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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

October 29, 2019

Mr. Wayne Kino
Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

861 (DF)

Attn: Title V Reports

Subject: San Francisco International Airport (SFO) Facility #A 1784
Semi-annual Monitoring Report April 1, 2019—September 30, 2019

Dear Mr. Kino:

Pursuant to Standard Condition F of the Title V Major Facility Review Permit for San Francisco International Airport (SFO) #A1784, SFO is submitting the subject report.

If you have any questions, please contact Joanne Yee (Environmental Compliance Specialist) at 650-821-3632 or by email at joanne.f.yee@flysfo.com

Very truly yours,

Ivar C. Satero
Airport Director

Enclosure

cc: Compliance and Enforcement, BAAQMD
Joanne Yee, Environmental Compliance Specialist

AIRPORT COMMISSION CITY AND COUNTY OF SAN FRANCISCO

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SAN FRANCISCO INTERNATIONAL AIRPORT

Major Facility Review Permit #A1784

April 1, 2019 – September 30, 2019

Semi-annual Monitoring Report

TABLE OF CONTENTS

1. Compliance Statement

Facility: San Francisco International Airport
San Francisco, CA 94128

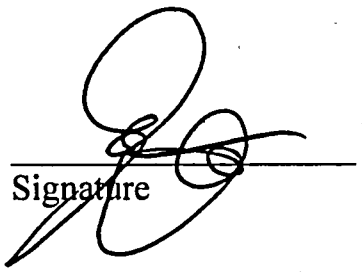
Facility ID: A1784

Reporting Period: April 1, 2019 to September 30, 2019

The compliance certification provided below is pursuant to the San Francisco International Airport Major Facility Review Permit Standard Condition F – Monitoring Reports.

Certification by Responsible Official

Based upon information and belief formed after a reasonable inquiry, I as a Responsible Official of the above mentioned facility, certify that the information contained in this report is true, accurate and complete for the reporting period indicated above.



Signature

10/25/19
Date

Ivar C. Satero
Type name

Airport Director
Title

2. Introduction

For the reporting purpose Tables VII-A through VII-J have been copied from the current facility permit and a column has been added to indicate compliance status, which is noted by the abbreviations explained in this paragraph. Abbreviation CC indicates that the source was in continuous compliance for the reporting period. Abbreviation NC indicates that the source was in non-compliance some time during the reporting period and is not indicative of continuous non-compliance. Furthermore, any source that indicates non-compliance with any requirement does not necessarily mean that the source is not compliant at the time this report was prepared or submitted. Abbreviation Y indicates presumptive compliance where standard practices or the nature of the operation is expected to maintain the source in compliance or where the records do not exist because there was no observable emission. Abbreviation NA is used where monitoring for compliance is not required and, therefore, is not applicable.

Notice of Violation:

On July 17, 2019, during this reporting period, the Bay Area Air Quality Management District ("BAAQMD" or "District") issued two Notices of Violation (NOV), No. A58080 and No. A58081, to the San Francisco International Airport ("SFO" or "Airport"). NOV No. A58080 was issued for Source S-370 Boarding Area D Emergency Standby Generator. NOV No. A58081 was issued for a diesel engine fire pump located at Boarding Area G. The Airport had implemented corrective actions prior to the issuance of the NOVs.

1) Notice of Violation No. A 58080

On July 17, 2019, BAAQMD conducted an inspection of Boarding Area D's emergency standby generator at SFO. During the inspection, BAAQMD issued an NOV for operating an emergency standby generator engine (S-370) from March 31, 2014, to March 31, 2019, without a BAAQMD Authority to Construct[1] or Permit to Operate and for failure to meet a permit condition. The emergency standby generator was previously permitted as S-370 and was removed from the BAAQMD Permit to Operate in 2014. SFO has taken the following corrective actions:

[1] An Authority to Construct was not required because SFO did not put in place, build, erect, install, modify, modernize, alter, or replace this source, which had previously operated pursuant to a permit.

1. On October 22, 2018, SFO submitted a 10-day deviation report to self-report its discovery that the emergency standby generator located at Boarding Area D was operating without a permit. Under Condition #24638, this generator was required to be shut down within 90 days of the startup of emergency standby diesel generator sets (S-680 and S-710). Due to delays in construction, this generator at Boarding Area D had to be kept online to provide vital services to the Airport's Communication Center.
2. On November 13, 2018, SFO submitted a permit application for the emergency standby generator at Boarding Area D.
3. On November 13, 2018, SFO submitted a 30-day deviation report. This report detailed the emergency standby generator's function as a back up to SFO's Communication Center, the specifications of the emergency standby generator's diesel engine, and confirmation that a permit application had been submitted. The report also estimated that this generator would be taken out of service by the third quarter of calendar year 2019.
4. On November 19, 2018, BAAQMD Inspector, Dick Hansen Rodriguez, conducted an inspection of the emergency standby generator and requested data logs. On November 21, 2018, SFO provided five years of data logs to Mr. Rodriguez.
5. On April 1, 2019, SFO took the emergency standby generator offline.
6. On April 24, 2019, SFO received a letter from BAAQMD notifying SFO that the permit application had been assigned application number 29621 and source number S-1024.
7. On July 17, 2019, Mr. Rodriguez inspected the generator and verified that it had been taken offline.
8. On July 22, 2019, SFO informed Flora Chan, BAAQMD Senior Air Quality Engineer, to cancel permit application number 29621 because the generator had been taken offline.
9. SFO completed its internal audit in January 2019 to verify all emission sources and has put procedures in place to improve coordination across different divisions at the Airport to ensure compliance with its Title V Permit.

2) Notice of Violation No. A 58081

On July 17, 2019, BAAQMD met with SFO's Environmental Compliance Specialist regarding a diesel engine fire pump located at Boarding Area G. During the visit, BAAQMD issued an NOV for operating a fire pump diesel engine from October 30, 2013, to October 30, 2018, without a BAAQMD Authority to Construct or Permit to Operate. SFO has taken the following corrective actions:

1. On September 19, 2018, SFO submitted a 10-day deviation report to self-report its discovery that the diesel engine fire pump located at Boarding Area G was operating without a permit.
2. On October 10, 2018, SFO submitted a 30-day deviation report. This report detailed the fire pump's function as a back up to SFO's fire protection system, the specifications of the fire pump diesel engine, and timeline to submit a permit application.
3. On October 30, 2018, SFO submitted a permit application for the fire pump.
4. On November 19, 2018, Dick Hansen Rodriguez, BAAQMD Inspector, conducted an inspection of the fire pump and requested data logs. On November 21, 2018, SFO provided five years of data logs to Mr. Rodriguez.
5. On April 24, 2019, SFO received a letter from BAAQMD notifying SFO that the permit application had been assigned an application number 29339 and source number S-1026. The letter also included an invoice for permit application fees. On May 23, 2019, SFO paid the permit application fees.
6. SFO completed its internal audit in January 2019 to verify all emission sources and has put procedures in place to improve coordination across different divisions at the Airport to ensure compliance.

Application number 29339 for S-1026 is currently pending and under review by Flora Chan, BAAQMD Senior Air Quality Engineer.

Title V Deviation Reporting:

None. SFO did not provide any Title V Deviation Reporting to BAAQMD during this reporting period.

Schedule of Compliance:

Please see Tables VII-A through VII-J below. New sources not included in these tables are set forth in Attachment 4.

Attachment 1 – H2S Hydrogen Sulfide Monitoring:

Provides the results of weekly and monthly monitoring of hydrogen sulfide (H2S) for Source S-170. Under conditions of the permit, H2S content in the digester gas is not to exceed 2,250 ppm.

Under Permit Conditions #18329, No. 7, if the Airport can demonstrate three (3) months of digester sulfur results lower than 450 ppm, the monitoring frequency for sulfur analysis may be reduced to at least once every calendar month. As allowed under Condition #18329, No.7, the Airport switched to monthly monitoring beginning in August of 2017.

Attachment 2 – Visible Emissions Evaluation

Provides the Visible Emission Evaluation Report for Source S-1.

Attachment 3 – Visible Emissions Evaluation

Provides the Standby I.C. Engines Visible Emissions Evaluation Report, dated October 29, 2018.

Attachment 4 – New Sources

Provides List and Compliance Status of the New Sources not included in Tables IV and VII of the Title V Permit.

1. Compliance Status Tables

a. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S1 – SLUDGE GAS BURNER (FLARE)

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Opacity	BAAQMD 6-1-301	Y		Ringelmann 1.0 for < 3 minutes in any hour	BAAQMD 6-1-401	P/E	Visible Emissions Check	CC
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf	BAAQMD 6-1-401	P/E	Visible Emissions Check	CC
SO2	BAAQMD 9-1-301	Y		GLC[1] ≤0.5 ppm for 3 min or ≤ 0.25 ppm for 60 min or ≤ 0.05 ppm for 24 hours	None	N	NA	NA
SO2	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	Condition # 18329, Parts 6 and 7	P/W	monitoring of digester gas hydrogen sulfide	NA

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S1 – SLUDGE GAS BURNER (FLARE)

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
H2S	Condition # 18329 Part 6	Y		2,250 ppm	Condition # 18329, Parts 6 and 7	P/W (Weekly or monthly monitoring as allowed per VI, Permit Conditions, Condition #18329, No. 7)	Monitoring of digester gas hydrogen sulfide	CC
H_2S	BAAQMD 9-2-301	N		Property Line Ground Level Limits: $\leq$ 0.06 ppm, averaged over 3 minutes and $\leq$ 0.03 ppm, averaged over 60 minutes	BAAQMD 9-2-501 9-2-602	C	Area Monitoring	NA The District has not notified SFO that the monitoring is required
POC	BAAQMD 8-2-301	Y		15 lb/day and greater than 300 ppm total carbon	None	N	None	NA
Hours of Operation	Condition # 18329 Part 4	Y		At all times abating S170	BAAQMD Condition # 18329 Part 5	P/E	Records	Y

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
S8 – Reverse Airflow Auto-Track Spray Booth
S9 – Custom Air Auto Spray Booth

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Opacity	BAAQMD 6-1-301 SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes in any hour	BAAQMD 6-1-401	P/E	Visible Emissions Check	Y
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 gr/dscf	BAAQMD 6-1-401	P/E	Visible Emissions Check	Y
VOC	BAAQMD 8-19-302	Y		Air-Dried Coatings VOC ≤ 340 g/l (2.8 lb/gal)	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.2	Y		Specialty Coating High Gloss VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.3	Y		Specialty Coating Heat Resistant VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.4	Y		Specialty Coating High Performance Architectural VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.5	Y		Specialty Coating Metallic Topcoat VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
S8 – Reverse Airflow Auto-Track Spray Booth
S9 – Custom Air Auto Spray Booth

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
VOC	BAAQMD 8-19-312.7	Y		Specialty Coating Pretreatment Wash Primer VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.8	Y		Specialty Coating Silicone Release VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.9	Y		Specialty Coating Solar Absorbant VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.12	Y		Specialty Coating Extreme Performance VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC
VOC	BAAQMD 8-19-312.13	Y		Specialty Coating High Temperature VOC ≤ 420 g/l (3.5 lb/gal);	BAAQMD 8-19-501	P/E	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C1
S8 – REVERSE AIRFLOW AUTO-TRACK SPRAY BOOTH

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Through-put	Condition # 7502, Part 1	Y		Coating Usage ≤ 250 gals/yr	Condition # 7502, Part 3	P/A	Records	CC
Through-put	Condition # 7502, Part 2	Y		Net Clean-up Solvent Usage ≤ 125 gals/yr	Condition # 7502, Part 3	P/A	Records	CC

Table VII – C2
S9 – CUSTOM AIR AUTO SPRAY BOOTH

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Through-put	Condition # 7502, Part 4	Y		Coating Usage ≤ 250 gals/yr	Condition # 7502, Part 6	P/A	Records	CC
Through-put	Condition # 7502, Part 5	Y		Net Clean-up Solvent Usage ≤ 125 gals/yr	Condition # 7502, Part 6	P/A	Records	CC

