NORTHERN NEVADA
Public Health

Air Quality

Air Quality Management Division
1001 E. Ninth Street, Suite B171
Reno, NV 89512
Phone: 775-784-7200
www.OurCleanAir.com

STATIONARY SOURCE TECHNICAL SUPPORT DOCUMENT
(STATEMENT of BASIS)

APPLICATION FOR:
Authority to Construct: Synthetic Minor, Major Modification

SUBMITTED BY:
Renown Health

PERMIT NUMBER:
AAIR16-0714

LOCATION:
1155 Mill Street, Reno NV 89502

SIC code: 8062, "General Medical and Surgical Hospitals"
NAICS code: 622110, "General Medical And Surgical Hospitals"

June 13, 2024

EXECUTIVE SUMMARY

This TSD establishes the methodology related to the terms and conditions of its synthetic minor Authority to Operate (ATC)/Permit to Operate (PTO) issued pursuant to DBOH Regulations 030. The TSD shall not serve as the operating authority.

Renown Regional Medical Center is a hospital operating at 1155 Mill Street in Washoe County. The source operates a central utility plant (CUP) with boilers and emergency engines as well as several adjacent ancillary facilities with miscellaneous fuel burning equipment. As a hospital, the source is classified under SIC code 8062, "General Medical and Surgical Hospitals" and NAICS code 622110, "General Medical And Surgical Hospitals".

Renown Regional Medical Center will consist of three (3) boilers, seven (7) emergency engines, and four (4) cooling towers at the CUP and one (1) emergency engine and sixty-six (66) boilers/HVAC units at the ancillary facilities. The three existing boilers will be removed and replaced by three new boilers. Eight (8) existing emergency engines will also be removed, with four new emergency engines being added. The three proposed boilers will be subject to the federal requirements of 40 CFR Part 60, Subpart Dc. The three proposed emergency engines will be subject to the federal requirements of 40 CFR Part 60, Subpart IIII. Pursuant to DBOH Regulations 030, an existing source undergoing modification must obtain an Authority to Construct (ATC) before beginning construction.

Renown Regional Medical Center will be classified as a synthetic minor source of NOx. It is not a categorical source as defined in DBOH Regulations 030 nor belongs to a stationary source category, which, as of August 7, 1980, is being regulated under Section 111 or Section 112 of the Clean Air Act. Therefore, fugitive emissions are not included in source status determination.

The facility wide potential to emit (PTE) is provided below in Table 1. In addition, the permit will be issued, based on the ATC permit application that was submitted on August 24th, 2023.

Table 1: Source PTE – Summary (tons per year)

	Major Stationary Source Threshold (PSD)	Major Source Threshold (Part 70)	Minor Source Threshold	Source PTE - Uncontrolled	Source PTE With Cap
PM10	250	100	0.365	8.02	8.02
PM2.5	250	100	0.365	6.09	6.09
SOx	250	100	0.365	28.29	28.29
NOx	250	100	0.365	119.65	95.00
VOC		100	0.365	8.29	8.29
CO		100	0.365	84.01	84.01
HAP		10/25[1]	0.183	1.07	1.07

[1] 10 for one individual HAP, 25 for total combined HAPs

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ACRONYMS AND ABBREVIATIONS

(These terms may be seen in the technical support document)

AQMD	Northern Nevada Public Health Air Quality Management Division
bhp	brake horsepower
CARB	California Air Resources Board
CE	control efficiency
CF	control factor
CFR	Code of Federal Regulations
CO	carbon monoxide
DBOH Regulations	Washoe County District Board of Health Regulations Governing Air Quality Management
DOM	date of manufacture
EF	emission factor
EI	emission increase
EPA	U.S. Environmental Protection Agency
EU	emission unit
g/kW-hr	grams per kilowatt-hour
gr/dscf	grains per dry standard cubic foot
GDO	gasoline dispensing operation
gpm	gallons per minute
HAP	hazardous air pollutant
H_2S	hydrogen sulfide
HHV	high heating value
HVLP	high volume, low pressure
kW	kilowatt
mg/dscm	milligrams per dry standard cubic meter
MMBtu	British thermal units (in millions)
NAICS	North American Industry Classification System
NO_x	nitrogen oxide
Pb	lead
$PM_{2.5}$	particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	potential to emit
RACT	reasonably available control technology
RICE	reciprocating internal combustion engine
SCC	Source Classification Codes
scf	standard cubic feet
SIC	Standard Industrial Classification
SO_2	sulfur dioxide
TSD	Technical Support Document
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator
VMT	vehicle miles traveled
VOC	volatile organic compound

I. SOURCE INFORMATION

A. General

Preparer:	Brandon Koyama
Action Received:	8/24/2023
TSD Date:	6/14/2024
Company:	Renown Health
Responsible Official:	Amy McCombs, COO
Consultant:	Trinity Consultants, Converse Consultants
Permit Number:	AAIR16-0714
Facility Name:	Renown Regional Medical Center
Facility Address:	1155 Mill Street, Reno NV 89502

B. Facility Description

Renown Regional Medical Center is a medical facility located in Hydrographic Area 087. This source category falls under Standard Industry Classification (SIC) code 8062, "General Medical and Surgical Hospitals" and North American Industrial Classification System (NAICS) code 622110, "General Medical And Surgical Hospitals". This is a synthetic minor of regulated air pollutants. This source consists of three (3) boilers, seven (7) emergency engines, and four (4) cooling towers at the main campus and central utility plant (CUP) and one (1) emergency engine and sixty-six (66) boilers/HVAC units and kitchen units at the ancillary facilities. The source has taken a facility-wide voluntarily accepted emission limit through operational limitations to avoid becoming a Title V source. This source is subject to 40 CFR 60 Subpart Dc and 40 CFR 60 Subpart IIII.

C. Permitting History

1. The last permit was issued on July 12, 2023
2. A modification application was received on August 8, 2023.
3. The draft permit and TSD were sent for peer review on January 24, 2024, and final supervisor review on March 28, 2024.
4. The draft permit and TSD were sent to EPA for review and uploaded to the AQMD's website for public notice on June 27, 2024.
5. This permitting action is a modification to remove some existing equipment to be replaced by new boilers and engines associated with the CUP as well as add miscellaneous fuel burning equipment associated with ancillary facilities which are adjacent to the main facility and have not historically been included in one Permit to Operate. Permit AAIR16-0715 for the rehabilitation facility at 1495 Mill Street will be merged with this permit. Equipment associated with this permit includes one emergency engine. This action also reclassifies this source as a synthetic minor source of regulated pollutants and establishes a federally enforceable facility-wide emissions limit of 95 tpy NOx through a voluntarily accepted emission limit.

