

DOCKETED

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**CALPINE KING CITY COGEN, LLC
(85-AFC-5C)**

**KING CITY POWER PLANT
CALIFORNIA ENERGY COMMISSION
ANNUAL COMPLIANCE REPORT**

Calendar Year 2021

**Calpine King City Cogen, LLC
750 Metz Road
King City, CA 93930**

**California Energy Commission
2020 Annual Compliance Report
January 1, 2021 - December 31, 2021**

CURRENT PROJECT STATUS

On April 28, 1999 the terms of the PPA required the facility to adopt a 24 hours per day, 7 days per week operating schedule for the remainder of the term of the agreement (year 2019). The Cogen operated through 2007 according to this schedule when economically viable. During this period the facility was shut down for maintenance outages, economic curtailments and experienced forced outages.

In November 2006, the facility began 5x13 operation running Monday through Friday 08:30 to 21:30. This operating schedule continued through April 2019, at which time the PPA ended. Calpine King City Cogen, LLC (CKCC) has been operating a combustion turbine as a cogeneration electric generation facility supplying energy to Pacific Gas and Electric Company under a Standard Offer No. 4 (SO4) contract and steam to an industrial host under a steam supply contract. These contracts expired on April 28, 2019, and as a result, CKCC was no longer exempt from Acid Rain program requirements under 40 CFR 72.6(b).

CKCC submitted an application the Monterey Bay Air Resources District (MBARD) for a modification of the King City Title V Permit, TV-0000012, in May 2019, requesting to amend their Title V permit to include the Acid Rain permit requirements of 40 CFR Part 72 to the cogeneration facility with the General Electric (GE) Frame 7 gas turbine. Notification was given to EPA, MBARD and CEC in 2019 that the CTG of the CKCC facility commenced commercial operation on June 18, 2019. The Title V Permit TV-00000012A was issued by the MBARD on March 10, 2020, including the Acid Rain permit. The CKCC facility continued commercial operations through 2021.

Operation details for the combustion and steam turbine including Operating, Availability, Outage and Capacity information are included in the 2021 Monthly Performance Reports provided in Attachment 1. The scheduled maintenance outages occurred in March and November of 2021. Overall, the facility continued to maintain an excellent record of availability for electrical production.

STATUS OF COMPLIANCE PLAN REQUIREMENTS FOR WHICH ACTION WAS SCHEDULED DURING THIS PERIOD

Cogeneration

Cogen-01 Project Owner shall file with the California Energy Commission during each calendar year an annual report in which monthly average values of the following parameters will be given; 1) monthly fuel use (quantity and Btu value) as evidenced by an invoice from the gas supplier, 2) monthly electrical sales (KWh) as evidenced by invoice from PG&E, 3) monthly steam sales (quantity and Btu value) as evidenced by an invoice to RAVA, 4) feedwater rate (lb/hr) and temperature (F), 5) condensate return rate (lb/hr) and temperature, 6) process steam from auxiliary boilers (lb/hr) and temperature, pressure, enthalpy, auxiliary boilers operating hours.

Status – The facility remained in compliance with this condition in 2021. Refer to 2021 Monthly Performance Reports provided in Attachment 1 (There were no steam sales to RAVA in 2021).

Reliability and Safety

RE-01 Project Owner shall inform the CEC of any design changes made subsequent to certification by the Commission, whether made during final design or construction, which would affect the project's availability or capacity factors.

Status – The facility remained in compliance with this condition in 2021. No design changes were made during 2021 that would affect the projects availability or capacity factors.

RE-03 Project Owner shall prepare an annual report documenting the plant availability and capacity factors achieved, supported by the following information: Combustion turbine/generators, Heat Recovery steam generators, Feedwater pumps, Steam turbine/generators, Condensers, Condensate pumps, Cooling water pumps, Controls. For each forced outage a precise identification of the equipment whose failure resulted in the forced outage and resulting forced outage hours. Identification of equipment or other causes (curtailments) for which planned outage was instituted in any given month. Annual plant availability and capacity factors, per EPRI definitions.

Status – The facility remained in compliance with this condition in 2021. Refer to 2021 Monthly Performance Reports provided in Attachment 1.

Public Health

PH-01 Project Owner shall cause to be established an ambient monitoring system for ozone, TSP, and PM10 in the Salinas Valley, downwind and south of the facility.

Status – The facility remained in compliance with this condition in 2021. Project Owner continues to financially support the operation of the King City Air Monitoring Station. The station commenced operation on March 8, 1998 at the Industrial Road site. In May 2007, the station was relocated when the original site became unsuitable to its current location at the San Lorenzo School on Pearl Street in King City. The station is located in King City. The King City Air Monitoring Station is owned and operated by Monterey Bay Unified Air Pollution Control District effective July 1, 2010. The station is currently monitoring ozone, PM10, PM-2.5, shelter temperature, wind speed, wind direction, ambient temperature and relative humidity. The Air Monitoring Station was maintained and operated in 2021.

PH-02 Project Owner shall limit ammonia emission due to ammonia slip in the NOx reduction process to no greater than 10 parts of ammonia per 1 million parts of flue gas.

Status - The facility remained in compliance with this condition in 2021.

Ammonia Safety

AM-01 Project Owner shall comply with storage and handling requirements of anhydrous ammonia as specified in Title 29, CFR, Sec. 1910.111; Title 8, CAC, Ch. 4, Subchapter 1, Article 6, and ANSI K61.1 – 1981. Verify via Monterey County Department of Health Permit.

Status – The facility remained in compliance with this condition in 2021, and is in compliance with the ammonia storage and handling requirements. The hazardous materials permit is issued by the Monterey County Department of Environmental Health, the local Certified Unified Program Agency (CUPA). The annual hazardous material permit was renewed and remains valid until June 30, 2022.

AM-03 Project Owner shall contract only with Department of Transportation licensed haulers for the transport of anhydrous ammonia.

Status – The facility remained in compliance with this condition in 2021.

AM-09 Project Owner shall facilitate on-site worker safety inspections conducted by the California Division of Occupational Safety and Health during construction and operation of the facility when an employee complaint has been received.

Status – The facility did not receive any employee complaints in 2021. The facility remained in compliance with this condition in 2021.

Air Quality

AQ-01 Before implementing any major change in the Air Pollution Control (APC) systems identified in Determination of Compliance (DOC) Conditions 8, 15, and 16, the Emissions Monitoring Systems (EMS) identified in DOC Conditions 17 through 24, or if any changes to any Conditions of Certification related to air quality are proposed, the project owner shall submit the proposed change to the Monterey Bay Unified Air Pollution Control District (MBUAPCD or District) and the Energy Commission for approval. Examples of major changes are the use of alternative APC systems, EMS, or equipment, or a major change in the performance criteria specified in the referenced DOC Conditions.

Status – During 2021 the facility did not implement any major changes to the air pollution control system, the emissions monitoring system or make any changes affecting air quality conditions of certification. The NO_x, CO and O₂ analyzers on the Gilroy Energy Center, LLC for King City (Peaker) were replaced with like in kind analyzers and a copy of EPA Certification for these analyzers is attached with the Title V compliance certification report to MBUAPCD submitted this year. Refer to the 2021 Title V Annual Certification Report (Attachment 2). The facility remained in compliance with this condition in 2021.

AQ-02 The project owner shall report any minor change in the APC systems identified in DOC Conditions 8, 15, and 16, or the EMS identified in DOC Conditions 17 through 22, to the MBUAPCD and CPM CEC staff. Examples of minor changes are modifications made during initial startup of the facility to ensure compliance with applicable emission limitations or use of alternative hardware to meet the required performance criteria.

Status – During 2021 the facility did not implement or make any minor changes to the air pollution control system or alternate hardware to meet required performance criteria. The NO_x, CO and O₂ analyzers on the Gilroy Energy Center, LLC for King City (Peaker) were replaced with like in kind analyzers and a copy of EPA Certification for these analyzers is attached with the Title V compliance certification report to MBUAPCD submitted this year. Refer to the 2021 Title V Annual Certification Report (Attachment 2). The facility remained in compliance with this condition in 2021

AQ-05 The MBUAPCD shall monitor all activities related to site preparation and construction, and monitor operation of the project to ensure compliance with the Conditions of Certification contained in the Commission Decision relating to Air Quality. The MBUAPCD shall perform all duties and functions normally performed by the MBUAPCD and shall have the authority to issue a Permit to Operate. The conditions of the Permit to Operate will be consistent with the Certification Conditions in the Commission Decision. The project owner shall submit to the CPM a report on the status of compliance for each condition related to air quality in the Commission Decision on the project. These reports shall be submitted annually.

Status – The facility remained in compliance with this condition in 2021. The facility submits the annual Title V compliance certification report to MBUAPCD by Feb 15th of each year. Refer to the 2021 Title V Annual Certification Report (Attachment 2). The PTOs for all equipment at the facility remain valid.

AQ-07 The annual emissions of the gas turbine shall not exceed 130 tons per year of NO_x and 82 tons per year of CO.

Status – The facility remained in compliance with this condition in 2021. In 2021, the gas turbine emissions remained below the 130 tons per year of NO_x limit and 82 tons per year of CO. Refer to the 2021 Annual Facility Emission Summary (Attachment 3).

AQ-08 The maximum annual NO_x emission cap for the combined or individual operation of the gas turbine and/or the boiler(s) shall not exceed 133.40 tons per year.

Status – The facility remained in compliance with this condition in 2021. In 2021, the gas turbine and boilers annual NO_x emissions total for the plant remained below 133.4 tons per year. Refer to the 2021 Annual Facility Emission Summary (Attachment 3).

AQ-20 The auxiliary boilers shall be fired on natural gas, except that No.2 fuel oil may be used during training/testing, or periods of natural gas curtailment by the utility, or in the event of natural gas supply malfunction or disruption not within the control of the project owner. In any event, No.2 fuel oil shall not be used for more than 240 hours per year per boiler.

Status – The facility remained in compliance with this condition in 2021. The auxiliary boilers were not fired on No.2 fuel oil for training/testing or natural gas curtailments during 2021.

AQ-23 The sulfur content of any No.2 oil used as fuel in the turbine or auxiliary boilers shall not exceed 0.05 percent by weight. All fuel received must be certified to contain 0.05 percent sulfur, or less, by weight.

