



Plant Name: UCSF/Parnassus

Synthetic Minor Operating Condition

Condition No. 13591

Plant No. A2478

Application No. 23508

Condition # 13591

SYNTHETIC MINOR OPERATING PERMIT

UCSF/Parnassus

3rd Avenue & Parnassus

San Francisco, CA 94122

Plant #2478

Sources and Abatement Devices:

- S-9 Gas Turbine, Solar Centaur Taurus, 76 MM BTU/hr (5 MW) capacity; Abated by A-9, CO Oxidation Catalyst and A-10, Selective Catalytic Reduction.
- S-10 Heat Recovery Steam Generator (HRSG) with Davis Duct Burner, 46 MM BTU/hr capacity; Abated by A-10 Selective Catalytic Reduction System.
- S-11 Gas Turbine, Solar Centaur Taurus, 62 MM BTU/hr (5.4 MW) capacity; Abated by A-11, CO Oxidation Catalyst and A-12, Selective Catalytic Reduction System.
- S-12 Heat Recovery Steam Generator with Davis Duct Burner, 46 MM BTU/hr capacity; Abated by A-12 Selective Catalytic Reduction Catalyst.
- S-13 Auxiliary Boiler, Nebraska, 120 MM BTU/hr, with Coen Low NOx burner and Flue Gas Recirculation.
- S-14 Auxiliary Boiler, Nebraska, 120 MM BTU/hr, with Coen Low NOx burner and Flue Gas Recirculation.
- S-16 Emergency Standby Diesel Generator, Caterpillar 3516, 2848 BHP.
- S-17 Emergency Standby Diesel Generator, Caterpillar 3516, 2848 BHP.
- S-18 Emergency Standby Diesel Generator, Caterpillar 3516, 2848 BHP.
- S-19 Emergency Standby Diesel Generator, Caterpillar 3512, 1910 BHP.
- S-20 Emergency Standby Diesel Generator, Caterpillar 3512, 1910 BHP.
- S-21 Emergency Standby Diesel Generator, Caterpillar 3306B, 349 BHP.
- S-22 Emergency Standby Diesel Generator, Kohler D4800X146, 134 BHP.
- S-23 Emergency Standby Diesel Generator, Cummins NT-855-G2, 235 BHP.
- S-24 Emergency Standby Diesel Generator, Cummins 4BT3.9-G1, 66 BHP.
- S-25 Emergency Standby Diesel Generator, Cummins 4BT3.9-G4, 80 BHP.
- S-26 Emergency Standby Diesel Generator, Generac 93A034685/EK130, 268 BHP.



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- S-27 Emergency Standby Diesel Generator, Generac 93A034685/EK10019321, 201 BHP.
- S-30 Emergency Standby Diesel Generator, Detroit Diesel 400 ROZD, 469 BHP.
- S-32 Emergency Standby Diesel Generator Set, Caterpillar, C32DITA, 1502 bhp; abated by A-32 Catalyzed Diesel Particulate Filter
- S-33 Emergency Standby Diesel Generator, Caterpillar 6.6 ATAAC, 274 BHP.

This facility, Site # A2478, 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, of 90,000 tons per year for greenhouse gases (on a CO₂ equivalent basis), 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. In no event shall the emissions from this site exceed any of the emission limits listed below. The owner/operator shall demonstrate compliance with these emission limits by complying with all emission limits, monitoring procedures, and record keeping requirements identified in Parts 4-16 below. (Basis: Regulation 2-6-423)



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NOx	95 tons/year
CO	95 tons/year
POC	95 tons/year
PM10	95 tons/year
SO2	95 tons/year
Any Single HAP	9 tons/year
Combination of HAPs	23 tons/year
CO2e	90,000 tons/year

2. The total usage of natural gas shall not exceed the following in any consecutive twelve (12) month period:

S-9 & S-11 Gas Turbines	10,500,000 therms combined
S-10 & S-12 HRSG	3,000,000 therms combined
S-13 & S-14 Auxiliary Boilers	600,000 therms combined

(Basis: Regulations 2-6-423.2.2; Cumulative Increase)

