

**SYNTHETIC MINOR OPERATING PERMIT
EVALUATION REPORT
STANFORD UNIVERSITY
PLANT NUMBER A0639
APPLICATION NUMBER 26344**

BACKGROUND

Stanford University has made application for an initial Synthetic Minor Operating Permit under the provisions of Regulation 2, Rule 6-230 for its university campus located in Palo Alto, California. This site requires limitations on its permit conditions to ensure that the facility does not emit more than 100 tons per year of nitrogen oxides or carbon monoxide, and thereby trigger classification of the site as a Major Facility under the provisions of Regulation 2, Rule 6.

SOURCES COVERED BY SYNTHETIC MINOR OPERATING PERMIT

The permitted sources and abatement devices covered by this Synthetic Minor Operating Permit are as follows:

CURRENT PERMITTED SOURCES

- S10, Non-Retail Gasoline Dispensing Facility
- S11, Emergency Standby Diesel Generator Set, 807 BHP
- S12, Emergency Standby Diesel Generator Set, 1186 BHP
- S13, Emergency Standby Diesel Generator Set, 1186 BHP
- S14, Emergency Standby Diesel Generator Set, 755 BHP
- S15, Emergency Standby Diesel Generator Set, 1860 BHP
- S16, Emergency Standby Diesel Generator Set, 73 BHP
- S17, Emergency Standby Diesel Generator Set, 300 BHP
- S18, Emergency Standby Diesel Generator Set, 135 BHP
- S21, Emergency Standby Diesel Generator Set, 465 BHP
- S22, Emergency Standby Diesel Generator Set, 380 BHP
- S23, Emergency Standby Diesel Generator Set, 465 BHP
- S28, Emergency Standby Diesel Generator Set, 900 BHP
- S30, Emergency Standby Diesel Generator Set, 166 BHP
- S31, Emergency Standby Diesel Generator Set, 166 BHP
- S32, Emergency Standby Diesel Generator Set, 605 BHP
- S33, Emergency Standby Diesel Generator Set, 900 BHP
- S34, Emergency Standby Diesel Generator Set, 605 BHP
- S35, Emergency Standby Diesel Generator Set, 170 BHP
- S37, Emergency Standby Diesel Generator Set, 277 BHP
- S38, Emergency Standby Diesel Generator Set, 380 BHP
- S39, Emergency Standby Diesel Generator Set, 210 BHP
- S44, Emergency Standby Diesel Generator Set, 170 BHP

