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July 29, 2022

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Subject: 2022 Q2 Compliance Report
April 1, 2022 through June 30, 2022
Malburg Generating Station (01-AFC-25C)

Dr. Ali,

Attached please find the Quarterly Compliance Report for the Malburg Generating Station (01-AFC-25C), covering the operational period of April 1, 2022 through June 30, 2022. This report addresses all quarterly requirements identified in the Final Commission Decision for the Malburg Generating Station (TN #28746), as most recently amended on June 20, 2019 by the Errata to Staff Analysis of Petition to Amend the Final Commission Decision (TN #228444).

If you have any questions or need more information, please contact Matt Richards, Utilities Operations Manager, at MRichards@cityofvernon.org or (323) 583-8811 x378.

Sincerely,

Rich Olsen
Assistant General Manager of Generation & Operations
City of Vernon, Public Utilities Department

Enclosure: MGS 2022 Q2 Compliance Report

Malburg Generating Station Quarterly Compliance Report (Second Quarter 2022)

Submitted to
California Energy Commission

Submitted by
City of Vernon, Public Utilities Department

July 29, 2022

Document no: PPS0429221225SJC
Revision no: 0

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Appendices

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Acronyms and Abbreviations

CEC	California Energy Commission
CEMS	continuous emissions monitoring system
CO	carbon monoxide
COC	Conditions of Certification
CTG	combustion turbine generator
DAHS	data acquisition and handling system
gr/scf	grains per standard cubic foot
HRSG	heat recovery steam generator
lb/day	pounds per day
lb/hr	pounds per hour
MGS	Malburg Generating Station
NH_3	ammonia
NOx	nitrogen oxides
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
ppm	parts per million
ppmv	parts per million by volume
ppmw	parts per million by weight
QCR	Quarterly Compliance Report
SCAQMD	South Coast Air Quality Management District
SOx	sulfur oxides
STG	steam turbine generator
TDS	total dissolved solids
VOC	volatile organic compound

1. Introduction

This Quarterly Compliance Report (QCR) has been prepared to meet the California Energy Commission's (CEC) quarterly reporting requirements for the Malburg Generating Station (MGS). This QCR fulfills various Conditions of Certification (COC) described in the CEC's Final Commission Decision for the MGS (TN #28746), as most recently amended on June 20, 2019 by the Errata to Staff Analysis of Petition to Amend the Final Commission Decision (TN #228444).

1.1 Project Location and Description

The MGS is located at 4963 S Soto Street in Vernon, California. The property is approximately 3.4 acres in size, located in an industrial land use area near the geographic center of metropolitan Los Angeles County. MGS consists of two Siemens SGT-800 frame type natural gas combustion turbine generators (CTGs), two associated natural gas combustion duct burners, two heat recovery steam generators (HRSGs), a steam turbine generator (STG), a cooling tower, a diesel-fired emergency firewater pump, and support equipment.

The commissioning of MGS was completed in October 2005 and the power plant began commercial operation on October 17, 2005.

1.2 Organization of the Quarterly Compliance Report

A summary of the compliance demonstration for each applicable COC is provided in Section 2 and includes references to Appendices and Tables as appropriate.

2. Required Quarterly Compliance Report Documentation

COC requirements associated with this QCR are summarized in the table below.

Table 2-1. Required Quarterly Compliance Report Documentation

Condition of Certification	Response
AQ-C6	The weekly total dissolved solids (TDS) results for the second quarter of 2022 are provided in Appendix A, Table 2; the weekly sample reports collected for the same period are provided in Appendix B. Note that TDS was not sampled during the month of May because MGS experienced an outage during this time.
AQ-C7	Daily particulate matter with aerodynamic diameter less than or equal to 10 microns (PM_{10}) emissions from cooling tower operation during the second quarter of 2022 are provided in Appendix A, Tables 3 through 5. As shown, emissions were below the specified limit of 6.2 pounds per day (lb/day). Note that the cooling tower blowdown was not sampled during the month of May because MGS experienced an outage during this time.
AQ-C8	Testing times for the diesel-fired emergency firewater pump during the second quarter of 2022 are provided in Appendix C, Table 2. MGS refrained from testing the diesel-fired emergency firewater pump in the same hour the CTGs were either started or shutdown.
AQ-C9	The CTG startup and shutdown details for the second quarter of 2022, including the duration and date of occurrence, are provided in Appendix C, Table 1.
AQ-C11	All ammonia (NH_3), nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), PM_{10}, and volatile organic compound (VOC) emissions from MGS operation during the second quarter of 2022 are provided in Appendix A, Table 1.
AQ-2	Low sulfur diesel fuel was last purchased on April 11, 2022. The fuel purchase record is provided in Appendix D and demonstrates that the fuel does not contain sulfur compounds in excess of 15 parts per million by weight (ppmw).

Condition of Certification	Response
AQ-3	See the response for COC AQ-2.
AQ-5	Monthly emissions of CO, PM_{10}, particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), VOC, and SOx from CTG and duct burner operation during the second quarter of 2022 are presented in Appendix A, Tables 7 through 9. Fuel usage for each turbine-duct burner pair is provided in Appendix A, Table 6. As shown, emissions were below the monthly limits specified in Condition A63.4 of the site's Title V Permit.
AQ-6	See the response for COC AQ-C9.
AQ-9	See the response for COC AQ-C11. Additionally, quarterly NOx excess emission reports from the data acquisition and handling system (DAHS) are provided in Appendix E. As demonstrated in these reports, there were no incidents in which the maximum corrected NOx emissions concentration for both CTGs exceeded the emission concentration limit of 2.0 parts per million by volume (ppmv). All continuous emissions monitoring system (CEMS) data for MGS' CTGs are stored electronically onsite.
AQ-10	See the response for COC AQ-C11. Additionally, quarterly CO excess emission reports from the DAHS are provided in Appendix E. As demonstrated in these reports, there were no incidents in which the maximum corrected CO emissions concentration for both CTGs exceeded the emission concentration limit of 2.0 ppmv. All CEMS data for MGS' CTGs are stored electronically onsite.
AQ-11	See the response for COC AQ-C11. Additionally, quarterly VOC excess emission reports from the DAHS are provided in Appendix E. As demonstrated in these reports, there were no incidents in which the maximum corrected VOC emissions concentration for both CTGs exceeded the emission concentration limit of 2.0 ppmv. All CEMS data for MGS' CTGs are stored electronically onsite.
AQ-12	See the response for COC AQ-C11. Additionally, compliance with the specified limit of 5 parts per million (ppm) is primarily demonstrated through annual source testing. The most recent NH_3 compliance source test, performed on February 8 and 9, 2022 with results submitted to the CEC on March 24, 2022, indicated compliance with the emission limits for both CTGs (1.7 ppm for CTG 1 and 1.6 ppm for CTG 2). NH_3 emissions are also calculated via the CEMS on an hourly basis and confirmed to comply with the NH_3 concentration limit of 5 ppm. Note that MGS did experience an exceedance of this 5 ppm limit both on March 18, 2022 and May 26, 2022. Although the first event occurred during the first quarter of 2022, MGS submitted a Form 500-N for the deviation event to South Coast Air Quality Management District (SCAQMD) on May 2, 2022. MGS submitted a Form 500-N for the second deviation event to SCAQMD on June 9, 2022, following verbal notification on May 27, 2022. The submitted Form 500-N's are included in Appendix F.
AQ-13	See the response for COC AQ-C11. Additionally, the most recent triennial compliance source test, performed in August 2019, indicated compliance with the Rule 475 particulate matter emission limits of 5 kilograms per hour (11 pounds per hour [lb/hr]) or 23 milligrams per cubic meter (0.01 grain per standard cubic foot [gr/scf]) for both CTGs (0.69 lb/hr and 0.0003 gr/scf for CTG1 and 1.15 lb/hr and 0.0005 gr/scf for CTG2).
AQ-14	See the response for COC AQ-2.
AQ-15	Quarterly hours of operation for the diesel-fired emergency firewater pump are provided in Appendix A, Table 10. As shown, the second quarter 2022 hours for maintenance and testing do not exceed 50 hours and the total operational hours do not exceed 200 hours.
AQ-27	See the response for COC AQ-5. As shown, fuel consumption per turbine-duct burner pair does not exceed the specified limit of 405 million cubic feet per month.
AQ-36	See the responses for COC AQ-5 and AQ-6.

Appendix A
MGS Emission Calculations

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 1

Reporting Period: **Quarter 2 2022**

Table 1. Quarterly Emissions - April 1, 2022 through June 30, 2022

Source	Quarterly Emissions (lb/quarter)					
	NOx	CO	VOC	SOx	$PM_{10}/PM_{2.5}$	NH_3
CTG 1 & Duct Burner	2,414	1,091	476	85	1,859	2,839
CTG 2 & Duct Burner	2,048	879	387	69	1,512	2,315
Cooling Tower	--	--	--	--	88	--
Diesel Firewater Pump	24.7	0.72	0.18	0.01	0.16	--
Total	**4,486**	**1,971**	**864**	**155**	**3,460**	**5,154**

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 2

Reporting Period: **Quarter 2 2022**

Table 2. Cooling Tower Total Dissolved Solids (TDS) Sampling Results [1, 2]

Sampling Period Start Date	End Date	TDS (ppm)
3/27/2022	4/2/2022	4,140
4/3/2022	4/9/2022	5,750
4/10/2022	4/16/2022	4,110
4/17/2022	4/23/2022	4,120
4/24/2022	4/30/2022	4,220
5/1/2022	5/7/2022	--
5/8/2022	5/14/2022	--
5/15/2022	5/21/2022	--
5/22/2022	5/28/2022	--
5/29/2022	6/4/2022	1,970
6/5/2022	6/11/2022	4,410
6/12/2022	6/18/2022	4,830
6/19/2022	6/25/2022	3,940
6/26/2022	7/2/2022	4,020

[1] Sampling results taken from Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR.

[2] MGS experienced an outage for the majority of May 2022; therefore, Cooling Tower Blowdown Reports were not prepared during that time.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 3

Reporting Period: **April 2022**

Cooling Tower Total Dissolved Solids (TDS) Sampling Results
Data Source: Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR

Sample Date	Period Start Date	End Date	TDS (ppm)
3/28/2022	3/27/2022	4/2/2022	4,140
4/5/2022	4/3/2022	4/9/2022	5,750
4/11/2022	4/10/2022	4/16/2022	4,110
4/19/2022	4/17/2022	4/23/2022	4,120
4/25/2022	4/24/2022	4/30/2022	4,220

Methodology (per Condition of Certification [COC] AQ-C7)

PM_{10} Emissions (lb/day) = Circulation Rate (gal/day) x Density of Water (lb/gal) x Total Dissolved Solids (ppm) / 1,000,000 x Drift Factor (%) / 100 x Correction Factor

Constants

Parameter	Value
Circulation Rate per Pump (gal/min) [1]	13,500
Number of Pumps	2
Total Circulation Rate (gal/min)	27,000
Water Density (lb/gal)	8.334
Drift Factor (%) [2]	0.0005
Correction Factor (unitless) [3]	0.2

[1] Source: M3-10 Main Circulating Water System P&ID.