3. The total usage of natural gas shall not exceed the following in any calendar month:

S-9 & S-11 Gas Turbines	1,900,000 therms combined
S-10 & S-12 HRSG	700,000 therms combined
S-13 & S-14 Auxiliary Boilers	600,000 therms combined

(Basis: Regulations 2-6-423.2.2; Cumulative Increase)

4. The Gas Turbines (S-9, S-11) and the Auxiliary Boilers (S-13, S-14) shall burn only natural gas except that distillate oil is permitted for short periods for testing and maintenance, during periods of natural gas curtailment by Pacific Gas and Electric, and during any upset condition that results in the loss of natural gas supply. Total use of distillate oil at Sources S-9, S-11, S-13, and S-14 shall not exceed 432,000 gallons combined in any consecutive twelve (12) month period. (Basis: Regulations 2-6-423.2.2; 9-7-113, 9-8-331.3)

5. Upon loss of electric power due to circumstances beyond the owner/operator's control, the owner/operator will continue to operate the Gas Turbines (S-9, S-11) and the Heat Recovery Steam Generators (S-10, S-12) to provide electrical power to the critical sectors of the health care facility. The owner/operator shall document all occurrences and record emissions during any such outage, returning to normal emission levels within two hours of utility restoration. The permit holder shall also notify the District in writing within five (5) working days of any such occurrence. Such occurrences will be considered as turbine startup operations for the purposes of paragraphs 6 through 16 below. (Basis: Regulation 1-207)

6. Emissions of carbon monoxide (CO) from S-9 Gas Turbine and S-10 Heat Recovery Steam Generator shall not exceed 10 ppmv, dry, at 15% oxygen, averaged over any rolling three hour average, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)



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7. Emissions of carbon monoxide (CO) from S-11 Gas Turbine and S-12 Heat Recovery Steam Generator shall not exceed 10 ppmv, dry, at 15% oxygen, averaged over any rolling three hour average, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)
8. Emissions of carbon monoxide (CO) from S-13 and S-14 Auxiliary Boilers shall not exceed 50 ppmv, dry, at 3% oxygen, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)
9. Emissions of nitrogen oxides (NOx), when firing natural gas, from S-9 Gas Turbine and S-10 Heat Recovery Steam Generator shall not exceed 5 ppmv, dry, at 15% oxygen, averaged over any rolling three hour average, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)
10. Emissions of nitrogen oxides (NOx), when firing distillate oil, from S-9 Gas Turbine and S-10 Heat Recovery Steam Generator shall not exceed 8 ppmv, dry, at 15% oxygen, averaged over any rolling three hour average, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase)
11. Emissions of nitrogen oxides (NOx), when firing natural gas, from S-11 Gas Turbine and S-12 Heat Recovery Steam Generator shall not exceed 5 ppmv, dry, at 15% oxygen, averaged over any rolling three hour average, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)
12. Emissions of nitrogen oxides (NOx), when firing distillate oil, from S-11 Gas Turbine and S-12 Heat Recovery Steam Generator shall not exceed 8 ppmv, dry, at 15% oxygen, averaged over any rolling three hour average, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase)
13. Emissions of nitrogen oxides (NOx), when firing natural gas, from S-13 and S-14 Auxiliary Boilers shall not exceed 25 ppmv, dry, at 3% oxygen, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)
14. Emissions of nitrogen oxides (NOx), when firing distillate oil, from S-13 and S-14 Auxiliary Boilers shall not exceed 50 ppmv, dry, at 3% oxygen, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)