S46, Emergency Standby Diesel Generator Set, 211 BHP
S47, Emergency Standby Diesel Generator Set, 182 BHP
S51, Emergency Standby Diesel Generator Set, 86 BHP
S53, Emergency Standby Diesel Generator Set, 250 BHP
S55, Emergency Standby Diesel Generator Set, 277 BHP
S56, Emergency Standby Diesel Generator Set, 60 BHP
S57, Emergency Standby Diesel Generator Set, 218 BHP
S58, Emergency Standby Diesel Generator Set, 500 BHP
S59, Emergency Standby Diesel Generator Set, 150 BHP
S60, Emergency Standby Diesel Generator Set, 317 BHP
S61, Emergency Standby Diesel Generator Set, 317 BHP
S62, Emergency Standby Diesel Generator Set, 317 BHP
S63, Emergency Standby Diesel Generator Set, 317 BHP
S65, Emergency Standby Diesel Generator Set, 765 BHP
S66, Emergency Standby Diesel Generator Set, 170 BHP
S67, Emergency Standby Diesel Generator Set, 900 BHP
S68, Emergency Standby Diesel Generator Set, 1490 BHP
S69, Emergency Standby Diesel Generator Set, 1490 BHP
S70, Emergency Standby Diesel Generator Set, 102 BHP
S71, Emergency Standby Diesel Generator Set, 277 BHP
S72, Emergency Standby Diesel Generator Set, 283 BHP
S73, Emergency Standby Diesel Generator Set, 900 BHP
S74, Emergency Standby Diesel Generator Set, 103 BHP
S75, Emergency Standby Diesel Generator Set, 102 BHP
S76, Emergency Standby Diesel Generator Set, 317 BHP
S77, Emergency Standby Diesel Generator Set, 755 BHP
S78, Emergency Standby Diesel Generator Set, 2220 BHP
S79, Portable Emergency Standby Diesel Generator Set, 470 BHP
S80, Emergency Standby Diesel Generator Set, 2220 BHP
S81, Emergency Standby Diesel Generator Set, 230 BHP
S82, Emergency Standby Diesel Generator Set, 317 BHP
S83, Emergency Standby Diesel Generator Set, 755 BHP
S84, Emergency Standby Diesel Generator Set, 317 BHP
S88, Emergency Standby Diesel Generator Set, 395 BHP
S89, Emergency Standby Diesel Generator Set, 317 BHP
S90, Emergency Standby Diesel Generator Set, 102 BHP
S91, Portable Emergency Standby Diesel Generator Set, 395 BHP
S92, Emergency Standby Diesel Generator Set, 750 BHP
S94, Emergency Standby Diesel Generator Set, 277 BHP
S95, Emergency Standby Diesel Generator Set, 750 BHP
S96, Emergency Standby Diesel Generator Set, 325 BHP
S97, Emergency Standby Diesel Generator Set, 1523 BHP
S98, Emergency Standby Diesel Generator Set, 1523 BHP
S99, Emergency Standby Diesel Generator Set, 1523 BHP
S100, Emergency Standby Diesel Generator Set, 2220 BHP
S101, Emergency Standby Diesel Generator Set, 480 BHP

- S104, Emergency Standby Diesel Generator Set, 2220 BHP
- S105, Emergency Standby Diesel Generator Set, 1490 BHP
- S106, Emergency Standby Diesel Generator Set, 755 BHP
- S107, Emergency Standby Diesel Generator Set, 755 BHP
- S108, Emergency Standby Diesel Generator Set, 755 BHP
- S109, Emergency Standby Diesel Generator Set, 755 BHP
- S110, Emergency Standby Diesel Generator Set, 250 BHP
- S111, Emergency Standby Diesel Generator Set, 145 BHP
- S112, Emergency Standby Diesel Generator Set, 2220 BHP
- S113, Emergency Standby Diesel Generator Set, 398 BHP
- S114, Emergency Standby Diesel Generator Set, 1214 BHP
- S115, Emergency Standby Diesel Generator Set, 130 BHP
- S116, Emergency Standby Diesel Generator Set, 354 BHP
- S117, Emergency Standby Diesel Generator Set, 274 BHP
- S118, Space Heat Boiler, 69.8 MM Btu/hour
- S119, Space Heat Boiler, 69.6 MM Btu/hour
- S120, Space Heat Boiler, 69.6 MM Btu/hour
- S121, Emergency Standby Diesel Generator Set, 145 BHP
- S122, Emergency Standby Diesel Generator Set, 755 BHP
- S123, Emergency Standby Diesel Generator Set, 2922 BHP
- S124, Emergency Standby Diesel Generator Set, 2206 BHP
- S125, Emergency Standby Diesel Generator Set, 464 BHP
- S131, Emergency Standby Diesel Generator Set, 349 BHP
- S132, Emergency Standby Diesel Generator Set, 762 BHP

FUTURE PERMITTED SOURCES

- S133, Emergency Standby Diesel Generator Set, 2220 BHP
- S134, Emergency Standby Diesel Generator Set, 1141 BHP
- S135, Emergency Standby Diesel Generator Set, 2220 BHP