Status – The facility remained in compliance with this condition in 2021. The gas turbine or auxiliary boilers did not operate on No.2 fuel oil during 2021. The No.2 fuel oil storage tank remained empty during 2021.

AQ-16 Submit gas turbine cold and hot startup protocols which minimize emissions. Amend protocols based on operating experience.

Status – The facility remained in compliance with this condition in 2021. The gas turbine startup protocol was reviewed and kept current in 2021.

AQ-34: An annual compliance test shall be conducted prior to January 1 of each year in accordance with the MBUAPCD test procedures, and the written results of the compliance test shall be provided to the District within sixty 60 days after testing. A testing protocol shall be submitted to the District 30 days prior to testing and the District shall be notified at least 10 days prior to the actual testing day so that a District observer can be present.

Status – The facility remained in compliance with this condition in 2021. The annual compliance test was conducted in June 2021 by Montrose Air Quality Services.

AQ-36 Conduct gas turbine ammonia slip tests per MBUAPCD approved procedures on an annual basis to determine turbine stack discharge ammonia emissions.

Status – The facility remained in compliance with this condition in 2021. The annual compliance testing including ammonia slip was conducted in June 2021 by Montrose Air Quality Services. Ammonia slip test results demonstrate the facility remains below permit limits.

AQ-38 Monitor and record all periods of oil firing in a log maintained on site and shall submit a summary of this data on an annual basis, at the time of permit renewal.

Status – The facility remained in compliance with this condition in 2021. Neither the gas turbine nor the auxiliary boilers were fired on fuel oil during 2021.

AQ-39 Project Owner shall monitor and record all startup, shutdown, and operational profiles in a log maintained on site.

Status – The facility remained in compliance with this condition in 2021. Startup, shutdowns and operating profiles are recorded in the control room electronic J5 logbook.

AQ-41 Submit a statement in the Annual Compliance Report that operations have been conducted in compliance with all data and specifications submitted with the application.

Status – The facility remained in compliance with this condition in 2021. Operations of the King City Cogen Power Plant during 2021 have been conducted in compliance with all data and specifications submitted with the application. Also included is the 2021 Title V Annual Certification Report (Attachment 2).

AQ-42 Submit a statement in the Annual Compliance Report that equipment must be properly maintained and kept in good operating condition.

Status – The facility remained in compliance with this condition in 2021. The equipment has been properly maintained and kept in good operating condition during the 2021 reporting period. Also included is the 2021 Title V Annual Certification Report (Attachment 2).

AQ-43 Submit a statement in the Annual Compliance Report equipment must not be operated unless it is vented to air pollution control equipment which is in full use.

Status – The facility remained in compliance with this condition in 2021. The plant equipment was not operated in 2021 unless it was vented to air pollution control equipment, which was in full use. Also included is the 2021 Title V Annual Certification Report (Attachment 2).

AQ-44 The project owner shall cause to be operated an ambient monitoring station at a site approved by the Air Pollution Control Officer, for NO₂, PM₁₀, and O₃ and standard meteorological parameters on a continuous basis, in accordance with the EPA requirement contained in 40 CFR 58, and as deemed necessary in accordance with the California Air Resources Board guidelines as deemed necessary. The monitoring station instrumentation shall be compatible with the District's daily data retrieval polling methods.

Status – The facility remained in compliance with this condition in 2021. The ambient air monitoring station is owned and operated by MBUAPCD since July 1, 2010. Parameters being monitored at the King City station are Ozone, PM-10, PM-2.5, Wind Speed, Wind Direction, and Ambient Temperature. The Air Monitoring Station was maintained and operated in 2021.

AQ-45 Allow MBUAPCD and CEC personnel site entry for inspection and access to records described in permits. Submit a statement in the Annual Compliance Report on compliance with this condition.

Status – The facility remained in compliance with this condition in 2021.

- AQ-47 The gas turbine and the auxiliary boilers must not be operated simultaneously for more than 6 full load equivalent hours during any 24-hour period.

Status – The facility remained in compliance with this condition in 2021. AQ-08 was amended on 8/22/00 by the CEC to eliminate the restrictive hours of operations placed on the two auxiliary boilers. Quarterly emission caps were applied per MBUAPCD Permit to Operate effective October 6, 2000. Quarterly and annual NOx emission for the plant remained below permit limit in 2021. Refer to the 2021 Annual Facility Emission Summary (Attachment 3).

- AQ-50 Conduct monthly tests to measure total dissolved solids (TDS) in circulating water. Monitoring records shall be available to the MBUAPCD and CPM upon request.

Status – The facility remained in compliance with this condition in 2021. Monthly cooling tower TDS test samples were collected and analyzed in 2021 by FGL a certified laboratory. Copies of the monthly TDS lab reports are available to the MBUAPCD and CPM upon request.

- AQ-51 Design and operate the cooling tower so that PM-10 drift emissions do not exceed 20 pounds per day.

Status – The facility remained in compliance with this condition in 2021. Emissions from the cooling tower did not exceeded 20 pounds per day of PM-10 in 2021. PM10 emissions are submitted in the monthly report to the MBUAPCD.

- AQ-53 Cumulative emissions, including emissions generated during Start-ups and Shutdown, from all equipment at Project Owner King City Cogen and the Gilroy Energy Center shall not exceed the following quarterly and annual limits:

	NOx (lb.)	CO (lb.)	PM10 (lb.)	VOC (lb.)	SO ₂ (lb.)
1st Quarter	72,452	58,445	12,071	4,762	1,748
2nd Quarter	73,178	59,095	12,204	4,815	1,768
3rd Quarter	73,905	59,744	12,339	4,868	1,787
4th Quarter	73,905	59,744	12,339	4,868	1,787
Annual	293,440	237,028	48,953	19,313	7,090

Status – The facility remained in compliance with this condition in 2021. The facility quarterly emissions are submitted quarterly to the MBUAPCD. Refer to the 2021 Annual Facility Emission Summary (Attachment 3).

AQ-54 The emission limits contained in Conditions of Certification AQ-6, AQ-10, AQ-11 and AQ-12 shall not apply during periods of combustor tuning, balancing, or non-Air District regulatory mandated performance testing. These periods shall not exceed 100 hours per year. The project owner shall notify the District prior to initiating any of these activities, and shall monitor and record all periods of these activities in a log maintained on-site and shall submit a summary of this data to the District and CPM as part of the annual report

Status – The facility remained in compliance with this condition in 2021. No Tuning was conducted in 2021.

AQ-55 The emission limits contained in Conditions of Certification AQ-18, AQ-19 and AQ-21 shall not apply during periods of boiler tuning. Boiler tuning shall not exceed 50 hours per year per boiler.

Status - The facility remained in compliance with this condition in 2021. No Tuning was conducted in 2021.

Safety

SY-07 Project Owner and the King City Fire Department shall annually re-examine the fire protection program.

Status – The facility remained in compliance with this condition in 2021. The City of King, Fire Marshall conducted a site inspection and reviewed the facility fire protection program on October 27, 2021. There were no issues or findings from this inspection (copy of Inspection Record in Attachment 4).

SY-09 Project Owner shall facilitate on-site worker safety inspections conducted by the California Division of Occupational Safety and Health during construction and operation of the facility when an employee complaint has been received.

Status – The facility remained in compliance with this condition in 2021. The facility did not received any employee complaints in 2021.

SY-12 Project Owner shall contract only with Department of Transportation licensed haulers for the transportation of hazardous materials.

Status – The facility remained in compliance with this condition in 2021. The facility uses DOT licensed haulers to transport hazardous materials.

Transmission Line Safety and Nuisance

TSN-01 Project Owner shall request PG&E to inspect the transmission line annually to ensure compliance with applicable standards, ordinances, and laws.

Status - The facility remained in compliance with this condition in 2021. Project Owner has requested PG&E to inspect the transmissions lines annually.

TSN-06 Project Owner shall request PG&E to keep each transmission line pole site free of waste material, rubbish, and vegetation as required by regulation. Calpine shall submit at least once a year a record of PG&E inspection and clean-up reports of the fire prevention activities around the transmission line poles.

Status - The facility remained in compliance with this condition in 2021. The transmission line poles sites were free of waste material, rubbish and vegetation in 2021.

Transportation

TT-01 Project Owner shall notify the CEC of any overload permits obtained from Caltrans and Monterey County or of the alternative transport of heavy equipment to the site by rail.

Status – The facility remained in compliance with this condition in 2021. No overload permit(s) were obtained from Caltrans and Monterey County in 2021.

TT-02 Project Owner shall notify the CEC upon satisfaction of the encroachment and excavation permit requirements. The site shall also file any required or requested information with the City.

Status – The facility remained in compliance with this condition in 2021. No encroachment and excavation permit(s) were obtained from the City in 2021.

TT-03 Project Owner shall comply with the King City ordinance regarding use of designated city streets.

Status – The facility remained in compliance with this condition in 2021. Contracted deliveries were in compliance with King City Ordinance in 2021.

- TT-04 Project Owner shall enter into the standard contractual agreement with King City to restore to pre-project conditions any areas impacted by project-related related truck traffic.
- Status – The facility remained in compliance with this condition in 2021. In 2021 there was no project related truck traffic impacting the city streets.
- TT-05 Project Owner shall place under Metz Road any utility extensions or new water lines required, and through traffic will be maintained on Metz Road during such utility placement.
- Status - The facility remained in compliance with this condition in 2021. No utility extensions or new water lines were installed in 2021.
- TT-06 Project Owner shall comply with applicable transportation safety standards, ordinances, and laws in transporting ammonia to the project site.
- Status – The facility remained in compliance with this condition in 2021. All applicable standards, ordinances, and laws regarding ammonia transportation were complied with in 2021.

Visual Resources

- VR-01 Project Owner shall paint all structures, stacks and tanks a color that will blend with the bluff north of the site.
- Status – The facility remained in compliance with this condition in 2021. No structures, stacks or tanks were painted in 2021.

Waste Management

- WM-02 Project Owner shall dispose of periodic operational wastes in a Class I landfill or obtain approval from the Regional Water Quality Control Board (RWQCB) that such waste can be otherwise legally be disposed.
- Status – The facility remained in compliance with this condition in 2021. Coles Environmental Services, a California licensed TSDF for hazardous waste, was used in 2021 for handling and disposing of facility wastes.
- WM-04 If Project Owner stores hazardous waste onsite for more than 90 days, it shall obtain a determination that the requirements for storing hazardous waste at the facility have been satisfied.

