

DRAFT Engineering Evaluation
San Mateo Water Quality Control Plant
2050 Detroit Drive, San Mateo, California 94404
Plant No. 861
Application No. 28886
Project Description: Flaring Throughput Increase

BACKGROUND

San Mateo Water Quality Control Plant (City of San Mateo) has applied to obtain a Permit to Operate (P/O) for the following equipment:

S-180 Anaerobic Digesters

Abated By Enclosed Burner Flare, A-16

S-191 BioCNG Gas Conditioning System

Unison Model BioCNG 100, 100 SCFM Digester Gas Inlet Throughput

Abated By Enclosed Burner Flare, A-16

A-16 Enclosed Burner Flare

Varec Biogas, Series 244E, 7.2 MMBtu/Hr Rated Capacity

The facility generates digester gas through the biological decomposition of organic matter; which occurs in the anaerobic digesters (S-180). Theoretically, S-180 can produce 95,000,000 scf of digester gas per consecutive 12-month period. However, this theoretical production rate is dependent on the solids loading rate of S-180; which is a function of population growth and industrial inputs. Within the previous consecutive 12-month period, beginning on May 2017 and ending on April 2018, the City of San Mateo reported a digester gas production rate of 70,717,635 scf. Digester gas produced at S-180 can either be consumed at a boiler (S-27), processed at the BioCNG gas conditioning system (S-191), or abated at the enclosed burner flare (A-16), if S-27 and S-191 are down for service or when digester gas production exceeds the consumption and process rates of S-27 and S-191.

Historically, the City of San Mateo flared all digester gas produced. However, the City of San Mateo permitted S-191 within New Source Review (NSR) Application #27481 to repurpose digester gas and minimize the facility's dependability on petroleum-derived fuels. The intent of S-191 is to produce renewable fuels for compatible motor vehicles by sending digester gas through a series of vessels, separating high-Btu content fuels (biofuel) from low-Btu content fuels (off-gas). Off-gas, with a typical heat content of 300 Btu/scf, is then manifolded with excess digester gas into a common inlet piping to A-16. The biofuel is stored for motor vehicle use.

At the moment, the City of San Mateo does not have a fleet of motor vehicles to consume all biofuels produced. Therefore, the City of San Mateo is requesting to increase the amount of digester gas flared at A-16. The proposed increase is intended to provide the facility the flexibility to flare digester gas and off-gas if digester gas consuming or processing sources are out of commission and/or the demand for biofuels is low. Furthermore, the City of San Mateo has expressed that the facility can only measure the hydrogen sulfide (H₂S) content of a digester

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gas and off-gas mixture, at the inlet of A-16, and is requesting to combine the H₂S limit for the mixture.

The City of San Mateo is requesting for the following operational modifications:

- Increase the annual amount of **digester gas** flared at A-16 from 25,000,000 scf per consecutive 12-month period to 95,000,000 scf per consecutive 12-month period;
- Increase the daily amount of **off-gas** flared at A-16 from 72,000 scf per day to 86,400 scf per day;
- Increase the annual amount of **off-gas** flared at A-16 from 26,280,000 scf per consecutive 12-month period to 31,536,000 scf per consecutive 12-month period; and,
- Combine the H₂S limit for both digester gas and off-gas and increase the limit to 200 ppmv.

The proposed operational modification will result in a daily and annual emission increase of all regulated air pollutants associated with S-180, S-191, and A-16. The daily and annual pollutant emission increases will result in a modification pursuant to Regulation 2-1-234.

The criteria pollutants associated with this project are nitrogen oxides (NO_x), carbon monoxide (CO), precursor organic compounds (POC), and sulfur dioxides (SO₂). The project should not pose any health threat to the surrounding community or public at large.

EMISSION CALCULATIONS

Emissions from S-180 and S-191 are from the flaring of digester gas and off-gas at A-16. Emission calculations for A-16 were performed using a POC emission factor obtained from NSR Application #27481, Reasonably Available Control Technology (RACT) NO_x limit of 0.06 lb/MMBtu and CO limit of 0.2 lb/MMBtu, a proposed H₂S volumetric concentration increase of 200 ppmv, and the following proposed flaring throughputs.

