	Issuance of acid rain permits	Moved from Ch. 22, some language updated to remove old dates and deadlines
22.139	24.139	Acid rain permit appeal procedures	Acid rain permit appeal procedures	Moved from Ch. 22, no changes to rule text
22.140	24.140	Permit revisions—general	Permit revisions—general	Moved from Ch. 22, some language updated to remove old dates
22.141	24.141	Permit modifications	Permit modifications	Moved from Ch. 22, no changes to rule text
22.142	24.142	Fast-track modifications	Fast-track modifications	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.143	24.143	Administrative permit amendment	Administrative permit amendment	Moved from Ch. 22, some language updated to remove fax option
22.144	24.144	Automatic permit amendment	Automatic permit amendment	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.145	24.145	Permit reopenings	Permit re-openings	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.146	24.146	Compliance certification—annual report	Compliance certification—annual report	Moved from Ch. 22, no changes to rule text
22.147	24.147	Compliance certification—units with repowering extension plans	Reserved	Moved from Ch. 22, no changes to rule text
22.148	24.148	Sulfur dioxide opt-ins	Sulfur dioxide opt-ins	Moved from Ch. 22, some language updated to update the 40 CFR Part 74 amendment date
22.149 - 22.199	24.149 - 24.299	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.200	24.200 - 24.299	Definitions for voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.201	24.200 - 24.299	Eligibility for voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.203	24.200 - 24.299	Voluntary operating permit applications	Reserved	Moved from Ch. 22, no changes to rule text
22.204	24.200 - 24.299	Voluntary operating permit fees	Reserved	Moved from Ch. 22, no changes to rule text
22.205	24.200 - 24.299	Voluntary operating permit processing procedures	Reserved	Moved from Ch. 22, no changes to rule text
22.206	24.200 - 24.299	Permit content	Reserved	Moved from Ch. 22, no changes to rule text
22.207	24.200 - 24.299	Relation to construction permits	Reserved	Moved from Ch. 22, no changes to rule text
22.208	24.200 - 24.299	Suspension, termination, and revocation of voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.209	24.200 - 24.299	Change of ownership for facilities with voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.210 - 22.299	24.200 - 24.299	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.300	24.300	Operating permit by rule for small sources	Operating permit by rule for small sources	Moved from Ch. 22, no changes to rule text

23	23	Emission Standards	Air Emission Standards	Kept
23.1	23.1	Emission standards	Emission standards	Kept, language updated, tables used
23.2	23.2	Open burning	Open burning	Kept, some language updated
23.3	23.3	Specific contaminants	Specific contaminants	Kept, some language updated
23.4	23.4	Specific processes	Specific processes	Kept, some language updated
23.5	23.5	Anaerobic lagoons	Anaerobic lagoons	Kept, some language updated
23.6	23.6	Alternative emission limits (the “bubble concept”)	Reserved	Removed

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24	**(New) 21**	**Excess Emissions**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Moved operating permit rules** here (to Ch. 24)**.**
24.1	21.7	Excess emission reporting	Excess emission reporting	Moved from Ch. 24, some language updated
24.2	21.8	Maintenance and repair requirements	Maintenance and repair requirements	Moved from Ch. 24, some language updated
25	**(New) 21**	**Emissions Measurement**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 25. (Reserved)
25.1	21.10	Testing and sampling of new and existing equipment	Testing and sampling of new and existing equipment	Moved from Ch. 25, some language updated
25.2	21.11	Continuous emission monitoring under the acid rain program	Continuous emission monitoring under the acid rain program	Moved from Ch. 25, some language updated
25.3		Mercury emissions testing and monitoring	N/A	Rescinded. Except 25.3(5)
25.3(5)	21.12	Affected sources subject to Section 112(g)	Affected sources subject to Section 112(g)	Moved from Ch. 25, some language updated
26	**(New) 21**	**Emergency Air Pollution Episodes**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 26. (Reserved)
26.1	21.14	Prevention of air pollution emergency episodes - General	Prevention of air pollution emergency episodes	Moved from Ch. 26, some language updated
26.2	21.15	Episode criteria	Episode criteria	Moved from Ch. 26, some language updated
26.3	21.16	Preplanned abatement strategies	Preplanned abatement strategies	Moved from Ch. 26, some language updated
26.4	21.17	Actions taken during episodes	Actions taken during episodes	Moved from Ch. 26, some language updated
Ch 26 Table III	Table I	Abatement strategies emission reduction actions alert level	Abatement strategies emission reduction actions alert level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table IV	Table II	Abatement strategies emission reduction actions warning level	Abatement strategies emission reduction actions warning level	Moved from Ch. 26, reference federal appendix table
Ch 26Table V	Table III	Abatement strategies emission reduction actions emergency level	Abatement strategies emission reduction actions emergency level	Moved from Ch. 26, reference federal appendix table
27	**27**	**Local Program Acceptance**	**Local Program Acceptance**	**Kept**
27.1	27.1	General	General	Kept, some language updated
27.2	27.2	Certificate of acceptance	Certificate of acceptance	Kept, some language updated
27.3	27.3	Ordinance or regulations	Ordinance or regulations	Kept, some language updated
27.4	27.4	Administrative organization	Administrative organization	Kept, some language updated
27.5	27.5	Program activities	Program activities	Kept, some language updated
28	**22**	**NAAQS**	**N/A**	**Moved rules and combined** with Ch. 22. **Rescinded** Ch. 28. (Reserved)
28.1	22.11	Ambient air quality standards - Statewide standards	Ambient air quality standards	**Moved from Ch. 28**, minor language updated **Rescinded** Ch. 28. (Reserved)
29	**(New) 21**	**Opacity Qualifications**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 29. (Reserved)
29.1	21.13	Methodology and qualified observer	Methodology and qualified observer	Moved from Ch. 29, some language updated