CURRENT ABATEMENT DEVICES

- A9, Catalytic Diesel Particulate Filter
- A11, Diesel Oxidation Catalyst
- A12, Catalytic Diesel Particulate Filter
- A13, Diesel Oxidation Catalyst
- A14, Lean NOx Catalyst
- A15, Diesel Oxidation Catalyst
- A16, Lean NOx Catalyst
- A17, Diesel Oxidation Catalyst
- A18, Lean NOx Catalyst
- A19, Catalytic Diesel Particulate Filter
- A20, Catalytic Diesel Particulate Filter

A21, Diesel oxidation catalyst
A22, Lean NOx Catalyst
A23, Diesel oxidation catalyst
A24, Lean NOx Catalyst
A25, Catalytic Diesel Particulate Filter
A104, Catalytic Diesel Particulate Filter
A105, Catalytic Diesel Particulate Filter
A107, Catalytic Diesel Particulate Filter
A108, Catalytic Diesel Particulate Filter
A109, Catalytic Diesel Particulate Filter
A110, Catalytic Diesel Particulate Filter
A111, Catalytic Diesel Particulate Filter
A112, Catalytic Diesel Particulate Filter
A114, Catalytic Diesel Particulate Filter
A115, Catalytic Diesel Particulate Filter
A116, Catalytic Diesel Particulate Filter
A121, Catalytic Diesel Particulate Filter
A122, Catalytic Diesel Particulate Filter
A123, Catalytic Diesel Particulate Filter
A124, Catalytic Diesel Particulate Filter
A125, Catalytic Diesel Particulate Filter
A132, Catalytic Diesel Particulate Filter

FUTURE ABATEMENT DEVICES

A133, Catalytic Diesel Particulate Filter
A134, Catalytic Diesel Particulate Filter
A135, Catalytic Diesel Particulate Filter

CURRENT REGISTERED SOURCES

S140, Space Heat Boiler, 0.43 MM Btu/hour
S141, Space Heat Boiler, 0.43 MM Btu/hour
S142, Space Heat Boiler, 3 MM Btu/hour
S143, Space Heat Boiler, 3 MM Btu/hour
S144, Space Heat Boiler, 8 MM Btu/hour
S145, Space Heat Boiler, 8 MM Btu/hour
S146, Space Heat Boiler, 8 MM Btu/hour

CURRENT EXEMPT SOURCES

19 Small Boilers, 0.12 MM Btu/hour
14 Small Boilers, 0.5 MM Btu/hour
11 Small Boilers, 1 MM Btu/hour
5 Small Emergency Standby Diesel Generator Sets, 49 BHP or Less

FUTURE EXEMPT SOURCES

2 Small Boilers, 1 MM Btu/hr each

FEDERALLY ENFORCEABLE EMISSIONS LIMITATIONS AT STANFORD UNIVERSITY

In order to be eligible for a Synthetic Minor Operating Permit, a site must accept permit conditions limiting emissions from the site to the Title V emission thresholds (less than 95 tons/year of NO_x, CO, POC, PM10, and SO₂, less than 9 tons/year of any single hazardous air pollutant (HAP), and less than 23 tons/year of all HAPs combined). When emergency operating time for standby diesel-powered generator engines is included, Stanford University has the potential to exceed 100 tons/year of NO_x and CO emissions.

All of the sources from this facility which produce NO_x and CO emissions are combustion sources fueled by either natural gas or by diesel fuel. Stanford University has requested that a Synthetic Minor permit be issued to limit operations in a manner that ensures that the facility's NO_x and CO emissions meet the Title V limitations. This will be done by limiting operating hours and criteria pollutant emissions at its combustion sources.

In the past, this facility has used the District's Small Facility Banking Account for NO_x and POC offsets required pursuant to Regulation 2-2-302. Although permitted NO_x emissions are less than the 35 ton/year threshold for the Small Facility Banking Account, the total NO_x potential to emit (PTE) resulting from permitted, registered, and exempt equipment and emergency operating time will exceed 35 tons/year of NO_x. Therefore, this facility is no longer eligible to receive NO_x offsets from the Small Facility Banking Account. To ensure that this facility continues to meet the 35 tons/year POC threshold for the Small Facility Banking Account, facility wide POC emissions will be limited to 34 tons/year.