[2] Per COC AQ-C4.

[3] Source: SPX Cooling Technologies' Cooling Tower Drift Mass Distribution.

Cooling Tower Daily PM_{10} Emissions

Date	Circulation Rate (gal/day) [1]	TDS (ppm)	PM_{10} Emissions (lb/day)	Above 6.2 lb/day PM_{10} Limit? [2]
4/1/2022	38,880,000	4,140	1.34	No
4/2/2022	38,880,000	4,140	1.34	No
4/3/2022	38,880,000	5,750	1.86	No
4/4/2022	38,880,000	5,750	1.86	No
4/5/2022	38,880,000	5,750	1.86	No
4/6/2022	38,880,000	5,750	1.86	No
4/7/2022	38,880,000	5,750	1.86	No
4/8/2022	38,880,000	5,750	1.86	No
4/9/2022	38,880,000	5,750	1.86	No
4/10/2022	38,880,000	4,110	1.33	No
4/11/2022	38,880,000	4,110	1.33	No
4/12/2022	38,880,000	4,110	1.33	No
4/13/2022	38,880,000	4,110	1.33	No
4/14/2022	38,880,000	4,110	1.33	No
4/15/2022	38,880,000	4,110	1.33	No
4/16/2022	38,880,000	4,110	1.33	No
4/17/2022	38,880,000	4,120	1.33	No
4/18/2022	38,880,000	4,120	1.33	No
4/19/2022	38,880,000	4,120	1.33	No
4/20/2022	38,880,000	4,120	1.33	No
4/21/2022	38,880,000	4,120	1.33	No
4/22/2022	38,880,000	4,120	1.33	No
4/23/2022	38,880,000	4,120	1.33	No
4/24/2022	38,880,000	4,220	1.37	No
4/25/2022	38,880,000	4,220	1.37	No
4/26/2022	38,880,000	4,220	1.37	No
4/27/2022	38,880,000	4,220	1.37	No
4/28/2022	38,880,000	4,220	1.37	No
4/29/2022	38,880,000	4,220	1.37	No
4/30/2022	38,880,000	4,220	1.37	No

[1] Maximum daily circulation rate conservatively used to estimate PM_{10} emissions when the cooling tower is operated for any part of the day. Circulation rate is zero for days the cooling tower is not operated at all.

[2] Daily emissions limit established in COC AQ-C7.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 4

Reporting Period: **May 2022**

Cooling Tower Total Dissolved Solids (TDS) Sampling Results
Data Source: Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR

Sample Date [1]	Period Start Date	End Date	TDS (ppm)
--	5/1/2022	5/7/2022	--
--	5/8/2022	5/14/2022	--
--	5/15/2022	5/21/2022	--
--	5/22/2022	5/28/2022	--
6/2/2022	5/29/2022	6/4/2022	1,970

[1] MGS experienced an outage for the majority of May 2022; therefore, Cooling Tower Blowdown Reports were not prepared during that time.

Methodology (per Condition of Certification [COC] AQ-C7)

PM_{10} Emissions (lb/day) = Circulation Rate (gal/day) x Density of Water (lb/gal) x Total Dissolved Solids (ppm) / 1,000,000 x Drift Factor (%) / 100 x Correction Factor

Constants

Parameter	Value
Circulation Rate per Pump (gal/min) [1]	13,500
Number of Pumps	2
Total Circulation Rate (gal/min)	27,000
Water Density (lb/gal)	8.334
Drift Factor (%) [2]	0.0005
Correction Factor (unitless) [3]	0.2

[1] Source: M3-10 Main Circulating Water System P&ID.

[2] Per COC AQ-C4.

[3] Source: SPX Cooling Technologies' Cooling Tower Drift Mass Distribution.

Cooling Tower Daily PM_{10} Emissions

Date	Circulation Rate (gal/day) [1]	TDS (ppm) [2]	PM_{10} Emissions (lb/day)	Above 6.2 lb/day PM_{10} Limit? [3]
5/1/2022	0	--	0.00	No
5/2/2022	0	--	0.00	No
5/3/2022	0	--	0.00	No
5/4/2022	0	--	0.00	No
5/5/2022	0	--	0.00	No
5/6/2022	0	--	0.00	No
5/7/2022	0	--	0.00	No
5/8/2022	0	--	0.00	No
5/9/2022	0	--	0.00	No
5/10/2022	0	--	0.00	No
5/11/2022	0	--	0.00	No
5/12/2022	0	--	0.00	No
5/13/2022	0	--	0.00	No
5/14/2022	0	--	0.00	No
5/15/2022	0	--	0.00	No
5/16/2022	0	--	0.00	No
5/17/2022	0	--	0.00	No
5/18/2022	0	--	0.00	No
5/19/2022	0	--	0.00	No
5/20/2022	0	--	0.00	No
5/21/2022	0	--	0.00	No
5/22/2022	0	--	0.00	No
5/23/2022	38,880,000	1,970	0.64	No
5/24/2022	38,880,000	1,970	0.64	No
5/25/2022	0	--	0.00	No
5/26/2022	38,880,000	1,970	0.64	No
5/27/2022	38,880,000	1,970	0.64	No
5/28/2022	38,880,000	1,970	0.64	No
5/29/2022	38,880,000	1,970	0.64	No
5/30/2022	38,880,000	1,970	0.64	No
5/31/2022	38,880,000	1,970	0.64	No

[1] Maximum daily circulation rate conservatively used to estimate PM_{10} emissions when the cooling tower is operated for any part of the day. Circulation rate is zero for days the cooling tower is not operated at all.

[2] MGS experienced an outage for the majority of May 2022; therefore, Cooling Tower Blowdown Reports were not prepared during that time. For days that the station operated in May, sample results were assumed to be best represented by the results sampled on June 2, 2022.

[3] Daily emissions limit established in COC AQ-C7.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 5

Reporting Period: **June 2022**

Cooling Tower Total Dissolved Solids (TDS) Sampling Results
Data Source: Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR

Sample Date	Period Start Date	End Date	TDS (ppm)
6/2/2022	5/29/2022	6/4/2022	1,970
6/7/2022	6/5/2022	6/11/2022	4,410
6/14/2022	6/12/2022	6/18/2022	4,830
6/21/2022	6/19/2022	6/25/2022	3,940
6/28/2022	6/26/2022	7/2/2022	4,020

Methodology (per Condition of Certification [COC] AQ-C7)

PM_{10} Emissions (lb/day) = Circulation Rate (gal/day) x Density of Water (lb/gal) x Total Dissolved Solids (ppm) / 1,000,000 x Drift Factor (%) / 100 x Correction Factor

Constants

Parameter	Value
Circulation Rate per Pump (gal/min) [1]	13,500
Number of Pumps	2
Total Circulation Rate (gal/min)	27,000
Water Density (lb/gal)	8.334
Drift Factor (%) [2]	0.0005
Correction Factor (unitless) [3]	0.2

[1] Source: M3-10 Main Circulating Water System P&ID.

[2] Per COC AQ-C4.

[3] Source: SPX Cooling Technologies' Cooling Tower Drift Mass Distribution.

Cooling Tower Daily PM_{10} Emissions

Date	Circulation Rate (gal/day) [1]	TDS (ppm)	PM_{10} Emissions (lb/day)	Above 6.2 lb/day PM_{10} Limit? [2]
6/1/2022	38,880,000	1,970	0.64	No
6/2/2022	38,880,000	1,970	0.64	No
6/3/2022	38,880,000	1,970	0.64	No
6/4/2022	38,880,000	1,970	0.64	No
6/5/2022	38,880,000	4,410	1.43	No
6/6/2022	38,880,000	4,410	1.43	No
6/7/2022	38,880,000	4,410	1.43	No
6/8/2022	38,880,000	4,410	1.43	No
6/9/2022	38,880,000	4,410	1.43	No
6/10/2022	38,880,000	4,410	1.43	No
6/11/2022	38,880,000	4,410	1.43	No
6/12/2022	38,880,000	4,830	1.57	No
6/13/2022	38,880,000	4,830	1.57	No
6/14/2022	38,880,000	4,830	1.57	No
6/15/2022	38,880,000	4,830	1.57	No
6/16/2022	38,880,000	4,830	1.57	No
6/17/2022	38,880,000	4,830	1.57	No
6/18/2022	38,880,000	4,830	1.57	No
6/19/2022	38,880,000	3,940	1.28	No
6/20/2022	38,880,000	3,940	1.28	No
6/21/2022	38,880,000	3,940	1.28	No
6/22/2022	38,880,000	3,940	1.28	No
6/23/2022	38,880,000	3,940	1.28	No
6/24/2022	38,880,000	3,940	1.28	No
6/25/2022	38,880,000	3,940	1.28	No
6/26/2022	38,880,000	4,020	1.30	No
6/27/2022	38,880,000	4,020	1.30	No
6/28/2022	38,880,000	4,020	1.30	No
6/29/2022	38,880,000	4,020	1.30	No
6/30/2022	38,880,000	4,020	1.30	No

[1] Maximum daily circulation rate conservatively used to estimate PM_{10} emissions when the cooling tower is operated for any part of the day. Circulation rate is zero for days the cooling tower is not operated at all.

[2] Daily emissions limit established in COC AQ-C7.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Tables 6, 7, 8, & 9

Reporting Period: **Quarter 2 2022**

Table 6. Monthly Turbine-Duct Burner Fuel Flow

Source	April Fuel Flow (MMscf/month) [1]	Above 405 MMscf/month Limit? [2]	May Fuel Flow (MMscf/month) [1]	Above 405 MMscf/month Limit? [2]	June Fuel Flow (MMscf/month) [1]	Above 405 MMscf/month Limit? [2]
CTG 1	113		20		173	
CTG 1 Duct Burner	1.41		0.00		1.52	
Total CTG 1 & Duct Burner	**115**	**No**	**20**	**No**	**175**	**No**
CTG 2	140		10		98	
CTG 2 Duct Burner	1.35		0.00		1.62	
Total CTG 2 & Duct Burner	**141**	**No**	**10**	**No**	**100**	**No**

[1] Fuel flow data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' and 'All_12MonthSummary_GasUsage' RegPerfect Reports.
[2] Monthly fuel flow limit is per Condition of Certification (COC) AQ-27.