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30	**30**	**Fees**	**Fee**	**Kept**
30.1	30.1	Purpose	Purpose	Kept, language updated
30.2	30.2	Fees associated with new source review applications	Fees associated with new source review applications	Kept, some language updated
30.3	30.3	Fees associated with asbestos demolition or renovation notification	Fees associated with asbestos demolition or renovation notification	Kept, some language updated
30.4	30.4	Fees associated with Title V operating permits	Fees associated with Title V operating permits	Kept, some language updated
30.5	30.5	Fee advisory groups	Fee advisory groups	Kept, language updated
30.6	30.6	Process to establish or adjust fees and notification of fee rates	Process to establish or adjust fees and notification of fee rates	Kept, some language updated
30.7	30.7	Fee revenue	Reserved	Language removed

31	**31**	**Nonattainment Areas**	**Nonattainment New Source Review**	**Kept**
31.1	31.1	Permit requirements relating to nonattainment areas	Permit requirements relating to nonattainment areas	Kept, some language updated
31.2	31.2	Conformity of general federal actions to the Iowa state implementation plan or federal implementation plan - Rescinded	Reserved	Language removed
31.3	31.3	Nonattainment new source review requirements for areas designated nonattainment on or after May 18, 1998	Nonattainment new source review (NNSR) requirements for areas designated nonattainment	Kept, some language updated
31.4	31.4	Preconstruction review permit program	Preconstruction review permit program	Kept
31.5 - 31.8	31.5 - 31.8	Reserved	Reserved	Kept
31.9	31.9	Actuals PALs	Actuals PALs	Kept, some language updated
31.10	31.10	Validity of rules	Validity of rules	Kept
31.11 - 31.19	N/A	Reserved	N/A	Rescinded and removed
31.20	N/A	Special requirements for nonattainment areas designated before May 18, 1998	N/A	Rescinded and removed

32	**N/A**	**AFO Field Study**	**N/A**	**Rescinded** Ch. 32. (Reserved)
32.1	N/A	Animal feeding operations field study	N/A	Rescinded, reserved, and language removed
32.2	N/A	Definitions	N/A	Rescinded, reserved, and language removed
32.3	N/A	Exceedance of the health effects value (HEV) for hydrogen sulfide	N/A	Rescinded, reserved, and language removed
32.4	N/A	Exceedance of the health effects standard (HES) for hydrogen sulfide	N/A	Rescinded, reserved, and language removed
32.5	N/A	Iowa Air Sampling Manual	N/A	Rescinded, reserved, and language removed

33	**33**	**Special regulations and construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD) of air quality**	**Construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD)**	**Kept**
33.1	33.1	Purpose	Purpose	Kept, some language updated
33.2	33.2	Reserved	Reserved	Kept
33.3	33.3	Special construction permit requirements for major stationary sources in areas designated attainment or unclassified (PSD)	PSD construction permit requirements for major stationary sources	Kept, some language updated
33.4 - 33.8	33.4 - 33.8	Reserved	Reserved	Kept
33.9	33.9	Plantwide applicability limitations (PALs)	Plantwide applicability limitations (PALs)	Kept, some language updated
33.10	33.10	Exceptions to adoption by reference	Exceptions to adoption by reference	Kept, some language updated