EMISSION CALCULATIONS - CRITERIA POLLUTANTS

Boilers

Stanford University currently has three permitted boilers, seven registered boilers, and 37 small exempt unpermitted boilers. Stanford anticipates that another two small unpermitted boilers will be added in the near future. These small boilers will be exempt from permitting requirements under the provisions of Regulation 2, Rule 1-114.1.2.

Three of the existing boilers were permitted as part of Stanford University's replacement central utility plant project (Application 25488). Stanford University requested that these boilers be permitted at no more than 5,100 hours per year operation (approximately 58% of maximum potential heat input capacity) to ensure that the facility would not trigger PSD and Title V permitting requirements. Emission factors were based on the Regulation 9, Rule 7 limit of 9 ppmv

at 3% O₂, dry for NO_x, and a BACT limit of 25% ppmv at 3% O₂, dry, for CO. All other emission factors were taken from AP-42, Chapter 1.4, "Natural Gas Combustion."

Stanford University also has seven small boilers which are registered under the District's Small Boiler Registration Program, and 44 small boilers which are exempt from permitting requirements under Regulation 2-1-114.1.1. Emission factors for the 53 current and future registered and exempt boilers were taken from AP-42, Chapter 1.4, "Natural Gas Combustion."

Generators

Stanford currently has 92 permitted diesel-powered generator sets to provide emergency standby power in the case of commercial utility power failure. There are also plans to install five small generator sets (less than 49 BHP each) in the near future. These small sets will be exempt from permitting requirements under the provisions of Regulation 2, Rule 1-114.2.1.

Thirty of these generators were permitted under "loss of exemption provision" following the adoption of the "Air Toxic Control Measure for Stationary Compression Ignition Engines" by the California Air Resources Board in 2000. They are permitted for a maximum of 20 hours per year for non-emergency use. The remaining 62 engines are permitted for up to 50 hours per generator engine for non-emergency use, based on cumulative health risk assessments.

The emission factors for most of the currently-permitted generator engines were taken from either California Air Resources Board certification documentation for the specific engines, manufacturer's ISO 8178 D2-cycle weighted emissions testing for the specific engines, or Environmental Protection Agency maximum tier level standards for the engine family. For older engines with no available emission factor documentation, emission factors for POC, NO_x and CO were taken from either AP 42, Chapter 3.3 "Gasoline and Diesel Industrial Engines" for engine rated at up to 600 BHP, or Chapter 3.4 "Large Stationary Diesel and All Stationary Dual-Fuel Engines" for engines rated at 600 BHP or higher. PM₁₀ emission factors for these engines are based on CARB default factors for the engines. SO₂ emission factors for all engines are based on stoichiometric conversion of all of the sulfur in the diesel fuel to SO₂, based on exclusive use of California Ultra-Low Sulfur diesel fuel (fuel with a maximum sulfur content of 0.0015% by weight sulfur).

Under the CARB ATCM, operation of these engines is not limited under emergency conditions; however, facility-wide throughput must be limited to ensure that Stanford University does not exceed Title V emission limits. If all loss of exemption standby generators are limited to 120 hours per year for both emergency operations and testing and maintenance operations, and all other standby generators are limited to 200 hours per year for emergency and testing and maintenance operations, all criteria and hazardous pollutant emissions will be less than the Title V trigger levels. Total diesel fuel usage can be aggregated by engine category (loss of exemption and all other engines).

Gasoline Dispensing Facility

Stanford University has a non-retail gasoline dispensing facility to provide unleaded gasoline fuel to the motor vehicles used for university purposes. This fuel source is limited by permit condition to 600,000 gallons per year.

