

**AIR QUALITY
MANAGEMENT DISTRICT**

AUTHORITY TO CONSTRUCT

A/C NO.: 27780

ISSUED BY:

Brian J Krebs

DATE ISSUED: AUGUST 30, 2024

BRIAN F. KREBS

DATE EXPIRES: AUGUST 30, 2026

ISSUED TO: SACRAMENTO AREA SEWER DISTRICT

LOCATION: 8521 LAGUNA STATION ROAD, ELK GROVE, CA 95758

DESCRIPTION: FUEL CELL, MAKE: FUEL CELL ENERGY, MODEL: SURESOURCE 3000, SERIAL NO.: TO BE DETERMINED, 2.8 MW, DIGESTER GAS FUELED, PRODUCING ELECTRICITY WITH WASTE HEAT RECOVERY FOR ANAEROBIC DIGESTER HEATING.

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START-UP REQUIREMENTS

S1. After completing the equipment installation authorized under this Authority to Construct (ATC), the permit holder must contact the Sacramento Metropolitan Air Quality Management District (SMAQMD) to arrange a start-up inspection. SMAQMD may be contacted at (279) 207-1122.

[Basis: SMAQMD Rule 201, Section 405]

S2. This Authority to Construct may serve as a temporary Permit to Operate provided that:

- A. The permit holder has notified SMAQMD that the equipment installation is complete and the facility is ready for a start-up inspection,
- B. The equipment installed matches the equipment authorized in this Authority to Construct,
- C. The equipment is operated in compliance with all conditions in this Authority to Construct, and
- D. The equipment and its operation complies with SMAQMD, state and federal laws and regulations.

[Basis: SMAQMD Rule 201, Sections 303.1 and 405]

S3. The permit holder agrees to indemnify and defend SMAQMD, its officers, agents, and employees if this permit, or the environmental review of the permit under the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA), including any exemption determination, is challenged in state or federal court. This indemnification includes attorney fees awarded against SMAQMD, as well as attorney fees, court costs, legal fees, and other expenses incurred in defending the challenge. The District will provide written notice to the permit holder within 5 days if it receives a petition, complaint or other legal notice by a third party challenging this Authority to Construct (ATC) or the environmental review of the ATC. The permit holder may, within 10 days of notification, request cancellation of the ATC. If the permit holder requests cancellation, SMAQMD will cancel the permit within 5 days, and will notify the plaintiffs of the cancellation and request dismissal of the litigation.

[Basis: SMAQMD Rule 201, Section 405]

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GENERAL

1. The equipment must be properly maintained and operated in accordance with the information submitted with the application and the manufacturer's recommendations at all times.
[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.1]
2. The Air Pollution Control Officer and/or authorized representatives must be permitted to do all of the following:
 - A. Enter the source premises or any location at which any records required by this ATC are kept.
 - B. Access and copy any records required by this ATC.
 - C. Inspect or review any equipment, operation, or method required under this ATC.
 - D. Sample emissions from the source or require samples to be taken.**[Basis: SMAQMD Rule 201, Section 405]**
3. This ATC does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the SMAQMD Rules and Regulations.
[Basis: SMAQMD Rule 201, Sections 303.1 and 405]
4. The facility may not discharge air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
[Basis: SMAQMD Rule 402, Section 301]
5. A legible copy of this ATC must be maintained on the premises with the equipment.
[Basis: SMAQMD Rule 201, Section 401]

EMISSION LIMITATIONS

6. The fuel cell must not discharge into the atmosphere any visible air contaminant other than uncombined water vapor for a period or periods aggregating more than three minutes in any one hour if the discharge is as dark or darker than Ringelmann No. 1 or is equal to or greater than 20% opacity.
[Basis: SMAQMD Rule 401, Section 301]
7. The fuel cell must meet the following emission standards:
[Basis: SMAQMD Rule 202, Section 408.2a]

Pollutant	Emission Standard and Work Practice
VOC	0.02 lb/MW-hr
NOx	0.07 lb/MW-hr

(A) Based on the SMAQMD BACT standard for this equipment category (BACT determination 358).

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8. The emissions from the fuel cell must not exceed the following limits:

[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.2]

Pollutant	Emission Factors (A) (lb/MW-hr)	Emission Limits (B)					
		lb/day	1st qtr (lb/qtr)	2nd qtr (lb/qtr)	3rd qtr (lb/qtr)	4th qtr (lb/qtr)	(lb/year)
VOC	0.02	1.3	121	122	124	124	491
NOx	0.07	4.7	423	428	433	433	1,717
SOx	0.00011	0.0	1	1	1	1	3
PM10	0.000020	0.0	0	0	0	0	0
PM2.5	0.000020	0.0	0	0	0	0	0
CO	0.10	6.7	605	612	618	618	2,453

(A) Emission factors for VOC, NOx, and CO are from CARB Executive Order DG-057 and is BACT. Emission factors for SOx and PM10 are from manufacturer's data. The PM10 and PM2.5 emission factors are the same factor since all PM10 is expected to be smaller than 2.5 microns in diameter.

(B) Emissions are based on the fuel cell operating at a maximum capacity of 2.8 MW; 24 hours/day; 90 days, 91 days, 92 days, and 92 days for each sequential quarter; 365 days/year; and the emission factors in this table.

9. Emissions from all permitted emission units at the stationary source (Sacramento Regional Wastewater Treatment Plant) must not exceed the following annual emission limits. The most recent version of Attachment B must be completed annually to demonstrate compliance with this condition.