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S14 – HIGH TEMPERATURE HOT WATER GENERATOR
S15 – HIGH TEMPERATURE HOT WATER GENERATOR
S16 – HIGH TEMPERATURE HOT WATER GENERATOR
S17 – HIGH TEMPERATURE HOT WATER GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
NOx	SIP 9-7-301.1	Y		30 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S14 – High Temperature Hot Water Generator
S15 – High Temperature Hot Water Generator
S16 – High Temperature Hot Water Generator
S17 – High Temperature Hot Water Generator

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
NOx (S14 and S15)	Condition # 24716, Part 1	Y		9 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA
NOx (S14 and S15)	Condition # 24716, Part 2	Y		100 ppmv @ 3%O2, dry, 3-hr average (fuel oil fired)	None	N	None	NA
NOx (S16 and S17)	Condition # 25080, Part 4	Y		9 ppmv @ 3%O2, dry, 3-hr average	Condition # 25080, Part 7	P/2 years	Source Test	NA
NOx	BAAQMD 9-7-307.5	N		9 ppmv @ 3%O2, dry, 3-hr average	BAAQMD 9-7-403 9-7-506	P/A	Source Test	CC
NOx (S14 and S15)	BAAQMD 9-7-113.2 SIP 9-7-305.1	Y		150 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA
NOx (S14 and S15)	BAAQMD 9-7-113.2 SIP 9-7-306.1	Y		150 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA
CO	SIP 9-7-301.2	Y		400 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA
CO	BAAQMD 9-7-307.5	N		400 ppmv @ 3%O2, dry, 3-hr average	BAAQMD 9-7-403 9-7-506	P/A	Source Test	CC
CO	SIP 9-7-305.2	Y		400 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA
CO	SIP 9-7-306.2	Y		400 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S14 – HIGH TEMPERATURE HOT WATER GENERATOR
S15 – HIGH TEMPERATURE HOT WATER GENERATOR
S16 – HIGH TEMPERATURE HOT WATER GENERATOR
S17 – HIGH TEMPERATURE HOT WATER GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
CO (S14 and S15)	Condition # 24716, Part 1	Y		50 ppmv @ 3%O2, dry, 3-hr average	None	N	None	NA
CO (S14 and S15)	Condition # 24716, Part 2	Y		50 ppmv @ 3%O2, dry, 3-hr average (fuel oil fired)	None	N	None	NA
CO (S16 and S17)	Condition # 25080, Part 5	Y		50 ppmv @ 3%O2, dry, 3-hr average	Condition # 25080, Part 7	P/2 years	Source Test	CC
Opacity (S14 and S15)	BAAQMD 6-1-301 SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes in any hour	Condition # 24716, Part 7	P/1000 gallons of Fuel Oil	Visible Emissions Check	NA
FP (S14 and S15)	BAAQMD 6-1-310.3 SIP 6-310.3	Y		0.15 gr/dscf at 6% O2	Condition # 24716, Part 7	P/1000 gallons of Fuel Oil	Visible Emissions Check	NA
SO2	BAAQMD 9-1-301	Y		GLC[1] ≤0.5 ppm for 3 min or ≤0.25 ppm for 60 min or ≤0.05 ppm for 24 hours	None	N	None	NA
SO2	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	None	N	None	NA
SO2	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	Condition # 24716, Part 6	P/E	Fuel Oil Certification	Y
Heat Input (S14 and S15)	Condition # 24716, Part 3	Y		Natural Gas not to exceed 4,500,000 therms/Consecutive 12-months	Condition # 24716, Part 4	P/M	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S14 – HIGH TEMPERATURE HOT WATER GENERATOR
S15 – HIGH TEMPERATURE HOT WATER GENERATOR
S16 – HIGH TEMPERATURE HOT WATER GENERATOR
S17 – HIGH TEMPERATURE HOT WATER GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Heat Input (S16)	Condition # 25080, Part 2	Y		Natural Gas not to exceed 1,217,260 therms/Consecutive 12-months	Condition # 25080, Part 3	P/M	Records	CC
Heat Input (S17)	Condition # 25080, Part 2	Y		Natural Gas not to exceed 1,208,390 therms/Consecutive 12-months	Condition # 25080, Part 3	P/M	Records	CC
Total Heat Input (S14 through S17)	Condition # 25080, Part 2	Y		Natural Gas not to exceed 1,560 therms/hour	Condition # 25080, Part 3	P/M	Records	CC
Equip-ment Testing	BAAQMD 9-7-113.1 SIP 9-7-306.3	Y		Hours of Equipment Testing ≤ 48/yr	BAAQMD 9-7-503.3 & Condition # 18329 Part 6	P/E	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – F
S100 -Municipal Wastewater Treatment Plant; S110 - Preliminary Treatment; S121 Sequential Batch Reactor No. 1; S122 Sequential Batch Reactor No. 2; S123 Sequential Batch Reactor No. 3; S131 Influent Flow Equalization Basin No. 1 (formerly S120); S132 Influent Flow Equalization Basin No. 2 (formerly S130); S133 Effluent Flow Equalization Basin; S150 - (Sludge Handling Processes)Disinfection; S160 - Sludge Handling Processes; S161 Waste Holding Tank (formerly S140); S180 – Reclamation; S200 - Industrial Wastewater Plant; S210 - Primary Treatment; S220 - Flow Equalization; S230 - Secondary Treatment; S240 - Secondary Clarifiers; S250 – Disinfection; S260 - Sludge Handling Processes

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Opacity	BAAQMD 6-1-301 SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes in any hour	BAAQMD 6-1-401	P/E	Visible Emissions Check	Y
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 gr/dscf	BAAQMD 6-1-401	P/E	Visible Emissions Check	Y
VOC	BAAQMD 8-2-301	Y		Emissions may not exceed 300 ppm total carbon, dry, and 15 lb/day/source	None	N	None	NA
Through-put	BAAQMD Condition # 18329 Part 1	Y		Industrial Wastewater Discharge < 1.7 E6 gal/day during November through May; < 1.2 E6 gal/day during June through October	BAAQMD Condition # 18329 Part 3	P/D & P/M	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – F
S100 -Municipal Wastewater Treatment Plant; S110 - Preliminary Treatment; S121 Sequential Batch Reactor No. 1; S122 Sequential Batch Reactor No. 2; S123 Sequential Batch Reactor No. 3; S131 Influent Flow Equalization Basin No. 1 (formerly S120); S132 Influent Flow Equalization Basin No. 2 (formerly S130); S133 Effluent Flow Equalization Basin; S150 - (Sludge Handling Processes)Disinfection; S160 - Sludge Handling Processes; S161 Waste Holding Tank (formerly S140); S180 – Reclamation; S200 - Industrial Wastewater Plant; S210 - Primary Treatment; S220 - Flow Equalization; S230 - Secondary Treatment; S240 - Secondary Clarifiers; S250 – Disinfection; S260 - Sludge Handling Processes

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Through-put	BAAQMD Condition # 18329 Part 2	Y		Sanitary Sewer Discharge < 2.2 E6 gal/day	BAAQMD Condition # 18329 Part 3	P/D & P/M	Records	CC

Table VII – G
S170 - Anaerobic Digesters

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Opacity	BAAQMD 6-1-301 SIP 6-301	Y		Ringelmann 1.0 for < 3 minutes in any hour	BAAQMD 6-1-401	P/E	Visible Emissions Check	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – G
S170 - ANAEROBIC DIGESTERS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 gr/dscf	BAAQMD 6-1-401	P/E	Visible Emissions Check	Y
VOC	BAAQMD 8-2-301	Y		Emissions may not exceed 300 ppm total carbon, dry, and 15 lb/day/source	None	N	None	NA
Odors	BAAQMD 1-301	N		None	BAAQMD Condition # 18329 Part 5	P/E	Records	CC
H_2S	BAAQMD Regulation 9-2-301	N		0.06 ppm H2S over 3 min or 0.03 ppm H2S over 60 min	None	N	None	NA
Digester Gas Sulfur Content	BAAQMD Condition 18329 Part 6	Y		2,250 ppm	BAAQMD Condition 18329 Part 7	P/W (Weekly or monthly monitoring as allowed per VI, Permit Conditions, Condition #18329, No. 7	Weekly digester gas testing (or monthly as allowed under Permit)	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – H
S270 - 1850 HP DIESEL FIELD LIGHTING GENERATOR #1

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Opacity	BAAQMD 6-1-303 SIP 6-303	Y		Ringelmann 2.0 for < 3 minutes in any hour	Condition # 18324, Part 1	P/1000 gal fuel oil	Visible Emissions Check	CC
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 gr/dscf	Condition # 18324, Part 1	P/1000 gal fuel oil	Visible Emissions Check	CC
Diesel Particulate Matter	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a)	N		> 0.40 g/bhp-hr for 20 hour/year operating limit	None	N	None	NA
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours	Condition # 18324, Part 4	P/E	Fuel Oil Certification	Y
SO2	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	Condition # 18324, Part 4	P/E	Fuel Oil Certification	Y
SO2	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	Condition # 18324, Part 4	P/E	Fuel Oil Certification	Y
Emergency	BAAQMD 9-8-331.1 & Condition # 18324 Part 2b	N		Unlimited Emergency Operation	BAAMQD 9-8-530 & Condition # 18324 Part 3b	P/M	Records	CC
Reliability Related Activities	BAAQMD 9-8-331.3 & Condition # 18324 Part 2a	N		Hours of Reliability Related Activities ≤ 100/yr	BAAMQD 9-8-530 & Condition # 18324 Part 3b	P/M	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – H
S270 - 1850 HP DIESEL FIELD LIGHTING GENERATOR #1

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Reli-ability Related Activities	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a) & Condition 22820 Part 1	N		Hours of Reliability Related Activities ≤ 20/yr	BAAMQD 9-8-530 & Condition # 22820 Part 4	P/M	Records	CC

Table VII - I
S-29, S-290, S-320 THROUGH S-340 AND S-360 THROUGH S-550 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Opacity	BAAQMD 6-1-303 SIP 6-303	Y		Ringelmann 2.0 for < 3 minutes in any hour	Condition # 18666, Part 1	P/1000 gal fuel oil	Visible Emissions Check	CC
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 gr/dscf	Condition # 18666, Part 1	P/1000 gal fuel oil	Visible Emissions Check	CC
Diesel Particulate Matter	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a)	N		> 0.40 g/bhp-hr for 20 hour/year operating limit	None	N	None	NA

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - I
S-29, S-290, S-320 THROUGH S-340 AND S-360 THROUGH S-550 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours	Condition # 18666, Part 4	P/E	Fuel Oil Certification	Y
SO2	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	Condition # 18666, Part 4	P/E	Fuel Oil Certification	Y
SO2	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	Condition # 18666, Part 4	P/E	Fuel Oil Certification	Y
Emergency	BAAQMD 9-8-330.1 & Condition # 18666 Part 2b	N		Unlimited Emergency Operation	BAAMQD 9-8-530 & Condition # 18666 Part 3b	P/M	Records	CC
Reliability Related Activities	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a) & Condition 22820 Part 1	N		Hours of Reliability Related Activities ≤ 20/yr	BAAMQD 9-8-530 & Condition # 22820 Part 4	P/M	Records	CC
Reliability Related Activities	BAAQMD 9-8-330.3 & Condition # 18666 Part 2a	N		Hours of Reliability Related Activities ≤ 50/yr	BAAMQD 9-8-530 & Condition # 18666 Part 3b	P/M	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - J
S640 THROUGH S720 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
NMHC + NOx S680, S690, S700 and S710	CCR, Title 17, Section 93115.6(a)(3)(B)	N		4.8 g/bhp-hr	CCR, Title 17, Section 93115.10(a)(3)	P/E	Initial Report of Engine Emission Factors	CC
NMHC + NOx S680, S690, S700 and S710	40 CFR 60.4205(b)	Y		4.8 g/bhp-hr	40 CFR 60.4211(a)	C	Operate and maintain per mfg instructions	CC
CO S680, S690, S700 and S710	CCR, Title 17, Section 93115.6(a)(3)(B)	N		2.6 g/bhp-hr	CCR, Title 17, Section 93115.10(a)(3)	P/E	Initial Report of Engine Emission Factors	CC
CO S680, S690, S700 and S710	40 CFR 60.4205(b)	Y		2.6 g/bhp-hr	40 CFR 60.4211(a)	C	Operate and maintain per mfg instructions	CC
Opacity	BAAQMD 6-1-303 SIP 6-303	Y		Ringelmann 2.0 for < 3 minutes in any hour	BAAQMD 6-1-401	P/E	Visible Emissions Check	CC
PM S680, S690, S700 and S710	CCR, Title 17, Section 93115.6(a)(3)(B)	N		0.15 g/bhp-hr	CCR, Title 17, Section 93115.10(a)(3)	P/E	Initial Report of Engine Emission Factors	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - J
S640 THROUGH S720 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
PM S680, S690, S700 and S710	40 CFR 60.4205(b)	Y		0.15 g/bhp-hr	40 CFR 60.4211(a)	C	Operate and maintain per mfg instructions	CC
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 gr/dscf	None	N	None	NA
Diesel Particulate Matter	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a)	N		> 0.40 g/bhp-hr for 20 hour/year operating limit	None	N	None	NA
Diesel Particulate Matter	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(b)	N		< 0.40 g/bhp-hr for 30 hour/year operating limit	None	N	None	NA
Diesel Particulate Matter	CCR, Title 17, Section 93115.6(b)(3)(A)(2)(b)	N		< 0.15 g/bhp-hr for 20 hour/year operating limit	None	N	None	NA
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours	None	N	None	NA
SO2 S640	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours	Condition # 22356, Part 1	P/E	Fuel Oil Certification	Y