All of the emissions from this source are assumed to be volatile organic compounds (VOCs), which are used as a proxy for precursor organic compounds (POCs). The major components of the emissions are benzene, toluene, ethylbenzene, and xylene (BTEX), and hexane. Industry certified emission factors for dispensing facility with a two point EVR certified balanced vapor control system were used to estimate POC emissions (emission factor 0.044591 lb/mgal for all five organic emissions combined).

FACILITY WIDE FEDERALLY ENFORCEABLE EMISSIONS

Total federally enforceable source-by-source criteria pollutant emissions are summarized in Attachment 1.

With these emissions, the total federally enforceable emissions from all sources at Stanford University (permitted sources, registered sources, and exempt sources) are as follows:

FACILITY WIDE TOTAL POTENTIAL TO EMIT						
SOURCE DESCRIPTION	TOTAL MMBTU/YR	PM10 (TONS/YR)	POC (TONS/YR)	NOx (TONS/YR)	SO2 (TONS/YR)	CO (TONS/YR)
PERMITTED BOILERS	1,064,880	3.599	2.605	5.276	0.284	17.844
REGISTERED BOILERS	338,136	1.143	0.827	4.652	0.090	22.664
EXEMPT BOILERS	304,673	1.089	0.788	13.468	0.086	5.731
TOTAL - BOILERS		5.831	4.220	23.397	0.460	46.239
SOURCE DESCRIPTION	TOTAL DIESEL M GAL/YR	PM10 (TONS/YR)	POC (TONS/YR)	NOx (TONS/YR)	SO2 (TONS/YR)	CO (TONS/YR)
PERMITTED GENERATORS	592.9	1.203	3.035	61.201	0.061	13.833
EXEMPT GENERATORS	1.5	0.029	0.033	0.413	0.027	0.009
TOTAL - GENERATORS	594.4	1.232	3.068	61.615	0.088	13.841
SOURCE DESCRIPTION	TOTAL GASOLINE M GAL/YR	PM10 (TONS/YR)	POC (TONS/YR)	NOx (TONS/YR)	SO2 (TONS/YR)	CO (TONS/YR)
GASOLINE DISPENSING FACILITY	600.0		0.013			
FACILITY-WIDE TOTALS		7.063	7.301	85.011	0.548	60.081

At the proposed limits, total emissions of NOx, CO, PM10, and SO2 will be less than 95 tons per year and POC emissions will be less than 34 tons/year. The facility is expected to comply with all Synthetic Minor Operation Condition requirements.

EMISSION CALCULATIONS - HAZARDOUS AIR POLLUTANTS

All sources under consideration emit hazardous air pollutants. Hazardous air pollutant emissions were calculated for all sources using California Air Toxic Emission Factor (CATEF) emission factors, EPA AP-42 emission factors, or average emission factors for representative gasoline dispensing facilities within the BAAQMD. None of the hazardous air pollutant emissions exceed the limits required for Title V permitting (9 tons/year of any single hazardous air pollutant, or 23 tons/year of all hazardous air pollutants combined).

Total source-by-source hazardous air pollutant emissions are summarized in Attachment 2.

NEW SYNTHETIC MINOR OPERATING PERMIT CONDITION

The new Synthetic Minor Operating Permit Condition will incorporate all District requirements as set out in the original source permit conditions. In addition, the new condition will add provisions to ensure that the facility will continue to meet the requirements set out in Regulation 2, Rule 6 to avoid designation as a Title V or PSD facility.

STATEMENT OF COMPLIANCE

This facility is expected to comply with the applicable requirements of Regulation 2 Rule 6 to obtain a synthetic minor permit. Stanford University has voluntarily accepted federally enforceable permit conditions including throughput limitations that will keep its potential to emit below the synthetic minor thresholds.