Status - The facility remained in compliance with this condition in 2021.

WM-05 Project Owner shall use only licensed hazardous waste haulers for transporting hazardous wastes.

Status – The facility remained in compliance with this condition in 2021. Coles Environmental Services, a contracted California licensed hazardous waste hauler, was used in 2021 for handling and disposing of facility wastes.

Attachments:	1	Operating, Availability and Capacity Report
	2	Title V Annual Certification Report
	3	Annual Facility Emission Summary
	4	2021 Fire Marshall Inspection Record

Attachment 1

2021 Monthly Operating, Availability and Capacity Summary Reports

February 10, 2022
10:00 AM

CALPINE NERC GADS DATABASE
GADS ANALYSIS & REPORTING

Operating Data Summary

January 2021 Through December 2021

MONTH	GENERATION MWh		STARTS		SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh	
	GROSS	NET	ATT	ACT					GROSS	NET
KING CITY CT1										
2021										
Jan 2021	0	0	0	0	0.00	0.00	0.000 MMcf GG	0.000		
Feb 2021	7,251	7,062	7	7	107.62	0.00	86.816 MMcf GG	0.000	12,427	12,761
Mar 2021	0	0	0	0	0.00	187.73	0.000 MMcf GG	0.000		
Apr 2021	771	745	2	2	14.09	7.83	9.925 MMcf GG	0.000	13,246	13,708
May 2021	2,461	2,397	7	7	43.60	65.58	31.444 MMcf GG	0.000	13,109	13,459
Jun 2021	9,519	9,206	16	16	143.55	2.65	116.260 MMcf GG	0.000	12,579	13,007
Jul 2021	18,477	17,913	26	26	267.70	9.65	221.844 MMcf GG	0.000	12,426	12,817
Aug 2021	11,789	11,407	19	19	178.12	3.93	143.974 MMcf GG	0.000	12,652	13,075
Sep 2021	7,783	7,537	11	11	113.97	2.08	93.635 MMcf GG	0.000	12,451	12,858
Oct 2021	1,253	1,210	2	2	21.70	0.00	15.545 MMcf GG	0.000	12,865	13,322
Nov 2021	0	0	0	0	0.00	136.07	0.000 MMcf GG	0.000		
Dec 2021	0	0	0	0	0.00	27.80	0.000 MMcf GG	0.000		
2021	59,304	57,477	90	90	890.35	443.32			12,547	12,946

CALPINE NERC GADS DATA IS CONFIDENTIAL AND PROPRIETARY - FOR INTERNAL USE ONLY

February 10, 2022
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	GROSS	NET	ATT	ACT					GROSS	NET
KING CITY CT1										
Totals for all specified time periods										
TOTALS	59,304	57,477	90	90	890.35	443.32			12,547	12,946

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	GROSS	NET	ATT	ACT					GROSS	NET	
KING CITY ST1											
2021											
Jan 2021	0	0	0	0	0.00	0.00	0.000 WH	0.000			
Feb 2021	3,091	3,026	7	7	100.98	0.00	0.000 WH	0.000	0	0	
Mar 2021	0	0	0	0	0.00	187.73	0.000 WH	0.000			
Apr 2021	324	319	2	2	11.60	7.83	0.000 WH	0.000	0	0	
May 2021	1,058	1,027	7	7	35.95	65.58	0.000 WH	0.000	0	0	
Jun 2021	4,389	4,332	16	16	129.23	2.65	0.000 WH	0.000	0	0	
Jul 2021	8,531	8,429	26	26	247.40	9.70	0.000 WH	0.000	0	0	
Aug 2021	5,446	5,368	19	19	161.69	3.93	0.000 WH	0.000	0	0	
Sep 2021	3,597	3,547	11	11	104.44	2.11	0.000 WH	0.000	0	0	
Oct 2021	565	557	2	2	19.25	0.00	0.000 WH	0.000	0	0	
Nov 2021	0	0	0	0	0.00	136.07	0.000 WH	0.000			
Dec 2021	0	0	0	0	0.00	27.80	0.000 WH	0.000			
2021	27,001	26,605	90	90	810.54	443.40			0	0	

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	GROSS	NET	ATT	ACT					GROSS	NET
KING CITY ST1										
Totals for all specified time periods										
TOTALS	27,001	26,605	90	90	810.54	443.40			0	0

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	GROSS	NET	ATT	ACT					GROSS	NET
KING CITY PEAKER JT1										
2021										
Jan 2021	214	204	6	6	6.92	62.70	2.158 MMcf GG	0.000	10,437	10,948
Feb 2021	678	647	12	11	19.67	22.00	6.596 MMcf GG	0.000	10,105	10,590
Mar 2021	209	200	4	3	6.30	347.87	2.065 MMcf GG	0.000	10,261	10,733
Apr 2021	137	132	4	3	3.75	0.23	1.332 MMcf GG	0.000	10,004	10,383
May 2021	417	399	8	8	11.54	182.33	4.065 MMcf GG	0.000	10,001	10,452
Jun 2021	1,544	1,474	13	13	39.10	1.28	14.485 MMcf GG	0.000	9,662	10,121
Jul 2021	2,865	2,739	18	18	67.93	11.30	26.102 MMcf GG	0.000	9,429	9,863
Aug 2021	1,250	1,195	12	11	31.00	3.28	11.611 MMcf GG	0.000	9,623	10,066
Sep 2021	1,860	1,775	12	12	44.04	2.51	16.940 MMcf GG	0.000	9,426	9,877
Oct 2021	695	661	10	10	21.22	14.73	6.753 MMcf GG	0.000	10,076	10,594
Nov 2021	494	466	13	13	19.34	106.88	5.317 MMcf GG	0.000	11,105	11,773
Dec 2021	1,288	1,239	20	19	37.95	28.52	12.504 MMcf GG	0.000	10,067	10,465
2021	11,650	11,130	132	127	308.76	783.63			9,760	10,217

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	GROSS	NET	ATT	ACT					GROSS	NET
<u>KING CITY PEAKER JT1</u>										
Totals for all specified time periods										
TOTALS	11,650	11,130	132	127	308.76	783.63			9,760	10,217

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Operating Data Summary

January 2021 Through December 2021

MONTH	GENERATION MWh		STARTS		SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh	
	GROSS	NET	ATT	ACT					GROSS	NET
ALL UNITS										
2021										
Jan 2021	214	204	6	6	6.92	62.70			10,437	10,948
Feb 2021	11,020	10,734	26	25	228.27	22.00			8,798	9,032
Mar 2021	209	200	4	3	6.30	723.33			10,261	10,733
Apr 2021	1,232	1,196	8	7	29.44	15.89			9,402	9,685
May 2021	3,936	3,823	22	22	91.09	313.49			9,256	9,529
Jun 2021	15,452	15,012	45	45	311.88	6.58			8,715	8,970
Jul 2021	29,873	29,081	70	70	583.03	30.65			8,590	8,824
Aug 2021	18,485	17,970	50	49	370.81	11.14			8,719	8,969
Sep 2021	13,240	12,859	34	34	262.45	6.70			8,643	8,900
Oct 2021	2,513	2,428	14	14	62.17	14.73			9,201	9,523
Nov 2021	494	466	13	13	19.34	379.02			11,105	11,773
Dec 2021	1,288	1,239	20	19	37.95	84.12			10,067	10,465
2021	97,956	95,212	312	307	2,009.65	1,670.35			8,757	9,009

CALPINE NERC GADS DATA IS CONFIDENTIAL AND PROPRIETARY - FOR INTERNAL USE ONLY

February 10, 2022
10:00 AM

CALPINE NERC GADS DATABASE
GADS ANALYSIS & REPORTING

Operating Data Summary
January 2021 Through December 2021

MONTH	GENERATION MWh		STARTS		SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh	
	GROSS	NET	ATT	ACT					GROSS	NET
<u>ALL UNITS</u>										
Totals for all specified time periods										
TOTALS	97,956	95,212	312	307	2,009.65	1,670.35			8,757	9,009

CALPINE NERC GADS DATA IS CONFIDENTIAL AND PROPRIETARY - FOR INTERNAL USE ONLY

CALPINE NERC GADS DATABASE
GADS ANALYSIS & REPORTING

Operating Data Summary
January 2021 Through December 2021

MONTH	GENERATION MWh		STARTS		SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh	
	GROSS	NET	ATT	ACT					GROSS	NET

January 2021 Through December 2021

Custom Selection
KING CITY CT1
KING CITY PEAKER JT1
KING CITY ST1

Attachment 2

2021 Title V Annual Certification Report

CERTIFICATION REPORT

(FORM 218-K1)

DISTRICT:	< DISTRICT USE ONLY =
MBUAPCD	DISTRICT ID:
COMPANY NAME: Calpine King City Cogeneration, LLC; and Gilroy Energy Center, LLC For King City	FACILITY NAME: Calpine King City Cogeneration, LLC; and Gilroy Energy Center, LLC For King City

I. FACILITY INFORMATION

1. Company Name: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC for King City
2. Facility Name (if different than Company Name): Calpine King City Cogeneration, LLC & Gilroy Energy Center, LLC for King City
3. Mailing Address: 750 Metz Road, King City, CA 93930
4. Street Address or Source Location: 750 Metz Road, King City, CA and 51 Don Bates Way, King City, CA 93930
5. Facility Permit Number: TV-0000012A

II. GENERAL INFORMATION

1. Reporting period (specify dates): 1/1/2021 – 12/31/2021
2. Due date for submittal of report: 2/15/2022
3. Type of submittal: ☐ Monitoring Report (complete Section III below)
☐ Compliance Schedule Progress Report (complete Section IV of Form 218-K2)
☒ Compliance Certification (complete Section V of Form 218-K2)

III. MONITORING REPORT INFORMATION

1. Were deviations from monitoring requirements encountered during the reporting period?
☐ No ☒ Yes
2. Were deviations from permit conditions discovered during the required monitoring?
☐ No ☒ Yes (If Yes, complete Form 218-L or a summary of previously reported deviations)

CERTIFICATION REPORT

(FORM 218-K2)

DISTRICT: MBUAPCD	<DISTRICT USE ONLY> DISTRICT ID:
COMPANY NAME: Calpine King City Cogeneration, LLC; and Gilroy Energy Center, LLC For King City	FACILITY NAME: Calpine King City Cogeneration, LLC; and Gilroy Energy Center, LLC For King City

IV. COMPLIANCE SCHEDULE PROGRESS INFORMATION

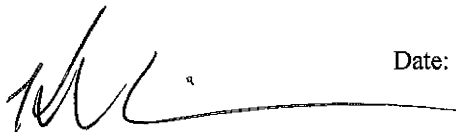
1. Dates the activities, milestones, or compliance required by schedule of compliance was achieved/will be achieved:
2. Provide explanation of why any dates in schedule of compliance were not/will not be met:
3. Describe in chronological order preventive or corrective action taken:

V. COMPLIANCE CERTIFICATION

1. Was source in compliance during the reporting period specified in Section II of Form 218-K1?
☒ Yes ☐ No (If no, document period(s) of noncompliance or resubmit Forms 218-I and J)
See form 218-L
2. Is source currently in compliance with all applicable federal requirements and permit conditions?
☒ Yes ☐ No

I certify based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete.