D. Permitting Action

This source is an existing source defined in DBOH Regulation 030 that is submitting this application to modify their operation and undergo an initial DBOH 030 permit evaluation. An applicability determination is performed based on the proposed changes. This permitting action is a modification to remove three (3) existing boilers and eight (8) existing emergency engines and add three (3) new boilers, four (4) new emergency engines, four (4) cooling towers, and sixty-six (66) miscellaneous fuel burning units associated with ancillary facilities.

Renown Regional Medical Center will also be reclassified as a synthetic minor source of regulated air pollutants. The source has taken a VAEL of 95 tpy NOx to avoid major source permitting thresholds. Additionally, the proposed boilers will be subject to 40 CFR 60 Subpart Dc, and the proposed engines will be subject to 40 CFR 60 Subpart IIII.

A list of all emissions units can be found in Section VII.

There are no insignificant activities at this source.

E. Operating Scenario

EU's A01-A03: Each boiler has a maximum permitted heat input rate of 36.741 mmBTU/hr. The boilers will primarily fire natural gas but can also operate using No. 2 fuel oil or diesel during an emergency.

EU's A04-A69: The ancillary fuel burning equipment has a maximum cumulative permitted heat input rate of 15.115 mmBTU/hr. These units will fire natural gas.

EU's B05-B08: Each emergency engine fires diesel fuel. Each engine is not subject to operational limitations during emergencies, but nonemergency use shall be limited to 100 hours per year.

II. EMISSIONS INFORMATION

A. Total Source Potential to Emit and Source Applicability

DBOH Regulation 030 permitting applicability is determined by calculating the emissions for all proposed emission units using 8,760 hours of operation (except for emergency engines (EU C.001, D.001-003, E.001-003, F.001, which use 500 hours and the proposed boilers (EU A01.001-A01.003), which were calculated at 8,260 hours for natural gas and 500 hours for fuel oil) and emission factors provided by the manufacturer, source test results, EPA AP-42, etc.

AP-42 emission factors, nonroad diesel emission standards, and manufacturer specifications were used to calculate emissions. For boilers' natural gas combustion calculations, the maximum heat input, in BTU, was converted to standard cubic feet using the AP-42 heating value conversion. For the boilers' fuel oil combustion calculations, the maximum heat input, in BTU, was converted to gallons using the AP-52 heating value conversions.

For the proposed emergency engines (EU E.001-E.003, F.001), PM10, PM2.5, NOx, and CO emission factors were based on manufacturer specifications. An NDEP-developed emission factor was used to calculate SOx emissions, while AP-42 emission factors were used to calculate VOC and HAP emissions. EPA Tier 1 Nonroad Diesel Emission Standards and AP-42 factors were used to calculate emissions for the existing engines (C.001, D.001-D.003) since manufacturers' specifications were not available. A factor of 1.34 was used to convert the engines' power output in kW to hp.

The emissions from the cooling tower were calculated using an assumption of 5000 mg TDS/L as a worst-case scenario. The flow rate and drift loss were provided by the consultant.

The PTE for DBOH Regulation 030 applicability is shown in Table 2.

Table 2: Source Applicability Emissions (tons per year)

	Major Stationary Source Threshold (PSD)	Major Source Threshold (Part 70)	Minor Source Threshold	Source PTE - Uncontrolled	Source PTE with Cap
PM10	250	100	0.365	8.02	8.02
PM2.5	250	100	0.365	6.09	6.09
SOx	250	100	0.365	28.29	28.29
NOx	250	100	0.365	119.65	95.00
VOC		100	0.365	8.29	8.29
CO		100	0.365	84.01	84.01
HAP		10/25	0.183	1.07	1.07

DBOH Regulation 030.200 states a source with a PTE for any regulated pollutant equal to or greater than the threshold of 0.365 tons per year shown in Table 4, will be applicable to the permitting requirements of 030.

This source exceeds the applicability limit for all criteria pollutants and is required to obtain an air quality permit as shown in Table 3. This source also exceeds the Part 70 major source threshold for NOx and will take a facility-wide voluntarily accepted emission limit of 95 tpy to avoid Title V source permitting.

HAP are regulated air pollutants. The AQMD has determined that the calculated or estimated HAP emissions from this source exceed the DBOH Regulations 030.200 permitting threshold. Any NESHAP (or MACT) requirements applicable to the source will be included in the permit.

B. Emission Units and PTE

The emissions associated with the emergency engines are based on 500 hours of operation per year including testing and maintenance per EPA guidelines for an emergency generator. The Source PTE broken down by similar emissions unit is shown in Table 3.

Table 3: Emissions Unit PTE (tons/year)

	A01.001-A01.003	A02.001-A02.003	A.001-A.066	E.001-E.003, F.001	G.001-G.004
PM_{10}	2.47	0.21	0.36	0.21	2.85
$PM_{2.5}$	0.82	0.16	0.12	0.21	2.85
SO_2	0.26	27.95	0.04	0.02	0
NO_x	43.35	3.94	6.31	30.66	0
VOC	2.38	0.07	0.35	1.06	0
CO	36.42	0.98	5.30	2.54	0
HAP	0.82	0.01	0.12	0.06	0

C. Emissions Increase

The emissions increase associated with this permitting action is shown below in Table 4.

Table 4: Permitting Action Emissions Increase (tons per year)

	Emissions Increase Due to ATC Units	Emissions Increase Due to Modified Emission Units	Emissions Decrease Due to Removed Units	Emissions Decrease Due to Units Reclassified as Insignificant	Permitting Action Emissions Increase	Minor Source Significance Threshold
PM10	6.11	-	-8.46	-	-2.35	0.365
PM2.5	4.17	-	-6.40	-	-2.23	0.365
SOx	28.27	-	-32.44	-	-4.17	0.365
NOx	84.25	-	-130.54	-	-46.29	0.365
VOC	3.85	-	-2.98	-	0.87	0.365
CO	82.90	-	-61.26	-	-21.64	0.365
HAP	1.00	-	0.99	-	-0.01	0.183

D. Operational Limits

The emergency engines shall be limited to operate 100 hours per year for testing and maintenance purposes, including nonemergency limitations. On May 1, 2015, the U.S. Court of Appeals for the D.C. Circuit issued a decision to vacate provisions in 40 CFR Part 60 Subpart IIII permitting emergency engines to operate for demand response and when there is a deviation of voltage or frequency. Therefore, AQMD is prohibiting sources from operating emergency engines for those activities, which is consistent with the court decision and EPA's implementation memo dated April 15, 2016. In order to utilize the engine to operate for demand response or when there is a deviation of voltage or frequency, the source must request that the engine be treated as a nonemergency engine. (EU: B05-08)

All emissions units shall be limited in their use so as not to exceed the 95 tpy NOx limit.