SYNTHETIC MINOR OPERATING PERMIT

Condition # 25980

SYNTHETIC MINOR OPERATING PERMIT

Stanford University
ESF-480 Oak Road
Palo Alto, CA 94305
Plant #639

PERMITTED SOURCES

- S10, Non-Retail Gas Dispensing Facility
- S11, Standby Generator
- S12, Standby Generator
- S13, Standby Generator
- S14, Standby Generator
- S15, Standby Generator
- S16, Standby Generator
- S17, Standby Generator
- S18, Standby Generator
- S21, Standby Generator
- S22, Standby Generator
- S23, Standby Generator
- S28, Standby Generator
- S30, Standby Generator
- S31, Standby Generator
- S32, Standby Generator
- S33, Standby Generator
- S34, Standby Generator
- S35, Standby Generator
- S37, Standby Generator
- S38, Standby Generator
- S39, Standby Generator
- S44, Standby Generator
- S46, Standby Generator
- S47, Standby Generator
- S51, Standby Generator
- S53, Standby Generator
- S55, Standby Generator
- S56, Standby Generator
- S57, Standby Generator
- S58, Standby Generator
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S109, Standby Generator
S110, Standby Generator
S111, Standby Generator
S112, Standby Generator
S113, Standby Generator
S114, Standby Generator
S115, Standby Generator
S116, Standby Generator
S117, Standby Generator
S118, Space Heat Boiler

S119, Space Heat Boiler
S120, Space Heat Boiler
S121, Standby Generator
S122, Standby Generator
S123, Standby Generator
S124, Standby Generator
S125, Standby Generator
S131, Standby Generator
S132, Standby Generator

FUTURE PERMITTED SOURCES

S133, Standby Generator
S134, Standby Generator
S135, Standby Generator

CURRENT REGISTERED SOURCES

S140, Registered Boiler
S141, Registered Boiler
S142, Registered Boiler
S143, Registered Boiler
S144, Registered Boiler
S145, Registered Boiler
S146, Registered Boiler

CURRENT EXEMPT SOURCES

44 Small Boilers (Less than 1 MM Btu/hr each)
5 Small Diesel Power Generators (Less than 49 BHP each)

FUTURE EXEMPT SOURCES

2 Small Boilers (Less than 1 MM Btu/hr each)

CURRENT ABATEMENT DEVICES

A9, Catalytic Diesel Particulate Filter, Cleaire BugTrap
A11, Diesel Oxidation Catalyst, Cleaire Flexbase
A12, Catalytic Diesel Particulate Filter, Cleaire BugTrap
A13, Diesel Oxidation Catalyst, Cleaire
A14, Low NOx Catalyst, Cleaire
A15, Diesel Oxidation Catalyst, Cleaire
A16, Low NOx Catalyst, Cleaire
A17, Diesel Oxidation Catalyst, Cleaire
A18, Low NOx Catalyst, Cleaire
A19, Catalytic Diesel Particulate Filter, Cleaire BugTrap
A20, Catalytic Diesel Particulate Filter, Cleaire BugTrap
A21, Diesel Oxidation Catalyst, Cleaire A22, Low NOx
Catalyst, Cleaire
A23, Diesel Oxidation Catalyst, Cleaire
A24, Low NOx Catalyst, Cleaire
A25, Catalytic Diesel Particulate Filter
A104, Catalytic Diesel Particulate Filter, CleanAir Systems

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- A105, Catalytic Diesel Particulate Filter, Johnson Matthey CRT
- A107, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A108, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A109, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A110, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A111, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A112, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A114, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A115, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A116, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A122, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A123, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A124, Catalytic Diesel Particulate Filter, Rypos HDPF/C

FUTURE ABATEMENT DEVICES

- A133, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A134, Catalytic Diesel Particulate Filter, Rypos HDPF/C
- A135, Catalytic Diesel Particulate Filter, Rypos HDPF/C

This facility, Site # A0639, has a synthetic minor operating permit. This operating permit covers all equipment existing at this facility as of permit issuance. The sources and abatement devices are listed above.