Table 7. Monthly Emissions - April 2022

Source	Monthly Emissions (lb/month) [1] NOx [2]	CO	VOC	SOx	$PM_{10}/PM_{2.5}$	NH_3 [3]
CTG 1 & Duct Burner	867	363	177	31.5	691	1,058
CTG 2 & Duct Burner	1,033	338	218	38.6	850	1,298
Monthly Emission Limits [4]	N/A	7,633	3,236	227	4,876	N/A
Exceeds Limit?	N/A	No	No	No	No	N/A

[1] Unless otherwise noted, monthly emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.
[2] Monthly NOx emissions are as submitted to SCAQMD, based on the 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

[3] Monthly NH_3 emissions are calculated using monthly fuel usage and default emission factors from the SCAQMD's AER AB 2588 Quadrennial Air Toxics Emission Inventory Procedures - June 2020. The emission factors are 9.1 lbs/MMscf and 18.0 lbs/MMscf for the CTGs and Duct Burners, respectively.
[4] Monthly emission limits are per COC AQ-5.

Table 8. Monthly Emissions - May 2022

Source	Monthly Emissions (lb/month) [1] NOx [2]	CO	VOC	SOx	$PM_{10}/PM_{2.5}$	NH_3 [3]
CTG 1 & Duct Burner	320	316	30	5.4	118	178
CTG 2 & Duct Burner	233	202	16	2.9	62	93
Monthly Emission Limits [4]	N/A	7,633	3,236	227	4,876	N/A
Exceeds Limit?	N/A	No	No	No	No	N/A

[1] Unless otherwise noted, monthly emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.
[2] Monthly NOx emissions are as submitted to SCAQMD, based on the 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

[3] Monthly NH_3 emissions are calculated using monthly fuel usage and default emission factors from the SCAQMD's AER AB 2588 Quadrennial Air Toxics Emission Inventory Procedures - June 2020. The emission factors are 9.1 lbs/MMscf and 18.0 lbs/MMscf for the CTGs and Duct Burners, respectively.
[4] Monthly emission limits are per COC AQ-5.

Table 9. Monthly Emissions - June 2022

Source	Monthly Emissions (lb/month) [1]					
	NOx [2]	CO	VOC	SOx	$PM_{10}/PM_{2.5}$	NH_3 [3]
CTG 1 & Duct Burner	1,227	412	269	48.6	1,051	1,604
CTG 2 & Duct Burner	782	339	154	27.8	601	924
Monthly Emission Limits [4]	N/A	7,633	3,236	227	4,876	N/A
Exceeds Limit?	N/A	No	No	No	No	N/A

[1] Unless otherwise noted, monthly emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.

[2] Monthly NOx emissions are as submitted to SCAQMD, based on the 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

[3] Monthly NH_3 emissions are calculated using monthly fuel usage and default emission factors from the SCAQMD's AER AB 2588 Quadrennial Air Toxics Emission Inventory Procedures - June 2020. The emission factors are 9.1 lbs/MMscf and 18.0 lbs/MMscf for the CTGs and Duct Burners, respectively.

[4] Monthly emission limits are per COC AQ-5.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 10

Reporting Period: Quarter 2 2022

Methodology
Emissions (lb/month) = Fuel Usage (gal/month) / 1,000 (gal/Mgal) x Emission Factor (lb/Mgal)

Emission Factors

Pollutant	Emission Factor (lb/Mgal)	Reference
NOx	469	Emission factor provided in the facility's Title V Permit.
CO	13.62	Emission factor converted from the factor provided in the facility's Title V Permit (0.4 g/bhp-hr), based on the unit's power rating (173 hp) and maximum fuel throughput (11.2 gal/hr).
VOC	3.41	Emission factor converted from the factor provided in the facility's Title V Permit (0.1 g/bhp-hr), based on the unit's power rating (173 hp) and maximum fuel throughput (11.2 gal/hr).
SOx	0.21	Default for Diesel/Distillate Oil, ICEs given in the SCAQMD's Combustion Default Emission Factors - January 2022.
$PM_{10}/PM_{2.5}$	3.065	Emission factor converted from the factor provided in the facility's Title V Permit (0.09 g/bhp-hr), based on the unit's power rating (173 hp) and maximum fuel throughput (11.2 gal/hr).

Table 10. Monthly Diesel Fire Pump Hours of Operation, Fuel Usage, and Emissions

Month	Monthly Hours of Operation [1]			Fuel Usage	Monthly Emissions (lb/month)				
	Maintenance	Testing	Emergency	(gal/month) [2]	NOx	CO	VOC	SOx	$PM_{10}/PM_{2.5}$
January	0.0	2.5	0.0	28.0	13.1	0.38	0.10	0.01	0.09
February	0.0	2.0	0.0	22.4	10.5	0.31	0.08	0.00	0.07
March	0.0	2.0	0.0	22.4	10.5	0.31	0.08	0.00	0.07
April	0.0	1.9	0.0	21.3	10.0	0.29	0.07	0.00	0.07
May	0.0	1.2	0.0	13.4	6.3	0.18	0.05	0.00	0.04
June	0.0	1.6	0.0	17.9	8.4	0.24	0.06	0.00	0.05
Q1 Total	**0.0**	**6.5**	**0.0**	**72.8**	**34.1**	**0.99**	**0.25**	**0.02**	**0.22**
Q2 Total	**0.0**	**4.7**	**0.0**	**52.6**	**24.7**	**0.72**	**0.18**	**0.01**	**0.16**
Annual Limit for Maintenance and Testing [3]			50						
Total Annual Limit [3]			200						
Exceeds Limits?			No						

[1] Monthly hours of operation calculated from Device 385/403 run timer readings.
[2] Fuel usage (gal/month) calculated by multiplying the hours of operation by the unit's maximum fuel throughput (11.2 gal/hour).
[3] Annual limits for hours of operation are per Condition of Certification (COC) AQ-15.

Appendix B
Cooling Tower Blowdown Reports

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

April 04, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2203249
Project Name: Malburg Generating Station

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on March 28, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 04/04/22
Submitted: 03/28/22
PLS Report No.: 2203249

Project: Malburg Generating Station

Sample ID: Cooling Tower Blowdown Water (2203249-01) Sampled: 03/28/22 07:35 Received: 03/28/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4140**		1	mg/L	5.0	- SM 2540C	03/31/22	04/01/22	vc	BD20426

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BD20426 - -										
Blank	**Prepared: 03/31/22 Analyzed: 04/01/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 03/31/22 Analyzed: 04/01/22**									
Total Dissolved Solids	49.0	5.0	mg/L	50.00		98.0	80-120			
Duplicate **Source: 2203249-01**	**Prepared: 03/31/22 Analyzed: 04/01/22**									
Total Dissolved Solids	3950	5.0	mg/L		4140			4.78	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlier

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 3-28-22 PAGE: 1 OF 1

FILE NO.: LAB NO.: 203249

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO.

ADDRESS: 4963 SOTO ST. VERNON CA 90058

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

OBSERV. TEMP: 1.0°C °C
CORREC. TEMP: 2.0°C °C
THERMO ID: 66 BY: JB
PRESERVED:
REMARKS:

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX: WATER	MATRIX: SOIL	MATRIX: SLUDGE	MATRIX: OTHER	TAT	CONTAINER: #	CONTAINER: TYPE	ANALYSES REQUESTED: TDS								SAMPLE CONDITIONS/ CONTAINER/COMMENTS
	3-28-22	0735	COOLING TOWER BLOWDOWN	X				N	1	P	X								

Relinquished by (Signature& Name): MA
Received by (Signature & Name): John Barie
Date: 3-28-22 Time: 0735

Relinquished by (Signature& Name):
Received by (Signature & Name):
Date: Time:

Relinquished by (Signature& Name):
Received by (Signature & Name):
Date: Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____days,
By: _____ Date: _____

SPECIAL INSTRUCTION: Arrived at the lab 3.28.2022 0915

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

April 11, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2204046
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on April 05, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 04/11/22
Submitted: 04/05/22
PLS Report No.: 2204046

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2204046-01) Sampled: 04/05/22 08:50 Received: 04/05/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**5750**		1	mg/L	5.0	- SM 2540C	04/07/22	04/08/22	vc	BD20806

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BD20806 - -										
Blank	**Prepared: 04/07/22 Analyzed: 04/08/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 04/07/22 Analyzed: 04/08/22**									
Total Dissolved Solids	47.0	5.0	mg/L	50.00		94.0	80-120			
Duplicate **Source: 2204064-01**	**Prepared: 04/07/22 Analyzed: 04/08/22**									
Total Dissolved Solids	675	5.0	mg/L		670			0.743	5	
Duplicate **Source: 2204046-01**	**Prepared: 04/07/22 Analyzed: 04/08/22**									
Total Dissolved Solids	5830	5.0	mg/L		5750			1.44	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlier

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 4-5-22 PAGE: 1 OF 1

FILE NO.: LAB NO.: 2204040

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO.

ADDRESS: 4963 SOTO ST. VERNON CA 90058

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

OBSERV. TEMP: 1.1 °C
CORREC. TEMP: 0.9 °C
THERMO ID: 66 BY: JB
PRESERVED:
REMARKS:

ANALYSES REQUESTED

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		TDS								SAMPLE CONDITIONS/ CONTAINER/COMMENTS
				WATER	SOIL	SLUDGE	OTHER		#	TYPE									
	4-5-22	0850	COOLING TOWER BLOWDOWN	X				N	1	P	X								

Relinquished by (Signature& Name): MA
Received by (Signature & Name): Jesus Ortiz
Date: 4.5.22 Time:

Relinquished by (Signature& Name):
Received by (Signature & Name):
Date: Time:

Relinquished by (Signature& Name):
Received by (Signature & Name):
Date: Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____days,

By: _____ Date: _____

SPECIAL INSTRUCTION:

Arrived at the lab 4/5/22 1130

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

April 15, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2204116
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on April 11, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Sanchez

Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 04/15/22
Submitted: 04/11/22
PLS Report No.: 2204116

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2204116-01) Sampled: 04/11/22 09:35 Received: 04/11/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4110**		1	mg/L	5.0	- SM 2540C	04/13/22	04/14/22	vc	BD21419

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BD21419 - -										
Blank	**Prepared: 04/13/22 Analyzed: 04/14/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 04/13/22 Analyzed: 04/14/22**									
Total Dissolved Solids	50.0	5.0	mg/L	50.00		100	80-120			
Duplicate **Source: 2204086-01**	**Prepared: 04/13/22 Analyzed: 04/14/22**									
Total Dissolved Solids	5080	5.0	mg/L		5060			0.474	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parker

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 4-11-22 PAGE: 1 OF ____

FILE NO.: ____ LAB NO.: 2204116

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO.