E. Control Technology

Emissions from Cooling Towers, G.001 through G.004, each, shall be controlled by drift eliminators with a maximum drift rate of 0.005%.

F. Emissions Limits

The source shall not exceed 95 tpy for any regulated pollutant.

The source shall also comply with the emissions standards in 40 CFR 89.112 and 40 CFR 89.113 for new nonroad CI engines for the same model year and maximum engine power. The emission standards for the emergency engines are provided in Table 5.

Table 5: Emission Standards for Emergency Diesel Generator (EU's: B05, B06, B07, B08)

Power	NMHC + NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
450 ≤ kW < 560	6.4	3.5	0.20
kW > 560	6.4	3.5	0.20

Pursuant to 40 CFR 60 Subpart Dc, the proposed boilers are also prohibited from discharging gases that contain SO_2 in excess of 215 ng/J (0.50 lb/mmBTU) heat input from oil, or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. Additionally, the discharge of gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity is also prohibited.

G. Increment

Figure 1 below shows the PSD triggered areas in Washoe County.

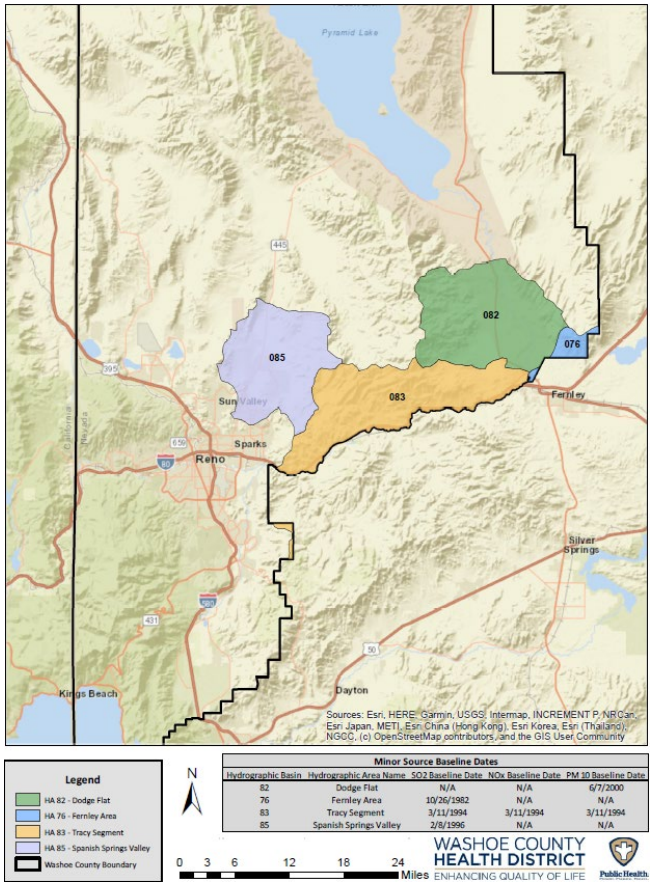

Figure 1: Washoe County PSD Triggered Areas

This source does not exist in HA 76, HA 82, HA 83, nor HA 85 and will not be subject to increment consumption tracking.

H. Performance Testing

Initial performance testing of the proposed boilers is required to demonstrate compliance with the PM standards described in 40 CFR 60 Subpart Dc. Testing must be conducted within 180 days of startup according to the methods specified in the subpart. Performance testing for sulfur dioxide will not be conducted as the standards of 40 CFR 60 Subpart Dc will be demonstrated through obtaining certification from the fuel oil supplier that indicates the fuel oil contains less than 0.5% sulfur. Performance testing via EPA Method 9 is also required to demonstrate compliance with the opacity standards of 40 CFR 60 Subpart Dc.

III. REGULATORY REVIEW

A. Local Regulatory Requirements

This source is subject to the permitting requirements of DBOH Regulation 030 and 010.090 for synthetic minor sources.

B. Federally Applicable Regulations

The proposed emergency engines are new stationary ICE manufactured in the year 2023, located at an area source and operated according to the definition of an emergency stationary ICE under 40 CFR 60.4219. The engines are subject to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. The source will meet the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII. The emergency engines shall be limited to the operating provisions specified in 40 CFR 60.4211(f), Subpart IIII. (EU: E.001-E.003, F.001)

The proposed engines at this source are subject to 40 CFR 60 Subpart IIII and must meet the fuel requirements referenced therein from 40 CFR 1090.305 for nonroad diesel fuel. The source must purchase diesel fuel that meets the per-gallon standard of 15 ppm maximum sulfur content, a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. As all refiners and importers of nonroad diesel fuel are subject to federal standards pursuant to 40 CFR 1090.305, it is reasonable to assume the operators of the engines have very little opportunity, if any, to acquire fuel that violates these standards. Therefore, the Permittee is not required by the operating permit to monitor or keep records of the sulfur content, cetane index, or aromatic content of the diesel fuel used in their engine(s). (EU: E.001-E.003, F.001)

The engines are powered by constant-speed compression-ignition engines and are therefore exempt from the requirements of 40 CFR 1039.105 that are referenced in 40 CFR Part 60 Subpart IIII. (EU: E.001-E.003, F.001)

The proposed boilers are new boilers constructed after June 9, 1989, and have the capability to fire both natural gas and diesel fuel. The boilers will be subject to the requirements of 40 CFR 60 Subpart Dc. (EU: A02.001-A.02-003)

IV. COMPLIANCE

A. Compliance Certification

Monitoring, recordkeeping, and reporting requirements will all be included for specified limitations in the permit.

The permittee shall follow the schedule for the report submittal to AQMD outlined in Table 6.

Table 6: Reporting Schedule

Required Report	Applicable Period	Due Date[2]
Annual Compliance Certification Report	Once per Calendar Year	March 31 each year
Annual Emissions Report	Calendar Year	March 31 each year
Notification of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emissions	As required	Within 24 hours of owner or operator learning of the event
Report of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emissions	As required	Within 72 hours of notification
Deviation Report without Excess Emissions	As required	Along with annual reports
Performance Testing	As required	Within 60 days from end of test

B. Summary of Monitoring for Compliance

The permittee shall follow the compliance monitoring requirements outlined in Table 7.