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - J
S640 THROUGH S720 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
SO2 S650	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours	Condition # 22357, Part 1	P/E	Fuel Oil Certification	Y
SO2 S660	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours	Condition # 22336, Part 1	P/E	Fuel Oil Certification	Y
SO2	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	None	N	None	NA
SO2 S640	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	Condition # 22356, Part 1	P/E	Fuel Oil Certification	Y
SO2 S650	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	Condition # 22357, Part 1	P/E	Fuel Oil Certification	Y
SO2 S660	BAAQMD 9-1-302	Y		SO2 shall not exceed 300 ppm (dry)	Condition # 22336, Part 1	P/E	Fuel Oil Certification	Y
SO2	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	None	N	None	NA
SO2 S640	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	Condition # 22356, Part 1	P/E	Fuel Oil Certification	Y
SO2 S650	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	Condition # 22357, Part 1	P/E	Fuel Oil Certification	Y
SO2 S660	BAAQMD 9-1-304	Y		Sulfur Content of Fuel Oil ≤ 0.5 wt%	Condition # 22336, Part 1	P/E	Fuel Oil Certification	Y
SO2	CCR, Title 17, Section 93115.5	Y		Sulfur Content of Fuel Oil ≤ 0.05 wt% (CARB Diesel)	None	N	None	NA
SO2 S640	Condition # 22356, Part 1	Y		Sulfur Content of Fuel Oil ≤ 0.05 wt%	Condition # 22356, Part 1	P/E	Fuel Oil Certification	Y
SO2 S650	Condition # 22357, Part 1	Y		Sulfur Content of Fuel Oil ≤ 0.05 wt%	Condition # 22357, Part 1	P/E	Fuel Oil Certification	Y

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - J
S640 THROUGH S720 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
SO2 S660	Condition # 22336, Part 1	Y		Sulfur Content of Fuel Oil ≤ 0.05 wt%	Condition # 22336, Part 1	P/E	Fuel Oil Certification	Y
SO2	40 CFR 60.4207(b)	Y		Use diesel fuel that meets 15 ppm sulfur content per 40 CFR 80.510(b) for nonroad diesel	None	N	N/A	NA
Emer-gency	BAAQMD 9-8-330.1	N		Unlimited Emergency Operation	BAAMQD 9-8-530	P/M	Records	CC
Emer-gency S640	Condition # 22356 Part 2	N		Unlimited Emergency Operation	Condition # 22356 Part 6	P/M	Records	CC
Emer-gency S650	Condition # 22357 Part 2	N		Unlimited Emergency Operation	Condition # 22357 Part 6	P/M	Records	CC
Emer-gency S660	Condition # 22336 Part 2	N		Unlimited Emergency Operation	Condition # 22336 Part 6	P/M	Records	CC
Emer-gency S680 S710	Condition # 22820 Part 2	N		Unlimited Emergency Operation	Condition # 22820 Part 4	P/M	Records	CC
Emer-gency S690 S700	Condition # 22825 Part 2	N		Unlimited Emergency Operation	Condition # 22825 Part 4	P/M	Records	CC
Emer-gency S670	Condition # 22850 Part 2	N		Unlimited Emergency Operation	Condition # 22850 Part 4	P/M	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - J
S640 THROUGH S720 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Reliability Related Activities S640	CCR, Title 17, Section 93115.6(b)(3)(A)(2)(b) & Condition # 22356 Part 2	N		Hours of Reliability Related Activities ≤ 50/yr	CCR, Title 17, Section 93115.10(g) & Condition # 22356 Part 6	P/M	Records	CC
Reliability Related Activities S650	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(b) & Condition # 22357 Part 2	N		Hours of Reliability Related Activities ≤ 30/yr	CCR, Title 17, Section 93115.10(g) & Condition # 22357 Part 6	P/M	Records	CC
Reliability Related Activities S660	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(b) & Condition # 22336 Part 2	N		Hours of Reliability Related Activities ≤ 30/yr	CCR, Title 17, Section 93115.10(g) & Condition # 22336 Part 6	P/M	Records	CC
Reliability Related Activities S670	CCR, Title 17, Section 93115.6(b)(3)(A)(2)(b) & Condition 22850 Part 1	N		Hours of Reliability Related Activities ≤ 50/yr	CCR, Title 17, Section 93115.10(g) & Condition # 22850 Part 4	P/M	Records	CC

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - J
S640 THROUGH S720 EMERGENCY GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	4/1/19 through 9/30/19 compliance status
Reliability Related Activities S680 S710	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a) & Condition 22820 Part 1	N		Hours of Reliability Related Activities ≤ 20/yr	CCR, Title 17, Section 93115.10(g) & Condition # 22820 Part 4	P/M	Records	CC
Reliability Related Activities S690 S700	CCR, Title 17, Section 93115.6(b)(3)(A)(1)(b) & Condition 22825 Part 1	N		Hours of Reliability Related Activities ≤ 25/yr	CCR, Title 17, Section 93115.10(g) & Condition # 22825 Part 4	P/M	Records	CC

ATTACHMENT 1

Hydrogen Sulfide Monitoring for Anaerobic Digester Gas – Source S-170

SAN FRANCISCO INTERNATIONAL AIRPORT

MEL LEONG TREATMENT PLANT (Sanitary Plant)

Bay Area Air Quality Management District - Permit for Facility # **A1784**

ANAEROBIC DIGESTER GAS

Hydrogen Sulfide Monitoring for Source S-170

Monitoring Type: Hydrogen Sulfide in Digester Gas

Limit: **H2S: 2250 ppm; when > 450PPM weekly measurements until< 450PPM for 3 Mo.**

Method: CMS Analyzer, Draeger, using
Hydrogen sulfide chips 2-50 ppm, 20-500 ppm, and 100-2500 ppm

Date	Time	Hydrogen Sulfide (ppm)	H2S Monitor	H2S chip Batch Lot	Analysts
4/4/2019	11:36	390	ARCE-0129	ARKL-0521	RH/JF
5/23/2019	9:40	251	ARCE-0129	ARKL-0521	RH/CZ
6/6/2019	11:30	277	ARCE-0129	ARKL-0521	RH/CZ
7/19/2019	8:00	9.1	ARCE-01237	ARLJ-0911	RH/CZ
8/20/2019	7:58	4.1	ARCE-01237	ARLJ-0911	RH/KF
9/6/2019	11:15	< 2	ARCE-01237	ARLJ-0911	RH/KF

ATTACHMENT 2

Visible Emission Report for Source S-1 – Sludge Digester Gas Burner Flare

SAN FRANCISCO INTERNATIONAL AIRPORT

MEL LEONG TREATMENT PLANT (Sanitary Plant)

Bay Area Air Quality Management District - Permit for Facility # **A1784**

SLUDGE GAS BURNER FLARE

Opacity Monitoring for Source S-1

Monitoring Type: Visible Emissions Check

Monitoring Frequency: Periodic per event

Limit: Ringelmann 1.0 for < 3 minutes in any hour

Method: **Ringelmann Chart**

Date	Time	Ringelmann Chart Reading	Result	% Smoke Density	Analysts
4/4/2019	11:43	0	0	0	RH/JF
5/23/2019	9:48	0	0	0	RH/CZ
6/6/2019	11:38	0	0	0	RH/CZ
7/19/2019	8:02	0	0	0	RH/CZ
8/20/2019	7:55	0	0	0	RH/KF
9/6/2019	11:25	0	0	0	RH/KF

ATTACHMENT 3

Visible Emission Evaluation Report, October 29, 2018

SAN FRANCISCO I'NTL AIRPORT

Standby I.C. Engines Visible Emissions Evaluation Report
San Francisco, California

Test Date(s): September 24, 25, 26, 27 28 & October 10, 2018
Report Date: October 29, 2018

Prepared for:
San Francisco International Airport (SFO)
San Francisco, CA 94128
Attn: Tuan Pham

Prepared by:
BEST ENVIRONMENTAL (BE)
339 Stealth Court
Livermore, CA 94551
Phone (925) 455-9474
Fax (925) 455-9479
E-Mail bestair@best-enviro.com

For Submission To:
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

BEST ENVIRONMENTAL
339 Stealth Court
Livermore, California 94551
(925) 455-9474 FAX (925) 455-9479
E-Mail bestair@best-enviro.com

October 26, 2018

San Francisco International Airport (SFO)
P.O. Box 8097
San Francisco, CA 94128

Attn.: Mr. Tuan Pham

Subject: Compliance Visible Emissions Evaluation (VEE) of twenty-five (25) diesel-fired standby I.C. engines located at the San Francisco International Airport.

Test Date: September 24-28 and October 10, 2018.

Sampling Location: Emissions were observed from the engine stack outlets.

Sampling Personnel: Regan Best and Jessica Ortiz of Best Environmental (BE) performed the VEE's.

Process Description: SFO operates ~35 I.C. engines at various airport locations to provide emergency standby power.

Test Program: A single 30-minute visible emissions evaluation (VEE) test was performed on the engine outlets during startup and normal operation. Engine load was provided from a load bank.

Sampling Methods: The following source test method of the United State Environmental Protection Agency was used:

EPA Method 9	Visible Emissions Evaluation

Test Results: The source visible emissions were within permit limits (<20% opacity or 1 Ringelmann reading). During startup and load a brief burst of emissions was observed but usually was within limit within 3-4 minutes. Visible emissions usually then dropped to near zero after 4 minutes. A summary of the VEE's is shown below. Results are shown for the total evaluation period and the highest (24 reading) period.

Test Results Summary

Source I.D #	Source Description	Highest Period	Average Results
S-270	Field Lighting #1	31.5%	16.4%
S-290	B/A G	10.2%	2%
S-320	ITB-N1	32.1%	12.3%
S-330	ITB-N2	29.6%	9.6%
S-340	B/A A	10%	2%
S-370	T-2 Comm. Center	2.8%	0.9%
S-390	North Parking Garage 'G'	7.3%	5.2%
S-400	B/A F (Hub)	21.5%	13.3%
S-410	Lot DD	11.9%	2.4%
S-440	ITB-S1	16.8%	4.5%
S-450	ITB-S2	18.3%	4.3%
S-470	W. Q. C. P. #1	23.3%	13.3%
S-530	ERF #1	1.5%	0.6%
S-540	ERF #2	5%	1%
S-550	ERF #3	2.4%	0.5%
S-650	Concourse 'H'	7.9%	1.7%
S-660	W. Q. C. P. #2	9%	2.2%
S-1	EGEN Data 1A	28.3%	8.3%

Comments: Field data sheet, digital images of the source outlets and Visible Emissions Certificate are appended to this report.