Signature of Responsible Official



Date: February 10, 2022

Print Name of Responsible Official: Kevin Karwick

Title of Responsible Official and Company Name: General Plant Manager, Central Coast Projects, Calpine Corp.

Telephone Number of Responsible Official: (408) 337-3429

DEVIATION REPORT

(FORM 218-L)

DISTRICT:	< DISTRICT USE ONLY =
MBUAPCD	DISTRICT ID:
COMPANY NAME: Calpine King City Cogeneration, LLC; and Gilroy Energy Center, LLC For King City	FACILITY NAME: Calpine King City Cogeneration, LLC; and Gilroy Energy Center, LLC

I. DEVIATION INFORMATION

1. Permit number(s) of emission unit or control unit affected:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
2. Description of deviation:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
3. Description and identification of permit condition(s) deviated:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
4. Associated equipment and equipment operation (if any):
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
5. Date and time when deviation was discovered:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
6. Date, time and duration of deviation:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
7. Probable cause of deviation:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.
8. Preventive or corrective action taken:
See Breakdown/Deviation Report (attached) on the NOx Analyzer breakdown occurrence on 01/01/2021 for the Gilroy Energy Center, LLC for King City.

**COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR
CALPINE KING CITY COGEN AND GILROY ENERGY CENTER**

Reporting Period: January 1, 2021 to December 31, 2021

TV-0000012A

<u>CONDITION</u>	<u>COMPLIANCE STATUS</u> <u>(CONTINUOUS OR Continuous)</u>	<u>METHOD USED TO DETERMINE</u> <u>COMPLIANCE STATUS</u>
1	Continuous Compliance	CEM and Annual Compliance Tests
2	Continuous Compliance	CEM and Annual Compliance Tests
3	Continuous Compliance	CEM and Annual Compliance Tests
4	Continuous Compliance	CEM and Annual Compliance Tests
5	Continuous Compliance	CEM and Annual Compliance Tests
6	Continuous Compliance	CEM and Annual Compliance Tests
7	Continuous Compliance	CEM & Plant data
8	Continuous Compliance	CEM & Annual compliance test.
9	Continuous Compliance	CEM & Annual compliance test
10	Continuous Compliance	CEM & Annual compliance test.
11	Continuous Compliance	CEM
12	Continuous Compliance	No fuel oil fired
13	Continuous Compliance	No fuel oil fired
14	Continuous Compliance	No fuel oil fired
15	Continuous Compliance	No fuel oil fired
16	Continuous Compliance	No fuel oil fired
17	Continuous Compliance	No fuel oil fired
18	Continuous Compliance	Logbook, MBUAPCD notification, Annual Report
19	Continuous Compliance	Logbook and MBUAPCD notification
20	Continuous Compliance	Protocol on-site and reviewed
21	Continuous Compliance	CEM and Plant data. No fuel oil fired
22	Continuous Compliance	CEMS, Quarterly Facility Emissions Report
23	Continuous Compliance	Did not fire on No. 2 fuel oil

**COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR
CALPINE KING CITY COGEN AND GILROY ENERGY CENTER**

Reporting Period: January 1, 2021 to December 31, 2021

TV-0000012A

<u>CONDITION</u>	<u>COMPLIANCE STATUS</u> <u>(CONTINUOUS OR Continuous)</u>	<u>METHOD USED TO DETERMINE</u> <u>COMPLIANCE STATUS</u>
24	Continuous Compliance	Compliance Reports to MBARB & CEC
25	Continuous Compliance	CRO Logs and Maintenance Records
26	Continuous Compliance	CEM and Plant data
27	Continuous Compliance	Operational records, calculations & CEM
28	Continuous Compliance	No chromium in water treatment chemicals, MSDS
29	Continuous Compliance	SO2 Allowance account established and necessary deposits made.
30	Continuous Compliance	Plant records/ CRO Logs
31	Continuous Compliance	Air Monitoring station operated
32	Continuous Compliance	RMP document and records maintained
33	Continuous Compliance	Refrigeration Contractors EPA Certified
34	Continuous Compliance	Testing and subsequent reporting completed
35	Continuous Compliance	Testing and subsequent reporting completed
36	Continuous Compliance	Testing and subsequent reporting completed
37	Continuous Compliance	No fuel oil fired
38	Continuous Compliance	No fuel oil delivered for turbine or boilers
39	Continuous Compliance	Lab tests for TDS, monthly reports
40	Continuous Compliance	Lab tests for TDS, monthly reports
41	Continuous Compliance	No fuel oil fired
42	Continuous Compliance	CEMS, Plant Records
43	Continuous Compliance	CEMS, Monthly Reports
44	Continuous Compliance	CEM Records
45	Continuous Compliance	CEM Records
46	Continuous Compliance	CEMS Records

**COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR
CALPINE KING CITY COGEN AND GILROY ENERGY CENTER**

Reporting Period: January 1, 2021 to December 31, 2021

TV-0000012A

<u>CONDITION</u>	<u>COMPLIANCE STATUS</u> <u>(CONTINUOUS OR Continuous)</u>	<u>METHOD USED TO DETERMINE</u> <u>COMPLIANCE STATUS</u>
47	Intermittent - Deviation NOx monitoring - 01/01/2021, 6:13pm to 01/04/2021, 5:50pm (See Attached Breakdown Report and Title 40 CFR 75 Certification for Nox, CO and O2 Analyzer, Like In Kind Replacement)	Continuously record CO, O2 and NOx
48	Continuous Compliance	QA/QC Plan, Operational Records
49	Continuous Compliance	QA/QC Plan, Operational Records
50	Continuous Compliance	CEM Records; Operational Records
51	Continuous Compliance	CEM Records, Plant DCS
52	Continuous Compliance	CEMS, Breakdown Reports, Plant Records
53	Continuous Compliance	CEMS records and Plant DCS
54	Continuous Compliance	Plant DCS and Plant Records
55	Continuous Compliance	Plant DCS and Plant Records
56	Continuous Compliance	Plant Records/CRO Log
57	Continuous Compliance	Plant DCS and Plant Records - no oil firing
58	Continuous Compliance	Data provided as requested
59	Continuous Compliance	Records maintained
60	Continuous Compliance	Records maintained
61	Continuous Compliance	Breakdown Reported 01/01/2021
62	Continuous Compliance	Reports submitted on time, as required
63	Continuous Compliance	Reports submitted on time, as required
64	Continuous Compliance	Reports submitted on time, as required
65	Continuous Compliance	Reports submitted on time, as required
66	Continuous Compliance	Reports submitted on time, as required

**COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR
CALPINE KING CITY COGEN AND GILROY ENERGY CENTER**

Reporting Period: January 1, 2021 to December 31, 2021

TV-0000012A

<u>CONDITION</u>	<u>COMPLIANCE STATUS</u> <u>(CONTINUOUS OR Continuous)</u>	<u>METHOD USED TO DETERMINE</u> <u>COMPLIANCE STATUS</u>
67	Continuous Compliance	In compliance with permit conditions
68	Continuous Compliance	No enforcement action
69	Continuous Compliance	No cause for action determined by District
70	Continuous Compliance	No rights conveyed by permit
71	Continuous Compliance	Data provided upon request
72	Continuous Compliance	All requirements met
73	Continuous Compliance	All requirements met
74	Continuous Compliance	No violations reported
75	Continuous Compliance	All requirements met
76	Continuous Compliance	No administrative or judicial challenges
77	Continuous Compliance	Annual emission fee paid
78	Continuous Compliance	TV-0000012 on file and posted at facility
79	Continuous Compliance	No emergency, as defined in District Rule 218
80	Continuous Compliance	Access to facility granted to authorized personnel
81	Continuous Compliance	Title V Permit TV-0000012A Issued 3/10/2020. An application for renewal was submitted on September 3, 2021.

Gary Fuller

From: Gary Fuller
Sent: Tuesday, January 5, 2021 7:34 PM
To: 'reports@mbard.org'
Subject: FW: Gilroy Energy Center, LLC for King City Breakdown Report for NOx Analyzer 1-1-2021
Attachments: Breakdown and Deviation reporting form_KCPeaker_1-2-2021_Copleted & Signed.pdf

Meant to include address also.

Thanks, Gary

From: Gary Fuller
Sent: Tuesday, January 5, 2021 12:57 PM
To: Leif Halvorson (LHalvorson@mbard.org) <LHalvorson@mbard.org>
Cc: Teresa Sewell (tsewell@mbuapcd.org) (tsewell@mbuapcd.org) <tsewell@mbuapcd.org>; Kevin Karwick <kevin.karwick@calpine.com>; Paul Mansfield <Paul.Mansfield@calpine.com>; David Williams (David.Williams@calpine.com) <David.Williams@calpine.com>; Christopher Cullison <Christopher.Cullison@calpine.com>
Subject: Gilroy Energy Center, LLC for King City Breakdown Report for NOx Analyzer 1-1-2021

Dear Mr. Halvorson,

Regarding the Gilroy Energy Center, LLC for King City (PTO #15134 and Title V #TV-0000012A), attached is the completed Breakdown/Deviation Reporting Form, signed by the Responsible Official, for the NOx analyzer breakdown called into the District on January 1, 2021. I plan to follow up and call you this afternoon to see if you had any questions or need additional information.