Table 7: Compliance Monitoring Summary

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A.001-A.003	Fuel Burning - Boilers	PM, SO_2, NO_x	40 CFR 60 Subpart Dc, Synthetic Minor permit limit	Annual emission limits. Fuel consumption recordkeeping and reporting.	Recordkeeping of fuel consumption required for compliance demonstration. Compliance with PM standard will be demonstrated through initial performance test. SO_2 will be monitored through sulfur content in the fuels.

[2] If the due date falls on a Saturday, Sunday, or federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

A.001-A.003	Fuel Burning - Boilers	Opacity	40 CFR 60 Subpart Dc	20% opacity limit (6-minute average).	Method 9 test within 12 months of the most recent Method 9 test if no visible emissions observed, or within 45 calendar days of next day that fuel with an opacity standard is combusted, whichever is later. Method 9 test within 6 months of the most recent Method 9 test if visible emissions were observed and the maximum 6-minute average was less than or equal to 5%, or within 45 calendar days of next day that fuel with an opacity standard is combusted, whichever is later. Method 9 test within 3 months of the most recent Method 9 test if visible emissions were observed and the maximum 6-minute average was greater than 5% but less than or equal to 10%, or within 45 calendar days of next day that fuel with an opacity standard is combusted, whichever is later. Within 45 calendar days of the most recent Method 9 test if visible emissions were observed and the maximum 6-minute average was greater than 10%.
B.004-069	Fuel Burning - HVAC	NO_x	Synthetic Minor permit limit	Annual emission limits. Fuel consumption recordkeeping and reporting.	Recordkeeping of fuel consumption required for compliance demonstration.
E.001-003, F.001	Emergency Engine	NO_x, CO, PM	40 CFR 60 Subpart IIII, Synthetic Minor permit limit	Annual emission limits. Emissions limitations based on hours of operation for testing and maintenance. Sulfur in diesel fuel limited to 15 ppm.	Recordkeeping of hours of operation and gallons of fuel consumed. Records of fuel sulfur content. Calculated based on manufacturer's data, AP-42, and fuel use. Manufacturer's emissions data.

V. NAAQS ANALYSIS

The NNPH AQMD does not require modeling for stationary sources to demonstrate NAAQS compliance, and therefore, no modeling was required for this source. Area monitoring throughout

Washoe County is used to demonstrate compliance with the NAAQS. Table 8 below summarizes Washoe County's current design values in comparison to the NAAQS.

Table 8: Design Values and Attainment Status (as of December 31, 2023)

NAAQS			Designations	
Pollutant (Averaging Time)	Level	Design Value	Unclassifiable/ Attainment, or Maintenance	Non-Attainment (classification)
O_3 (8-hour)	0.070 ppm	0.069 ppm	All HA's	---
$PM_{2.5}$ (24-hour)	35 µg/m^3	59 µg/m^3	All HA's	---
$PM_{2.5}$ (Annual)	12.0 µg/m^3	9.7 µg/m^3	All HA's	---
PM_{10} (24-hour)	150 µg/m^3	4.3 Expected Exceedances	All HA's[1]	---
CO (1-hour)	35 ppm	2.6 ppm	All HA's	---
CO (8-hour)	9 ppm	1.8 ppm	All HA's[2]	---
NO_2 (1-hour)	100 ppb	48 ppb	All HA's	---
NO_2 (Annual Mean)	53 ppb	11 ppb	All HA's	---
SO_2 (1-hour)	75 ppb	3 ppb	All HA's	---
Pb (Rolling 3-month average)	0.15 µg/m^3	n/a	All HA's	---

[1] Maintenance Area for PM_{10} (1st 10-year maintenance plan expires January 6, 2026) **80 FR 76232**
[2] Maintenance Area for CO (2nd 10 year maintenance plan expires October 31, 2026) **81 FR 59490**

VI. PUBLIC PARTICIPATION

A Notice of Proposed Action, application, draft TSD, and draft ATC will be posted to the AQMD's website for a 30-day public notice period.

VII. RECOMMENDED ACTION

The AQMD recommends issuing a synthetic minor source Authority to Construct to Renown Regional Medical Center for the following emissions units:

- A01.001/A02.001: Boiler (Cleaver Brooks CBEX 2W-200-900-150ST, 36.741 MMBtu)
- A01.002/A02.002: Boiler (Cleaver Brooks CBEX 2W-200-900-150ST, 36.741 MMBtu)
- A01.003/A02.003: Boiler (Cleaver Brooks CBEX 2W-200-900-150ST, 36.741 MMBtu)
- E.001: Emergency Generator (CAT 3516C, 2,000 kW, 2023)
- E.002: Emergency Generator (CAT 3516C, 2,000 kW, 2023)
- E.003: Emergency Generator (CAT 3516C, 2,000 kW, 2023)
- F.001: Emergency Generator (Cummins, 500 kW, 2022)
- G.001: Cooling Tower (1,300 gpm)
- G.002: Cooling Tower (1,300 gpm)
- G.003: Cooling Tower (1,300 gpm)
- G.004: Cooling Tower (1,300 gpm)

07/02/2024
Date

Brandon Koyama

Brandon Koyama
Environmental Engineer II
Air Quality Management Division
Northern Nevada Public Health

07/02/2024
Date

Genine Rosa

Genine Rosa, MS
Senior Air Quality Specialist
Air Quality Management Division
Northern Nevada Public Health

VIII. ATTACHMENTS

A. Attachment 1: List of Emissions Units

A list of new emissions units is shown below in Table 9.