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34	**N/A**	**Emissions Trading-CAIR-CAMR**	**N/A**	**Rescinded** Ch. 34. (Reserved)
34.1	N/A	Purpose	N/A	Rescinded, reserved, and language removed
34.2 - 34.199	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.200	N/A	Provisions for air emissions trading and other requirements for the Clean Air Interstate Rule (CAIR) - rescinded	N/A	Rescinded, reserved, and language removed
34.201	N/A	CAIR NOx annual trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.202	N/A	CAIR designated representative for CAIR NOx sources - rescinded	N/A	Rescinded, reserved, and language removed
34.203	N/A	Permits - rescinded	N/A	Rescinded, reserved, and language removed
34.204	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.205	N/A	CAIR NOx allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.206	N/A	CAIR NOx allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed
34.207	N/A	CAIR NOx allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
34.208	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.209	N/A	CAIR NOx opt-in units - rescinded	N/A	Rescinded, reserved, and language removed
34.210	N/A	CAIR SO2 trading program - rescinded	N/A	Rescinded, reserved, and language removed
34.211 - 34.219	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.220	N/A	CAIR NOx ozone season trading program - rescinded	N/A	Rescinded, reserved, and language removed
34.221	N/A	CAIR NOx ozone season trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.222	N/A	CAIR designated representative for CAIR NOx ozone season sources - rescinded	N/A	Rescinded, reserved, and language removed
34.223	N/A	CAIR NOx ozone season permits - rescinded	N/A	Rescinded, reserved, and language removed
34.224	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.225	N/A	CAIR NOx ozone season allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.226	N/A	CAIR NOx ozone season allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed
34.227	N/A	CAIR NOx ozone season allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
34.228	N/A	CAIR NOx ozone season monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.229	N/A	CAIR NOx ozone season opt-in units - rescinded	N/A	Rescinded, reserved, and language removed
34.230 - 34.299	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.300	N/A	Provisions for air emissions trading and other requirements for the Clean Air Mercury Rule (CAMR) - rescinded	N/A	Rescinded, reserved, and language removed
34.301	N/A	Mercury (Hg) budget trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.302	N/A	Hg designated representative for Hg budget sources - rescinded	N/A	Rescinded, reserved, and language removed
34.303	N/A	General Hg budget trading program permit requirements - rescinded	N/A	Rescinded, reserved, and language removed
34.304	N/A	Hg allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.305	N/A	Hg allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed

34.306	N/A	Hg allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed

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34.307	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.308	N/A	Performance specifications - rescinded	N/A	Rescinded, reserved, and language removed

35	**N/A**	**Grant Assistance Programs**	**N/A**	**Rescinded** Ch. 35. (Reserved)
35.1	N/A	Purpose	N/A	Rescinded, reserved, and language removed
35.2	N/A	Definitions	N/A	Rescinded, reserved, and language removed
35.3	N/A	Role of the department of natural resources	N/A	Rescinded, reserved, and language removed
35.4	N/A	Eligible projects	N/A	Rescinded, reserved, and language removed
35.5	N/A	Forms	N/A	Rescinded, reserved, and language removed
35.6	N/A	Project selection	N/A	Rescinded, reserved, and language removed
35.7	N/A	Funding sources	N/A	Rescinded, reserved, and language removed
35.8	N/A	Type of financial assistance	N/A	Rescinded, reserved, and language removed
35.9	N/A	Term of loans	N/A	Rescinded, reserved, and language removed
35.10	N/A	Reduced award	N/A	Rescinded, reserved, and language removed
35.11	N/A	Fund disbursement limitations	N/A	Rescinded, reserved, and language removed
35.12	N/A	Applicant cost share	N/A	Rescinded, reserved, and language removed
35.13	N/A	Eligible costs	N/A	Rescinded, reserved, and language removed
35.14	N/A	Ineligible costs	N/A	Rescinded, reserved, and language removed
35.15	N/A	Written agreement	N/A	Rescinded, reserved, and language removed
35.16	N/A	Financial assistance denial	N/A	Rescinded, reserved, and language removed