Thank You,
Gary

Gary M. Fuller
EHS Specialist
Calpine Corp.
King City Energy Center
Pastoria Energy Facility
(661) 282-4405 - Office
(661) 332-2046 - Cell
fullerg@calpine.com



MONTEREY BAY

Unified Air Pollution Control District
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Richard Stedman

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

BREAKDOWN/DEVIATION REPORTING FORM **TITLE V FACILITY**

Reporting:

✓ Applicable box(es)

☒ **BREAKDOWN** - Exceeding Permitted Emission Limits or Rule Requirements due to an unforeseeable Equipment Breakdown.

District Permit to Operate Number: PTO 15134 Condition No.: 8

- X Notify MBUAPCD within 1 Hour @ (831) 647-9411 after occurrence (after-hrs press #7)
- X The Equipment is to operate only until the end of run or 24 hours, whichever is sooner (except for CEM equipment, for which the period shall be 96 hours) at which time it shall be shutdown for repairs. If breakdown will last longer than 24 hours, contact MBUAPCD to file for a variance.
- X Notify MBUAPCD of estimated time for repair within 24 hours of occurrence.
- X Submit Completed Form to Compliance Division of the MBUAPCD within five (5) days after the occurrence has been corrected.

☒ **DEVIATION** - A violation of a requirement contained in the Title V permit.

Title V Permit No.: TV-0000012A Condition No.: 47

- X Submit Completed Form (bolded sections) within 96 hours of occurrence to Compliance Division of the MBUAPCD.
- X I certify based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete.

Signature of Responsible Official: MR Date: 1/5/2021

Print Name of Responsible Official: Kevin Karwick Title: GENERAL MANAGER CENTRAL COAST PROJECTS

Company Name: Gilroy Energy Center, LLC For King City		Phone No.: (831) 970-1015
Address: 51 Don Bates Way, King City, CA 93930		
Person Discovering Incident: Control Room Operator		Date/Time of Discovery: 01/01/2021 06:13 pm
Person Reporting Incident: Gary Fuller		Phone No.: (661) 332-2046
Date/Time Breakdown Reported : 01/01/2021 06:58 pm		Person Contacted: MBARD Message – (831) 647-9411
Date/Time When Release/Breakdown/Deviation Began: 01/01/2021 - 6:13pm		
Date/Time When Release/Breakdown/Deviation Stopped: 01/02/2021 - 5:50pm		
Date/Time Breakdown Repair Reported: 01/02/2021 and 01/04/2021		Person Contacted: Called (left voice message) on 01/02/2021 and review with MBARD Inspector Leif Halverson over the phone on 01/04/2021
Description of equipment and reasons for the occurrence/release/deviation On 1/1/2021 at 6:13 pm, the Control Room Operator received a 'NOx Analyzer Fault' alarm and NOx emissions were showing invalid on the display screen. The unit was shutdown at 6:30pm. A Breakdown on the NOx analyzer was called into the Monterey Bay Air Resources District (Gary Fuller left voicemail) at 7:00pm (01/01/2021).		
Detail action(s) taken to reduce or correct incident/deviation: The facility was unable to determine the cause of failure of the NOx analyzer. It was taken out of service and replaced with a 'like in kind' analyzer. On 01/04/2021 the unit was started up and the 'like in kind' analyzer passed all quality assurance tests, including linearity. The NOx analyzer that was removed will be shipped back to the OEM for analysis and repair, if feasible.		
Detail action(s) to be taken to avoid future reoccurrence (include schedule): Gilroy Energy Center for King City is investigating the procurement of new analyzers.		
Indicate kind and total amount in pounds of release: There were no excess emissions related to this breakdown/deviation of permit conditions.		

Gilroy Energy Center, LLC

750 Metz Road
King City, CA 93930
Phone: (831) 385-4090
Fax: (831) 385-6683

August 5, 2021

Air Division – Region 9
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

**Re: Gilroy Energy Center, LLC, for King City - Facility ID No. 10294, Unit 2
Title 40 CFR 75 CEMS Certification Application**

To Whom It May Concern:

In accordance with Title 40 Code of Federal Regulations Subpart F 75.63 Initial certification or recertification application (a) (2) (i), please find the CEMS Certification Application for the Gilroy Energy Center, LLC for King City, Facility ID (ORISPL) 10294, Unit 2.

If you have any questions or would like to receive a hardcopy, please feel free to contact me at (408) 337-3429.

I certify based on information and belief formed after reasonable inquiry, the statements and information in this document and supplements are true, accurate, and complete.

Sincerely,



Kevin Karwick
Designated Representative
and General Manager
Gilroy Energy Center, LLC for King City

cc: Leif Halvorson - MBARD
Anwar Ali - CEC

**Gilroy Energy Center, LLC for King City
King City, California**

ORIS CODE: 10294

Unit 2

CEMS RECERTIFICATION REPORTS

Date: August 5, 2021

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APPENDIX 1 Emissions Collection and Monitoring Plan System (ECMPS) Printout

APPENDIX 2 7-Days Drift Test

APPENDIX 3 Linearity Test

APPENDIX 4 Cycle Time Test

APPENDIX 5 Gas Cylinder Recertification Sheets

APPENDIX 6 Relative Accuracy Test Audit Report Summary

1.0 CEMS RECERTIFICATION

The Gilroy Energy Center, LLC - King City Peaker located in King City, California consists of one simple cycle GE LM6000PD natural gas combustion turbine (Unit 2). The gas turbine is fired exclusively with pipeline quality natural gas. The turbine has a rated output of 49.6 MW and 500 MMBtu/hour. Exhaust gases from the turbines are discharged into the atmosphere through a stack approximately 80 feet above grade. The CEM systems are extractive systems for the continuous measurement of exhaust gas concentrations of nitrogen oxides (NO_x), carbon monoxide (CO), and oxygen (O₂).

The CEMS analyzers on combustion turbine Unit 2 has been replaced with new Thermo analyzers to meet the monitoring and reporting requirements of Monterey Bay Air Resources Board (MBARD), 40 CFR 60, and 40 CFR 75. This report presents the results of the recertification testing on the NO_x, CO, and O₂ analyzers. The testing was performed to meet the requirements of 40 CFR 60, Appendix B, Performance Specifications 2, 3, 4/4A, 6 and 40 CFR 75, Appendix A. The recertification requirements of 40 CFR 75 are applied to the NO_x and O₂ analyzers.

Field recertification testing on Unit 2 CEMS analyzers occurred between May 12 and June 14, 2021 for 40 CFR 60 and 40 CFR 75 requirements. The tests conducted on the CEMS included Relative Accuracy, Bias Check, 7-day Calibration Error, Linearity, and Cycle/Response Time.

The Montrose Air Quality Services, LLC of Antioch, California conducted Relative Accuracy (RA) testing for NO_x, CO, and O₂ on June 14, 2021. A bias check evaluation was also made on the NO_x lb/mmBtu relative accuracy results as required in 40 CFR 75. The summary report of the RA testing and bias adjustment factor is provided in Appendix 6. The complete report was submitted under separate cover via email.

The calibration drift tests for the unit occurred during seven consecutive operating days from May 11 through June 2, 2020 for 40 CFR 75 and 40 CFR 60 requirements. The results of the analyzer drift tests are attached in Appendix 2.

Linearity and Cycle Time tests on the NO_x and O₂ analyzers are a requirement of 40 CFR 75. The tests for Unit 2 took place on May 11, 2021. Audit reports for the linearity tests and the cycle time tests are also provided in Appendices 3 and 4, respectively.

In summary, the Unit 2 CEMS at the Gilroy Energy Center, LLC for King City provides reliable data and operates within the requirements of the EPA as outlined in 40 CFR 60, Appendix B, Performance Specifications 2, 3, 4/4a, 6 and 40 CFR 75, Appendix A and meets the requirements of the MBARD for CEMS.

APPENDIX1

EMISSIONS MONITORING AND MONITORING PLAN SYSTEM PRINTOUT



ECMPS Client Tool

Version 1.0 2021 Q2

Monitoring Plan Printout Report

August 3, 2021 10:20 AM

Facility Name: King City Power Plant

Facility Details

Facility ID (ORISPL): 10294
Monitoring Plan Location IDs: 2
State: CA
County: Monterey County
Latitude: 36.2250
Longitude: -121.1278

Reporting Frequency

Monitoring Plan Location IDs	Reporting Frequency	Begin Quarter	End Quarter
2	Q - Quarterly	2002 QTR 2	

Monitoring Location Attributes

Unit/Stack/Pipe Identifier	Duct Indicator	Ground Elevation	Stack Height	Cross Area Exit	Cross Area Flow	Material Code	Shape Code	Begin Date	End Date
2		325	80	186		OTHER	RECT	12/29/2001	

Unit Operation Information

Unit Identifier	Non-Load Based Ind	Commence Commercial Operation Date	Commence Operation Date	Boiler/Turbine Type			Max Heat Input		
				Code	Begin Date	End Date	Value (mmBtu)	Begin Date	End Date
2	0	09/30/2001		CT	09/30/2001		468.0	11/11/2002	11/30/2006
		09/30/2001		CT	09/30/2001		500.0	12/01/2006	

Unit Type Codes: CT - Combustion turbine

Unit Program Information

Unit Identifier	Program Code	Unit Class	Unit Monitor Certification Begin Date	Unit Monitor Certification Deadline
2	ARP	P2	09/30/2001	12/29/2001

Facility Name: King City Power Plant
 Facility ID (ORISPL): 10294

Monitoring Plan Printout Report
 August 3, 2021 10:20 AM

Unit Fuel

Unit Identifier	Fuel Type	Fuel Indicator	Demonstration Method for GCV	Demonstration Method for Daily Sulfur	Ozone Season Indicator	Begin Date	End Date
2	PNG	P				04/01/2002	

Fuel Type Codes: PNG - Pipeline Natural Gas
 Fuel Indicator Codes: P - Primary

Unit Controls

Unit Identifier	Parameter	Control Equipment	Original Ind	Seasonal Ind	Installation Date	Optimization Date	Retirement Date
2	NOX	DLNB	Y				
	NOX	H2O	Y				
	NOX	NH3	Y				
	NOX	SCR	Y				