Table 9: List of New Emissions Units

EU	Type	Manufacturer	Model No.	Rating	Serial No.	SCC
A.001-A.003	Boilers	Cleaver Brooks	CBEX-2W-200-900-150ST	36.741 mmBTU/hr each	N/A	2103006000
B.001	HVAC	Coleman	PCG4A240502X2B	0.050 mmBTU/hr	N/A	2103006000
B.002	HVAC	York	ZXG12D2B3AA1A111A2	0.180 mmBTU/hr	N/A	2103006000
B.003	HVAC	Lennox	GCS16-311-75-1P	0.075 mmBTU/hr	N/A	2103006000
B.004	HVAC	Rheem	RRKA-A030JK08E	0.080 MMBtu/hr	N/A	2103006000
B.005	Boiler	Cleaver Brooks	CFC-E	0.713 mmBTU/hr	N/A	2103006000
B.006	Hot Water Heater	State	SBt100260NetBASMEDF	0.260 mmBTU/hr	N/A	2103006000
B.007	HVAC	Ruud/Rheem	RKPNA060CM13E	0.135 mmBTU/hr	N/A	2103006000
B.008	HVAC	Day + Night	588APW060120ADBG	0.108 mmBTU/hr	N/A	2103006000
B.009	HVAC	Snyder General	PG06040F150TN1	0.150 mmBTU/hr	N/A	2103006000
B.010	HVAC	Trane	TUE100A936L3	0.100 mmBTU/hr	N/A	2103006000
B.011	Air Handler	Applied Air	GMIFR-275-125-HLS	1.5625 mmBTU/hr	N/A	2103006000
B.012	Boiler	Peerless	LC09-WS	1.174 mmBTU/hr	N/A	2103006000
B.013	Hot Water Heater	Bradford White	RG250T6NTA42809594	0.090 mmBTU/hr	N/A	2103006000
B.014	Hot Water Heater	Bradford White	M440T3T6EN12	0.036 mmBTU/hr	N/A	2103006000
B.015	Hot Water Heater	Bradford White	RG240T6NXC475537952	0.040 mmBTU/hr	N/A	2103006000
B.016	HVAC	International	GPCM042K100D	0.092 mmBTU/hr	N/A	2103006000

B.017	HVAC	York	ZH090N10N2AAA5A	0.120 mmBTU/hr	N/A	2103006000
B.018	HVAC	Lennox	GCS16-511	0.050 mmBTU/hr	N/A	2103006000
B.019	HVAC	Carrier	485D-036090301	0.090 mmBTU/hr	N/A	2103006000
B.020	HVAC	AAC Commercial	PGE10C60D150B-6A	0.080 mmBTU/hr	N/A	2103006000
B.021	HVAC	AAC Commercial	DGE10B42D100A-2A	0.080 mmBTU/hr	N/A	2103006000
B.022	Boiler	AJAX	WG-1250	1.250 mmBTU/hr	N/A	2103006000
B.023	Water Heater	State	5BF7512NED	0.120 mmBTU/hr	N/A	2103006000
B.024	Boiler	Lochinvar	CBN14351972047	1.435 mmBTU/hr	N/A	2103006000
B.025	Water Heater	Bradford White	M440T6FBN	0.40 mmBTU/hr	N/A	2103006000
B.026-B.027	Boiler	Lochinvar	AWN400PM	0.399 mmBTU/hr each	N/A	2103006000
B.028-B.033	RTU	Aaon	RE10-3-20-322	0.228 mmBTU/hr each	N/A	2103006000
B.034-B.039	RTU	Aaon	RN015-3-0-BK09	0.293 mmBTU/hr each	N/A	2103006000
B.040	RTU	Aaon	RN011-3-0-CB02	0.293 mmBTU/hr	N/A	2103006000
B.041	RTU	Aaon	RE08-3-20-321	0.182 mmBTU/hr	N/A	2103006000
B.042	RTU	Aaon	RN009-3-0-5F2	0.195 mmBTU/hr	N/A	2103006000
B.043-B.044	Steamer	Cleveland	24CGA10	0.125 mmBTU/hr	N/A	2103006000
B.045	Fryer	Frymaster	GF14SC	0.100 mmBTU/hr	N/A	2103006000
B.046-B.047	Convection Oven	Vulcan	VC4GD-11D1	0.050 mmBTU/hr	N/A	2103006000
B.048	Range	Royal	RR-6	0.060 mmBTU/hr	N/A	2103006000
B.049	Griddle	Vulcan	MSA36-101	0.081 mmBTU/hr	N/A	2103006000
B.050	Charbroiler	APW Wyott	GCB-36S	0.090 mmBTU/hr	N/A	2103006000
B.051-B.052	Flat Top Grill	Baker	N/A	0.160 mmBTU/hr each	N/A	2103006000

B.053-B.058	Kitchen Equipment	Rational	N/A	0.107 mmBTU/hr each	N/A	2103006000
B.059-B.060	Kitchen Equipment	Blodget	N/A	0.050 mmBTU/hr each	N/A	2103006000
B.061	Kitchen Equipment	Groen	N/A	0.144 mmBTU/hr	N/A	2103006000
B.062	Kitchen Equipment	Rational	N/A	0.303 mmBTU/hr	N/A	2103006000
B.063-B.064	Kitchen Equipment	Rational	N/A	0.170 mmBTU/hr	N/A	2103006000
B.065	Grill	Vulcan	N/A	0.066 mmBTU/hr	N/A	2103006000
B.066	Stove Top	Vulcan	N/A	0.012 mmBTU/hr	N/A	2103006000
E.001-E.003	Emergency Engine	CAT	3516C, mfg. 2023	2000 kW	N/A	2102004002
F.001	Emergency Engine	Cummins	QSX15-G9	500 kW	N/A	2102004002
G.001-G.004	Cooling Towers	N/A	N/A	1300 gpm	N/A	2103006000