Visible emission readings were recorded in Ringlemann units (1-5) but are shown as percentages in the summary for ease of understanding.

The details and results contained within this report are to the best of BE's knowledge, an authentic and accurate representation of the test program. If this report is submitted for compliance purposes it should only be reproduced in its entirety. If you have any questions concerning this report or if Best Environmental can be of any further assistance, please contact me at (925) 455-9474 X 102.

Submitted by,

Regan Best
Source Test Manager

APPENDICES

APPENDIX A - FIELD DATA SHEETS

APPENDIX B - VEE CERTIFICATION

APPENDIX C – DIGITAL IMAGES

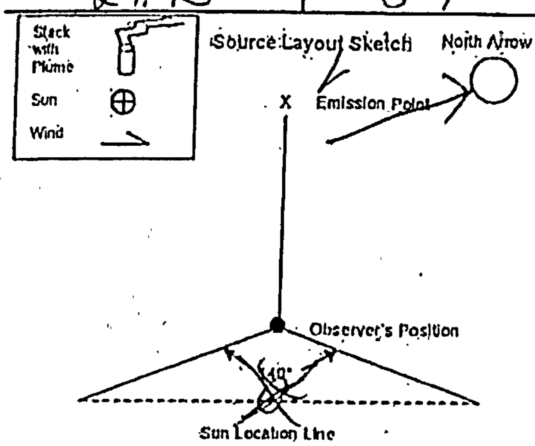
Visible Emission Observation Form

1 of 1

Source Name	SFO
Street Address	
City	SF
State	CA
Zip	94128
Phone	650 821-7730
Source ID Number	S-270
Process Equipment	Field Lighting #1
Operating Mode	Normal ☐ Other ☐ 500kw
Control Equipment:	—
Operating Mode	Normal ☐ Other ☐
Describe Emissions Point.	Stack outlet
Height Above Ground Level	~25'
Height Relative To Observer	~20'
Distance from Observer	~50'
Direction from Observer	W
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐	BLK
Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ Intermittent ☐	[✓ NA]
Water droplets present:	[✓ No] Yes ☐
IF Water Droplet Plume: Attached ☐ Detached ☐	[✓ NA]
Point in the plume at which opacity was observed: NA ☐	
Describe Plume Background: Start:	SKY
Stop:	"
Background Color:	Blue/white
Sky Conditions:	FEW
Wind Speed: (mph)	2-8
Wind Direction:	E
Ambient Temp: (°F)	60
Dew Point (°F)	
RH %	83
Barometric Pressure (inches)	29.93
Wet bulb temp (°F) (calculated)	57

Date: 9/26/18 — Start Time: 1000 — End Time: 1030

Sec → / Min ↓	0	15	30	45	Sec → / Min ↓	0	15	30	45
1	5	4	1/2	1/2	31				
2	1/2	1/2	1/2	1/2	32				
3	2	2	4	3	33				
4	2 1/2	2 1/2	2 1/2	2	34				
5	2	1 1/2	1 1/2	1 1/2	35				
6	1 1/2	1 1/2	1 1/2	1 1/2	36				
7	1	1	1	3/4	37				
8	3/4	3/4	3/4	3/4	38				
9	3/4	3/4	3/4	3/4	39				
10	3/4	3/4	3/4	3/4	40				
11	3/4	3/4	3/4	3/4	41				
12	3/4	3/4	3/4	3/4	42				
13	3/4	3/4	3/4	3/4	43				
14	3/4	3/4	3/4	3/4	44				
15	3/4	3/4	3/4	3/4	45				
16	3/4	3/4	3/4	3/4	46				
17	3/4	3/4	3/4	3/4	47				
18	3/4	3/4	3/4	3/4	48				
19	1/2	1/2	1/2	1/2	49				
20	1/2	1/2	1/2	1/2	50				
21	1/2	1/2	1/2	1/2	51				
22	1/2	1/2	1/2	1/2	52				
23	1/2	1/2	1/2	1/2	53				
24	1/2	1/2	1/2	1/2	54				
25	1/2	1/2	1/2	1/2	55				
26	1/2	1/2	1/2	1/2	56				
27	1/2	1/2	1/2	1/2	57				
28	1/2	1/2	1/2	1/2	58				
29	1/2	1/2	1/2	1/2	59				
30	1/2	1/2	1/2	1/2	60				



Observers Name: (Print) Regan Best

Observers Signature: [illegible] — Date: 9/26/18

Organization: Best Environmental

339 Stealth Ct. Livermore, CA 94551

Certified By: CARB - ID# 14865 expires 10/15/18 — Date: 4/9/18

Average Opacity for Highest Period 3/1.5 avg. 16.4 — Number of readings above 10 % were 8 72

Range of Opacity Readings Minimum: 1/2 Maximum: 5

CONTINUED ON VEO Form Number #_____ of _____ or [✓ NA]

Additional Information:

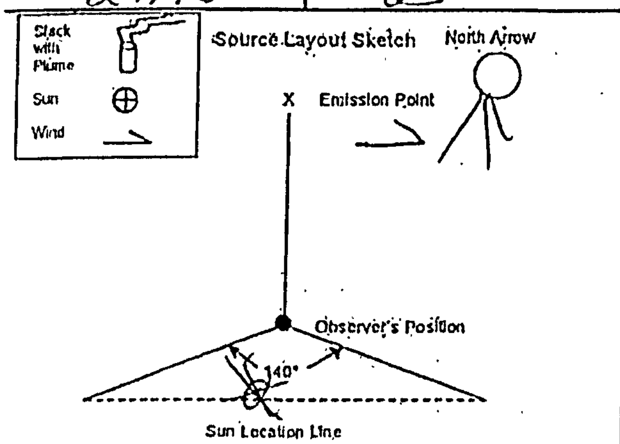
500 KW — 1220 KW

A-2

Visible Emission Observation Form

Source Name	SFO
Source Address	
City	SF
State	CA
Zip	94128
Phone	650 821-7730
Source ID Number	S-290
Process Equipment	B/A 'G'
Operating Mode	Normal ☐ Other ☐
Control Equipment	—
Operating Mode	Normal ☐ Other ☐
Describe Emissions Point	Stack Outlet
Height Above Ground Level	~100'
Height Relative To Observer	~95'
Distance from Observer	~200
Direction from Observer	N
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐	BLK
Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐	
Water droplets present: No ☒ Yes ☐	
IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒	
Point in the plume at which opacity was observed: NA ☒	
Describe Plume Background: Start:	SKY
Stop:	" "
Background Color	Blue
Sky Conditions	Clr
Wind Speed: (mph)	5-15
Wind Direction	W
Ambient Temp: (°F)	74
Dew Point (°F)	
RH %	62
Barometric Pressure (inches)	29.95
Wet bulb temp (°F) (calculated)	65

Source Layout Sketch



Observation Date: 9/27/18 | Start Time: 1313 | End Time: 1343

Min ↓ / Sec →	0	15	30	45	Min ↓ / Sec →	0	15	30	45
1	0	0	0	4	31				
2	4	4	4	4	32				
3	4	4	4	4	33				
4	4	4	2	4	34				
5	1	2	4	4	35				
6	4	4	4	4	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Observers Name: (Print) Regan Best

Observers Signature: [signature] Date: 9/27/18

Organization: Best Environmental
339 Stealth Ct. Livermore CA 9455[1]

Certified By: CARB - ID# 14865 expires 10/5/18 Date: 4/9/18

Average Opacity for Highest Period: 2.0 / 10.2 avg

Number of readings above 10 % were 4.

Range of Opacity Readings Minimum: 0 Maximum: 4

CONTINUED ON VEO Form Number # ____ of ____ or NA ☒

Additional Information:
50% - 1200 KW
~~1575~~ kW 1500

Visible Emissions Observation Form

SFO

9/28/18 | 0927 | 0957

Street Address:

City: SF | State: CA | Zip: 94128

Phone: 650 821-7730 | Source ID Number: S-320

Process Equipment: N1 | Operating Mode: Normal ☐ Other ☐

Control Equipment: — | Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: Stack Outlet

Height Above Ground Level: ~150' | Height Relative To Observer: S'

Distance from Observer: ~20' | Direction from Observer: NW

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK | Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐

Water droplets present: No ☒ Yes ☐ | IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒

Point in the plume at which opacity was observed: NA ☒

Describe Plume Background: Start: SKY Stop:

Background Color: Grey | Sky Conditions: : OVC

Wind Speed: (mph) 0-10 | Wind Direction: SW

Ambient Temp: (°F) 63 | Dew Point (°F) | RH % 25

Barometric Pressure (inches) 29.75 | Wet bulb temp (°F) (calculated) 68

Sec→ / Min↓	0	15	30	45	Sec→ / Min↓	0	15	30	45
1	0	0	3	3	31				
2	3	3	3½	2	32				
3	1½	1¼	1½	1	33				
4	1	1	1	1	34				
5	¾	¾	¾	¾	35				
6	¾	¾	¾	¾	36				
7	¾	¾	¾	¾	37				
8	¾	¾	½	½	38				
9	½	½	½	½	39				
10	½	½	½	½	40				
11	½	½	½	½	41				
12	½	½	½	½	42				
13	½	½	½	½	43				
14	½	½	½	½	44				
15	½	½	½	½	45				
16	½	½	¼	¼	46				
17	¼	¼	¼	¼	47				
18	¼	¼	¼	¼	48				
19	¼	¼	¼	¼	49				
20	¼	¼	¼	¼	50				
21	¼	¼	¼	¼	51				
22	¼	¼	¼	¼	52				
23	¼	¼	¼	¼	53				
24	¼	¼	¼	¼	54				
25	¼	¼	¼	¼	55				
26	¼	¼	¼	¼	56				
27	¼	¼	¼	¼	57				
28	¼	¼	¼	¼	58				
29	¼	¼	¼	¼	59				
30	¼	¼	¼	¼	60				

Stack with Plume | Sun | Wind

Source Layout Sketch — North Arrow — X Emission Point — Observer's Position — 140° — Sun Location Line

Observers Name: (Print) Regan Best

Observers Signature: Regan Best | Date: 9/28/18

Organization: REST Environmental

339 Stealth Ct. Livermore CA 94551

Certified By: CARB - ID# 14865 expires 10/5/18 | Date: 4/19/18

Average Opacity for Highest Period 30.1 avg 12.3 | Number of readings above % were 30.