Control Equipment Descriptions:
 SCR - Selective Catalytic Reduction
 NH3 - Ammonia Injection
 H2O - Water Injection
 DLNB - Dry Low NOx Burners

Facility Name: King City Power Plant
 Facility ID (ORISPL): 10294

Monitoring Plan Printout Report
 August 3, 2021 10:20 AM

Monitoring Method

Unit/Stack/Pipe Identifier	Parameter	Methodology	Substitute Data Approach	Bypass Approach Code	Begin Date/Hour	End Date/Hour
2	CO2	AD	SPTS		04/01/2002 00	
	HI	AD	SPTS		04/01/2002 00	
	NOXR	CEM	SPTS		04/01/2002 12	
	OP	EXP			04/01/2002 00	
	SO2	AD	SPTS		04/01/2002 00	

Parameter Codes: SO2 - SO2 Hourly Mass Rate (lb/hr)
 OP - Opacity
 NOXR - NOx Emission Rate (lb/mmBtu)
 HI - Heat Input Rate (mmBtu/hr)
 CO2 - CO2 Hourly Mass Rate (ton/hr)

Methodology Codes: EXP - Exempt
 CEM - Continuous Emission Monitor
 AD - Appendix D

Substitute Data Codes: SPTS - Standard Part 75 for Missing Data

Facility Name: King City Power Plant

Facility ID (ORISPL): 10294

Monitoring Plan Printout Report

August 3, 2021 10:20 AM

Monitoring System / Analytical Components

Unit/Stack Pipe Identifier	System					Component									
	ID	Type	Des	Begin Date/Hour	End Date/Hour	ID	Type	SAM	BAS	Manufacturer	Model or Version	Serial Number	Begin Date/Hour	End Date/Hour	Hg Converter Indicator
2	101	NOX	P	04/01/2002 12		101	NOX	EXT	D	FISHER ROSEMOUNT	MLT 1	30121552519	04/01/2002 12	09/30/2005 23	
						102	O2	EXT	D	FISHER ROSEMOUNT	MLT 1	30121552519	04/01/2002 12	05/11/2014 11	
						103	DAHS			CONTEC \ CARTWRIGHT	DATASOFT WINDOW	VERSION 2.1	04/01/2002 12	12/10/2008 12	
						106	NOX	EXT	D	TEI	42IQ	12102110553	05/09/2021 11		
						107	O2	EXT	D	TEI	48IQ	12102110552	05/09/2021 11		
						110	NOX	EXT	D	ROSEMOUNT	MT1	U1006487	01/01/2005 00	05/11/2014 11	
						111	NOX	EXT	D	ROSEMOUNT	NGA 2000 CLD	U1006817	05/11/2014 12	05/09/2021 10	
						112	O2	EXT	D	ROSEMOUNT	NGA 2000 MLT	30012581920	05/11/2014 12	05/09/2021 10	
						D01	DAHS			CISCO	CEDAR/BREEZ75X		12/10/2008 13		
						PL1	PLC			ALLEN BRADLEY	SLC 5/05		04/01/2002 12	12/10/2008 15	
						PL2	PLC			ALLEN BRADLEY	SLC5/05L552		12/10/2008 16		
						PR1	PRB	EXT		ROSEMOUNT	3G40506G01	R-01007221	04/01/2002 12		
	102	GAS	P	04/01/2002 00		103	DAHS			CONTEC \ CARTWRIGHT	DATASOFT WINDOW	VERSION 2.1	04/01/2002 00	12/10/2008 12	
						104	BGFF	ORF		UNKNOWN	BR549	NOT APPLICABLE	04/01/2002 00	09/30/2005 23	
						105	GFFM	ORF		ROSEMOUNT	3051 CD2A02A1AS	1138438	10/01/2005 00		
						D01	DAHS			CISCO	CEDAR/BREEZ75X		12/10/2008 13		
						PL1	PLC			ALLEN BRADLEY	SLC 5/05		04/01/2002 00	12/10/2008 15	
						PL2	PLC			ALLEN BRADLEY	SLC5/05L552		12/10/2008 16		

System Types Descriptions:

NOX - NOx Emission Rate

GAS - Gas Fuel Flow

System Designations Descriptions:

P - Primary

Sample Acquisition Method (SAM):

ORF - Orifice

EXT - Dry Extractive

Facility Name: King City Power Plant

Facility ID (ORISPL): 10294

Monitoring Plan Printout Report

August 3, 2021 10:20 AM

Component Types Descriptions:

NOX - NOx Concentration
 O2 - O2 Concentration
 DAHS - Data Acquisition and Handling System
 PLC - Programmable Logic Controller
 PRB - Probe
 BGFF - Billing Gas Fuel Flowmeter
 GFFM - Gas Fuel Flowmeter

Monitoring System Fuel Flow

Unit/Stack/Pipe Identifier	System ID	Fuel Code	Max Fuel Flow Rate	Units of Measure	Source Code	Begin Date/Hour	End Date/Hour
2	102	PNG	5000.0	HSCF	UMX	04/01/2002 00	

System Fuel Codes Descriptions:

PNG - Pipeline Natural Gas

Units of Measure Descriptions:

HSCF - Hundred Standard Cubic Feet / Hour

Source Codes Descriptions:

UMX - Unit Maximum Rate

Analyzer Range Data

Unit/Stack/Pipe Identifier	Component Type	Component ID	Range Code	Dual Range Indicator	Begin Date/Hour	End Date/Hour
2	NOX	110	Auto Ranging	Y	01/01/2005 00	05/11/2014 11
	NOX	101	Low Range		04/01/2002 12	12/31/2004 23
	NOX	106	Auto Ranging	Y	05/09/2021 11	
	NOX	111	Auto Ranging	Y	05/11/2014 12	05/09/2021 10
	O2	102	High Range		04/01/2002 12	05/11/2014 11
	O2	107	High Range		05/09/2021 11	
	O2	112	High Range		05/11/2014 12	05/09/2021 10

Component Types Descriptions:

NOX - NOx Concentration
 O2 - O2 Concentration

Facility Name: King City Power Plant
Facility ID (ORISPL): 10294

Monitoring Plan Printout Report
August 3, 2021 10:20 AM

Emissions Formulas

Unit/Stack/Pipe Identifier	Parameter	Formula ID	Formula Code	Formula	Begin Date/Hour	End Date/Hour
2	NOXR	101	19-1	$\text{lb/mmBtu} = 1.194 \times 10^{-7} \times S\#(110-101) - 8710 - (20.9 / (20.9 - S\#(102-101)))$	04/01/2002 12	
	HI	102	F-20	$\text{mmBtu} = S\#(104-102) \times \text{GCVg} / 10^{**6}$	04/01/2002 00	
	CO2	103	G-4	$\text{wco2} = 1040 \times (f\#(102)) \times (1/385) \times 44 / 2000$	04/01/2002 00	
	SO2	104	D-5	$\text{MSO2} = F\#(102) \times .0006$	04/01/2002 00	

Parameter Codes Descriptions:

- NOXR - NOx Emission Rate (lb/mmBtu)
- HI - Heat Input Rate (mmBtu/hr)
- CO2 - CO2 Hourly Mass Rate (ton/hr)
- SO2 - SO2 Hourly Mass Rate (lb/hr)

Formula Codes Descriptions:

- G-4 - CO2 (from HI, Fc)
- F-20 - HI (same as D-6)
- D-5 - SO2 (from gas SO2 emission rate, HI)
- 19-1 - NOXR/SO2R (same as F-5)

Facility Name: King City Power Plant

Facility ID (ORISPL): 10294

Monitoring Plan Printout Report

August 3, 2021 10:20 AM

Span Values

Unit/Stack/Pipe Identifier	Comp Type	Scale	Method	MPC/MPF	MEC	Span Value	Full-Scale Range	Units of Measure	Scale Transition Point	Def. High Range Value	Flow Full Range (SCFH)	Flow Span Value (SCFH)	Begin Date/Hour	End Date/Hour
2	NOX	H	TB	150.0				PPM		300			04/01/2002 12	04/01/2002 13
	NOX	H	TB	150.0	9.0			PPM		300			04/01/2002 14	12/31/2004 23
	NOX	H	TB	174.0	9.0	200.000	200.000	PPM					01/01/2004 00	12/31/2004 23
	NOX	H	TB	174.0	9.0	200.000	200.000	PPM					01/01/2005 00	04/01/2007 00
	NOX	H	TB	150.0	5.0	200.000	200.000	PPM	9.0				04/01/2007 01	
	NOX	L	OL		9.0	10.000	10.000	PPM					04/01/2002 14	12/31/2004 23
	NOX	L	OL		9.0	10.000	10.000	PPM					01/01/2005 00	04/01/2007 00
	NOX	L	PL		5.0	10.000	10.000	PPM	9.0				04/01/2007 01	
	O2	H				25.000	25.000	PCT					04/01/2002 12	

Component Types Descriptions: NOX - NOx Concentration

O2 - O2 Concentration

Span Method Codes Descriptions: TB - Table Defaults from Part 75 or 40 CFR Part 63, Subpart UUUUU, Appendix A

PL - Permit Limit for NOX MEC

OL - Other Limit

Units of Measure Descriptions: PPM - Parts per Million

PCT - Percentage

Unit/Stack/Pipe Load or Operating Level Information

Unit/Stack/Pipe Identifier	Maximum Hourly Load	Units of Measure	Upper Bound of Range of Operation	Lower Bound of Range of Operation	Designated Normal Op. Level	Second Most Frequently Used Op. Level	Second Normal Indicator	Load Analysis Date	Begin Date/Hour	End Date/Hour
2	47	MW	45	30	High	Mid	Yes	04/01/2002	04/01/2002 00	03/13/2004 23
2	47	MW	47	15	High	Mid	Yes	03/13/2004	03/13/2004 00	06/30/2009 23
2	50	MW	49	30	High	Mid	Yes	07/01/2009	07/01/2009 00	12/31/2011 23
2	50	MW	50	20	Low	High	Yes	01/01/2012	01/01/2012 00	04/05/2016 00
2	47	MW	47	20	High	Low	Yes	04/05/2016	04/05/2016 01	