[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 228]

Annual Emission Limits (ton/year)				
VOC	NOx	CO	Single Hazardous Air Pollutant	Combination of All Hazardous Air Pollutants
24.4	24.4	99.4	9.4 (A)	24.4 (A)

(A) HAP emission factor for sewage influent is 7.5885E-5 tons/MMgal (single HAP) and 1.5774E-4 tons/MMgal (combined HAPs). HAPs are defined as any air pollutant listed pursuant to Section 112(B) (42 U.S.C. Section 7412(B) of the Federal Clean Air Act). This limit includes permitted and non-permitted sources of HAPs.

EQUIPMENT OPERATION

10. The fuel cell must operate on digester gas. The fuel cell may be supplemented with pipeline quality natural gas to facilitate optimal operation.

[Basis: SMAQMD Rule 201, Section 405]

11. The fuel cell must be equipped with a non-resetting hour meter with a minimum display capability of 99,999 hours that measures the amount of time that the fuel cell operates.

[Basis: SMAQMD Rule 202, Section 408.1]

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12. The fuel cell and the fuel cell's integrated digester gas conditioning system must be operated in accordance with manufacturer's instructions.

[Basis: SMAQMD Rule 201, Section 405]

EMISSION REDUCTION CREDITS

13. Sacramento Area Sewer District must provide sufficient Emission Reduction Credits (ERCs) to the Air Pollution Control Officer to fully offset the following amount of emissions:

[Basis: SMAQMD Rule 202, Section 302.1]

Pollutant	Emissions to be Offset (A) (lb/quarter)			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
VOC	121	122	124	124
NOx	423	428	433	433

(A) Emission offset ratios required by Rule 202, Section 303 have not been applied to the VOC emissions.

14. Prior to commencing operation, the Sacramento Area Sewer District must provide sufficient Emission Reduction Credits (ERCs) to the Air Pollution Control Officer as indicated below:

[Basis: SMAQMD Rule 202, Section 302.1]

Emission Reduction Credits	Pollutant	Emission Offsets Provided (lb/quarter)			
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
SMAQMD ERC Community Bank Loan (A)	VOC	121	122	124	124
	NOx	423	428	433	433

(A) These credits are returned to the Community Bank if the permit is surrendered, revoked, not renewed or ownership is transferred.

15. The emission reduction credits specified in Condition No. 14 that are borrowed from the Community Bank are valid only if the facility operates in a manner consistent with the requirements of Rule 205 – COMMUNITY BANK AND PRIORITY RESERVE BANK and the facts, including the information provided in the application, that were presented to the Board of Directors

[Basis: SMAQMD Rule 205, Section 307.7]

16. In order for ownership of this process to be transferred, the new owner must provide replacement credits for those Community Bank credits that were returned pursuant to Condition No. 14.

[Basis: SAMQD Rule 205, Section 315]

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17. This permit will expire on September 30, 2054 unless replacement credits have been provided. To replace the Community Bank credits specified in Condition No. 14, the facility must submit an application to modify the current permit six months prior to September 30, 2054. Failure to provide replacement credits by October 1, 2054, will require the facility to reapply for a permit and the emission unit will be subject to Rule 202 – NEW SOURCE REVIEW at the time of re-permitting.

[Basis: SMAQMD Rule 205, Section 307 and Section 312]

RECORD KEEPING

18. The following records must be continuously maintained on-site for the most recent five-year period and must be made available to the Air Pollution Control Officer upon request. Quarterly and annual records as specified in the table below must be made available for inspection within 30 days following the end of the year.

[Basis: SMAQMD Rule 201, Section 405]

Frequency	Information to be Recorded
Quarterly	A. The number of hours that the fuel cell was operated (hours/quarter).
Annually	B. The number of hours that the fuel cell was operated (hours/year). C. Most recent version of Attachment B or approved equivalent.

REPORTING

19. The following reports must be submitted to the Air Pollution Control Officer:

[Basis: SMAQMD Rule 201, Section 405]

Frequency	Reports to be Submitted
Submit by 90 days after the end of each calendar year.	A. Annual number of hours that the fuel cell operated (hours/year) B. VOC, NOx, CO, and HAPs emissions (in tons/year) for the entire facility to comply with Condition No. 9. C. A truth and accuracy certification signed by the facility's responsible official

ANNUAL REPORTING

20. Unless otherwise directed by SMAQMD, the permit holder must submit their applicable Annual Report to the District by March 15th of every calendar year. The Annual Report forms can be found at www.airquality.org/AnnualReporting. SMAQMD may require the permit holder to supply additional information under the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.) and CARB's Criteria Pollutant and Toxics Emissions Reporting (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 7.7). If additional information is required, the SMAQMD will notify the permit holder.

[Basis: SMAQMD Rule 201, Section 303.1 and 405]

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Your application for this air quality Authority to Construct was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following list identifies the rules that most commonly apply to the operation of your equipment. Other rules may also be applicable.

SMAQMD RULE NO. RULE TITLE

201	GENERAL PERMIT REQUIREMENTS (08-24-06)
202	NEW SOURCE REVIEW (08-23-12)
217	PUBLIC NOTICE REQUIREMENTS FOR PERMITS (8-23-12)
401	RINGELMANN CHART (04-19-83)
402	NUISANCE (08-03-77)
406	SPECIFIC CONTAMINANTS (12-06-78)
420	SULFUR CONTENT OF FUELS (08-13-81)

The conditions on this Authority to Construct reflect some, but not all, of the requirements of these rules. Because other rule requirements may apply to the operation, the owner/operator should be familiar with all of the rules and related requirements. In addition, because future changes in prohibitory rules may establish more stringent requirements that may supersede the conditions listed here, the owner/operator should monitor proposed rules and rule adoption actions at SMAQMD.

For further information please consult your SMAQMD rulebook or contact the SMAQMD for assistance.