B. Attachment 2: Emissions Inventory

System #	Unit Description	Operating Hours		Heat Input (MMBtu)		Throughput/ Fuel Usage			Controls		Emission Factor			Potential to Emit Emission Rate		Permitted Emission Rate		Reference	Notes
														Hourly	Annual	Hourly	Annual		
		Daily	Annual	Hour	Annual	Hour	Annual	Units	Technology	Efficiency	Pollutant	Factor	Unit	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)		
A01	**Central Utility Plant Boilers - Natural Gas**																		
A01.001	Boiler - Natural Gas (36.74 MMBtu)	24	8,260	36.74	303,481	0.03	289.03	10^6 scf	Uncontrolled	0%	PM	7.60	lb/10^6scf	0.27	1.10	0.27	1.10	AP-42 Chapter 1.4, Table 1.4-2	Natural Gas Heating Value
	Manufacturer: Cleaver Brooks										PM_{10}	5.70	lb/10^6scf	0.20	0.82	0.20	0.82	AP-42 Chapter 1.4, Table 1.4-2	Btu = 1,050 scf (AP-42)
	Model #: CBEX-2W-200-900-150ST										$PM_{2.5}$	1.90	lb/10^6scf	0.07	0.27	0.07	0.27	AP-42 Chapter 1.4, Table 1.4-2	
	Serial #:										SO_2	0.60	lb/10^6scf	0.02	0.09	0.02	0.09	AP-42 Chapter 1.4, Table 1.4-2	
											NO_x	100.00	lb/10^6scf	3.50	14.45	3.50	14.45	AP-42 Chapter 1.4, Table 1.4-1	
											VOC	5.50	lb/10^6scf	0.19	0.79	0.19	0.79	AP-42 Chapter 1.4, Table 1.4-1	
											CO	84.00	lb/10^6scf	2.94	12.14	2.94	12.14	AP-42 Chapter 1.4, Table 1.4-2	
											HAP	1.88	lb/10^6scf	0.07	0.27	0.07	0.27	AP-42 Chapter 1.4, Table 1.4-2	
A01.002	Boiler - Natural Gas (36.74 MMBtu)	24	8,260	36.74	303,481	0.03	289.03	10^6 scf	Uncontrolled	0%	PM	7.60	lb/10^6scf	0.27	1.10	0.27	1.10	AP-42 Chapter 1.4, Table 1.4-2	Natural Gas Heating Value
	Manufacturer: Cleaver Brooks										PM_{10}	5.70	lb/10^6scf	0.20	0.82	0.20	0.82	AP-42 Chapter 1.4, Table 1.4-2	Btu = 1,050 scf (AP-42)
	Model #: CBEX-2W-200-900-150ST										$PM_{2.5}$	1.90	lb/10^6scf	0.07	0.27	0.07	0.27	AP-42 Chapter 1.4, Table 1.4-2	
	Serial #:										SO_2	0.60	lb/10^6scf	0.02	0.09	0.02	0.09	AP-42 Chapter 1.4, Table 1.4-2	
											NO_x	100.00	lb/10^6scf	3.50	14.45	3.50	14.45	AP-42 Chapter 1.4, Table 1.4-1	
											VOC	5.50	lb/10^6scf	0.19	0.79	0.19	0.79	AP-42 Chapter 1.4, Table 1.4-1	
											CO	84.00	lb/10^6scf	2.94	12.14	2.94	12.14	AP-42 Chapter 1.4, Table 1.4-2	
											HAP	1.88	lb/10^6scf	0.07	0.27	0.07	0.27	AP-42 Chapter 1.4, Table 1.4-2	
A01.003	Boiler - Natural Gas (36.74 MMBtu)	24	8,260	36.74	303,481	0.03	289.03	10^6 scf	Uncontrolled	0%	PM	7.60	lb/10^6scf	0.27	1.10	0.27	1.10	AP-42 Chapter 1.4, Table 1.4-2	Natural Gas Heating Value
	Manufacturer: Cleaver Brooks										PM_{10}	5.70	lb/10^6scf	0.20	0.82	0.20	0.82	AP-42 Chapter 1.4, Table 1.4-2	Btu = 1,050 scf (AP-42)
	Model #: CBEX-2W-200-900-150ST										$PM_{2.5}$	1.90	lb/10^6scf	0.07	0.27	0.07	0.27	AP-42 Chapter 1.4, Table 1.4-2	
	Serial #:										SO_2	0.60	lb/10^6scf	0.02	0.09	0.02	0.09	AP-42 Chapter 1.4, Table 1.4-2	
											NO_x	100.00	lb/10^6scf	3.50	14.45	3.50	14.45	AP-42 Chapter 1.4, Table 1.4-1	
											VOC	5.50	lb/10^6scf	0.19	0.79	0.19	0.79	AP-42 Chapter 1.4, Table 1.4-1	
											CO	84.00	lb/10^6scf	2.94	12.14	2.94	12.14	AP-42 Chapter 1.4, Table 1.4-2	
											HAP	1.88	lb/10^6scf	0.07	0.27	0.07	0.27	AP-42 Chapter 1.4, Table 1.4-2	
A02	**Central Utility Plant Boilers - Fuel Oil**																		
A02.001	Boiler - Fuel Oil (36.74 MMBtu)	1.4	500	36.74	321,851	0.26	131	10^3 gal	Uncontrolled	0%	PM	2.00	lb/10^3 gal	0.52	0.13	0.52	0.13	AP-42 Chapter 1.3, Table 1.3-1	500 hours for emergency fuel usage
	Manufacturer: Cleaver Brooks										PM_{10}	1.08	lb/10^3 gal	0.28	0.07	0.28	0.07	AP-42 Chapter 1.3, Table 1.3-7	
	Model #: CBEX-2W-200-900-150ST										$PM_{2.5}$	0.83	lb/10^3 gal	0.22	0.05	0.22	0.05	AP-42 Chapter 1.3, Table 1.3-7	Distillate Oil Heating Value
	Serial #:										SO_2	142.00	lb/10^3 gal	37.27	9.32	37.27	9.32	AP-42 Chapter 1.3, Table 1.3-1	Btu = 140,000 scf (AP-42)
											NO_x	20.00	lb/10^3 gal	5.25	1.31	5.25	1.31	AP-42 Chapter 1.3, Table 1.3-1	
											VOC	0.34	lb/10^3 gal	0.09	0.02	0.09	0.02	AP-42 Chapter 1.3, Table 1.3-3	
											CO	5.00	lb/10^3 gal	1.31	0.33	1.31	0.33	AP-42 Chapter 1.3, Table 1.3-1	
											HAP	0.04	lb/10^3 gal	0.01	0.00	0.01	0.00	AP-42 Chapter 1.3, Table 1.3-9	
A02.002	Boiler - Fuel Oil (36.74 MMBtu)	1.4	500	36.74	321,851	0.26	131	10^3 gal	Uncontrolled	0%	PM	2.00	lb/10^3 gal	0.52	0.13	0.52	0.13	AP-42 Chapter 1.3, Table 1.3-1	500 hours for emergency fuel usage
	Manufacturer: Cleaver Brooks										PM_{10}	1.08	lb/10^3 gal	0.28	0.07	0.28	0.07	AP-42 Chapter 1.3, Table 1.3-7	
	Model #: CBEX-2W-200-900-150ST										$PM_{2.5}$	0.83	lb/10^3 gal	0.22	0.05	0.22	0.05	AP-42 Chapter 1.3, Table 1.3-7	Distillate Oil Heating Value
	Serial #:										SO_2	142.00	lb/10^3 gal	37.27	9.32	37.27	9.32	AP-42 Chapter 1.3, Table 1.3-1	Btu = 140,000 scf (AP-42)
											NO_x	20.00	lb/10^3 gal	5.25	1.31	5.25	1.31	AP-42 Chapter 1.3, Table 1.3-1	
											VOC	0.34	lb/10^3 gal	0.09	0.02	0.09	0.02	AP-42 Chapter 1.3, Table 1.3-3	
											CO	5.00	lb/10^3 gal	1.31	0.33	1.31	0.33	AP-42 Chapter 1.3, Table 1.3-1	
											HAP	0.04	lb/10^3 gal	0.01	0.00	0.01	0.00	AP-42 Chapter 1.3, Table 1.3-9	
A02.003	Boiler - Fuel Oil (36.74 MMBtu)	1.4	500	36.74	321,851	0.26	131	10^3 gal	Uncontrolled	0%	PM	2.00	lb/10^3 gal	0.52	0.13	0.52	0.13	AP-42 Chapter 1.3, Table 1.3-1	500 hours for emergency fuel usage
	Manufacturer: Cleaver Brooks										PM_{10}	1.08	lb/10^3 gal	0.28	0.07	0.28	0.07	AP-42 Chapter 1.3, Table 1.3-7	
	Model #: CBEX-2W-200-900-150ST										$PM_{2.5}$	0.83	lb/10^3 gal	0.22	0.05	0.22	0.05	AP-42 Chapter 1.3, Table 1.3-7	Distillate Oil Heating Value
	Serial #:										SO_2	142.00	lb/10^3 gal	37.27	9.32	37.27	9.32	AP-42 Chapter 1.3, Table 1.3-1	Btu = 140,000 scf (AP-42)
											NO_x	20.00	lb/10^3 gal	5.25	1.31	5.25	1.31	AP-42 Chapter 1.3, Table 1.3-1	
											VOC	0.34	lb/10^3 gal	0.09	0.02	0.09	0.02	AP-42 Chapter 1.3, Table 1.3-3	
											CO	5.00	lb/10^3 gal	1.31	0.33	1.31	0.33	AP-42 Chapter 1.3, Table 1.3-1	
											HAP	0.04	lb/10^3 gal	0.01	0.00	0.01	0.00	AP-42 Chapter 1.3, Table 1.3-9	