Units of Measure Descriptions: MW - Megawatt

Facility Name: King City Power Plant
Facility ID (ORISPL): 10294

Monitoring Plan Printout Report
August 3, 2021 10:20 AM

Monitoring Defaults

Unit/Stack/Pipe Identifier	Parameter	Value	Units of Measure	Purpose Code	Fuel Type	Operating Condition	Source of Value	Begin Date/Hour	End Date/Hour
2	NORX	0.1840	LBMMBTU	MD	NFS	A	DEF	04/01/2002 12	12/31/2004 23
	NORX	0.1840	LBMMBTU	MD	NFS	A	DEF	01/01/2004 00	04/01/2007 00
	NORX	0.1840	LBMMBTU	MD	NFS	A	DEF	01/01/2005 00	04/01/2007 00
	NORX	0.2990	LBMMBTU	MD	NFS	A	DEF	04/01/2007 01	
	O2X	19.0000	PCT	DC	NFS	A	DEF	07/01/2003 00	
	O2X	19.0000	PCT	DC	NFS	A	DEF	07/01/2003 00	06/30/2005 23

Parameter Codes Descriptions: O2X - Maximum O2 Concentration (pct)
NORX - Maximum NOx Emission Rate (lb/mmBtu)

Units of Measure Descriptions: PCT - Percentage
LBMMBTU - Pounds / mmBtu

Purpose Codes Descriptions: MD - Missing Data (or Unmonitored Bypass Stack or Emergency Fuel) Default
DC - Diluent Cap

Fuel Type Codes Descriptions: NFS - Non-Fuel Specific

Operating Conditions Descriptions: A - Any Hour

Source Codes Descriptions: DEF - Default Value from Part 75

APPENDIX2

7-DAY DRIFT TEST

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 60-O2%

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 11:13	25	0.00	-0.45	-0.45	0.50					Off-Line
5/11/2021 15:06	25	0.00	-0.45	-0.45	0.50	21.97	21.99	0.02	0.50	On-Line
5/12/2021 13:38	25	0.00	-0.44	-0.44	0.50	21.97	21.97	0.00	0.50	Off-Line
5/13/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.97	0.00	0.50	Off-Line
5/13/2021 18:07	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	On-Line
5/14/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/15/2021 08:50	25	0.00	-0.46	-0.46	0.50	21.97	21.97	0.00	0.50	On-Line
5/15/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/16/2021 09:09	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	On-Line
5/16/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/17/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.97	0.00	0.50	Off-Line
5/18/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.96	-0.01	0.50	Off-Line
5/19/2021 11:13	25	0.00	-0.44	-0.44	0.50	21.97	21.98	0.01	0.50	Off-Line
5/20/2021 11:13	25	0.00	-0.44	-0.44	0.50	21.97	21.97	0.00	0.50	Off-Line
5/21/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.99	0.02	0.50	Off-Line
5/22/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.97	0.00	0.50	Off-Line
5/23/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/24/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/25/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/26/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/27/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.97	0.00	0.50	Off-Line
5/28/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/29/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.99	0.02	0.50	Off-Line
5/30/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/31/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/31/2021 17:48	25	0.00	-0.45	-0.45	0.50	21.97	22.01	0.04	0.50	On-Line
6/1/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
6/1/2021 15:03	25	0.00	-0.46	-0.46	0.50	21.97	21.99	0.02	0.50	On-Line
6/2/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.99	0.02	0.50	Off-Line
6/2/2021 18:38	25	0.00	-0.45	-0.45	0.50	21.97	22.01	0.04	0.50	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 75-O2%

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 11:13	25	0.00	-0.45	-0.45	0.50					Off-Line
5/11/2021 15:06	25	0.00	-0.45	-0.45	0.50	21.97	21.99	0.02	0.50	On-Line
5/12/2021 13:38	25	0.00	-0.44	-0.44	0.50	21.97	21.97	0.00	0.50	Off-Line
5/13/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.97	0.00	0.50	Off-Line
5/13/2021 18:07	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	On-Line
5/14/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/15/2021 08:50	25	0.00	-0.46	-0.46	0.50	21.97	21.97	0.00	0.50	On-Line
5/15/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/16/2021 09:09	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	On-Line
5/16/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/17/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.97	0.00	0.50	Off-Line
5/18/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.96	-0.01	0.50	Off-Line
5/19/2021 11:13	25	0.00	-0.44	-0.44	0.50	21.97	21.98	0.01	0.50	Off-Line
5/20/2021 11:13	25	0.00	-0.44	-0.44	0.50	21.97	21.97	0.00	0.50	Off-Line
5/21/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.99	0.02	0.50	Off-Line
5/22/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.97	0.00	0.50	Off-Line
5/23/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/24/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/25/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/26/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
5/27/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.97	0.00	0.50	Off-Line
5/28/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/29/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.99	0.02	0.50	Off-Line
5/30/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/31/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.98	0.01	0.50	Off-Line
5/31/2021 17:48	25	0.00	-0.45	-0.45	0.50	21.97	22.01	0.04	0.50	On-Line
6/1/2021 11:13	25	0.00	-0.45	-0.45	0.50	21.97	21.98	0.01	0.50	Off-Line
6/1/2021 15:03	25	0.00	-0.46	-0.46	0.50	21.97	21.99	0.02	0.50	On-Line
6/2/2021 11:13	25	0.00	-0.46	-0.46	0.50	21.97	21.99	0.02	0.50	Off-Line
6/2/2021 18:38	25	0.00	-0.45	-0.45	0.50	21.97	22.01	0.04	0.50	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 60-NOx ppm/L

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 11:13	10	0.00	0.00	0.00	0.25	8.86	8.97	0.11	0.25	Off-Line
5/11/2021 15:06	10	0.00	0.01	0.01	0.25	8.86	9.01	0.15	0.25	On-Line
5/12/2021 13:38	10	0.00	-0.01	-0.01	0.25	8.86	8.97	0.11	0.25	Off-Line
5/13/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.89	0.03	0.25	Off-Line
5/13/2021 18:07	10	0.00	0.01	0.01	0.25	8.86	8.92	0.06	0.25	On-Line
5/14/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.93	0.07	0.25	Off-Line
5/15/2021 08:50	10	0.00	0.01	0.01	0.25	8.86	8.93	0.07	0.25	On-Line
5/15/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.92	0.06	0.25	Off-Line
5/16/2021 09:09	10	0.00	0.01	0.01	0.25	8.86	8.93	0.07	0.25	On-Line
5/16/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.91	0.05	0.25	Off-Line
5/17/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.87	0.01	0.25	Off-Line
5/18/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.89	0.03	0.25	Off-Line
5/19/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.90	0.04	0.25	Off-Line
5/20/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.87	0.01	0.25	Off-Line
5/21/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.88	0.02	0.25	Off-Line
5/22/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.90	0.04	0.25	Off-Line
5/23/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.85	-0.01	0.25	Off-Line
5/24/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.86	0.00	0.25	Off-Line
5/25/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.91	0.05	0.25	Off-Line
5/26/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.91	0.05	0.25	Off-Line
5/27/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.89	0.03	0.25	Off-Line
5/28/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.92	0.06	0.25	Off-Line
5/29/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.92	0.06	0.25	Off-Line
5/30/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.94	0.08	0.25	Off-Line
5/31/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.97	0.11	0.25	Off-Line
5/31/2021 17:48	10	0.00	0.06	0.06	0.25	8.86	9.00	0.14	0.25	On-Line
6/1/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.95	0.09	0.25	Off-Line
6/1/2021 15:03	10	0.00	0.03	0.03	0.25	8.86	8.98	0.12	0.25	On-Line
6/2/2021 11:13	10	0.00	0.00	0.00	0.25	8.86	8.98	0.12	0.25	Off-Line
6/2/2021 18:38	10	0.00	0.02	0.02	0.25	8.86	8.99	0.13	0.25	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 75-NOx ppm/L

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 11:13	10	0.00	0.00	0.00	0.25	8.86	8.97	0.11	0.25	Off-Line
5/11/2021 15:06	10	0.00	0.01	0.01	0.25	8.86	9.01	0.15	0.25	On-Line
5/12/2021 13:38	10	0.00	-0.01	-0.01	0.25	8.86	8.97	0.11	0.25	Off-Line
5/13/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.89	0.03	0.25	Off-Line
5/13/2021 18:07	10	0.00	0.01	0.01	0.25	8.86	8.92	0.06	0.25	On-Line
5/14/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.93	0.07	0.25	Off-Line
5/15/2021 08:50	10	0.00	0.01	0.01	0.25	8.86	8.93	0.07	0.25	On-Line
5/15/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.92	0.06	0.25	Off-Line
5/16/2021 09:09	10	0.00	0.01	0.01	0.25	8.86	8.93	0.07	0.25	On-Line
5/16/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.91	0.05	0.25	Off-Line
5/17/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.87	0.01	0.25	Off-Line
5/18/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.89	0.03	0.25	Off-Line
5/19/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.90	0.04	0.25	Off-Line
5/20/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.87	0.01	0.25	Off-Line
5/21/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.88	0.02	0.25	Off-Line
5/22/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.90	0.04	0.25	Off-Line
5/23/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.85	-0.01	0.25	Off-Line
5/24/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.86	0.00	0.25	Off-Line
5/25/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.91	0.05	0.25	Off-Line
5/26/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.91	0.05	0.25	Off-Line
5/27/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.89	0.03	0.25	Off-Line
5/28/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.92	0.06	0.25	Off-Line
5/29/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.92	0.06	0.25	Off-Line
5/30/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.94	0.08	0.25	Off-Line
5/31/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.97	0.11	0.25	Off-Line
5/31/2021 17:48	10	0.00	0.06	0.06	0.25	8.86	9.00	0.14	0.25	On-Line
6/1/2021 11:13	10	0.00	-0.01	-0.01	0.25	8.86	8.95	0.09	0.25	Off-Line
6/1/2021 15:03	10	0.00	0.03	0.03	0.25	8.86	8.98	0.12	0.25	On-Line
6/2/2021 11:13	10	0.00	0.00	0.00	0.25	8.86	8.98	0.12	0.25	Off-Line
6/2/2021 18:38	10	0.00	0.02	0.02	0.25	8.86	8.99	0.13	0.25	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Time	Instrument Span	Zero Reference	Zero Measured	Turbine #1 60-NOx ppm/H		Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
				Zero Drift	Zero Drift Limit					
5/11/2021 11:13	200	0.00	-0.10	-0.10	5.00					Off-Line
5/11/2021 15:06	200	0.00	-0.10	-0.10	5.00	180.80	181.70	0.90	5.00	On-Line
5/12/2021 13:38	200	0.00	-0.10	-0.10	5.00	180.80	181.60	0.80	5.00	Off-Line
5/13/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.60	-0.20	5.00	Off-Line
5/13/2021 18:07	200	0.00	-0.10	-0.10	5.00	180.80	181.40	0.60	5.00	On-Line
5/14/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.90	0.10	5.00	Off-Line
5/15/2021 08:50	200	0.00	-0.10	-0.10	5.00	180.80	181.50	0.70	5.00	On-Line
5/15/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.80	1.00	5.00	Off-Line
5/16/2021 09:09	200	0.00	-0.10	-0.10	5.00	180.80	181.00	0.20	5.00	On-Line
5/16/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.70	-0.10	5.00	Off-Line
5/17/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.30	-0.50	5.00	Off-Line
5/18/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.80	0.00	5.00	Off-Line
5/19/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.30	0.50	5.00	Off-Line
5/20/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.20	0.40	5.00	Off-Line
5/21/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.90	0.10	5.00	Off-Line
5/22/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.70	-0.10	5.00	Off-Line
5/23/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	179.60	-1.20	5.00	Off-Line
5/24/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.10	-0.70	5.00	Off-Line
5/25/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.20	-0.60	5.00	Off-Line
5/26/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.30	-0.50	5.00	Off-Line
5/27/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.00	-0.80	5.00	Off-Line
5/28/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.90	0.10	5.00	Off-Line
5/29/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.20	0.40	5.00	Off-Line
5/30/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.60	0.80	5.00	Off-Line
5/31/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.90	1.10	5.00	Off-Line
5/31/2021 17:48	200	0.00	0.00	0.00	5.00	180.80	181.40	0.60	5.00	On-Line
6/1/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.30	0.50	5.00	Off-Line
6/1/2021 15:03	200	0.00	0.00	0.00	5.00	180.80	181.70	0.90	5.00	On-Line
6/2/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.50	0.70	5.00	Off-Line
6/2/2021 18:38	200	0.00	0.00	0.00	5.00	180.80	181.80	1.00	5.00	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 75-NOx ppm/H