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15. Emissions of precursor organic compounds (POC) from S-9 Gas Turbine and S-10 Heat Recovery Steam Generator shall not exceed 0.01 lb/MM BTU, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase)
16. Emissions of precursor organic compounds (POC) from S-11 Gas Turbine and S-12 Heat Recovery Steam Generator shall not exceed 0.01 lb/MM BTU, except during startup or shutdown, or during loss of electric power due to circumstances beyond the owner/operator's control. (Basis: Cumulative Increase; BACT)
17. Emissions of precursor organic compounds (POC) from S-13 and S-14 Auxiliary Boilers shall not exceed 0.003 lb/MM BTU when fired on natural gas, and shall not exceed 0.006 lb/MM BTU when fired on distillate oil. (Basis: Cumulative Increase; BACT)
18. The total mass emissions of carbon monoxide (CO) from S-9 Gas Turbine and S-10 Heat Recovery Steam Generator shall not exceed 14,981 pounds (7.41 tons) in any consecutive twelve (12) month period. (Basis: Cumulative Increase; Regulation 2-6-232)
19. The total mass emissions of carbon monoxide (CO) from S-11 Gas Turbine and S-12 Heat Recovery Steam Generator shall not exceed 14,981 pounds (7.41 tons) in any consecutive twelve (12) month period. (Basis: Cumulative Increase; Regulation 2-6-232)
20. The total mass emissions of nitrogen oxides (NOx) from S-9 Gas Turbine and S-10 Heat Recovery Steam Generator shall not exceed 12,204 pounds (6.10 tons) in any consecutive twelve (12) month period. (Basis: Cumulative Increase; Regulation 2-6-232)
21. The total mass emissions of nitrogen oxides (NOx) from S-11 Gas Turbine and S-12 Heat Recovery Steam Generator shall not exceed 12,204 pounds (6.210 tons) in any consecutive twelve (12) month period. (Basis: Cumulative Increase; Regulation 2-6-232)
22. Gas Turbine startup is defined as that period of time during which a gas turbine is put into normal operation from an inactive status by following a prescribed series of steps or operations. The duration of any gas turbine (S-9 and S-11) startup shall not exceed two hours. (Basis: Regulation 9-9-218)
23. Gas Turbine shutdown is defined as that period of time during which a gas turbine is taken out of service from normal operation from normal operation to an inactive status by following a prescribed series of steps or operations. The duration of any gas turbine (S-9 and S-11) shutdown shall not exceed one hour. (Basis: Regulation 9-9-217)
24. Total startup time for each gas turbine shall not exceed 360 hours during any calendar year. (Basis: Cumulative Increase)



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25. Total shutdown time for each gas turbine shall not exceed 200 hours during any calendar year. (Basis: Cumulative Increase)
26. The owner/operator shall calibrate and operate a District approved Continuous Emissions Monitoring (CEM) system for nitrogen oxides, carbon monoxide, and either oxygen or carbon dioxide for the emission points at S-9/S-10 and S-11/S-12 Gas Turbines and Heat Recovery Steam Generators. (Basis: 40 CFR 60.4340(b); District MOP, Volume V)
27. The owner/operator shall operate and maintain District-approved totalizing meters at each of the Gas Turbines (S-9 and S-11), Heat Recovery Steam Generators (S-10 and S-12), and Auxiliary Boilers (S-13 and S-14). (Basis: Cumulative Increase)
28. The following monthly records shall be maintained in a District-approved log. The rolling 12-month totals shall be derived every month by summing the totals from the most recent twelve-month period. The summaries shall be completed within twenty business days after the end of each month. These logs shall be retained for at least five years and shall be available for review during normal business hours by the District's representatives.
 - a. Total natural gas usage (therms) at: S-9, S-10, S-11, S-12, S-13, S-14
 - b. Total number of hours for distillate testing and maintenance, and natural gas supply upset at S-9, S-11, S-13, S-14
 - c. Total mass emissions of carbon monoxide (CO) in pounds at S-9, S-10, S-11, S-12
 - d. Total mass emissions of nitrogen oxides (NOx) in pounds at S-9, S-10, S-11, S-12
 - e. Number and duration of startups, shutdowns, and electrical power supply disconnects at S-9, S-10, S-11, S-12(Basis: Regulation 9-9-501; District MOP, Volume V; 40 CFR Part 75)
29. The owner/operator shall notify the District as follows:
 - a. Within five (5) working days of discovering that the facility has exceeded any of its permit conditions;
 - b. Within 96 hours after a source has exceeded any of its permit conditions as indicated by a Continuous Emissions Monitoring (CEM) system reading.(Basis: Cumulative Increase; District MOP, Volume V)
- *30. The duct burners at S-10 and S-12 Heat Recovery Steam Generators shall be fired on natural gas exclusively. (Basis: Cumulative Increase; Regulation 1-207)
- *31. S-10 Heat Recovery Steam Generator duct burner shall not be operated unless S-9 Gas Turbine is operating. (Basis: Cumulative Increase; Regulation 1-207)
- *32. S-12 Heat Recovery Steam Generator duct burner shall not be operated unless S-11 Gas Turbine is operating. (Basis: Cumulative Increase; Regulation 1-207)