B	**Miscellaneous Fuel Burning Equipment - Natural Gas**																		
B.001-066	Miscellaneous Fuel Burning Equipment	24	8,760	15.11	132,407	0.01	126.10	10^6 scf	Uncontrolled	0%	PM	7.60	lb/10^6scf	0.11	0.48	0.11	0.48	AP-42 Chapter 1.4, Table 1.4-2	Natural Gas Heating Value
	66 HVAC units, water heaters, kitchen equipment etc. - See efile for inventory										PM_{10}	5.70	lb/10^6scf	0.08	0.36	0.08	0.36	AP-42 Chapter 1.4, Table 1.4-2	Btu = 1,050 scf (AP-42)
	Located at:										$PM_{2.5}$	1.90	lb/10^6scf	0.03	0.12	0.03	0.12	AP-42 Chapter 1.4, Table 1.4-2	
	90, 1095 E 2nd; 75, 85, 225, 300 Kirman;										SO_2	0.60	lb/10^6scf	0.01	0.04	0.01	0.04	AP-42 Chapter 1.4, Table 1.4-2	
	975, 980, 1000 Ryland; 1155, 1495 Mill										NO_X	100.00	lb/10^6scf	1.44	6.31	1.44	6.31	AP-42 Chapter 1.4, Table 1.4-1	
											VOC	5.50	lb/10^6scf	0.08	0.35	0.08	0.35	AP-42 Chapter 1.4, Table 1.4-1	
											CO	84.00	lb/10^6scf	1.21	5.30	1.21	5.30	AP-42 Chapter 1.4, Table 1.4-2	
											HAP	1.88	lb/10^6scf	0.03	0.12	0.03	0.12	AP-42 Chapter 1.4, Table 1.4-2	
C	**Emergency Power Generation**																		
C.001	Emergency Generator (600 kW)	1.4	500			42.80	21,400.00	gal	Uncontrolled	0%	PM	0.32	g/hp-hr	0.56	0.14	0.56	0.14	AP-42 Chapter 3.4, Table 3.4-1	
	Manufacturer:										PM_{10}	0.32	g/hp-hr	0.56	0.14	0.56	0.14	AP-42 Chapter 3.4, Table 3.4-1	
	Model #:										$PM_{2.5}$	0.32	g/hp-hr	0.56	0.14	0.56	0.14	AP-42 Chapter 3.4, Table 3.4-1	
	Serial #:										SO_2	1.21E-05	lb/hp-hr	0.01	0.002	0.01	0.002	AP-42 Chapter 3.4, Table 3.4-1	
											NO_X	10.89	g/hp-hr	19.30	4.82	19.30	4.82	AP-42 Chapter 3.4, Table 3.4-1	
											VOC	6.42E-04	g/hp-hr	0.0011	0.0003	0.0011	0.0003	AP-42 Chapter 3.4, Table 3.4-1	
											CO	2.49	g/hp-hr	4.42	1.11	4.42	1.11	AP-42 Chapter 3.4, Table 3.4-1	
											HAP	5.69E-04	lb/gal	0.02	0.01	0.03	0.01	AP-42 Chapter 3.3, Table 3.3-2	
D	**Emergency Power Generation**																		
D.001	Emergency Generator (2,000 kW)	1.4	500			141.9	70,950	gal	Uncontrolled	0%	PM	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Manufacturer: (2005)										PM_{10}	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Model #:										$PM_{2.5}$	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Serial #:										SO_2	2.08E-04	lb/gal	0.03	0.01	0.03	0.01	NDEP Stationary ICE Emission Factors (Note 1)	
											NO_X	6.90	g/hp-hr	40.77	10.19	40.77	10.19	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
											VOC	1.0	g/hp-hr	5.91	1.48	5.91	1.48	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
											CO	8.50	g/hp-hr	50.22	12.56	50.22	12.56	AP-42 Chapter 3.4, Table 3.4-1	
											HAP	5.69E-04	lb/gal	0.08	0.02	0.08	0.02	AP-42 Chapter 3.3, Table 3.3-2	
D.002	Emergency Generator (2,000 kW)	1.4	500			141.9	70,950	gal	Uncontrolled	0%	PM	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Manufacturer: (2005)										PM_{10}	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Model #:										$PM_{2.5}$	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Serial #:										SO_2	2.08E-04	lb/gal	0.03	0.01	0.03	0.01	NDEP Stationary ICE Emission Factors (Note 1)	
											NO_X	6.90	g/hp-hr	40.77	10.19	40.77	10.19	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
											VOC	1.0	g/hp-hr	5.91	1.48	5.91	1.48	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
											CO	8.50	g/hp-hr	50.22	12.56	50.22	12.56	AP-42 Chapter 3.4, Table 3.4-1	
											HAP	5.69E-04	lb/gal	0.08	0.02	0.08	0.02	AP-42 Chapter 3.3, Table 3.3-2	
D.003	Emergency Generator (2,000 kW)	1.4	500			141.9	70,950	gal	Uncontrolled	0%	PM	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Manufacturer: (2005)										PM_{10}	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Model #:										$PM_{2.5}$	0.40	g/hp-hr	2.36	0.59	2.36	0.59	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
	Serial #:										SO_2	2.08E-04	lb/gal	0.03	0.01	0.03	0.01	NDEP Stationary ICE Emission Factors (Note 1)	
											NO_X	6.90	g/hp-hr	40.77	10.19	40.77	10.19	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
											VOC	1.0	g/hp-hr	5.91	1.48	5.91	1.48	EPA Tier 1 Nonroad Diesel Engine Emission Standards	
											CO	8.50	g/hp-hr	50.22	12.56	50.22	12.56	AP-42 Chapter 3.4, Table 3.4-1	
											HAP	5.69E-04	lb/gal	0.08	0.02	0.08	0.02	AP-42 Chapter 3.3, Table 3.3-2	
E	**Emergency Power Generation**																		