Range of Opacity Readings Minimum: ¼ Maximum: 3

CONTINUED ON VEO Form Number #____ of ____ or NA ☒

Additional Information:

500 kW

1500 EW

A-4

Visible Emissions Observation Form

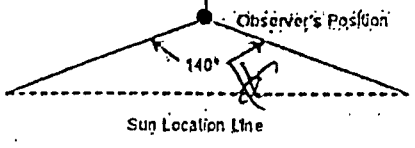
Page 1 of 1

Street Address: SFO		
City: SF	State: CA	Zip: 94128
Phone: (650) 821-7730	Source ID Number: S-330	
Process Equipment: N2	Operating Mode: Normal ☐ Other ☐	
Control Equipment:	Operating Mode: Normal ☐ Other ☐	
Describe Emissions Point: Stack outlet		
Height Above Ground Level: ~150'	Height Relative To Observer: -5'	
Distance from Observer: ~20'	Direction from Observer: NW	
Describe Emissions: N/A - None present ☐		
Emission Color: NA ☐ BLK	Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐	
Water droplets present: No ☒ Yes ☐	IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒	
Point in the plume at which opacity was observed: NA ☒		
Describe Plume Background: Start: SKY Stop: 11		
Background Color: Grey	Sky Conditions: : OVC	
Wind Speed: (mph) 0-10	Wind Direction: SW	
Ambient Temp: (°F) 63	Dew Point (°F)	RH % 75
Barometric Pressure (inches) 27.75	Wet bulb temp (°F) (calculated) 58	

Start → / Min ↓	0	15	30	45	Start → / Min ↓	0	15	30	45
	9/28/18			1006				1836	
1	2½	2½	2½	2½	31				
2	3	2½	2	2	32				
3	2	2	1½	1½	33				
4	1½	1½	1	1	34				
5	1	1	1	¼	35				
6	½	½	½	¼	36				
7	¼	¼	¼	¼	37				
8	¼	¼	¼	¼	38				
9	¼	¼	0	0	39				
10	0	0	0	0	40				
11	0	0	0	¼	41				
12	¼	¼	¼	¼	42				
13	¼	¼	¼	¼	43				
14	¼	¼	¼	¼	44				
15	¼	¼	¼	¼	45				
16	¼	¼	¼	¼	46				
17	¼	¼	¼	¼	47				
18	¼	¼	¼	¼	48				
19	¼	¼	¼	¼	49				
20	¼	¼	¼	¼	50				
21	¼	¼	¼	¼	51				
22	¼	¼	¼	¼	52				
23	¼	¼	¼	¼	53				
24	¼	¼	¼	¼	54				
25	¼	¼	¼	¼	55				
26	¼	¼	¼	¼	56				
27	¼	¼	¼	¼	57				
28	¼	¼	¼	¼	58				
29	¼	¼	¼	¼	59				
30	¼	¼	¼	¼	60				

Stack with Plume ⊕ Sun → Wind

Source Layout Sketch — North Arrow ↑ — X Emission Point



Observers Name: (Print) Regan Best

Observers Signature: Regan Best Date: 9/28/18

Organization: Best Environmental

339 Stealth Ct. Livermore, CA 94551

Certified By: CARB - ID# 14865 expires 10/5/18 Date: 4/9/18

Average Opacity for Highest Period 29.6 avg. 9.6 | Number of readings above 10 % were 20

Range of Opacity Readings Minimum: 0 Maximum: 3

CONTINUED ON VEO Form Number # ____ of ____ or NA ☒

Additional Information:

500 kW

1500 kW

A-5

Visible Emissions Observation Form

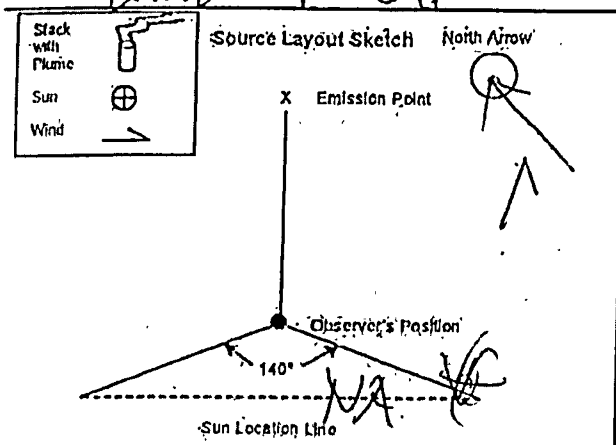
0816 [illegible] 1

Name: SFO	
Street Address	
City: SF	State: CA	Zip: 94128
Phone: 650-821-7730	Source ID Number: S-340
Process Equipment: B/A 'A'	Operating Mode: Normal ☐ Other ☐ 483kw
Control Equipment: —	Operating Mode: Normal ☐ Other ☐
Describe Emissions Point: Stack outlet	
Height Above Ground Level: ~40'	Height Relative To Observer: ~35'
Distance from Observer: ~150'	Direction from Observer: E
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐ BLK	Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐
Water droplets present: No ☒ Yes ☐	IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒
Point in the plume at which opacity was observed: NA ☒	
Describe Plume Background: Start: SKY/Bldg	Stop: " "
Background Color: Grey	Sky Conditions: OVC
Wind Speed: (mph) 0-6	Wind Direction: SW
Ambient Temp: (°F) 59	Dew Point (°F)	RH % 84
Barometric Pressure (inches) 29.90	Wet bulb temp (°F) (calculated) 50

Observation Date: 9/27/18 | Start Time: 0816 | End Time: 0896

Min ↓ / Sec →	0	15	30	45	Min ↓ / Sec →	0	15	30	45
1	0	0	0	3	31				
2	0	[illegible]	0	3	32				
3	1	1	2	1	33				
4	1/2	1/4	1/4	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Source Layout Sketch



Observers Name: (Print) Regan Best

Observers Signature: [signature] Date: 9/27/16

Organization: Best Environmental 339 Stealth Ct. Livermore, CA 94551

Certified By: CARB - ID# 4765 expires 10/5/18 Date: 7/4/18

Average Opacity for Highest Period 10.0 avg 2.0 | Number of readings above 10 % were 0

Range of Opacity Readings Minimum: 0 Maximum: 3

CONTINUED ON VEO Form Number #_____ of_____ or NA ☒

Additional Information:

Source horizontal duct in stack
~~1250~~ 483 KW 1250KW

A-6

Visible Emission Observation Form

1 of 1

COMPANY NAME: SFO

OBSERVATION DATE: 10-10-18

START TIME: 0906

END TIME: 0936

Street Address:

City: SF | State: CA | Zip: 94128

Phone: (650) 821-772[illegible] | Source ID Number: S-370

Process Equipment: T-2, Comm Center | Operating Mode: Normal ☒ Other ☐

Control Equipment: | Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: STACK OUTLET

Height Above Ground Level: 30 | Height Relative To Observer: 3

Distance from Observer: W 50 | Direction from Observer: SW

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK | Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☐ Intermittent ☐

Water droplets present: No ☒ Yes ☐ | IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒

Point in the plume at which opacity was observed: NA ☒

Describe Plume Background: Start: SKY Stop: SKY

Background Color: Blue | Sky Conditions: SKY

Wind Speed: (mph) 5-10 | Wind Direction: NE

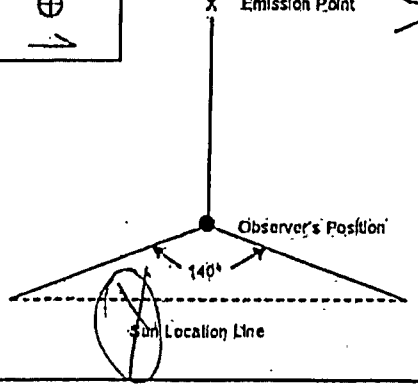
Ambient Temp: (°F) 56 | Dew Point (°F) | RH % 70

Barometric Pressure (Inches) 29.8 | Wet bulb temp (°F) (calculated) 51

Sec→ Min↓	0	15	30	45	Sec→ Min↓	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	1/4	0	0	0	37				
8	0	0	0	1/4	38				
9	1/4	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	1/4	0	0	46				
17	1/2	0	0	1/4	47				
18	1/4	0	1/2	1/4	48				
19	0	0	0	0	49				
20	1/4	0	1/4	1/4	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	1/4	0	0	0	53				
24	0	0	0	0	54				
25	0	1/4	0	0	55				
26	0	0	0	0	56				
27	0	0	1/2	1/2	57				
28	0	0	1/4	0	58				
29	0	1/4	0	0	59				
30	0	0	0	0	60				

Stack with Plume | Sun | Wind

Source Layout Sketch | North Arrow



Observers Name: (Print) JESSICA DATZ

Observers Signature: [signature] Date:

Organization: BEST ENVIRONMENTAL 339 Stealth Ct Livermore, CA 94551

Certified By: CARB - ID# [illegible] expires 12-4-19 Date: 10-4-18

Average Opacity for Highest Period: 1/2 | Number of readings above 5 were: 0

Range of Opacity Readings Minimum: 0 Maximum: 1/2

CONTINUED ON VEO Form Number #____ of ____ or NA ☐

Additional Information:

DIR SW

Visible Emission Observation Form

____ of ____

COMPANY NAME: SFO

Street Address:

City: SF | State: CA | Zip: 94128

Phone: (650) 821-7730 | Source ID Number: S-390

Process Equipment: North Parking Garage G | Operating Mode: Normal ☑ Other ☐

Control Equipment: ——— | Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: Stack Outlet

Height Above Ground Level: | Height Relative To Observer:

Distance from Observer: | Direction from Observer: S

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK | Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☑ Intermittent ☐

Water droplets present: No ☑ Yes ☐ | IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☑

Point in the plume at which opacity was observed: NA ☐

Describe Plume Background: Start: SKY Stop: SKY

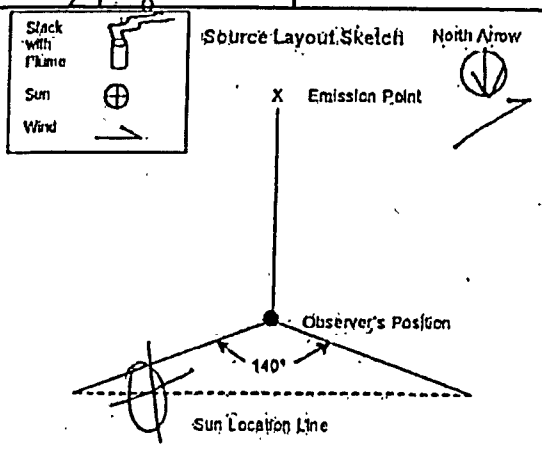
Background Color: Blue | Sky Conditions: : CLR

Wind Speed: (mph) 0-10 | Wind Direction: NE

Ambient Temp: (°F): | Dew Point (°F): | RH %: 70

Barometric Pressure (inches): 29.8 | Wet bulb temp (°F) (calculated):

Source Layout Sketch



OBSERVATION DATE: 10-10-18 | START TIME: 1353 | END TIME: 1423

Sec→ / Min ↓	0	15	30	45	Sec→ / Min ↓	0	15	30	45
1	1/2	1/2	1/2	1/2	31				
2	1/2	1/2	1/2	1/2	32				
3	1/4	1/4	1/4	1/2	33				
4	1/2	1/4	1/4	1/4	34				
5	1/4	1/4	1/4	1/4	35				
6	1/4	1/4	1/4	1/4	36				
7	1/4	1/4	3/4	3/4	37				
8	1/4	1/4	1/4	1/4	38				
9	1/4	1/4	1/4	1/4	39				
10	1/4	1/4	1/2	1/2	40				
11	1/4	1/4	1/4	1/4	41				
12	1/4	1/4	1/4	1/4	42				
13	1/4	1/4	1/4	1/4	43				
14	1/4	1/4	1/4	1/4	44				
15	1/2	1/2	1/2	3/4	45				
16	1/4	1/4	1/4	1/4	46				
17	1/4	1/4	1/4	1/4	47				
18	1/4	1/4	1/4	1/4	48				
19	1/4	1/4	1/4	1/4	49				
20	1/4	1/2	1/2	1	50				
21	1	1/2	1/4	1/4	51				
22	0	0	0	0	52				
23	0	0	1/4	1/4	53				
24	0	0	0	0	54				
25	0	0	0	1/4	55				
26	1/4	1/4	1/4	1/4	56				
27	0	0	0	0	57				
28	0	0	0	1/4	58				
29	1/4	1/4	1/4	1/4	59				
30	0	0	0	0	60				

Observers Name: (Print) JESSICA ORTIZ

Observers Signature: | Date:

Organization: RSI Environmental

339 Spahn Ct Livermore CA 94551

Certified By: CARB - ID# 63789 expires 7-4-18 | Date: 10-9-18

Average Opacity for Highest Period: < 1/2 | Number of readings above: 1 were 0

Range of Opacity Readings Minimum: 0 Maximum: 1

CONTINUED ON VEO Form Number #____ of ____ or NA ☐

Additional Information:

A-8

Visible Emission Observation Form

SFO

City	State	Zip
SF	CA	94128

Phone	Source ID Number
(650 821-7730	S-4220

Process Equipment	Operating Mode
RAD B/A F	Normal ☐ Other ☐

Control Equipment	Operating Mode
—	Normal ☐ Other ☐

Describe Emissions Point: Stack outlet

Height Above Ground Level	Height Relative To Observer
~100'	~3

Distance from Observer	Direction from Observer
~25	NW

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐	Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐
BLK	

Water droplets present:	IF Water Droplet Plume:
No ☒ Yes ☐	Attached ☐ Detached ☐ NA ☒

Point in the plume at which opacity was observed: NA

Describe Plume Background:
Start: SKY Stop: "