OBSERV. TEMP: 1.9 °C
CORREC. TEMP: 1.2 °C
THERMO ID: 6 BY: JA

ADDRESS: 4963 SOTO ST. VERNON CA 90058

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

ANALYSES REQUESTED

PRESERVED: ____

REMARKS: ____

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX: WATER	SOIL	SLUDGE	OTHER	TAT	CONTAINER: #	TYPE	TDS	SAMPLE CONDITIONS/ CONTAINER/COMMENTS
	4.11.22	0935	COOLING TOWER BLOWDOWN	X				N	1	P	X	

Relinquished by (Signature& Name): MA
Received by (Signature & Name): John Barie
Date: 4/11/22 Time: 0935

Relinquished by (Signature& Name):
Received by (Signature & Name):
Date: Time:

Relinquished by (Signature& Name):
Received by (Signature & Name):
Date: Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: ____ days,

By: ____ Date: ____

SPECIAL INSTRUCTION:

Arrived at the lab 4-11-22 1210

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

April 25, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2204190
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on April 19, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Sanchez
Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 04/25/22
Submitted: 04/19/22
PLS Report No.: 2204190

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2204190-01) Sampled: 04/19/22 08:25 Received: 04/19/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4120**		1	mg/L	5.0	- SM 2540C	04/20/22	04/21/22	vc	BD22203

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BD22203 - -										
Blank	**Prepared: 04/20/22 Analyzed: 04/21/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 04/20/22 Analyzed: 04/21/22**									
Total Dissolved Solids	48.0	5.0	mg/L	50.00		96.0	80-120			
Duplicate Source: 2204190-01	**Prepared: 04/20/22 Analyzed: 04/21/22**									
Total Dissolved Solids	4030	5.0	mg/L		4120			2.41	5	
Duplicate Source: 2204182-03	**Prepared: 04/20/22 Analyzed: 04/21/22**									
Total Dissolved Solids	445	5.0	mg/L		458			2.88	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlin

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 4/19/22 PAGE: 1 OF

FILE NO.: LAB NO.: 2204190

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO. AIRBILL NO:

ADDRESS: 4963 SOTO ST. VERNON CA 90058

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

ANALYSES REQUESTED

OBSERV. TEMP: 1.82 °C
CORREC. TEMP: 1.62 °C
THERMO ID: 66 BY:

REMARKS:

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		TDS								SAMPLE CONDITIONS/ CONTAINER/COMMENTS
				WATER	SOIL	SLUDGE	OTHER		#	TYPE									
	4/19/22	0825	COOLING TOWER BLOWDOWN	X				N	1	P	X								

Relinquished by (Signature& Name): MA

Received by (Signature & Name): John Barie

Date: 4/19/22 Time: 0825

Relinquished by (Signature& Name):

Received by (Signature & Name):

Date: Time:

Relinquished by (Signature& Name):

Received by (Signature & Name):

Date: Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____days,

By: _____ Date: _____

SPECIAL INSTRUCTION: Arrived at the lab 4/19/22 1120

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

April 28, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2204263
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on April 25, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Banchy
Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 04/28/22
Submitted: 04/25/22
PLS Report No.: 2204263

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2204263-01) Sampled: 04/25/22 08:10 Received: 04/25/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4220**		1	mg/L	5.0	- SM 2540C	04/25/22	04/26/22	vc	BD22533

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BD22533 - -										
Blank	**Prepared: 04/25/22 Analyzed: 04/26/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 04/25/22 Analyzed: 04/26/22**									
Total Dissolved Solids	51.0	5.0	mg/L	50.00		102	80-120			
Duplicate **Source: 2204238-12**	**Prepared: 04/25/22 Analyzed: 04/26/22**									
Total Dissolved Solids	788	5.0	mg/L		800			1.57	5	
Duplicate **Source: 2204263-01**	**Prepared: 04/25/22 Analyzed: 04/26/22**									
Total Dissolved Solids	4190	5.0	mg/L		4220			0.516	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlier

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 4.25.22 PAGE: 1 OF 1

FILE NO.: LAB NO.: 2204283

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO.

ADDRESS: 4963 SOTO ST. VERNON CA 90058

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- --- ---

AIRBILL NO:

OBSERVED TEMP 1.3°C

CORRECTED TEMP: 1.1°C

THERMO ID: 66

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX: WATER	SOIL	SLUDGE	OTHER	TAT	CONTAINER: #	TYPE	ANALYSES REQUESTED: TDS								SAMPLE CONDITIONS/ CONTAINER/COMMENTS
	4.25.22	0810	COOLING TOWER BLOWDOWN	X				N	1	P	X								

Relinquished by (Signature& Name): MA

Received by (Signature & Name): Jr John Barie

Date: 4.25.22 Time: 0810

Relinquished by (Signature& Name):

Received by (Signature & Name):

Date: Time:

Relinquished by (Signature& Name):

Received by (Signature & Name):

Date: Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____days,

By: _____ Date: _____

SPECIAL INSTRUCTION: Arrived at the lab 4.25.22 1050

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

June 10, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2206034
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on June 02, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Sanchez
Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 06/10/22
Submitted: 06/02/22
PLS Report No.: 2206034

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2206034-01) Sampled: 06/02/22 08:30 Received: 06/02/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**1970**		1	mg/L	5.0	- SM 2540C	06/07/22	06/08/22	vc	BF20824

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BF20824 - -										
Blank	**Prepared: 06/07/22 Analyzed: 06/08/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 06/07/22 Analyzed: 06/08/22**									
Total Dissolved Solids	50.0	5.0	mg/L	50.00		100	80-120			
Duplicate Source: 2206034-01	**Prepared: 06/07/22 Analyzed: 06/08/22**									
Total Dissolved Solids	1970	5.0	mg/L		1970			0.167	5	
Duplicate Source: 2206078-04	**Prepared: 06/07/22 Analyzed: 06/08/22**									
Total Dissolved Solids	450	5.0	mg/L		460			2.20	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlin

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE 6.2.22 PAGE: ____ OF ____

FILE NO.: ____ LAB NO.: 2206034

CLIENT NAME: CITY OF VERNON | PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY | P.O.NO. | AIRBILL NO:

ADDRESS: 4963 SOTO ST. VERNON CA 90058 | OBSERVED TEMP 1.9°C

PROJECT MANAGER MATT RICHARDS | PHONE NO: | FAX NO: | CORRECTED TEMP: 1.7°C

SAMPLER NAME: JOHN BARIE | SIGNATURE: JB | THERMO ID: 66

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

ANALYSES REQUESTED

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX: WATER	SOIL	SLUDGE	OTHER	TAT	CONTAINER: #	TYPE	TDS	SAMPLE CONDITIONS/ CONTAINER/COMMENTS
	6-2-22	0830	COOLING TOWER BLOWDOWN	X				N	1	P	X	

Relinquished by (Signature& Name): NA | Received by (Signature & Name): JB John Barie | Date: 6-2-22 | Time: 0830

Relinquished by (Signature& Name): | Received by (Signature & Name): | Date: | Time:

Relinquished by (Signature& Name): | Received by (Signature & Name): | Date: | Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: ____ days,

By: ____ Date: ____

SPECIAL INSTRUCTION: Arrived at the lab 6.2.22 1035

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

June 14, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2206081
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on June 07, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Sanchez
Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 06/14/22
Submitted: 06/07/22
PLS Report No.: 2206081

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2206081-01) Sampled: 06/07/22 07:55 Received: 06/07/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4410**		1	mg/L	5.0	- SM 2540C	06/08/22	06/09/22	vc	BF21332

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BF21332 - -										
Blank	**Prepared: 06/08/22 Analyzed: 06/09/22**									
Total Dissolved Solids	5.0	5.0	mg/L							
LCS	**Prepared: 06/08/22 Analyzed: 06/09/22**									
Total Dissolved Solids	49.0	5.0	mg/L	50.00		98.0	80-120			
Duplicate **Source: 2206089-09**	**Prepared: 06/08/22 Analyzed: 06/09/22**									
Total Dissolved Solids	905	5.0	mg/L		930			2.72	5	
Duplicate **Source: 2206081-01**	**Prepared: 06/08/22 Analyzed: 06/09/22**									
Total Dissolved Solids	4340	5.0	mg/L		4410			1.60	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlier

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 6-7-22 PAGE: 1 OF 1

FILE NO.: LAB NO.: 2206091

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO. AIRBILL NO:

ADDRESS: 4963 SOTO ST. VERNON CA 90058 OBSERVED TEMP 1.7°C

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO: CORRECTED TEMP: 1.1°C

SAMPLER NAME: JOHN BARIE SIGNATURE: THERMO ID: 66

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal T

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

ANALYSES REQUESTED

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX: WATER	SOIL	SLUDGE	OTHER	TAT	CONTAINER: #	TYPE	TDS	SAMPLE CONDITIONS/ CONTAINER/COMMENTS
	6-7-22	0755	COOLING TOWER BLOWDOWN	X				N	1	P	X	

Relinquished by (Signature& Name): MT Received by (Signature & Name): John Barie Date: 6-7-22 Time: 0755

Relinquished by (Signature& Name): Received by (Signature & Name): Date: Time:

Relinquished by (Signature& Name): Received by (Signature & Name): Date: Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____ days,

By: _____ Date: _____

SPECIAL INSTRUCTION: Arrived at the lab 6-7-22 0830

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

June 20, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2206176
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on June 14, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Sanchez

Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 06/20/22
Submitted: 06/14/22
PLS Report No.: 2206176

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2206176-01) Sampled: 06/14/22 07:45 Received: 06/14/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4830**		1	mg/L	5.0	- SM 2540C	06/14/22	06/15/22	vc	BF21523

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BF21523 - -										
Blank	**Prepared: 06/14/22 Analyzed: 06/15/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 06/14/22 Analyzed: 06/15/22**									
Total Dissolved Solids	60.0	5.0	mg/L	50.00		120	80-120			
Duplicate **Source: 2206127-04**	**Prepared: 06/14/22 Analyzed: 06/15/22**									
Total Dissolved Solids	900	5.0	mg/L		926			2.85	5	
Duplicate **Source: 2206176-01**	**Prepared: 06/14/22 Analyzed: 06/15/22**									
Total Dissolved Solids	4930	5.0	mg/L		4830			1.98	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlier

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 6.14.22 PAGE: 1 OF 1

FILE NO.: LAB NO.: 220576

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO. AIRBILL NO:

ADDRESS: 4963 SOTO ST. VERNON CA 90058 OBSERVED TEMP 1.0°C

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO: CORRECTED TEMP 0.5°C

SAMPLER NAME: JOHN BARIE SIGNATURE: THERMO ID: 66

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

ANALYSES REQUESTED

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX: WATER	SOIL	SLUDGE	OTHER	TAT	CONTAINER: #	TYPE	TDS	SAMPLE CONDITIONS/ CONTAINER/COMMENTS
	6.14.22	0745	COOLING TOWER BLOWDOWN	X				N	1	P	X	

Relinquished by (Signature& Name):	Received by (Signature & Name):	Date:	Time:
MA	JohnBarie	6/14/22	0745
Relinquished by (Signature& Name):	Received by (Signature & Name):	Date:	Time:
Relinquished by (Signature& Name):	Received by (Signature & Name):	Date:	Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____days,

By: _____ Date: _____

SPECIAL INSTRUCTION:

Arrived at the lab 6/14/22 0745

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

June 29, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2206257
Project Name: Malburg Generating Station

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on June 21, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

DSanchez
Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 06/29/22
Submitted: 06/21/22
PLS Report No.: 2206257

Project: Malburg Generating Station

Sample ID: Cooling Tower Blowdown Water (2206257-01) Sampled: 06/21/22 08:45 Received: 06/21/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**3940**		1	mg/L	5.0	- SM 2540C	06/27/22	06/28/22	vc	BF22826

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BF22826 - -										
Blank	**Prepared: 06/27/22 Analyzed: 06/28/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 06/27/22 Analyzed: 06/28/22**									
Total Dissolved Solids	57.0	5.0	mg/L	50.00		114	80-120			
Duplicate **Source: 2206257-01**	**Prepared: 06/27/22 Analyzed: 06/28/22**									
Total Dissolved Solids	3940	5.0	mg/L		3940			0.127	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlier

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
[213] 745-5312 FAX [213] 745-6372

DATE: 6.21.22 PAGE: 1 OF

FILE NO.: LAB NO.: 2200151

CLIENT NAME: CITY OF VERNON PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO.

ADDRESS: 4963 SOTO ST. VERNON CA 90058

PROJECT MANAGER MATT RICHARDS PHONE NO: FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

AIRBILL NO:

OBSERVED TEMP 2.1°C

CORRECTED TEMP 2.9°C

THERMO ID: 66

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		ANALYSES REQUESTED								SAMPLE CONDITIONS/ CONTAINER/COMMENTS
				WATER	SOIL	SLUDGE	OTHER		#	TYPE	TDS								
	6.21.22	0845	COOLING TOWER BLOWDOWN	X				N	1	P	X								

Relinquished by (Signature& Name): MA — Received by (Signature & Name): for Jennifer — Date: 6.21.22 — Time: 0845

Relinquished by (Signature& Name): — Received by (Signature & Name): — Date: — Time:

Relinquished by (Signature& Name): — Received by (Signature & Name): — Date: — Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____days,

By: _____ Date: _____

SPECIAL INSTRUCTION: Arrived at the lab 6.21.22 12:10

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

July 07, 2022

Matt Richards
City of Vernon
4963 Soto St.
Vernon, CA 90058

Report No.: 2206335
Project Name: Malburg Generating Station Weekly

Dear Matt Richards,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on June 28, 2022.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

Project Manager

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

City of Vernon
4963 Soto St.
Vernon, CA 90058

Attn: Matt Richards Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548
Report Date: 07/07/22
Submitted: 06/28/22
PLS Report No.: 2206335

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2206335-01) Sampled: 06/28/22 09:35 Received: 06/28/22

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	**4020**		1	mg/L	5.0	- SM 2540C	06/29/22	06/30/22	vc	BG20526

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BG20526 - -										
Blank	**Prepared: 06/29/22 Analyzed: 06/30/22**									
Total Dissolved Solids	ND	5.0	mg/L							
LCS	**Prepared: 06/29/22 Analyzed: 06/30/22**									
Total Dissolved Solids	60.0	5.0	mg/L	50.00		120	80-120			
Duplicate **Source: 2206335-01**	**Prepared: 06/29/22 Analyzed: 06/30/22**									
Total Dissolved Solids	3970	5.0	mg/L		4020			1.04	5	

Notes and Definitions

NA	Not Applicable
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parlin

Authorized Signature(s)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 6/28/22 PAGE: 1 OF 1

FILE NO.: LAB NO.: 220695

CLIENT NAME: CITY OF VERNON | PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY | P.O.NO. | AIRBILL NO:

ADDRESS: 4963 SOTO ST. VERNON CA 90058 | ANALYSES REQUESTED | OBSERVED TEMP 1.1°C

PROJECT MANAGER MATT RICHARDS | PHONE NO: | FAX NO: | CORRECTED TEMP: 0.9°C

SAMPLER NAME: JOHN BARIE | SIGNATURE: | THERMO ID: 66

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: --- --- --- --- --- --- --- --- --- ---

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		TDS								SAMPLE CONDITIONS/ CONTAINER/COMMENTS
				WATER	SOIL	SLUDGE	OTHER		#	TYPE									
	6-28-22	0935	COOLING TOWER BLOWDOWN	X				N	1	P	X								

Relinquished by (Signature& Name): MT | Received by (Signature & Name): JB Jonathan | Date: 62822 | Time: 0935

Relinquished by (Signature& Name): | Received by (Signature & Name): | Date: | Time:

Relinquished by (Signature& Name): | Received by (Signature & Name): | Date: | Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____ days,

By: _____ Date: _____

SPECIAL INSTRUCTION:

Arrived at the lab 6-28-22 1005

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

Appendix C
Operation Logs

Malburg Generating Station
Appendix C, Table 1
Combustion Turbine Generator (CTG) Startup and Shutdown Events
During Quarter 2, 2022

CGT 1

Date	Event Type [1]	Event Start	Event End	Duration (hrs:min)
4/6/2022	Cold Start	12:44	14:01	1:17
4/20/2022	Shutdown	23:00	23:08	0:08
4/30/2022	Cold Start	16:35	17:49	1:14
4/30/2022	Shutdown	21:53	22:02	0:09
5/23/2022	Cold Start	10:48	10:55	0:07
5/23/2022	Shutdown	12:49	12:49	0:00
5/23/2022	Hot Start	17:40	17:47	0:07
5/23/2022	Shutdown	21:05	21:09	0:04
5/24/2022	Warm Start	8:51	8:57	0:06
5/24/2022	Shutdown	18:21	18:29	0:08
5/27/2022	Cold Start	15:22	16:26	1:04
5/28/2022	Shutdown	14:43	14:51	0:08
5/30/2022	Cold Start	23:59	1:21	0:36
6/23/2022	Shutdown	13:23	13:31	0:08

CGT 2

Date	Event Type [1]	Event Start	Event End	Duration (hrs:min)
4/9/2022	Shutdown	00:02	00:10	0:08
4/20/2022	Cold Start	16:01	17:29	1:28
4/30/2022	Shutdown	21:53	22:02	0:09
5/24/2022	Cold Start	16:37	16:44	0:07
5/24/2022	Trip	18:22	18:22	0:00
5/26/2022	Warm Start	14:05	15:25	1:20
5/26/2022	Shutdown	21:18	21:26	0:08
5/28/2022	Warm Start	12:13	13:39	1:26
5/29/2022	Shutdown	02:00	02:08	0:08
5/30/2022	Warm Start	12:14	13:29	1:15
5/30/2022	Shutdown	19:42	19:50	0:08
6/5/2022	Cold Start	20:04	21:17	1:13
6/8/2022	Trip	10:15	10:15	0:00
6/8/2022	Hot Start	14:58	15:39	0:41
6/10/2022	Shutdown	22:01	22:09	0:08
6/23/2022	Cold Start	11:38	12:52	1:14

[1] A startup event is defined as initiation of combustion until the system becomes emissions compliant, for consistency with the Title V Permit definitions.

Malburg Generating Station
Appendix C, Table 2
Diesel Firewater Pump Testing Times
During Quarter 2, 2022

Date	Time (hh:mm)	Start Hours	End Hours	Event Type	Hours of Operation
4/3/2022	19:28	337.3	337.8	Testing	0.50
4/10/2022	20:46	337.8	338.3	Testing	0.50
4/17/2022	19:57	338.3	338.7	Testing	0.40
4/24/2022	20:21	338.7	339.2	Testing	0.50
5/22/2022	20:47	339.2	339.9	Testing	0.70
5/29/2022	21:34	339.9	340.4	Testing	0.50
6/7/2022	13:30	340.4	340.9	Testing	0.50
6/19/2022	23:41	340.9	341.5	Testing	0.60
6/26/2022	20:32	341.5	342	Testing	0.50

Appendix D
Diesel Fuel Oil Purchase Records

Invoice

SC Commercial, LLC, DBA SC Fuels
1800 West Katella Ave, Suite 400
P.O. Box 4159, Orange, CA 92863-4159

PLEASE REMIT ALL PAYMENTS TO:
P.O. BOX 14237
ORANGE, CA 92863-1237

Ph: (800) 659-5823 Credit Inquiries: (888) SCFUELS Ext.6017

INVOICE: 2100721-IN

INVOICE DATE: 4/11/2022
DUE DATE: 5/11/2022
SHIP DATE: 4/11/2022
SHIP VIA: 924
ORDER DATE: 4/1/2022
ORDER NUMBER: 2100721
CUSTOMER PO: 055.0002948
TERMS: N30
SALEPERSON: Todd Cripps
714-938-5714