The following conditions establish the federally enforceable permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6, Major Facility Review, and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. All applications submitted by the applicant and all modifications to the plant's equipment after issuance of the synthetic minor permit must be evaluated to ensure that the facility will not exceed the synthetic minor general limits below, and that sufficient monitoring, recordkeeping, and reporting requirements are imposed to ensure enforceability of the limits.

Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a synthetic minor must undergo the procedures specified by Rule 2-6, section 423. The basis for the synthetic minor conditions is an emission limit of 95 tons per year for regulated air pollutants, an emission limit for a single hazardous air pollutant of 9 tons per year, and an emission limit for a combination of hazardous air pollutants of 23 tons per year.

Any District conditions that do not establish this facility

as a synthetic minor are marked with an asterisk. The facility must comply with all conditions, regardless of asterisks, and must comply with all District requirements for new and modified sources regardless of its status as a synthetic minor.

1. The owner/operator shall ensure that emissions from this site do not exceed any of the emission limits listed below. The owner/operator shall demonstrate compliance with these emission limits by following all monitoring procedures and record keeping requirements identified in Parts 2-18 below.

(Basis: Regulation 2-6-423)

NOx	95 tons/year
CO	95 tons/year
POC	34 tons/year
PM10	95 tons/year
SO2	95 tons/year
Any Single HAP	9 tons/year
Combination of HAPs	23 tons/year

COMBUSTION OPERATIONS:

2. The owner/operator shall ensure that sources S-118 through S-120 are fired on natural gas, except during periods of natural gas curtailment, or during short test periods for testing and maintenance purposes.
[Basis: Regulations 9-7-113 and 9-8-331.3]
3. The owner/operator shall use no more than 10,648,800 therms of natural gas at S-118, S-119, and S-120 combined during any consecutive twelve-month period.
[Basis: Regulation 2-6-420; Avoidance of Title V Permitting]
4. The owner/operator shall ensure that NOx emissions from Sources S-118, S-119, and S-120 do not exceed 9 ppmv, dry, at 3% O2 when firing natural gas.
[Basis: Avoidance of Title V Permitting; BACT]
5. The owner/operator shall ensure that CO emissions from Sources S-118, S-119, and S-120 do not exceed 50 ppmv, dry, at 3% O2 when firing natural gas.
[Basis: Avoidance of Title V Permitting; BACT]
6. The owner/operator shall ensure that NOx emissions from Sources S-118, S-119, and S-120 do not exceed 150 ppmv, dry, at 3% O2 when firing backup fuel.
[Basis: Avoidance of Title V Permitting]

7. To demonstrate compliance with the above, the owner/operator shall install and maintain a non-resettable totalizing fuel meter, unless the owner/operator applies for and receives written approval from the District to use an alternative method for measuring the cumulative monthly and annual fuel usages.
[Basis: Regulation 9-7-504.1, Avoidance of Title V Permitting]
8. To demonstrate compliance with the above, the owner/operator shall initiate periodic emissions testing of the boilers at least once every calendar year. Such testing may be conducted either by source testing performed in compliance with the District's Manual of Procedures, or by use of a portable analyzer that meets the specifications and testing protocols set out in Regulation 9, Rule 7-606.
[Basis: Regulation 9-7-506]
9. The owner/operator shall maintain monthly records of the type and amount of each fuel used at S-118, S-119, and S-120 in a District-approved log and shall summarize this fuel usage for each consecutive rolling 12-month period. These records shall be retained for at least five years from the last date of entry and shall be made available for District staff upon request.
[Basis: Avoidance of Title V Permitting, 2-6-501]

EMERGENCY BACK-UP ENGINES:

- *10. The owner/operator shall ensure that Sources S-11 through S-117, S-121 through S-125, and S-131 through S-135 are only operated to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities, maintenance and other testing, but excluding emission testing.
[Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines]
- *11. Emergency conditions are defined as any of the following:
 - a. Loss of regular natural gas supply
 - b. Failure of regular power supply
 - c. Flood mitigation
 - d. Sewage overflow mitigation
 - e. Fire
 - f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor
[Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines]