Background Color:	Sky Conditions: :
Blue/white	SCT

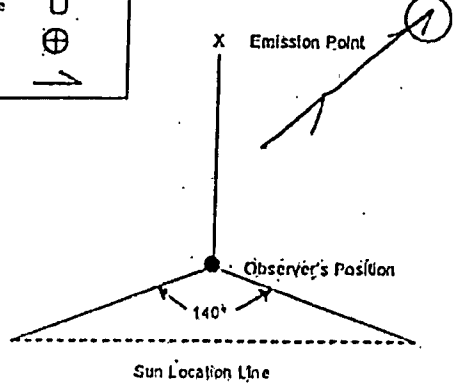
Wind Speed: (mph)	Wind Direction:
15-25	SOUTH

Ambient Temp: (°F)	Dew Point (°F)	RH %

Barometric Pressure (inches)	Wet bulb temp (°F) (~~calculated~~)
29.80	

Stack with Plume
Sun
Wind

Source Layout Sketch North Arrow



9/28/18	1324	1356

Sec → / Min ↓	0	15	30	45	Sec → / Min ↓	0	15	30	45
1	0	4	1	1	31				
2	1	30	34	34	32				
3	30	34	2	1	33				
4	1	1	1	1	34				
5	1	1	15	1	35				
6	1	1	34	34	36				
7	34	34	34	34	37				
8	34	34	34	34	38				
9	34	34	34	34	39				
10	34	34	34	34	40				
11	34	34	34	34	41				
12	34	34	34	34	42				
13	34	34	34	34	43				
14	34	34	34	34	44				
15	34	34	34	34	45				
16	34	34	34	34	46				
17	34	34	34	34	47				
18	34	34	34	34	48				
19	34	34	34	34	49				
20	34	34	34	34	50				
21	34	34	34	34	51				
22	34	34	34	34	52				
23	34	34	34	34	53				
24	34	34	34	34	54				
25	34	34	34	34	55				
26	34	34	34	34	56				
27	34	34	34	34	57				
28	34	34	34	34	58				
29	34	34	34	34	59				
30	34	34	34	34	60				

Observers Name: (Print) Regan Best

Observers Signature: Regan Best Date: 9/28/18

Organization: BCST-Environmental

339 Strath Ct. Livermore, CA 94551

Certified By: CARB - ID# 4865 expires 10/5/18 Date: 4/4/18

Average Opacity for Highest Period 21.5 am 1333 | Number of readings above 10 % were 123

Range of Opacity Readings Minimum: 0 Maximum: 4

CONTINUED ON VEO Form Number #____ of ____ or NA ☐

Additional Information: 200kW 400kW

A-9

Visible Emission Observation Form

Name: SPO

Date: 9/24/18 Time: 1254

Street Address:

City: SF State: CA Zip: 94128

Phone: 650 821-7730 Source ID Number: S-410

Process Equipment: Lot (? DoD

Operating Mode: Normal ☐ Other ☐

Control Equipment: —

Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: Stack Outlet

Height Above Ground Level: ~8' Height Relative To Observer: ~3'

Distance from Observer: ~50' Direction from Observer: NE

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK

Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ [✓ NA] Intermittent ☐

Water droplets present: [✓ No] Yes ☐

IF Water Droplet Plume: Attached ☐ Detached ☐ [✓ NA]

Point in the plume at which opacity was observed: [✓ NA]

Describe Plume Background: Start: [illegible] Wall Stop: ″

Background Color: Grey Sky Conditions: Clr [illegible]

Wind Speed: (mph) 0-3 Wind Direction: SE

Ambient Temp: (°F) 65 Dew Point (°F) RH % 74

Barometric Pressure (inches) 29.80 Wet bulb temp (°F) (calculated) 60

Sec→ / Min↓	0	15	30	45	Sec→ / Min↓	0	15	30	45
1	0	0	2	0	31				
2	0	0	0	0	32				
3	½	1½	1½	2	33				
4	1	1	1	1½	34				
5	½	½	½	½	35				
6	¼	¼	½	¼	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21					51				
22					52				
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25					55				
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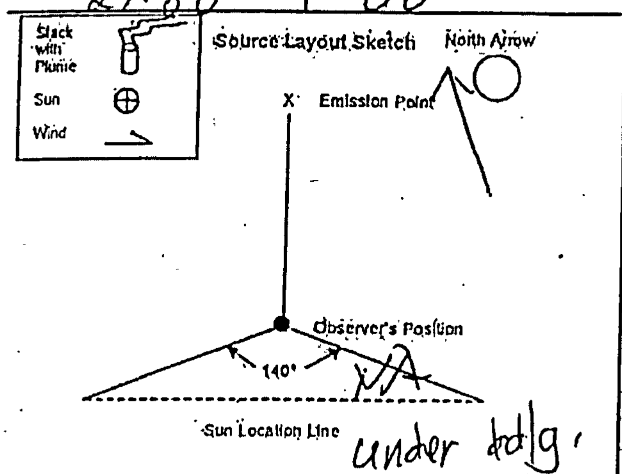
30					60				



Observers Name: (Print) Regan Best

Observers Signature: [illegible] Date: 9/24/18

Organization: Best Environmental

339 Stealth Ct. Livermore, CA 94551

Certified By: CARB - ID# 14865 expires 10/5/18 Date: 4/9/18

Average Opacity for Highest Period 11.9 avg 2.4

Number of readings above 10 % were 8

Range of Opacity Readings Minimum: 0 Maximum: 2

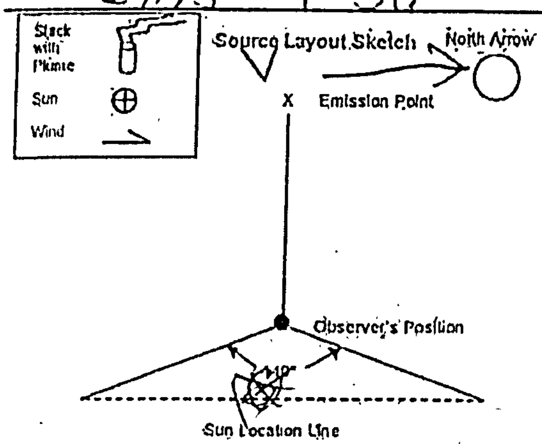
CONTINUED ON VEO Form Number #____ of ____ or [✓ NA]

Additional Information:

Visible Emission Observation Form 1000 ~~[illegible]~~ # 1 of 1

SFO	Date: 9/27/18
Street Address	Start Time: ~~[illegible]~~ End Time: 1030
City: SF	State: CA	Zip: 94128
Phone: 650 821-7730	Source ID Number: S-440
Process Equipment: S1	Operating Mode: Normal ☐ Other ☐
Control Equipment:	Operating Mode: Normal ☐ Other ☐
Describe Emissions Point: Stack outlet	
Height Above Ground Level: ~150	Height Relative To Observer: ~5'
Distance from Observer: ~50'	Direction from Observer: W
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐ BLK	Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐
Water droplets present: No ☒ Yes ☐	IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒
Point in the plume at which opacity was observed: NA ☐	
Describe Plume Background: Start: SKY	Stop: " "
Background Color: Grey	Sky Conditions: BKN
Wind Speed: (mph) 0-5	Wind Direction: SW
Ambient Temp: (°F) 58	Dew Point (°F)	RH % 89
Barometric Pressure (inches) 29.75	Wet bulb temp (°F) (~~calculated~~) 50

Sec→ Min↓	0	15	30	45	Sec→ Min↓	0	15	30	45
1	0	0	2	1	31				
2	2 1/2	3	2 1/2	1 1/2	32				
3	1	3/4	1/2	1/2	33				
4	1/4	1/4	1/4	0	34				
5	1/4	1/4	1/4	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	1/4	1/4	1/4	1/4	54				
25	1/4	1/2	1/2	1/4	55				
26	1/4	1/4	1/4	1/2	56				
27	1/2	1/4	1/4	1/4	57				
28	1/2	1/2	1/2	1/2	58				
29	1/2	1/2	1/2	1/2	59				
30	1/4	1/4	1/4	1/4	60				



Observers Name: (Print) Regan Best

Observers Signature: [signature] Date: 9/27/18

Organization: Best Environmental
339 Stealth Ct. Livermore, CA 9455

Certified By: CARB - ID# 4865 expires 10/5/19 Date: 4/4/19

Average Opacity for Highest Period 1.81. overall .45% | Number of readings above 10 % were 8.

Range of Opacity Readings Minimum: 0 Maximum: 3

CONTINUED ON VEO Form Number #____ of ____ or NA ☒

Additional Information: 750K 1500 K/hr

A-11

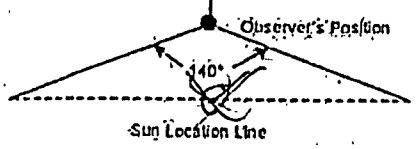
Visible Emission Observation Form

Facility Name: SFO	Date: 9/27/18	Start Time: 0916	Page No: 0944 2
Street Address:			
City: SF	State: CA	Zip: 94128	
Phone: 650 821-7730	Source ID Number: S-450		
Process Equipment: S2	Operating Mode: Normal ☐ Other ☐		
Control Equipment: —	Operating Mode: Normal ☐ Other ☐		
Describe Emissions Point: STACK OUTlet			
Height Above Ground Level: ~150'	Height Relative To Observer: ~5'		
Distance from Observer: ~50'	Direction from Observer: W		
Describe Emissions: N/A - None present ☐			
Emission Color: NA ☐ BLK	Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐		
Water droplets present: No ☒ Yes ☐	IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒		
Point in the plume at which opacity was observed: NA ☒			
Describe Plume Background: Start: SKY Stop: 11 11			
Background Color: Grey	Sky Conditions: BKN		
Wind Speed: (mph) 0-5	Wind Direction: SW		
Ambient Temp: (°F) 58	Dew Point (°F)	RH % 89	
Barometric Pressure (inches) ~~29.75~~ 29.80	Wet bulb temp (°F) (~~calculated~~) 56		

Sec→ / Min↓	0	15	30	45	Sec→ / Min↓	0	15	30	45
1	3	2	1	1	31				
2	1	2½	2½	2½	32				
3	2	1	½	½	33				
4	½	½	½	¼	34				
5	¼	¼	¼	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	¼	¼	¼	¼	54				
25	¼	¼	¼	¼	55				
26	¼	¼	¼	¼	56				
27	¼				57				
28					58				
29					59				
30					60				

Stack with Plume ↑ Sun ⊕ Wind →

Source Layout Sketch — North Arrow: V — Emission Point: X



Observers Name: (Print) Regan Best

Observers Signature: Regan Best — Date: 9/27/18

Organization: Best Environmental

339 Stealth Ct. Livermore, CA 94551

Certified By: CARB - ID# 486 expires 12/31/18 Date: 9/14/18

Average Opacity for Highest Period 18.3 avg 4.3 — Number of readings above 10 % were 10.

Range of Opacity Readings Minimum: 0 Maximum: 3

CONTINUED ON VEO Form Number #____ of ____ or NA ☒

Additional Information: 1125 kW — 1500 kW

Tech shut down three minutes early.