ACCT NO (Bill-to): 01-0001045

CITY OF VERNON
4305 SANTA FE AVE
ATTN: DEPARTMENT D
VERNON, CA 90058
(323) 583-8811

ACCT NO (Ship-to) 01-0001045 103L

CITY OF VERNON-SOTO ST-L
4963 SOTO ST
VERNON, CA 90058

ITEM CODE	ITEM DESCRIPTION	QUANTITY ORDERED	QUANTITY DELIVERED	PACKAGE DESCRIPTION	EXTENDED QTY	UNIT PRICE	EXT PRICE
CH277210983D400	CH MEROPA 150 277210983 $3.39 PER TC	1 **Whse:** 101	1.00	400 LB DR	400.00	3.39000	1,356.00
422D055	DYED CARB ULS DIESEL NON TAXABLE USE ONLY - PENALTY FOR TAXABLE USE 15 PPM OR LESS SULFUR - MAY CONTAIN UP TO 5% BIODIESEL MTO/ $4.35 PER TC	2 **Whse:** 101	2.00	55 G DR	110.00	4.35000	478.50
Federal Lust						0.00100	0.11
Federal Oil Spill						0.00214	0.24
CA - AB 32 - DSL						0.00828	0.91
						4.36142	479.76
CH273204981D055	CH REGAL R&O ISO 150 273204981 FORMERLY - 273213981 1 BACKORDERED ON 2104708	0 **Whse:** 101	0.00	55 G DR	0.00	0.00000	0.00
/FUELCHLUBE	FUEL SURCHARGE LUBES						9.92
/RCFLUBE	REG COMPLIANCE FEE LUBES						12.95
DRUMDEPOSITC001	DRUM DEPOSIT FEE	3 **Whse:** 101	3.00	MISC CHRG	3.00	25.00000	75.00
MSRTNDRMC001	RETURN DRUM	0 **Whse:** 101	-2.00	MISC CHRG	2.00-	15.00000	30.00-

Save time, pay online! View invoices, make payments and more.
Sign up for the Customer Portal today. Email: creditinquiries@scfuels.com or Call 888-SCFuels
Ext. 6017 or login to Customer Portal: **https://customerportal.scfuels.com**
24-hour Emergency Response Call CHEMTREC: 800-424-9300

Net Invoice:	1,903.63
Less Discount:	0.00
Freight:	0.00
Sales Tax:	190.52
Invoice Total:	2,094.15

- IN THE EVENT THAT THE ABOVE CHARGES ARE NOT PAID WHEN DUE, SC COMMERCIAL, LLC, DBA SC FUELS RESERVES THE RIGHT TO REFUSE FURTHER
- CHARGES TO THE ACCOUNT. A SERVICE CHARGE OF 1.5% PER MONTH{A.P.R. 18%} WILL APPLY TO ALL PAST DUE INVOICES.
- ERRORS IN PRICE, EXTENSION, AND ADDITION SUBJECT TO CORRECTION.
- It is the purchaser's responsibility to verify that all applicable taxes are being charged in accordance with fedral and state laws.
- Prices shown on this invoice reflect discounts received for Payment by Cash, Check, or Electronic Funds Transfer (EFT). Payment by other means is subject to a 3% surcharge.

Appendix E
Excess Emission Reports

Startup/Shutdown Excess Emissions Report

U1 CO Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:21 **Location:** Vernon, California

Tag Name: U1_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 956.15 Hours

Non-Operating Time: 1,227.85 Hours Report Time: 2,184.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 CO Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:21 **Location:** Vernon, California

Tag Name: U1_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 956.15 Hours

Non-Operating Time: 1,227.85 Hours Report Time: 2,184.00 Hours

No invalid events were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 NOx Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:27 **Location:** Vernon, California

Tag Name: U1_NOxRECLM_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 956.15 Hours

Non-Operating Time: 1,227.85 Hours Report Time: 2,184.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 NOx Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:27 **Location:** Vernon, California

Tag Name: U1_NOxRECLM_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 956.15 Hours

Non-Operating Time: 1,227.85 Hours Report Time: 2,184.00 Hours

No invalid events were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 VOC Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:30 **Location:** Vernon, California

Tag Name: U1_VOC_LbPerHr_1M

SI = SampleInvalid, * = Excess Emission

Total Operating Time: 956.15 Hours

Non-Operating Time: 1,227.85 Hours Report Time: 2,184.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 VOC Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:30 **Location:** Vernon, California

Tag Name: U1_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 956.15 Hours

Non-Operating Time: 1,227.85 Hours Report Time: 2,184.00 Hours

No invalid events were found in the reporting period.

Excess Emission Report

Unit 1 - CO ppmvdc 1-hour during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:38 **Location:** Vernon, California

Tag Name: U1_CONormal_Ppmvdc_1H
Total Operating Time: 965.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,219.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**965.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Excess Emission Report

Unit 1 - NOx ppmvdc 1-hour during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:24 **Location:** Vernon, California

Tag Name: U1_NOxNormal_Ppmvdc_1H
Total Operating Time: 965.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,219.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**965.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Excess Emission Report

Unit 1 - VOC ppmvdc 1-hour during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:25 **Location:** Vernon, California

Tag Name: U1_VOCNormal_Ppmvdc_1H
Total Operating Time: 965.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,219.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**965.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Quad K Excess Emissions Report

U1 NOX 4-Hour Events

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:26 **Location:** Vernon, California

Tag Name: U1_NOx4H_Ppmvdc_1H
Total Operating Time: 965.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,219.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**965.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Excess Emission Report

Unit 1 - CO ppmvdc 3-hour Rolling during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:23 **Location:** Vernon, California

Tag Name: U1_CO_3HrRoll_Ppmvdc_1H
Total Operating Time: 965.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,219.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**965.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Startup/Shutdown Event Report

U2 CO Startup/Shutdown Events

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:31 **Location:** Vernon, California
Tag Name: U2_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission
Total Operating Time: 766.42 Hours
Non-Operating Time: 1,417.58 Hours Report Time: 2,184.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Event Report

U2 CO Startup/Shutdown Events

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:31 **Location:** Vernon, California

Tag Name: U2_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 766.42 Hours

Non-Operating Time: 1,417.58 Hours Report Time: 2,184.00 Hours

No invalid events were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U2 NOx Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:35 **Location:** Vernon, California

Tag Name: U2_NOxRECLM_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 766.42 Hours

Non-Operating Time: 1,417.58 Hours Report Time: 2,184.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U2 NOx Startup/Shutdown

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station

Generated: 07/08/2022 13:35 **Location:** Vernon, California

Tag Name: U2_NOxRECLM_LbPerHr_1M

SI = SampleInvalid, * = Excess Emission

Total Operating Time: 766.42 Hours

Non-Operating Time: 1,417.58 Hours Report Time: 2,184.00 Hours

No invalid events were found in the reporting period.

Startup/Shutdown Event Report

U2 VOC Startup/Shutdown Events

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:36 **Location:** Vernon, California
Tag Name: U2_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 766.42 Hours
Non-Operating Time: 1,417.58 Hours Report Time: 2,184.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Event Report

U2 VOC Startup/Shutdown Events

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:36 **Location:** Vernon, California
Tag Name: U2_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 766.42 Hours
Non-Operating Time: 1,417.58 Hours Report Time: 2,184.00 Hours

No invalid events were found in the reporting period.

Excess Emission Report

Unit 2 - CO ppmvdc 1-hour during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:39 **Location:** Vernon, California

Tag Name: U2_CONormal_Ppmvdc_1H
Total Operating Time: 775.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,409.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**775.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Excess Emission Report

Unit 2 - NOx ppmvdc 1-hour during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:33 **Location:** Vernon, California

Tag Name: U2_NOxNormal_Ppmvdc_1H
Total Operating Time: 775.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,409.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**775.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Excess Emission Report

Unit 2 - VOC ppmvdc 1-hour during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:33 **Location:** Vernon, California

Tag Name: U2_VOCNormal_Ppmvdc_1H
Total Operating Time: 775.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,409.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**775.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Quad K Excess Emissions Report

U2 NOX 4-Hour Events

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:34 **Location:** Vernon, California

Tag Name: U2_NOx4H_Ppmvdc_1H
Total Operating Time: 775.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,409.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**775.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Excess Emission Report

Unit 2 - CO ppmvdc 3-hour Rolling during Normal Operation

From: 04/01/2022 00:00 **To:** 06/30/2022 23:59 **Facility Name:** Malburg Generating Station
Generated: 07/08/2022 13:32 **Location:** Vernon, California

Tag Name: U2_CO_3HrRoll_Ppmvdc_1H
Total Operating Time: 775.00 Hour(s) **No Exclusions Allowed**
Non-Operating Time: 1,409.00 Hour(s) Report Time: 2,184.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	**775.00 Hour(s)**
Total Duration (Online only):	**0.00 Hour(s)**
Time in exceedance as a percentage of operating time:	**0.00 %**
Time in compliance as a percentage of operating time:	**100.00 %**

Appendix F
Exceedance Reports

City of Vernon
4305 Santa Fe Avenue, Vernon, California 90058
Telephone (323) 583-8811

May 2, 2022

SCAQMD – Compliance & Enforcement
P.O. Box 4941
Diamond Bar, CA 91765-0941
Attn: Christian Fielding

Subject: **Form 500-N for Deviation Event with Excess Emissions on 03/18/2022**
Bicent (California) Malburg LLC, SCAQMD Facility ID 155474

Dear Mr. Fielding:

Attached is Form 500-N for a March 18, 2022 deviation event resulting in excess emissions of ammonia at Bicent (California) Malburg LLC, Facility ID 155474. Supporting documentation is also provided, where warranted.

Please note that this facility was sold to the City of Vernon, Vernon Public Utilities (VPU) on December 14, 2021. Accordingly, a change of ownership application was submitted to the SCAQMD on December 17, 2021. Per direction provided by Ms. Vicky Lee, VPU will continue to use Facility ID 155474 for SCAQMD reporting until a new Facility ID and Title V Permit to Operate are issued.

Please contact Michael Bonfiglio at (323) 583-8811 ext. 307 (email address: MBonfiglio@cityofvernon.org) or Elyse Engel at (702) 354-2648 (email address: Elyse.Engel@jacobs.com) if you have any questions or if you need additional information.

Sincerely,

Abraham Alemu

Abraham Alemu
General Manager of Vernon Public Utilities

Encl: Form 500-N
Attachment A – Additional Form 500-N Descriptions
Attachment B – Ammonia Calculations and Compliance Demonstration

cc: Todd Dusenberry
Lisa Umeda
Rich Olsen
Matt Richards
Michael Bonfiglio
Jessica Balandran
Elyse Engel
Document Control

South Coast Air Quality Management District

Form 500-N

Title V - Deviations, Emergencies & Breakdowns

*This written report is in addition to requirements to verbally report certain types of incidents. Verbal reports may be made by calling AQMD at 1-800-288-7664 (1-800-CUT-SMOG) or AQMD enforcement personnel.