- Digester Gas: 95,000,000 scf per 12-month consecutive period
- Off-Gas: 86,400 scf per day and 31,536,000 scf per 12-month consecutive period

The following tables provide a summary of emissions expected from operation of S-180 and S-191.

Table 1. Proposed Anaerobic Digesters (S-180) Potential to Emit 7.2 MMBtu/Hr Enclosed Burner Flare (A-16)				
Pollutant	Hourly Emission Rate¹ (lb/hr)	Daily Emission Rate¹ (lb/day)	Annual Emission Rate¹ (lb/yr)	Annual Emission Rate¹ (ton/yr)
NO _x ²	0.44	10.44	3,444.13	1.722
POC	0.07	1.74	574.02	0.287
CO ²	1.45	34.80	11,480.42	5.740
SO ₂	0.40	9.58	3,158.63	1.579

¹ For further information, please reference Appendix A – Anaerobic Digester Emissions Review (Appendix A).

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² NO_x and CO are secondary emissions formed from the abatement of digester gas.

Table 2. Proposed BioCNG Gas Conditioning System (S-191) Potential to Emit 7.2 MMBtu/Hr Enclosed Burner Flare (A-16)				
Pollutant	Hourly Emission Rate¹ (lb/hr)	Daily Emission Rate¹ (lb/day)	Annual Emission Rate¹ (lb/yr)	Annual Emission Rate¹ (ton/yr)
NO _x	0.44	1.63	591.77	0.296
POC	0.07	0.27	98.63	0.049
CO	1.45	5.42	1972.58	0.986
SO ₂	0.80	2.87	1048.53	0.524

¹ For further information, please reference Appendix B – BioCNG Gas Conditioning System Emissions Review (Appendix B).

Furthermore, toxic air contaminant (TAC) emissions are expected from the operation of S-180 and S-191. Expected TACs include benzene, formaldehyde, and toluene. The following tables provide a summary of the TAC emission rates that will result from S-180, S-191, and the project as defined in Regulation 2-5.

Table 3. Toxic Emissions From Anaerobic Digesters						
Pollutant	Hourly Emission Rate (lb/hr)	Acute Trigger Level (lb/hr)	Exceeds Acute Trigger Level	Annual Emission Rate (lb/yr)	Chronic Trigger Level (lb/yr)	Exceeds Chronic Trigger Level
Benzene	2.5E-05	6.00E-02	No	2.0E-01	2.90E+00	No
Formaldehyde	9.0E-04	1.20E-01	No	7.2E+00	1.40E+01	No
Toluene	4.1E-05	8.20E+01	No	3.2E-01	1.20E+04	No
H ₂ S	1.1E-02	9.30E-02	No	8.4E+01	3.90E+02	No

¹ For further information, please reference Appendix A.

Table 4. Toxic Emissions From BioCNG Gas Conditioning System						
Pollutant	Hourly Emission Rate (lb/hr)	Acute Trigger Level (lb/hr)	Exceeds Acute Trigger Level	Annual Emission Rate (lb/yr)	Chronic Trigger Level (lb/yr)	Exceeds Chronic Trigger Level
Benzene	5.1E-05	6.00E-02	No	6.7E-02	2.90E+00	No
Formaldehyde	1.8E-03	1.20E-01	No	2.4E+00	1.40E+01	No
Toluene	8.2E-05	8.20E+01	No	1.1E-01	1.20E+04	No
H ₂ S	2.1E-02	9.30E-02	No	2.8E+01	3.90E+02	No

¹ For further information, please reference Appendix B.

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Regulation 2-5 requires TAC emissions from new or modified sources, from the past 3-year period, to be included with this project. The City of San Mateo previously applied for NSR Permit Application #27505 for the installation of S-27, which was issued an Authority to Construct (A/C) on May 20, 2016 and issued a P/O on February 27, 2018. The following table provides a summary of the project TAC emissions.