Visible Emission Observation Form

Field	Entry
Company Name	SFO
City	SF
State	CA
Zip	94128
Phone	650-821-7730
Source ID Number	S-470
Process Equipment	W.Q.C.P. #1
Operating Mode	Normal ☐ Other ☒ 350kW
Control Equipment	—
Operating Mode	Normal ☐ Other ☐
Describe Emissions Point	stack outlet
Height Above Ground Level	~20'
Height Relative To Observer	~15'
Distance from Observer	~50
Direction from Observer	NW
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐	BLK
Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐	
Water droplets present: No ☒ Yes ☐	
IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒	
Point in the plume at which opacity was observed: NA ☒	
Describe Plume Background: Start:	SKY
Stop:	"
Background Color	Blue
Sky Conditions	Clr
Wind Speed (mph)	0-3
Wind Direction	X
Ambient Temp (°F)	59
Dew Point (°F)	
RH %	78
Barometric Pressure (inches)	29.80
Wet bulb temp (°F) (calculated)	55

Observation Date: 9/24/18 Start Time: 0915 End Time: 0945

Sec → / Min ↓	0	15	30	45	Sec → / Min ↓	0	15	30	45
1	0	2	3/4	3/4	31				
2	1	1 1/2	3	1	32				
3	3	2 1/2	2	1 1/4	33				
4	1	3/4	1	1 1/2	34				
5	2	2	1	1	35				
6	1	1	1	1	36				
7	1	1	1	3/4	37				
8	3/4	3/4	3/4	3/4	38				
9	3/4	1/2	1/2	1/2	39				
10	1/2	1/2	1/2	1/2	40				
11	1/2	1/2	1/2	1/2	41				
12	1/2	1/2	1/2	1/2	42				
13	1/2	1/2	1/2	1/2	43				
14	1/2	1/2	1/2	1/2	44				
15	1/2	1/2	1/2	1/2	45				
16	1/2	1/2	1/2	1/2	46				
17	1/2	1/2	1/2	1/2	47				
18	1/2	1/2	1/2	1/2	48				
19	1/2	1/2	1/2	1/2	49				
20	1/2	1/2	1/2	1/2	50				
21	1/2	1/2	1/2	1/2	51				
22	1/2	1/2	1/2	1/2	52				
23	1/2	1/2	1/2	1/2	53				
24	1/2	1/2	1/2	1/2	54				
25	1/2	1/2	1/2	1/2	55				
26	1/2	1/2	1/2	1/2	56				
27	1/2	1/2	1/2	1/2	57				
28	1/2	1/2	1/2	1/2	58				
29	1/2	1/2	1/2	1/2	59				
30	1/2	1/2	1/2	1/2	60				

Observers Name: (Print) Regan Best

Observers Signature: [signature] Date: 9/24/18

Organization: Best Environmental
339 Stealth Ct. Livermore CA 94551

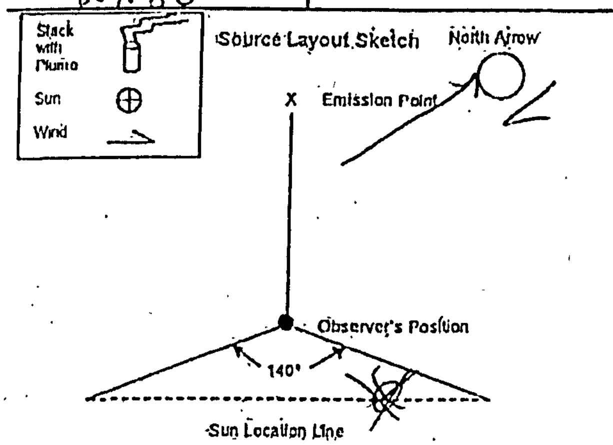
Certified By: CARB - ID# 14865 expires 10/15/18 Date: 4/4/18

Average Opacity for Highest Period: 23.3 avg 13.3 — Number of readings above 10 % were 4.32

Range of Opacity Readings Minimum: 1/2 Maximum: 3

CONTINUED ON VEO Form Number # ____ of ____ or NA ☐

Additional Information: 350kW load 400kW



Visible Emission Observation Form

1 of 1

COMPANY NAME: SFO

OBSERVATION DATE: 10-10-18

START TIME: 1019

END TIME: 1049

Street Address: (501821-7730)

City: SF | State: CA | Zip: 94128

Phone: | Source ID Number: S-530

Process Equipment: ERF #1 | Operating Mode: Normal ☐ Other ☐

Control Equipment: | Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: Stack outlet

Height Above Ground Level: N7 | Height Relative To Observer: N2

Distance from Observer: N25 | Direction from Observer: NW

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK | Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☑ Intermittent ☐

Water droplets present: No ☑ Yes ☐ | If Water Droplet Plume: Attached ☐ Detached ☐ NA ☑

Point in the plume at which opacity was observed: NA ☐

Describe Plume Background: Start: SKY Stop: SKY

Background Color: Blue | Sky Conditions: BKN

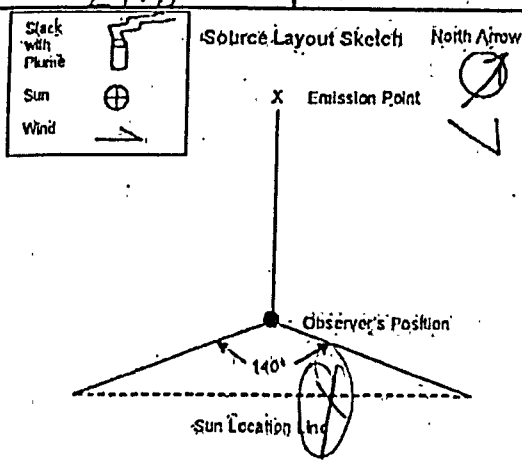
Wind Speed: (mph) 5-10 | Wind Direction: NE

Ambient Temp: (°F) 62 | Dew Point (°F) | RH % 70

Barometric Pressure (inches) 29.8 | Wet bulb temp (°F) (calculated)

Sec→ / Min↓	0	15	30	45	Sec→ / Min↓	0	15	30	45
1	1/4	0	0	0	31				
2	1/4	1/4	1/4	1/4	32				
3	0	0	0	0	33				
4	1/4	0	0	0	34				
5	0	0	0	0	35				
6	0	1/4	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	1/2	1/4	1/4	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	1/4	0	50				
21	0	0	0	0	51				
22	1/4	1/4	1/4	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Source Layout Sketch



Observers Name: (Print) Jessica Uttz

Observers Signature: Jessica Uttz | Date:

Organization: BAY Environmental

334 Stanley Ct Livermore CA 94551

Certified By: CARB - ID# 6378 | expires 4-4-18 | Date: 10-4-18

Average Opacity for Highest Period: <1/2 | Number of readings above ___ were 0

Range of Opacity Readings Minimum: 0 Maximum: 1/2

CONTINUED ON VEO Form Number #____ of ____ or NA ☐

Additional Information:

A-14

Visible Emission Observation Form

0840 # 1 of 1

Company Name	SFO
Observation Date	9/26/18
Start Time	0840
End Time	0910
Street Address	
City	SF
State	CA
Zip	94128
Phone	650 821-7730
Source ID Number	S-540
Process Equipment	Fire House # 2 EGF
Operating Mode	Normal ☐ Other ☐ 75 kW
Control Equipment	—
Operating Mode	Normal ☐ Other ☐
Describe Emissions Point	Outlet
Height Above Ground Level	~ 6'
Height Relative To Observer	~ 3'
Distance from Observer	~ 60'
Direction from Observer	N
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐	Blk
Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐	
Water droplets present: No ☒ Yes ☐	
IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒	
Point in the plume at which opacity was observed: NA ☒	
Describe Plume Background: Start:	Bldg
Stop:	" "
Background Color	Gray Tan
Sky Conditions	Clr-Few
Wind Speed: (mph)	~~10-20~~
Wind Direction	~~SW~~
Ambient Temp: (°F)	57
Dew Point (°F)	
RH %	79
Barometric Pressure (inches)	29.98
Wet bulb temp (°F) (calculated)	55

Sec→ / Min↓	0	15	30	45	Sec→ / Min↓	0	15	30	45
1	0	0	0	0	31				
2	0	4	1	1	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Observers Name: (Print) Regan Best

Observers Signature: [signature] Date: 9/26/18

Organization: Best Environmental

Certified By: CARB - ID# 1985 expires 10/3/19 Date:

Average Opacity for Highest Period 5.0 avg 1.0 %

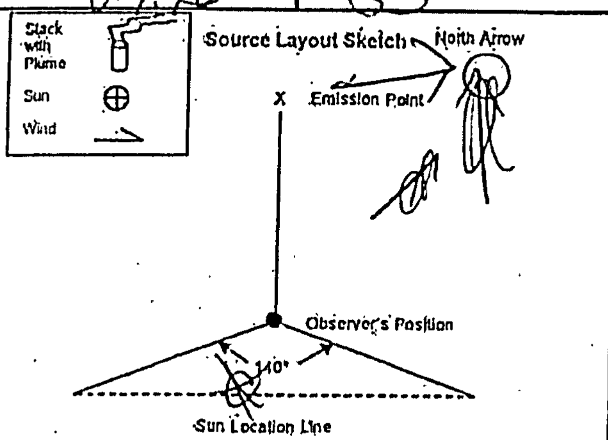
Number of readings above 10 % were 3

Range of Opacity Readings Minimum: 0 Maximum: 4

CONTINUED ON VEO Form Number # ____ of ____ or NA ☒

Additional Information: 75 kW 81 kW

Source Layout Sketch



A-15

Visible Emission Observation Form

____ of ____

COMPANY NAME: SFO

OBSERVATION DATE: 10-16-18

START TIME: 1254

END TIME: 1329

Street Address:

City: SF | State: CA | Zip: 94128

Phone: (650) 821-7730 | Source ID Number: S-550

Process Equipment: ERF #3 | Operating Mode: Normal ☐ Other ☐

Control Equipment: ____ | Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: Stack Outlet

Height Above Ground Level: ~12 | Height Relative To Observer: ~7

Distance from Observer: ~45 | Direction from Observer: NW

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK | Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☐ Intermittent ☐

Water droplets present: No ☐ Yes ☐ | IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☐

Point in the plume at which opacity was observed: NA ☐

Describe Plume Background: Start: SKY Stop: SKY

Background Color: BLUE | Sky Conditions: : CLR

Wind Speed: (mph): 0-10 | Wind Direction: NE

Ambient Temp: (°F): 65 | Dew Point (°F): | RH %: 70

Barometric Pressure (inches): 29.8 | Wet bulb temp (°F) (calculated):

Sec→ / Min↓	0	15	30	45	Sec→ / Min↓	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	3/4	3/4	0	0	37				
8	0	0	1/4	1/4	38				
9	3/4	0	0	3/4	39				
10	1/4	0	0	0	40				
11	0	0	0	0	41				
12	0	0	1/4	1/4	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Observers Name: (Print): JESSICA ORTIZ

Observers Signature: [signature] Date:

Organization: BEST ENVIRONMENTAL

339 SOUTH ST. LIVERMORE CA 94551

Certified By: CARB - ID# 3789 expires 4-4-18 Date: 10-4-18

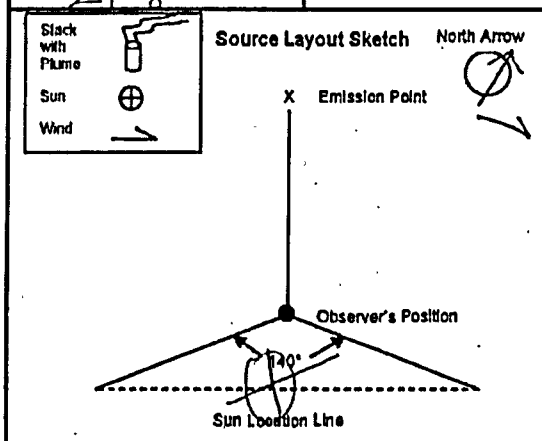
Average Opacity for Highest Period: 3/4 | Number of readings above ___ were 8

Range of Opacity Readings Minimum: 0 Maximum: 3/4

CONTINUED ON VEO Form Number #____ of ____ or NA ☐

Additional Information:

Source Layout Sketch



Visible Emissions Observation Form

Source Name: SFO

Street Address:

City	State	Zip
SF	CA	94128

Phone	Source ID Number
650 821-7730	S-650

Process Equipment: Concourse 'H'
Operating Mode: Normal ☐ Other ☒ 500 kW

Control Equipment:
Operating Mode: Normal ☐ Other ☐

Describe Emissions Point: Stack outlet

Height Above Ground Level	Height Relative To Observer
~100	~100

Distance from Observer	Direction from Observer
~100'	NE

Describe Emissions: N/A - None present ☐

Emission Color: NA ☐ BLK

Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐

Water droplets present: No ☒ Yes ☐

IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒

Point in the plume at which opacity was observed: NA ☒

Describe Plume Background: Start: Sky Stop: "