E.001	Emergency Generator (2,000 kW)	1.4	500			133.6	66,800	gal	Uncontrolled	0%	PM	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Manufacturer: CAT										PM_{10}	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Model #: 3516C (2023)										$PM_{2.5}$	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Serial #:										SO_2	2.08E-04	lb/gal	0.03	0.01	0.03	0.01	NDEP Stationary ICE Emission Factors (Note 1)	
											NO_X	6.56	g/hp-hr	38.76	9.69	38.76	9.69	Mfg Specifications	
											VOC	0.22	g/hp-hr	1.30	0.32	1.30	0.32	AP-42 Chapter 3.4, Table 3.4-1	
											CO	0.54	g/hp-hr	3.19	0.80	3.19	0.80	Mfg Specifications	
											HAP	5.69E-04	lb/gal	0.08	0.02	0.08	0.02	AP-42 Chapter 3.3, Table 3.3-2	
E.002	Emergency Generator (2,000 kW)	1.4	500			133.6	66,800	gal	Uncontrolled	0%	PM	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Manufacturer: CAT										PM_{10}	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Model #: 3516C (2023)										$PM_{2.5}$	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Serial #:										SO_2	2.08E-04	lb/gal	0.03	0.01	0.03	0.01	NDEP Stationary ICE Emission Factors (Note 1)	
											NO_X	6.56	g/hp-hr	38.76	9.69	38.76	9.69	Mfg Specifications	
											VOC	0.22	g/hp-hr	1.30	0.32	1.30	0.32	AP-42 Chapter 3.4, Table 3.4-1	
											CO	0.54	g/hp-hr	3.19	0.80	3.19	0.80	Mfg Specifications	
											HAP	5.69E-04	lb/gal	0.08	0.02	0.08	0.02	AP-42 Chapter 3.3, Table 3.3-2	
E.003	Emergency Generator (2,000 kW)	1.4	500			133.6	66,800	gal	Uncontrolled	0%	PM	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Manufacturer: CAT										PM_{10}	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Model #: 3516C (2023)										$PM_{2.5}$	0.04	g/hp-hr	0.24	0.06	0.24	0.06	Mfg Specifications	
	Serial #:										SO_2	2.08E-04	lb/gal	0.03	0.01	0.03	0.01	NDEP Stationary ICE Emission Factors (Note 1)	
											NO_X	6.56	g/hp-hr	38.76	9.69	38.76	9.69	Mfg Specifications	
											VOC	0.22	g/hp-hr	1.30	0.32	1.30	0.32	AP-42 Chapter 3.4, Table 3.4-1	
											CO	0.54	g/hp-hr	3.19	0.80	3.19	0.80	Mfg Specifications	
											HAP	5.69E-04	lb/gal	0.08	0.02	0.08	0.02	AP-42 Chapter 3.3, Table 3.3-2	
F	**Emergency Power Generation**																		
F.001	Emergency Generator (500 kW)	1.4	500			34.4	17,200	gal	Uncontrolled	0%	PM	0.10	g/hp-hr	0.15	0.04	0.15	0.04	Mfg Specifications	
	Manufacturer: Cummins (2022)										PM_{10}	0.10	g/hp-hr	0.15	0.04	0.15	0.04	Mfg Specifications	
	Model #:										$PM_{2.5}$	0.10	g/hp-hr	0.15	0.04	0.15	0.04	Mfg Specifications	
	Serial #:										SO_2	2.08E-04	lb/gal	0.007	0.002	0.007	0.002	NDEP Stationary ICE emission factors	
											NO_X	4.30	g/hp-hr	6.35	1.59	6.35	1.59	Mfg Specifications	
											VOC	0.22	g/hp-hr	0.32	0.08	0.32	0.08	AP-42 Chapter 3.4, Table 3.4-1	
											CO	0.40	g/hp-hr	0.59	0.15	0.59	0.15	Mfg Specifications	
											HAP	5.69E-04	lb/gal	0.020	0.005	0.020	0.005	AP-42 Chapter 3.3, Table 3.3-2	
G	**Cooling Towers**																		
G.001	Cooling Tower (1,300 gpm)	24	8,760			78.0	683,280	10^3 gal	Drift Eliminator	0.005%	PM	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	Note 2
											PM_{10}	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											$PM_{2.5}$	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
G.002	Cooling Tower (1,300 gpm)	24	8,760			78.0	683,280	10^3 gal	Drift Eliminator	0.005%	PM	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											PM_{10}	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											$PM_{2.5}$	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
G.003	Cooling Tower (1,300 gpm)	24	8,760			78.0	683,280	10^3 gal	Drift Eliminator	0.005%	PM	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											PM_{10}	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											$PM_{2.5}$	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
G.004	Cooling Tower (1,300 gpm)	24	8,760			78.0	683,280	10^3 gal	Drift Eliminator	0.005%	PM	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											PM_{10}	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	
											$PM_{2.5}$	5,000	mg TDS/L	0.163	0.71	0.163	0.71	Flow rate, drift loss provided by consultant	

	Facility-Wide Emission Rate			
	Potential to Emit		Allowable	
	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)
PM	11.64	9.15	11.64	9.15
PM_{10}	10.69	8.02	10.69	8.02
$PM_{2.5}$	10.04	6.09	10.04	6.09
SO_2	112.06	28.29	112.06	28.29
NO_X	291.91	119.65	291.91	95.00
VOC	22.87	8.29	22.87	8.29
CO	179.21	84.01	179.21	84.01
HAP	0.77	1.07	0.77	1.07