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- *33. S-9 Gas Turbine shall be abated by the properly operated and properly maintained A-9 Oxidizing Catalyst and A-10 Selective Catalytic Reduction System. S-10 Heat Recovery Steam Generator shall be abated by the properly operated and properly maintained A-10 Selective Catalytic Reduction System. (Basis: Cumulative Increase; Regulation 1-207)
- *34. S-11 Gas Turbine shall be abated by the properly operated and properly maintained A-11 Oxidizing Catalyst and A-12 Selective Catalytic Reduction System S-12 Heat Recovery Steam Generator shall be abated by the properly operated and properly maintained A-12 Selective Catalytic Reduction System. (Basis: Cumulative Increase; Regulation 1-207)
- *35. The inlet temperature to A-9 and A-11 Oxidizing Catalysts shall be maintained at a minimum of 600 degrees F, except during startup or shutdown. The District may require that this minimum temperature be adjusted if the source test specified in paragraph 39 ~~38~~ below requires an appropriate temperature adjustment to comply with paragraphs 6, 7, 15 and 16 above. (Basis: Cumulative Increase; Regulation 1-207)
- *36. Visible particulate emissions from Sources S-9 through S-14 shall not exceed Ringelmann 1.0. (Basis: Regulation 6-1-301)
- *37. Emissions of ammonia from Sources S-9 through S-12, averaged over any rolling three-hour period, shall not exceed 20 ppmvd at 15% oxygen. (Basis: Regulation 2-5-302)
- *38. The owner/operator shall install, calibrate, and operate a District approved continuous measuring and recording system for inlet temperatures to the oxidizing catalysts A-9 and A-11, and to the SCR units A-10 and A-12. (Basis: Cumulative Increase: District MOP, Volume V; 40 CFR 60.4340(b))
- *39. In order to demonstrate compliance with the above conditions, the owner/operator shall perform a District-approved compliance source test at maximum rated firing capacities of Sources S-9, S-10, S-11 and S-12 annually, and shall perform a District-approved source test at maximum rated firing capacities of Sources S-13 and S-14 once every five years. All source testing shall be done in accordance with the District's Manual of Procedures. The permit holder shall notify the Manager of the District's Source Test Section and the Director of the Engineering Department in writing at least seven (7) days prior to the test, to provide District staff the option of observing testing. Within 30 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. (Basis: Cumulative Increase; District MOP, Volume V; 40 CFR 60.4400; 40 CFR 60.8)



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- *40. The permit holder shall conduct an annual District-approved source test at maximum rated capacities to determine compliance with testing requirements for the continuous emissions monitors specified in paragraphs 26 and 38 above. All source testing shall be done in accordance with the District's Manual of Procedures. The permit holder shall notify the Manager of the District's Source Test Section and the Director of the Engineering Department in writing at least seven (7) days prior to the test, to provide District staff the option of observing testing. Within 30 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. (Basis: Cumulative Increase; District MOP, Volume V; 40 CFR 60.4405; 40 CFR 60.8)
- *41. Emergency standby generators Sources S-16 through S-27, S-30, S-32, and S-33 shall be fueled exclusively by diesel fuel having a sulfur content no greater than 0.0015% by weight. (Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines)
- *42. Emergency stand-by generators S-16 through S-27, S-30, and S-32, and S-33 shall not exceed the opacity and particulate emissions set out in Regulation 6, "Particulate and Visual Emissions". (Basis: Regulation 6-1-301)
- 43. Total annual diesel fuel usage used at emergency stand-by generators S-16 through S-27, S-30, S-32, and S-33 shall be limited to no more than 86,100 gallons combined per year. (Basis: Regulation 2-6-423.2.2)

End of Conditions