Background Color	Sky Conditions
Blue	Clr

Wind Speed: (mph)	Wind Direction
5-15	N

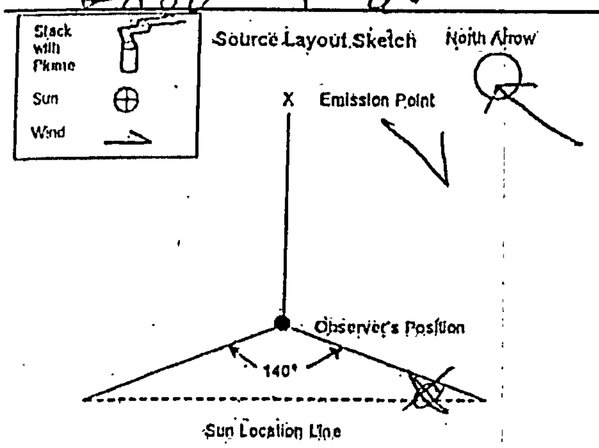
Ambient Temp: (°F)	Dew Point (°F)	RH %
73	6	57

Barometric Pressure (inches)	Wet bulb temp (°F) (calculated)
29.80	61

Observation Date: 9/24/18 Start Time: 1355 End Time: 1425

Sec→ Min↓	0	15	30	45	Sec→ Min↓	0	15	30	45
1	0	0	0	0	31				
2	1	1	1	1	32				
3	1/2	1/2	1/2	1/2	33				
4	1/2	1/2	1/4	1/4	34				
5	1/4	1/4	1/4	1/4	35				
6	1/4	1/4	1/4	0	36				
7	1/4	1/4	1/4	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Source Layout Sketch



Observers Name: (Print) Regan Best

Observers Signature: Regan Best Date: 9/24/18

Organization: Best Environmental
339 Stealth Ct. Livermore, CA 94551

Certified By: CARB - ID# 14865 expires ______ Date: ______

Average Opacity for Highest Period: 1.9 avg 1.7

Number of readings above 20 % were 4

Range of Opacity Readings Minimum: 0 Maximum: 1

CONTINUED ON VEO Form Number #____ of ____ or NA ☒

Additional Information:
Dual stacks
~500 kW
1180

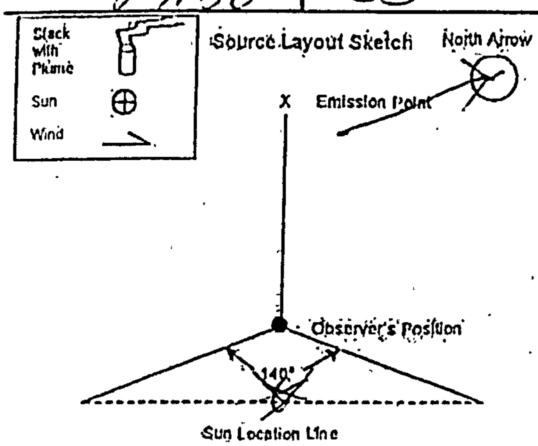
[illegible] Observation Form — Page 1 of 1

Source Name	SFO
Street Address	
City	SF
State	CA
Zip	94128
Phone	650 821-7730
Source ID Number	S-660
Process Equipment	W. Q. C. P. #2
Operating Mode	Normal ☐ Other ☐ ~80%
Control Equipment:	—
Operating Mode	Normal ☐ Other ☐
Describe Emissions Point:	stack outlet
Height Above Ground Level	~25'
Height Relative To Observer	~20'
Distance from Observer	~100'
Direction from Observer	W
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐	BLK
Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐	
Water droplets present: No ☒ Yes ☐	
IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒	
Point in the plume at which opacity was observed: NA ☒	
Describe Plume Background: Start:	SKY
Stop:	" "
Background Color:	Blue
Sky Conditions:	Clr
Wind Speed: (mph)	—
Wind Direction:	—
Ambient Temp: (°F)	59
Dew Point (°F)	
RH %	78
Barometric Pressure (inches)	29.80
Wet bulb temp (°F) ~~(calculated)~~	55

Date: 9/24/18 — Start Time: 0833 — End Time: 0903

Min ↓ / Sec →	0	15	30	45	Min ↓ / Sec →	0	15	30	45
1	0	0	5	0	31				
2	0	0	0	0	32				
3	0	0	1	1/4	33				
4	1/2	1/2	1/2	1/2	34				
5	1/4	1/4	1/4	1/4	35				
6	1/4	1/4	1/4	1/4	36				
7	1/4	1/4	1/4	1/4	37				
8	1/4	1/4	1/4	1/4	38				
9	1/4	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Source Layout Sketch



Observers Name: (Print)	Regan Best
Observers Signature:	[signature]
Date:	9/24/18
Organization:	Best Environmental
	339 Stealth Ct. Livermore CA 94551
Certified By: CARB - ID# 14865 expires 10/5/19	Date: 9/4/19
Average Opacity for Highest Period	9.10 avg. 2.2
Number of readings above 10 % were	3
Range of Opacity Readings Minimum:	0
Maximum:	5
CONTINUED ON VEO Form Number #____ of____ or NA ☒	
Additional Information:	80% load 1825 kw rated

Visible Emission Observation Form

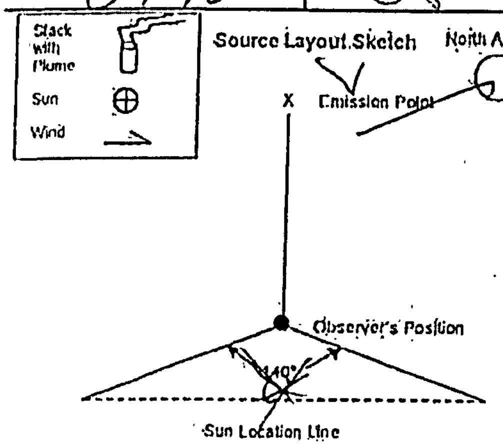
1 of 1

Street Address	SFO
City	SF
State	CA
Zip	94128
Phone	650 821-7730
Source ID Number	S-1
Process Equipment	EGEN Data 1A
Operating Mode	Normal ☐ Other ☐
Control Equipment	—
Operating Mode	Normal ☐ Other ☐
Describe Emissions Point	Stack outlet
Height Above Ground Level	~12'
Height Relative To Observer	~8'
Distance from Observer	~70'
Direction from Observer	W
Describe Emissions: N/A - None present ☐	
Emission Color: NA ☐	BLK
Plume Type: Continuous ☐ Fugitive ☐ Attached ☐ Detached ☐ NA ☒ Intermittent ☐	
Water droplets present: No ☒ Yes ☐	
IF Water Droplet Plume: Attached ☐ Detached ☐ NA ☒	
Point in the plume at which opacity was observed: NA ☒	
Describe Plume Background: Start:	Sky overcast
Stop:	" "
Background Color:	Grey
Sky Conditions:	C/r
Wind Speed: (mph)	0-8
Wind Direction:	SW
Ambient Temp: (°F)	63
Dew Point (°F)	
RH %	74
Barometric Pressure (inches)	29.90
Wet bulb temp (°F) (calculated)	58

Date: 9/25/18 Start Time: 1002 End Time: 1032

Sec→ Min↓	0	15	30	45	Sec→ Min↓	0	15	30	45
1	1 1/2	2	2	1 3/4	31				
2	1 3/4	1 1/2	1 3/4	1 3/4	32				
3	1 1/2	1 1/2	1 1/2	1 1/2	33				
4	1 1/2	1 1/2	1 1/2	1	34				
5	1	1	1	1	35				
6	1	1	1	1	36				
7	1	3/4	3/4	3/4	37				
8	3/4	3/4	3/4	3/4	38				
9	3/4	3/4	3/4	3/4	39				
10	1/2	1/2	1/2	1/2	40				
11	1/2	1/2	1/2	1/2	41				
12	1/2	1/2	1/4	1/4	42				
13	1/4	1/4	1/4	1/4	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

B reading
3A 1/4
3A 0



Observers Name: (Print)	Regan Best
Observers Signature:	Regan Best
Date:	9/25/18
Organization:	Best Environmental
	339 Stealth Ct. Livermore, CA 94551
Certified By: CARB - ID# 14865 expires 10/5/18	Date: 9/4/18
Average Opacity for Highest Period	28.3 avg. 8.3
Number of readings above 10 % were	36
Range of Opacity Readings Minimum:	0
Maximum:	2

CONTINUED ON VEO Form Number # ____ of ____ or NA ☒

Additional Information:

478 kW 1000 kW

CALIFORNIA
AIR RESOURCES BOARD

Air Quality Training Program

Awards This Certificate To

Regan Best

For Completion of

MM106 - Visible Emissions Evaluation: Day Certification

In
San Mateo

On
Thursday, April 05, 2018

Certification Expires Six Months From Certification Date.

Dr. Todd P. Sax, Chief
Enforcement Division

CALIFORNIA
AIR RESOURCES BOARD

Air Quality Training Program

Awards This Certificate To

Jessica Ortiz

For Completion Of

MM106 - Visible Emissions Evaluation: Day Certification

In
San Mateo

On
Thursday, October 4, 2018

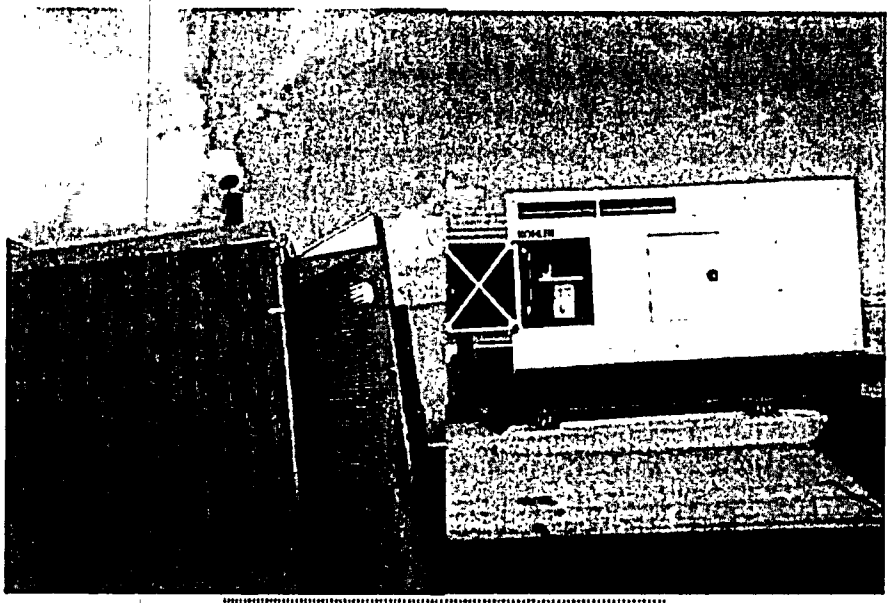
This certificate expires six months after the evaluation completion date.

Dr. Todd P. Sax, Chief
Enforcement Division

B-3

San Francisco I'ntl Airport

San Francisco, CA



ATTACHMENT 4

List and Compliance Status of the New Sources not included in Tables IV and VII of the Title V permit

Source No.	Description	Conditions	April 1, 2019 through September 30, 2019 Compliance Status
730	BAE A: Emergency Standby Generator	22850	CC
740	Bldg. 632: Emergency Standby Generator	22850	CC
750	BAE B: Emergency Standby Generator	22850	CC
1001	60 S McDonnell Emergency Standby Generator	22834	CC
1002	60 S McDonnell Emergency Standby Generator	22834	CC
1003	60 S McDonnell Emergency Standby Generator	22834	CC
1004	60 S McDonnell Emergency Standby Generator	22834	CC
1010	1057 N access Rd Emergency Standby Generator	22850	CC
1019	Long Term Parking Garage No. 2 Emergency Standby Generator	22850	CC
1023	Terminal 1C Emergency Standby Generator	22850	CC
1025	Firehouse #3 Emergency Standby Generator	22850	CC
1027	Terminal 1 BAB, G1 Emergency Standby Generator	22850	CC
1028	Terminal 1 BAB, G2 Emergency Standby Generator	22850	CC