Table 5. Toxic Emissions From Project						
Pollutant	Application #27505 Hourly Emission Rate¹ (lb/hr)	Application #28886 Hourly Emission Rate (lb/hr)	Project Hourly Emission Rate (lb/hr)	Application #27505 Annual Emission Rate¹ (lb/yr)	Application #28886 Annual Emission Rate (lb/yr)	Project Annual Emission Rate (lb/yr)
Benzene	7.9E-06	7.6E-05	8.4E-05	7.00E-02	2.7E-01	3.4E-01
Formaldehyde	2.85E-04	2.7E-03	3.0E-03	2.50E+00	9.5E+00	1.2E+01
Toluene	1.29E-05	1.2E-04	1.3E-04	1.13E-01	4.3E-01	5.4E-01
H ₂ S	--	3.2E-02	3.2E-02	--	1.1E+02	1.1E+02

¹ TAC emissions for S-27 are obtained from NSR Application #27505.

Table 6. Comparison To Regulation 2-5 Trigger Levels						
Pollutant	Hourly Emission Rate (lb/hr)	Acute Trigger Level (lb/hr)	Exceeds Acute Trigger Level	Annual Emission Rate (lb/yr)	Chronic Trigger Level (lb/yr)	Exceeds Chronic Trigger Level
Benzene	8.4E-05	6.00E-02	No	3.4E-01	2.90E+00	No
Formaldehyde	3.0E-03	1.20E-01	No	1.2E+01	1.40E+01	No
Toluene	1.3E-04	8.20E+01	No	5.4E-01	1.20E+04	No
H ₂ S	3.2E-02	9.30E-02	No	1.1E+02	3.90E+02	No

Facility Potential To Emit

The facility has existing emissions. The following table provides a summary of the facility's potential to emit (PTE).

Table 7. Facility PTE Summary			
Pollutant	Existing (ton/yr)	New Increase¹ (ton/yr)	Total (ton/yr)
NO _x	9.925	1.315	11.240
POC	13.413	0.219	13.632
SO ₂	4.593	1.574	6.167
PM ₁₀	0.782	0.000	0.782
PM _{2.5}	0.782	0.000	0.782
CO	24.869	4.384	29.253

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¹ The new emission increase is the difference between the modified project PTE and the project PTE as permitted within NSR Application #27481.

TOXIC RISK SCREENING ANALYSIS

Pursuant to Regulation 2-5-110, projects below the trigger levels listed in Table 2-5-1 of Regulation 2-5 are not subject to Regulation 2-5. Projects include sources of TACs which have been permitted within a 3-year period. The facility had previously submitted NSR Permit Application #27505 for the installation of S-27, which was issued an A/C on May 20, 2016 and issued a P/O on February 27, 2018. Project TAC emissions of S-27, S-180, and S-191 are not expected to exceed the trigger levels listed in Table 2-5-1 of Regulation 2-5 and are not subject to the requirements of Regulation 2-5.

PLANT CUMULATIVE EMISSIONS

The following table summarizes the cumulative increase of criteria pollutants that will result from this project.

Table 8. Facility Cumulative Increase Review			
Pollutant	Existing (ton/yr)	New (ton/yr)	Total (ton/yr)
NO _x	8.183	1.315	9.498
POC	8.319	0.219	8.538
SO ₂	4.062	1.574	5.636
PM ₁₀	0.770	0.000	0.770
PM _{2.5}	0.000	0.000	0.000
CO	22.304	4.384	26.688

BEST AVAILABLE CONTROL TECHNOLOGY

S-191 is not expected to exceed a 10 lb daily emission rate of any criteria pollutant. Furthermore, although NO_x and CO emissions from S-180 are above a 10 lb daily emission rate, the emissions are the result of an abatement device, A-16, and are considered secondary emissions. Secondary emissions are not subject to Best Available Control Technology (BACT). However, secondary emissions are subject to RACT. RACT for flares are a NO_x and CO emission factor of 0.06 lb/MMBtu and 0.2 lb/MMBtu, respectively. Source testing had been performed on A-16 and resulted in A-16 meeting the requirements of RACT.