Mail To:
SCAQMD- Compliance & Enforcement
P.O. Box 4941
Diamond Bar, CA 91765-0941

Tel: (909) 396-3385
www.aqmd.gov

Section I - Operator Information

1. Facility Name (Business Name of Operator That Appears On Permit): Bicent (California) Malburg LLC

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 155474

3. Address: (where incident occurred) 4963 S Soto Street (Street Address)
Vernon (City) CA (State) 90058 (Zip)

4. Mailing Address: (if different from Item 3) 4305 Santa Fe Avenue (Street Address)
Vernon (City) CA (State) 90058 (Zip)

5. Provide the name, title, and phone number of the person to contact for further information:

Michael Bonfiglio (Name) | Operations Manager (Title) | (526) 298-2253 (Phone #)

Section II - Reporting of Breakdowns, Deviations, and Emergencies

1. This written notification is to report a(n):

Type of Incident	Verbal Report Due*	Written Report Due
a. ☐ Emergency under Rule 3002(g)	Within 1 hour of discovery	Within 2 working days from when the emission limit was exceeded.
b. ☐ Breakdown under: ☐ Rule 430 (Non-RECLAIM) ☐ Rule 2004 (RECLAIM) ☐ Rule 218 (Non-RECLAIM) [See Rule 218(f)(3)]	For Rules 430 & 2004 - Within 1 hour of discovery. For Rule 218 – Within 24 hours or next business day for failure/shutdown exceeding 24 hours	For Rules 430 & 2004 - Within 7 calendar days after breakdown is corrected, but no later than 30 days from start of the breakdown, unless a written extension is granted. For Rule 218 - With required semi-annual reports.
c. ☒ Deviation with excess emissions [See Title V Permit, Section K, Condition No. 22B]	Within 72 hours of discovery of the deviation or shorter reporting period if required by an applicable State or Federal Regulation.	Within 14 days of discovery of the deviation.
d. ☐ Other Deviation [See Title V Permit, Section K, Condition Nos. 22D & 23]	None	With required semi-annual monitoring reports.

2. The incident was first discovered by: Caitlin McCarty (Name) on 04/19/2022 (Date) 02:01 (Time) ○ AM ◉ PM

3. The incident was first reported by: Operator #4 (Name of AQMD Staff Person) on 04/22/2022 (Date) 08:33 (Time) ◉ AM ○ PM

a. ◉ Via Phone

b. ○ In Person

Notification Number (Required): 696804

4. When did the incident actually occur? 03/18/2022 (Date) 06:00 (Time) ○ AM ◉ PM

AQMD USE ONLY				
Received By:		Assigned By:		Inspector:
Date/Time Received:		Date/Time Assigned:		Date/Time Received Assignment:
Date Delivered To Team:		Date Reviewed Inspector Report:		Date Inspected Facility:
Team:	Sector:	Breakdown/Deviation Notification No.		Date Completed Report:
Recommended Action:	Cancel Notification	Grant Relief	Issue NOV No.	Other:
Final Action:	Cancel Notification	Grant Relief	Issue NOV No.	Other:

5. Has the incident stopped? a. (•) Yes, on: 03/18/2022 (Date) 07:00 (Time) ( ) AM (X) PM b. ( ) No

6. What was the total duration of the incident? 0 (Days) 01 (Hours)

7. For equipment with an operating cycle, as defined in Rule 430 (b)(3)(A), when was the end of the operating cycle during which the incident occurred? _____ (Date) _____ (Time) ( ) AM ( ) PM

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.

See Attachment A.

9. The incident may have resulted in a:

a. [X] Violation of Permit Condition(s): A195.4

b. [ ] Violation of AQMD Rule(s): _____

10. What was the probable cause of the incident? Attach additional pages as necessary.

See Attachment A.

11. Did the incident result in excess emissions? ( ) No (•) Yes (Complete the following and attach calculations.)

[ ] VOC _____ lbs [ ] NOx _____ lbs [ ] SOx _____ lbs [ ] H2S _____ lbs

[ ] CO _____ lbs [ ] PM _____ lbs [X] Other: 1.59 lbs NH3 pollutant

12. *For RECLAIM facilities Subject to Rule 2004 (i)(3) ONLY:* If excess emissions of NOx and/or SOx were reported in Item 11, do you want these emissions to be counted when determining compliance with your annual allocations?

a. ( ) Yes, for: [ ] NOx [ ] SOx b. ( ) No, for: [ ] NOx [ ] SOx

If box 12(b) above is checked, include all information specified in Rule 2004(i)(3)(B) and (C), as applicable.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

See Attachment A.

14. Was the facility operating properly prior to the incident?

a. (•) Yes b. ( ) No, because: _____

15. Did the incident result from operator error, neglect or improper operation or maintenance procedures?

a. (•) Yes b. ( ) No, because: _____

16. Has the facility returned to compliance?

a. ( ) No, because: _____

b. (•) Yes (Attach evidence such as emissions calculations, contemporaneous operating logs or other credible evidence.)

Section III - Certification Statement

I certify under penalty of law that based on information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.

For Title V Facilities ONLY: [X] I also certify under penalty of law that that I am the responsible official for this facility as defined in AQMD Regulation XXX.

1. Signature of Responsible Official:	2. Title of Responsible Official:
Abraham Alemu	General Manager of Vernon Public Utilities
3. Print Name:	4. Date:
Abraham Alemu	5/2/2022
5. Phone #:	6. Fax #:
(323) 583-8811	

7. Address of Responsible Official:

4305 Santa Fe Avenue	Vernon	CA	90058
Street #	City	State	Zip

Attachment A: Additional Form 500-N Descriptions

This attachment presents additional information regarding the ammonia (NH_3) excess emissions event which occurred on March 18, 2022, as prompted by Form 500-N.

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.

For the hour of 06:00 PM through 07:00 PM on March 18, 2022, the Selective Catalytic Reduction (SCR) System for Gas Turbine No. 1 (Device IDs C33 and D27, respectively) emitted NH_3 at 7.26 parts per million by volume (ppmv). This is in excess of the hourly 5 ppmv limit established in Title V Permit, Section D, Condition No. A195.4. NH_3 emissions returned to compliance with the 07:00 PM to 08:00 PM hour.

10. What was the probable cause of the incident? Attach additional pages as necessary.

On March 18, 2022, the facility was in a 1x1 configuration with only Gas Turbine No. 1 (Device ID D27) operating. At the start of the 06:00 PM hour on March 18, 2022, Gas Turbine No. 1 (Device ID D27) was operating at a load of 20 megawatts (MW) and was quickly brought up to a load of 46 MW. To address a momentary spike of oxides of nitrogen (NO_X) following this load change, the Plant Operator switched the Flow Control Valve (FCV) to Manual with the intent of quickly driving down NO_X by directly controlling the NH_3 flow through the SCR System (Device ID C33). The FCV was inadvertently left in Manual after NO_X emissions had stabilized, which led to an over-injection of NH_3. The FCV was returned to Auto at approximately 07:00 PM, which reduced the fuel flow and brought the NH_3 slip back under 5 ppmv.

11. Did the incident result in excess emissions?

As documented in Form 500-N, the event did result in 1.59 pounds of excess NH_3 emissions. Calculations are provided in Attachment B.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

The problem was corrected by returning the FCV to Auto, as described in response to Item 10 above. To avoid similar incidents in the future, Plant Operators will be receiving refresher training on use of the FCV and the NH_3 control loop will be assessed and retuned for increased responsiveness, if needed.

16. Has the facility returned to compliance?

As documented in Form 500-N, the facility has returned to compliance. Demonstration of this return to compliance is provided in Attachment B.

Attachment B: Ammonia Calculations and Compliance Demonstration

Malburg Generating Station, Facility ID 155474
Gas Turbine No. 1 NH_3 Emission Calculations

Date of Data: March 18, 2022
Submital Date: April 28, 2022

Excess Emissions Mass Determination

Title V Permit Condition No. A195.4: NH_3 concentration will not exceed 5 ppmv averaged over 1 hour.

Calculation Methodology:

$ppmv_{Exceedance} = ppmv_{NH3} - ppmv_{Limit}$

$\dot{m}_{NH3} = (ppmv_{NH3} / 10^6) \times (MW_{NH3} / MW_{flue\ gas}) \times \dot{m}_{flue\ gas\ dry}$

$\dot{m}_{Exceedance} = (ppmv_{Exceedance} / 10^6) \times (MW_{NH3} / MW_{flue\ gas}) \times \dot{m}_{flue\ gas\ dry}$

Constants:

$ppmv_{Limit}$	5	ppmv
$MW_{flue\ gas}$	29.303	lb/lb-mol
MW_{NH3}	17.03	lb/lb-mol

DAHS Data					Calculation of NH_3 Emissions	Calculation of NH_3 Emissions Exceedance
Date	Time	$ppmv_{NH3}$	$\dot{m}_{flue\ gas\ dry}$ (lb/hr)	NO_X ppmvdc	$\dot{m}_{NH3}$ (lb/hr)	$\dot{m}_{Exceedance}$ (lb/hr)
3/18/2022	15:00	2.24	732,455	1.83	N/A	0.00
3/18/2022	16:00	2.94	855,277	1.78	N/A	0.00
3/18/2022	17:00	1.82	1,092,421	1.83	N/A	0.00
3/18/2022	18:00	7.66	1,025,463	1.03	4.565	1.59
3/18/2022	19:00	0.00	974,178	1.78	N/A	0.00
3/18/2022	20:00	1.51	926,573	1.78	N/A	0.00
3/18/2022	21:00	2.39	1,049,610	1.78	N/A	0.00

Return to Compliance

As shown in the table above, the NH_3 concentration returns to below the 5 ppmv limit of Condition No. A195.4 immediately following the 18:00 hour.
As shown in the table above, the NO_X concentration does not exceed the 2 ppmvdc limit of Condition No. A99.6 during this time period.

City of Vernon
4305 Santa Fe Avenue, Vernon, California 90058
Telephone (323) 583-8811

June 8, 2022

SCAQMD – Compliance & Enforcement
P.O. Box 4941
Diamond Bar, CA 91765-0941
Attn: Christian Fielding

Subject: **Form 500-N for Deviation Event with Excess Emissions on 05/26/2022**
Vernon Public Utilities, SCAQMD Facility ID 195802

Dear Mr. Fielding:

Attached is Form 500-N for a May 26, 2022, deviation event resulting in excess emissions of ammonia at Vernon Public Utilities, Facility ID 195802. Supporting documentation is also provided, where warranted.

Please contact Michael Bonfiglio at (323) 583-8811 ext. 307 (email address: MBonfiglio@cityofvernon.org) or Elyse Engel at (702) 354-2648 (email address: Elyse.Engel@jacobs.com) if you have any questions or if you need additional information.

