



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

PERMIT TO OPERATE

This document does not permit the holder to violate any BAAQMD regulation or any other law.

PERMIT EXPIRATION DATE

JAN 1, 2022

Plant# 16869

U C Berkeley, Clark Kerr Campus
317 University Hall, #1150
Berkeley, CA 94720

Location: Clark Kerr Camps, Warring Street
Berkeley, CA 94720

S#	DESCRIPTION	[Schedule]	PAID
1	Standby Diesel engine, 277 hp, EPA# 2CEXL0505ACE, Cummins Emergency Standby Diesel Generator Set Emissions at: P1 Stack	[B]	282
2	Boiler for Space Heat only, 10500K BTU/hr max, Natural gas Boiler #1 Emissions at: P2 Stack	[B]	355
3	Boiler for Space Heat only, 5000K BTU/hr max, Natural gas Clark Kerr Boiler No. 2	[R]	115
4	Commercial/Institutional Boiler, 3304K BTU/hr max Golden Bear Rec Center Boiler (pool heating) (Clark Kerr Campus, Building 24)	[R]	115

2 Permitted Sources, 2 Registered Sources

*** See attached Permit Conditions ***

The operating parameters described above are based on information supplied by permit holder and may differ from the limits set forth in the attached conditions of the Permit to Operate. The limits of operation in the permit conditions are not to be exceeded. Exceeding these limits is considered a violation of District regulations subject to enforcement action.



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*** PERMIT CONDITIONS ***

Source#	Subject to Condition Numbers
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1	22850
2	25273

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*** PERMIT CONDITIONS ***

COND# 22850 applies to S# 1

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing.
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
2. The owner/operator shall operate each emergency standby engine only for the following purposes: 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). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited.
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.



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- 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(s).
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

- 5. At School and Near-School Operation:
If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

The owner/operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:

- a. Whenever there is a school sponsored activity (if the engine is located on school grounds)
- b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

"School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]



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COND# 25273 applies to S# 2

S-2, Boiler

1. The owner/operator of S-2 shall ensure that the boiler exclusively combusts natural gas fuel or equivalent fuel such as propane or LPG. (Basis: Cumulative Increase)
2. The owner/operator of S-2 shall ensure that no more than 917,280 therms of natural gas fuel is consumed by the boiler during any consecutive 12 month period. (Basis: Cumulative Increase)
3. The owner/operator shall ensure that the concentration of nitrogen oxides (hereinafter NOx) emissions in exhaust gases emitted from S-2 do not exceed 15 ppmv at 3% oxygen, dry, as determined by Source Test Methods ST-13 A or B, in Volume IV of the District's Manual of Procedures. (Basis: Cumulative increase, Regulations 9-7-307.3 and 9-7-601)
4. The owner/operator shall ensure that the concentration of carbon monoxide (hereinafter CO) emissions in exhaust gases emitted from S-2 do not exceed 400 ppmv at 3% oxygen, dry, as determined by Source Test Method ST-6, in Volume IV of the District's Manual of Procedures. (Basis: Cumulative increase, BACT, Regulation 9-7-307.3 and 9-7-602)
5. In order to demonstrate compliance with the NOx and CO limits in items #3 and #4, the owner/operator shall do the following:
 - a. Submit a source test protocol to the District's Source Test Section (STS) for review; and
 - b. Notify the Manager of STS at least 7 days prior to the date the test is to be conducted; and
 - c. Submit the final source test reports to the above individual within 30 days of testing.
 .The owner/operator may choose to submit the source test protocol, notify the STS Manager, and submit the final source test reports to the STS Manager electronically at: sourcetest@baaqmd.gov. (Basis: Regulation 2-1-403, 9-7-403)
6. The owner/operator shall perform a Source Test to demonstrate compliance with the NOx and CO limits in parts #3 and #4 within 60 days of receiving the Authority to Construct as per item #5. (Basis: Cumulative increase, BACT for CO, Regulation



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- 9-7-307.3, Initial Start-up)
- 7. Following the initial demonstration of compliance, the owner/operator shall periodically test S-2 for compliance with the NOx and CO limits in parts #3 and #4 in accordance with Regulation 9-7-506. (Basis: Regulation 9-7-506)
- 8. The owner/operator shall ensure that S-2 is inspected and tuned up by a technician in accordance with the procedures specified in Section 9-7-604 every calendar year. In addition to the above, the owner/operator of S-2 shall also ensure that the insulation requirements in Section 9-7-311 and the stack gas temperature limits in Section 9-7-312 are complied with at all times. (Basis: Regulations 9-7-311, 9-7-312, 9-7-604)
- 9. The owner/operator of S-2 shall maintain the following records:
 - a. Documentation verifying tune-ups performed in accordance with Section 9-7-313.2; and (b) Results of any testing required by Sections 9-7-403 or 9-7-506.

The owner/operator shall ensure that all the records required by this permit condition are maintained on site for a period of at least 24 months from the date of entry and are made available for inspection to BAAQMD staff upon request. The records may be in the form of computer-generated data, which is available to District personnel on short notice (rather than actual paper copies). These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District regulations. (Basis: Regulation 2-1-403)

~~~~~ END OF CONDITIONS ~~~~~

| S#          | Source Description                         | Annual Average lbs/day |     |      |     |     |
|-------------|--------------------------------------------|------------------------|-----|------|-----|-----|
|             |                                            | PART                   | ORG | NOx  | SO2 | CO  |
| 1           | Emergency Standby Diesel Generator Set     | -                      | -   | .05  | -   | -   |
| 2           | Boiler #1                                  | .05                    | .09 | .03  | -   | .07 |
| 3           | Clark Kerr Boiler No. 2                    | .26                    | .21 | 2.64 | .01 | .45 |
| 4           | Golden Bear Rec Center Boiler (pool heatin | -                      | -   | .01  | -   | -   |
| T O T A L S |                                            | .31                    | .31 | 2.73 | .02 | .53 |