OFFSETS

Pursuant to Regulation 2-2-302, offsets must be provided for any new or modified source at a facility that emits, or is permitted to emit, more than 10 tons per year of NO_x and POC. The facility has a PTE greater than 10 tons per year, but less than 35 tons per year of NO_x and POC. Offsets must be provided for the cumulative increases of NO_x and POC. However, since the facility emits less than 35 tons per year of NO_x and POC, the facility may be provided offsets from the District's Small Facilities Bank. The cumulative increase for NO_x and POC, from previous applications since 1991, have been provided offsets from the District's Small Facilities Bank.

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Furthermore, pursuant to Regulation 2-2-303 offsets must be provided for any new or modified source at a major facility with a cumulative increase that exceeds 1.0 ton per year of PM₁₀, PM_{2.5}, or SO₂. The facility is not a Major Facility and is not subject to the requirements of Regulation 2-2-303.

STATEMENT OF COMPLIANCE

Regulation 1

S-180 and S-191 will be subject to the public nuisance requirements of Regulation 1-301, which states the following:

“No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property. For purposes of this section, three or more violation notices validly issued in a 30-day period to a facility for public nuisance shall give rise to a rebuttable presumption that the violations resulted from negligent conduct.”

The operation of S-180 and S-191 are expected to meet the requirement of Regulation 1-301.

Regulation 2, Rule 1

According to Regulation 2-1-301, prior to the installation or modification of equipment which will result in the release of an air pollutant, an A/C and P/O must be obtained. The facility has applied for an A/C and/or P/O and is expected to be in compliance with Regulation 2-1.

Regulation 2, Rule 2

S-191 is not expected to exceed a 10 lb daily emission rate of any criteria pollutant. Furthermore, although NO_x and CO emissions from S-180 are above a 10 lb daily emission rate, the emissions are the result of an abatement device, A-16, and are considered secondary emissions. Secondary emissions are not subject to BACT. However, secondary emissions are subject to RACT. RACT for flares are a NO_x and CO emission factor of 0.06 lb/MMBtu and 0.2 lb/MMBtu, respectively. Source testing had been performed on A-16 and resulted in A-16 meeting the requirements of RACT.

Moreover, pursuant to Regulation 2-2-302, offsets must be provided for any new or modified source at a facility that emits, or is permitted to emit, more than 10 tons per year of NO_x and POC. The facility has a PTE greater than 10 tons per year, but less than 35 tons per year of NO_x and POC. Offsets must be provided for the cumulative increases of NO_x and POC. However, since the facility emits less than 35 tons per year of NO_x and POC, the facility may be provided offsets from the District’s Small Facilities Bank.

Furthermore, pursuant to Regulation 2-2-303 offsets must be provided for any new or modified source at a major facility with a cumulative increase that exceeds 1.0 ton per year of PM₁₀, PM_{2.5}, or SO₂. The facility is not a Major Facility and is not subject to the requirements of Regulation 2-2-303.

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Regulation 2, Rule 5

Pursuant to Regulation 2-5-110, the provisions of this rule are not subject to projects with a TAC emission increase less than the trigger levels listed in Table 2-5-1. The project, which includes S-27, S-190, and S-191, are not expected to exceed the trigger levels listed in Table 2-5-1 and is not subject to the requirements of Regulation 2-5.

Regulation 6, Rule 1

Pursuant to Regulations 6-1-301, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour, a visible emission which is as dark or darker than No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree.

In addition, pursuant to Regulation 6-1-302, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour an emission equal to or greater than 20% opacity as perceived by an opacity sensing device, where such device is required by District regulations.