- *12. Reliability-related activities are defined as any of the following:
- a. Operation of an emergency engine to test its ability to perform for an emergency use, or
 - b. Operation of an emergency engine during maintenance of a primary motor [Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines]
13. The owner/operator shall ensure that operating times for each emergency back-up engine do not exceed the following limits:
[Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines, Regulation 9-8-330.3, Regulation 2-5-302, Regulation 2-6-420; Avoidance of Title V Permitting]

SOURCE(S)	MAX HRS/YR PER ENGINE FOR TESTING & MAINTENANCE OPERATIONS	MAX HRS/YR PER ENGINE FOR ALL OPERATIONS (INCLUDING TESTING AND EMERGENCY USE)
S11, S12, S13, S14, S15, S16, S17, S65, S66, S67, S68, S69, S70, S71, S72, S73, S74, S75, S76, S77, S79, S80, S82, S83, S84, S88, S90, S91, S92, S95, S96, S97, S98, S99, S100, S101, S104, S105, S106, S107, S108, S109, S110, S111, S112, S113, S114, S115, S116, S117, S121, S122, S123, S124, S125, S132, S133, S134, S135	50	200
S18, S21, S22, S23, S28, S30, S31, S32, S33, S34, S35, S37, S38, S39, S44, S46, S47, S51, S53, S55, S56, S57, S58, S59, S60, S61, S62, S63, S131	20	120
S78	37	200
S81, S89	38	200
S94	30	120
Exempt Generators (per generator)	N/A	120

14. The owner/operator shall ensure that Sources S-11 through S-117, S-121 through S-125, and S-131 through S-135 are each equipped with a non-resettable totalizing meter that measures and records the hours of operation for each engine.
[Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines; Regulation 2-6-420; Avoidance of Title V Permitting]
15. The owner/operator shall ensure that total diesel fuel throughput at all the diesel-powered emergency back-up engines does not exceed 594,400 gallons (combined) during any consecutive 12-month period. This throughput limits both emergency and non-emergency operations, and is intended to assist the facility in compliance with parts 1 and 13 of this condition for conformance with Synthetic Minor Operating Permit requirements.
[Basis: Regulation 2-6-420; Avoidance of Title V Permitting]
16. For each engine, the owner/operator shall maintain the following records, on a monthly basis, in a District-approved log. Log entries shall be retained on-site, either at a central location or at the engines location.
 - a. Hours of operation for reliability-related activities (maintenance and testing).
 - b. Hours of operation for emission testing to show compliance with emission limits.
 - c. Hours of operation (emergency).
 - d. For each emergency, the nature of the emergency condition.
 - e. Fuel usage for each engine and for all engines combined.
 - f. Records above shall be summarized for each consecutive rolling 12-month period.Records shall be retained for at least five years from the last date of entry and shall be made available for District staff upon request.
[Basis: Regulations 1-402; 1-441; 1-544; 2-6-501; 9-8-530; Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines]

OTHER SOURCES:

17. The owner/operator shall ensure that unleaded gasoline fuel throughput at the S-10 Non-Retail Gasoline Dispensing Facility does not exceed 600,000 gallons in any consecutive 12-month period.
[Basis: Regulation 2, Rule 6; Avoidance of Title V Permitting]

18. The owner/operator of S-10 shall maintain monthly records of unleaded gasoline fuel throughput at S-10 in a District-approved log. Throughput records shall be summarized for each consecutive rolling 12-month period. Records shall be retained for at least five years from the last date of entry and shall be made available for District staff upon request.
[Basis: Regulation 2, Rule 6; Cumulative Increase; Avoidance of Title V Permitting]

By: _____
Catherine S. Fortney
Senior Air Quality Engineer

Date: _____