Sincerely,

Abraham Alemu

Abraham Alemu
General Manager of Vernon Public Utilities

Encl: Form 500-N
Attachment A – Additional Form 500-N Descriptions
Attachment B – Ammonia Calculations and Compliance Demonstration

cc: Todd Dusenberry
Lisa Umeda
Rich Olsen
Matt Richards
Michael Bonfiglio
Jessica Balandran
Elyse Engel

South Coast Air Quality Management District

Form 500-N

Title V - Deviations, Emergencies & Breakdowns

*This written report is in addition to requirements to verbally report certain types of incidents. Verbal reports may be made by calling AQMD at 1-800-288-7664 (1-800-CUT-SMOG) or AQMD enforcement personnel.

Mail To:
SCAQMD- Compliance & Enforcement
P.O. Box 4941
Diamond Bar, CA 91765-0941

Tel: (909) 396-3385
www.aqmd.gov

Section I - Operator Information

1. Facility Name (Business Name of Operator That Appears On Permit): Vernon Public Utilities

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 195802

3. Address: (where incident occurred) 4963 S Soto Street (Street Address)
Vernon (City) CA (State) 90058 (Zip)

4. Mailing Address: (if different from Item 3) 4305 Santa Fe Avenue (Street Address)
Vernon (City) CA (State) 90058 (Zip)

5. Provide the name, title, and phone number of the person to contact for further information:

Michael Bonfiglio (Name) | Operations Manager (Title) | (526) 298-2253 (Phone #)

Section II - Reporting of Breakdowns, Deviations, and Emergencies

1. This written notification is to report a(n):

Type of Incident	Verbal Report Due*	Written Report Due
a. ☐ Emergency under Rule 3002(g)	Within 1 hour of discovery	Within 2 working days from when the emission limit was exceeded.
b. ☐ Breakdown under: ☐ Rule 430 (Non-RECLAIM) ☐ Rule 2004 (RECLAIM) ☐ Rule 218 (Non-RECLAIM) [See Rule 218(f)(3)]	For Rules 430 & 2004 - Within 1 hour of discovery. For Rule 218 – Within 24 hours or next business day for failure/shutdown exceeding 24 hours	For Rules 430 & 2004 - Within 7 calendar days after breakdown is corrected, but no later than 30 days from start of the breakdown, unless a written extension is granted. For Rule 218 - With required semi-annual reports.
c. ☒ Deviation with excess emissions [See Title V Permit, Section K, Condition No. 22B]	Within 72 hours of discovery of the deviation or shorter reporting period if required by an applicable State or Federal Regulation.	Within 14 days of discovery of the deviation.
d. ☐ Other Deviation [See Title V Permit, Section K, Condition Nos. 22D & 23]	None	With required semi-annual monitoring reports.

2. The incident was first discovered by: Mark Yeaman (Name) on 05/27/2022 (Date) 05:48 (Time) ◉ AM ○ PM

3. The incident was first reported by: Operator #9 (Name of AQMD Staff Person) on 05/27/2022 (Date) 03:04 (Time) ○ AM ◉ PM

a. ◉ Via Phone

b. ○ In Person

Notification Number (Required): 701655

4. When did the incident actually occur? 05/26/2022 (Date) 03:00 (Time) ○ AM ◉ PM

AQMD USE ONLY				
Received By:		Assigned By:	Inspector:	
Date/Time Received:		Date/Time Assigned:	Date/Time Received Assignment:	
Date Delivered To Team:		Date Reviewed Inspector Report:	Date Inspected Facility:	
Team:	Sector:	Breakdown/Deviation Notification No.	Date Completed Report:	
Recommended Action:	Cancel Notification	Grant Relief	Issue NOV No.	Other:
Final Action:	Cancel Notification	Grant Relief	Issue NOV No.	Other:

5. Has the incident stopped? a. (•) Yes, on: 05/26/2022 (Date) 04:00 (Time) ( ) AM (•) PM b. ( ) No

6. What was the total duration of the incident? 0 (Days) 01 (Hours)

7. For equipment with an operating cycle, as defined in Rule 430 (b)(3)(A), when was the end of the operating cycle during which the incident occurred? _____ (Date) _____ (Time) ( ) AM ( ) PM

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.

See Attachment A.

9. The incident may have resulted in a:

a. [X] Violation of Permit Condition(s): Section D, Condition No. A195.4

b. [ ] Violation of AQMD Rule(s): _____

10. What was the probable cause of the incident? Attach additional pages as necessary.

See Attachment A.

11. Did the incident result in excess emissions? ( ) No (•) Yes (Complete the following and attach calculations.)

[ ] VOC _____ lbs [ ] NOx _____ lbs [ ] SOx _____ lbs [ ] H2S _____ lbs

[ ] CO _____ lbs [ ] PM _____ lbs [X] Other: 0.060 lbs NH3 pollutant

12. *For RECLAIM facilities Subject to Rule 2004 (i)(3) ONLY:* If excess emissions of NOx and/or SOx were reported in Item 11, do you want these emissions to be counted when determining compliance with your annual allocations?

a. ( ) Yes, for: [ ] NOx [ ] SOx b. ( ) No, for: [ ] NOx [ ] SOx

If box 12(b) above is checked, include all information specified in Rule 2004(i)(3)(B) and (C), as applicable.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

See Attachment A.

14. Was the facility operating properly prior to the incident?

a. (•) Yes b. ( ) No, because: _____

15. Did the incident result from operator error, neglect or improper operation or maintenance procedures?

a. (•) Yes b. ( ) No, because: _____

16. Has the facility returned to compliance?

a. ( ) No, because: _____

b. (•) Yes (Attach evidence such as emissions calculations, contemporaneous operating logs or other credible evidence.)

Section III - Certification Statement

I certify under penalty of law that based on information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.

For Title V Facilities ONLY: [X] I also certify under penalty of law that that I am the responsible official for this facility as defined in AQMD Regulation XXX.

1. Signature of Responsible Official:	2. Title of Responsible Official:
Abraham Alemu	General Manager of Vernon Public Utilities
3. Print Name:	**4. Date:**
Abraham Alemu	6/8/2022
5. Phone #:	**6. Fax #:**
(323) 583-8811	

7. Address of Responsible Official:

4305 Santa Fe Avenue	Vernon	CA	90058
Street #	City	State	Zip

Attachment A: Additional Form 500-N Descriptions

This attachment presents additional information regarding the ammonia (NH_3) excess emissions event which occurred on May 26, 2022, as prompted by Form 500-N.

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.

For the hour of 03:00 PM through 03:59 PM on May 26, 2022, the Selective Catalytic Reduction (SCR) System for Gas Turbine No. 2 (Device IDs C41 and D36, respectively) emitted NH_3 at 5.16 parts per million by volume (ppmv). This is in excess of the hourly 5 ppmv limit established in Title V Permit, Section D, Condition No. A195.4. NH_3 emissions returned to compliance with the 04:00 PM to 04:59 PM hour.

10. What was the probable cause of the incident? Attach additional pages as necessary.

On May 26, 2022, the facility initiated a warm start on Gas Turbine No. 2 (Device ID D36) at 01:05 PM. The startup event ended at 02:35 PM with the facility in a 1x1 configuration. Only Gas Turbine No. 2 was operating at this time because the facility was conducting several quality assurance checks (e.g., flame tuning the turbine, vibration analysis, etc.) following replacement of the catalyst in the Selective Catalytic Reduction (SCR) System (Device ID C41). Flame tuning, in particular, requires the turbine to be operating at a load above 20 megawatts (MW) with an active SCR System. The rate at which the load was increased as a part of the tuning process was not consistent with typical load ramping operations. The operating conditions required during flame tuning are similarly not consistent with normal operation and are part of the process of tuning the SCR System with the new catalyst. Results from this exercise have allowed the site to appropriately establish operating parameters consistent with the new catalyst. During the flame tuning, the Plant Operator determined that the NH_3 slip exceeded the limit of 5 ppmv averaged over 1 hour. As a result, tuning was temporarily stopped until the system had stabilized. The NH_3 slip was back under 5 ppmv starting at 04:00 PM and tuning activities resumed.

11. Did the incident result in excess emissions?

As documented in Form 500-N, the event did result in 0.06 pounds of excess NH_3 emissions. Calculations are provided in Attachment B.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

The problem was corrected by ceasing the tuning operations when the exceedance was identified, thereby allowing the SCR System on Gas Turbine No. 2 to stabilize. Further excess emissions were mitigated through continued monitoring of the NH_3 slip concentrations with more gradual system adjustments during the remaining flame tuning and other quality assurance checks. Similar incidents are not expected in the future, as this was a one-time occurrence associated with testing of the new SCR System catalyst.

16. Has the facility returned to compliance?

As documented in Form 500-N, the facility has returned to compliance. Demonstration of this return to compliance is provided in Attachment B.

Attachment B: Ammonia Calculations and Compliance Demonstration

Malburg Generating Station, Facility ID 195802
Gas Turbine No. 2 NH_3 Emission Calculations

Date of Data: May 26, 2022

Excess Emissions Mass Determination

Title V Permit Condition No. A195.4: NH_3 concentration will not exceed 5 ppmv averaged over 1 hour.

Calculation Methodology:

$ppmv_{Exceedance} = ppmv_{NH3} - ppmv_{Limit}$

$\dot{m}_{NH3} = (ppmv_{NH3} / 10^6) \times (MW_{NH3} / MW_{flue\ gas}) \times \dot{m}_{flue\ gas\ dry}$

$\dot{m}_{Exceedance} = (ppmv_{Exceedance} / 10^6) \times (MW_{NH3} / MW_{flue\ gas}) \times \dot{m}_{flue\ gas\ dry}$

Constants:

$ppmv_{Limit}$	5	ppmv
$MW_{flue\ gas}$	29.303	lb/lb-mol
MW_{NH3}	17.03	lb/lb-mol

DAHS Data					Calculation of NH_3 Emissions	Calculation of NH_3 Emissions Exceedance
Date	Time	$ppmv_{NH3}$	$\dot{m}_{flue\ gas\ dry}$ (lb/hr)	NO_X ppmvdc	$\dot{m}_{NH3}$ (lb/hr)	$\dot{m}_{Exceedance}$ (lb/hr) Methodology
5/26/2022	15:00	5.16	657,313	1.80	1.97	0.06
5/26/2022	16:00	3.96	665,258	1.70	N/A	0.00
5/26/2022	17:00	1.66	725,351	1.70	N/A	0.00
5/26/2022	18:00	1.41	857,601	1.80	N/A	0.00
5/26/2022	19:00	2.76	911,541	1.80	N/A	0.00

Return to Compliance

As shown in the table above, the NH_3 concentration returns to below the 5 ppmv limit of Condition No. A195.4 immediately following the 15:00 hour.
As shown in the table above, the NO_X concentration does not exceed the 2 ppmvdc limit of Condition No. A195.5 during this time period.