S-180 and S-191 are expected to meet the requirements of Regulations 6-1-301 and 6-1-302.

Regulation 9, Rule 1

According to Regulation 9-1-302, a person shall not emit from any source, other than a ship, a gas stream containing SO₂ in excess of 300 ppm (dry). The facility is limited to a gas stream H₂S concentration equal to or less than 200 ppm. For this regulation, it is assumed that all H₂S will be converted to SO₂. The operation of A-16 is not expected to emit a gas stream containing SO₂ in excess of 300 ppm (dry).

California Environmental Quality Act (CEQA) and Regulation 2-1

Pursuant to Regulation 2-1-311, an application for a proposed new or modified source will be classified as ministerial and will accordingly be exempt from the California Environmental Quality Act (CEQA) requirement of Regulation 2-1-310 if the District's engineering evaluation and basis for approval or denial of the permit application for the project is limited to the criteria set forth in Regulation 2-1-428 and to the specific procedures, fixed standards, and objective measurements set forth in the District's Permit Handbook and BACT/TBACT Workbook. The evaluation of the proposed project was performed in accordance with the criteria set forth in Chapter 8.2 of the Permit Handbook and is ministerial.

California Health & Safety Code §42301.6 and Regulation 2-1-412

Pursuant to California Health & Safety Code §42301.6(a), prior to approving an application for a permit to construct or modification of a source of hazardous air emissions, which is located within 1,000 feet from the outer boundary of a school site, the District shall prepare a public notice as detailed in §42301.6. §42301.9(a) defines a "school" as any public or private school used for the purposes of the education of more than 12 children in kindergarten or any grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.

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The applicant has proposed to modify sources of hazardous air emissions within 1,000 feet from the outer boundary of the following school site identified in the following table.

Table 9. School Sites Located Within 1,000 Feet of the Facility			
School Name	School Location	Grades	Description
Bayside Middle School (Bayside STEM Academy)	2025 Kehoe Avenue San Mateo, CA 94403	6-8	Public

The modification of S-180 and S-191 will result in an increase in benzene, formaldehyde, toluene, and H₂S.

The District will be required to prepare a public notice as detailed in §42301.6. The public notice will be distributed to the addresses within 1,000 feet of the source and to the parents or guardians of children attending schools within a quarter (1/4) mile of the source. The following schools are within a quarter mile of the source.

Table 10. School Sites Located Within 1/4 Mile of the Facility			
School Name	School Location	Grades	Description
Bayside Middle School (Bayside STEM Academy)	2025 Kehoe Avenue San Mateo, CA 94403	6-8	Public
Horrall Elementary School	949 Ocean View Avenue San Mateo, CA 94401	K-5	Public

PERMIT CONDITIONS

Permit Condition #26295 as adopted within New Source Review Application #27481; and amended within New Source Review Application #28886.

For the purposes of this condition, the following definitions apply:

Off-Gas: Gas that is separated from renewable fuels during the conditioning process. Such gases are not used for the refueling of motor vehicles and will be sent directly to A-16. Off-gas will be generated from S-191.

Digester Gas: Gas that is generated from the facility's anaerobic digestion process. Such gases have not been further processed. Digester gas will be generated from S-180.

Renewable gas: High-~~btu~~-Btu gas stream from S-191, BioCNG Gas Conditioning System

Source S-191, BioCNG Gas Condition System

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1. The owner/operator of S-191 shall only operate this source on digester gas generated from S-180 (Anaerobic Digesters #1 & #2). [Basis: Cumulative Increase]
2. The owner/operator of S-191 and A-16 shall operate this source and abatement device only when gas flow meters and recorders, which records the flow rate of digester gas and off-gas are installed. Natural gas may be used as a pilot gas up to 45 cubic feet per hour. A flow meter will not be required for the natural gas. [Basis: Cumulative Increase]
3. The owner/operator shall ensure that A-16 meets the following emission factors:
 - a. 0.06 lb NO_x/MMBtu; and,
 - b. 0.2 lb CO/MMBtu.[Basis: Cumulative Increase and RACT]
4. The owner/operator shall ensure that the sulfur content of the off-gas/digester gas combusted by A-16 does not exceed a total sulfur content of 50-200 ppmv. [Basis: Cumulative Increase]
5. When S-191 is in operation, the owner/operator shall not exceed the following throughput limits:
 - a. 72,00086,400 scf of off-gas to A-16 during any day; and,
 - b. 26,280,00031,536,000 scf of off-gas to A-16 during any consecutive 12-month period; and,[Basis: Cumulative Increase]
6. The owner/operator shall ensure that the off-gas has a heating content value of at least 250 Btu/scf. [Basis: Cumulative Increase]
7. The owner/operator shall ensure that the H₂S and siloxane absorption media, at S-191, is not desorbed onsite. [Basis: Cumulative Increase]

Abatement Device A-16, Enclosed Burner Flare

8. When S-191 is not in operation, S-27 is not in operation, and/or S-180 produces digester gas which exceeds the capacity of the facility's infrastructure, the owner/operator shall not exceed the following throughput limit:
 - a. 25,000,00095,000,000 scf of digester gas to A-16 during any consecutive 12-month period.[Basis: Cumulative Increase]

~~9. The owner/operator shall ensure that the sulfur content of the digester gas combusted by A-16 does not exceed a total sulfur content of 200 ppmv. [Basis: Cumulative Increase and Regulation 2-1-305]~~

~~109.~~ The owner/operator shall not combust digester gas with a heating content value less than 250 Btu/scf. [Basis: Cumulative Increase]

Monitoring Requirements

~~110.~~ To demonstrate compliance with the standard in Part 4 of this condition, the owner/operator shall monitor and record the sulfur content of the off-gas/digester gas at least once every calendar week. If the owner/operator can demonstrate 3 months of off-gas/digester gas sulfur results lower than ~~50-100~~ ppmv, the monitoring frequency for sulfur analysis may be reduced to at least once every calendar month. If any subsequent results, from monthly monitoring, are above the ~~50-100~~ ppmv, the owner/operator shall monitor every week until the owner/operator can demonstrate 3 months of off-gas/digester gas sulfur results lower than ~~50-100~~ ppmv, at which time the monitoring frequency for sulfur analysis may return to at least once every calendar month. [Basis: Cumulative Increase]

~~12. To demonstrate compliance with the standard in Part 9 of this condition, the owner/operator shall monitor and record the sulfur content of the digester gas at least once every calendar week. If the owner/operator can demonstrate 3 months of digester gas sulfur results lower than 100 ppmv, the monitoring frequency for sulfur analysis may be reduced to at least once every calendar month. If any subsequent results, from monthly monitoring, are above the 100 ppmv, the owner/operator shall monitor every week until the owner/operator can demonstrate 3 months of digester gas sulfur results lower than 100 ppmv, at which time the monitoring frequency for sulfur analysis may return to at least once every calendar month. [Basis: Cumulative Increase]~~

~~1311.~~ The owner/operator shall conduct the monitoring required by Parts ~~11-10~~ and ~~12~~ of this condition in accordance with any of the following methodologies:

- a. Draeger Tube Test Method: A Draeger Tube test or a meter using a Draeger H₂S sensor, Part No 680910, or equivalent, demonstrating an H₂S level up to 200 ppmv shall demonstrate compliance with the above limit. An H₂S measurement by Draeger Tube exceeding 200 ppmv shall not be deemed a violation but shall trigger a requirement to demonstrate compliance using either methods of Part 11(b) and (c) of this condition.
- b. Portable Instrument Method: A Draeger PAC-III (or equivalent) portable meter with an H₂S sensor capable of measuring over 800 ppmv H₂S. In the event that H₂S levels exceed 800 ppmv, the owner/operator shall commence to perform a source test using the method of Part 11(c) of this condition.

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- c. Chromatographic Method: The owner/operator may sample and test for sulfides according to BAAQMD Lab Method 44A (Manual of Procedures, Volume III), or by ASTM Method 5504, or by any other equivalent method, approved in advance by the District.

[Basis: Cumulative Increase]

- ~~1412.~~ To demonstrate compliance with the standards in Parts 6 and 10 of this condition, the owner/operator shall perform lab analysis to determine the heat content value of the off-gas and digester gas on a quarterly basis. [Basis: Regulation 2-1-403]

Initial Source Test Requirements

- ~~15. The owner/operator shall conduct a District approved source test within 60 days of starting up S-191 and A-16. At a minimum, two (2) separate source tests shall determine the following parameters for the following scenarios: (i) off-gas only and (ii) digester gas only:~~

- ~~a. Gas flow rate to the flare (dry basis), and the heat input rate (in MMBTU/hr) to the flare;~~
- ~~b. Concentrations (dry basis) of methane, carbon dioxide, carbon monoxide, nitrogen, oxygen, total reduced sulfur compounds expressed as hydrogen sulfide, and total non-methane hydrocarbons in the gas prior to being flared;~~
- ~~c. Stack gas flow rate from the flare (dry basis);~~
- ~~d. lb/MMBtu of nitrogen oxides (NO_x), lb/MMBtu of carbon monoxide (CO), concentration (dry basis) of methane, non-methane organic compounds, sulfur dioxide, and oxygen in the flare stack gas; and,~~
- ~~e. Correlation between the total reduced sulfur compounds expressed as hydrogen sulfide at the inlet versus SO₂ emissions at the outlet of the flare.~~

~~[Basis: Regulation 2-1-403]~~

- ~~16. The owner/operator shall contact the District's Source Test Section to obtain approval of the source test procedures at least 14 days in advance of the source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of the source test. The source test report shall be submitted to the Compliance and Enforcement Division and the Source Test Section within 45 days of the test date. Within 60 days following the completion of the source test the owner/operator shall provide the Source Test Section with copies of the source test results for review and approval. [Basis: Regulation 2-1-403]~~

Record Keeping Requirements

- ~~1713.~~ The owner/operator shall record the dates, hours of use, digester gas combusted, and the purpose of flaring in a District approved logbook, whenever A-16 is used and S-191 is **not** in operation. [Basis: Cumulative Increase]

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~~1814.~~ The owner/operator of S-191 and A-16 shall maintain the following records in a District approved log for a period of 24 months from the date of entry and shall make them readily available to District staff upon request:

- a. Daily amount of off-gas and digester gas combusted at A-16;
 - b. Annual amount of off-gas and digester gas combusted at A-16;
 - c. Monitoring results pursuant to Parts ~~11 through 14~~ 10 of this condition; and,
 - d. Source test reports ~~required by Parts 15 and 16 of this condition.~~
- [Basis: Cumulative Increase and Regulation 2-1-403]

End of Conditions

RECOMMENDATION

The District has reviewed the material contained in the permit application for the proposed project and has made a preliminary determination that the project is expected to comply with all applicable requirements of District, state, and federal air quality related regulations. The preliminary recommendation is to issue a Permit to Operate for the modification of the equipment listed below. However, the proposed source will be located within 1,000 feet of a school, which triggers the public notification requirement of District Regulation 2-1-412. After the comments are received and reviewed, the District will make a final determination on the permit.

I recommend that the District initiate a public notice and consider any comments received prior to taking any final action on the issuance of a Permit to Operate for the following equipment:

**S-180 Anaerobic Digesters
Abated By Enclosed Burner Flare, A-16**

**S-191 BioCNG Gas Conditioning System
Unison Model BioCNG 100, 100 SCFM Digester Gas Inlet Throughput
Abated By Enclosed Burner Flare, A-16**

**A-16 Enclosed Burner Flare
Varec Biogas, Series 244E, 7.2 MMBtu/Hr Rated Capacity**

By: _____
Alfonso Borja
Air Quality Engineer

Date: _____