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 11:13	200	0.00	-0.10	-0.10	5.00					Off-Line
5/11/2021 15:06	200	0.00	-0.10	-0.10	5.00	180.80	181.70	0.90	5.00	On-Line
5/12/2021 13:38	200	0.00	-0.10	-0.10	5.00	180.80	181.60	0.80	5.00	Off-Line
5/13/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.60	-0.20	5.00	Off-Line
5/13/2021 18:07	200	0.00	-0.10	-0.10	5.00	180.80	181.40	0.60	5.00	On-Line
5/14/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.90	0.10	5.00	Off-Line
5/15/2021 08:50	200	0.00	-0.10	-0.10	5.00	180.80	181.50	0.70	5.00	On-Line
5/15/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.80	1.00	5.00	Off-Line
5/16/2021 09:09	200	0.00	-0.10	-0.10	5.00	180.80	181.00	0.20	5.00	On-Line
5/16/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.70	-0.10	5.00	Off-Line
5/17/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.30	-0.50	5.00	Off-Line
5/18/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.80	0.00	5.00	Off-Line
5/19/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.30	0.50	5.00	Off-Line
5/20/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.20	0.40	5.00	Off-Line
5/21/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.90	0.10	5.00	Off-Line
5/22/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.70	-0.10	5.00	Off-Line
5/23/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	179.60	-1.20	5.00	Off-Line
5/24/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.10	-0.70	5.00	Off-Line
5/25/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.20	-0.60	5.00	Off-Line
5/26/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.30	-0.50	5.00	Off-Line
5/27/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.00	-0.80	5.00	Off-Line
5/28/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	180.90	0.10	5.00	Off-Line
5/29/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.20	0.40	5.00	Off-Line
5/30/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.60	0.80	5.00	Off-Line
5/31/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.90	1.10	5.00	Off-Line
5/31/2021 17:48	200	0.00	0.00	0.00	5.00	180.80	181.40	0.60	5.00	On-Line
6/1/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.30	0.50	5.00	Off-Line
6/1/2021 15:03	200	0.00	0.00	0.00	5.00	180.80	181.70	0.90	5.00	On-Line
6/2/2021 11:13	200	0.00	-0.10	-0.10	5.00	180.80	181.50	0.70	5.00	Off-Line
6/2/2021 18:38	200	0.00	0.00	0.00	5.00	180.80	181.80	1.00	5.00	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 CO ppm

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 11:13	50	0.00	0.10	0.10	2.50					Off-Line
5/11/2021 15:06	50	0.00	0.08	0.08	2.50	45.00	44.56	-0.44	2.50	On-Line
5/12/2021 13:38	50	0.00	0.07	0.07	2.50	45.00	44.68	-0.32	2.50	Off-Line
5/13/2021 11:13	50	0.00	0.11	0.11	2.50	45.00	44.70	-0.30	2.50	Off-Line
5/13/2021 18:07	50	0.00	0.20	0.20	2.50	45.00	44.80	-0.20	2.50	On-Line
5/14/2021 11:13	50	0.00	0.11	0.11	2.50	45.00	44.64	-0.36	2.50	Off-Line
5/15/2021 08:50	50	0.00	0.22	0.22	2.50	45.00	44.83	-0.17	2.50	On-Line
5/15/2021 11:13	50	0.00	0.15	0.15	2.50	45.00	44.81	-0.19	2.50	Off-Line
5/16/2021 09:09	50	0.00	0.16	0.16	2.50	45.00	44.75	-0.25	2.50	On-Line
5/16/2021 11:13	50	0.00	0.15	0.15	2.50	45.00	44.67	-0.33	2.50	Off-Line
5/17/2021 11:13	50	0.00	0.19	0.19	2.50	45.00	44.80	-0.20	2.50	Off-Line
5/18/2021 11:13	50	0.00	0.20	0.20	2.50	45.00	44.95	-0.05	2.50	Off-Line
5/19/2021 11:13	50	0.00	0.26	0.26	2.50	45.00	45.07	0.07	2.50	Off-Line
5/20/2021 11:13	50	0.00	0.28	0.28	2.50	45.00	45.20	0.20	2.50	Off-Line
5/21/2021 11:13	50	0.00	0.29	0.29	2.50	45.00	45.22	0.22	2.50	Off-Line
5/22/2021 11:13	50	0.00	0.30	0.30	2.50	45.00	45.40	0.40	2.50	Off-Line
5/23/2021 11:13	50	0.00	0.35	0.35	2.50	45.00	45.23	0.23	2.50	Off-Line
5/24/2021 11:13	50	0.00	0.39	0.39	2.50	45.00	45.45	0.45	2.50	Off-Line
5/25/2021 11:13	50	0.00	0.40	0.40	2.50	45.00	45.60	0.60	2.50	Off-Line
5/26/2021 11:13	50	0.00	0.43	0.43	2.50	45.00	45.56	0.56	2.50	Off-Line
5/27/2021 11:13	50	0.00	0.44	0.44	2.50	45.00	45.73	0.73	2.50	Off-Line
5/28/2021 11:13	50	0.00	0.46	0.46	2.50	45.00	45.89	0.89	2.50	Off-Line
5/29/2021 11:13	50	0.00	0.50	0.50	2.50	45.00	45.91	0.91	2.50	Off-Line
5/30/2021 11:13	50	0.00	0.51	0.51	2.50	45.00	46.05	1.05	2.50	Off-Line
5/31/2021 11:13	50	0.00	0.56	0.56	2.50	45.00	46.08	1.08	2.50	Off-Line
5/31/2021 17:48	50	0.00	0.72	0.72	2.50	45.00	46.10	1.10	2.50	On-Line
6/1/2021 11:13	50	0.00	0.54	0.54	2.50	45.00	46.12	1.12	2.50	Off-Line
6/1/2021 15:03	50	0.00	0.69	0.69	2.50	45.00	46.12	1.12	2.50	On-Line
6/2/2021 11:13	50	0.00	0.56	0.56	2.50	45.00	45.98	0.98	2.50	Off-Line
6/2/2021 18:38	50	0.00	0.70	0.70	2.50	45.00	46.02	1.02	2.50	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 SCR NOx ppm

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 10:39	250	0.00	0.20	0.20	6.25	226.70	227.20	0.50	6.25	Off-Line
5/11/2021 15:28	250	0.00	0.20	0.20	6.25	226.70	227.70	1.00	6.25	On-Line
5/12/2021 14:04	250	0.00	0.10	0.10	6.25	226.70	227.20	0.50	6.25	Off-Line
5/13/2021 10:39	250	0.00	0.10	0.10	6.25	226.70	225.90	-0.80	6.25	Off-Line
5/13/2021 18:29	250	0.00	0.30	0.30	6.25	226.70	227.30	0.60	6.25	On-Line
5/14/2021 10:39	250	0.00	0.00	0.00	6.25	226.70	226.60	-0.10	6.25	Off-Line
5/15/2021 09:13	250	0.00	0.30	0.30	6.25	226.70	227.00	0.30	6.25	On-Line
5/15/2021 10:39	250	0.00	0.10	0.10	6.25	226.70	226.50	-0.20	6.25	Off-Line
5/16/2021 09:33	250	0.00	0.30	0.30	6.25	226.70	226.20	-0.50	6.25	On-Line
5/16/2021 10:39	250	0.00	0.20	0.20	6.25	226.70	226.10	-0.60	6.25	Off-Line
5/17/2021 10:39	250	0.00	0.10	0.10	6.25	226.70	224.90	-1.80	6.25	Off-Line
5/18/2021 10:39	250	0.00	0.00	0.00	6.25	226.70	224.80	-1.90	6.25	Off-Line
5/19/2021 10:39	250	0.00	0.10	0.10	6.25	226.70	225.40	-1.30	6.25	Off-Line
5/20/2021 10:39	250	0.00	0.10	0.10	6.25	226.70	225.10	-1.60	6.25	Off-Line
5/21/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	225.20	-1.50	6.25	Off-Line
5/22/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.80	-1.90	6.25	Off-Line
5/23/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	223.60	-3.10	6.25	Off-Line
5/24/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.20	-2.50	6.25	Off-Line
5/25/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.80	-1.90	6.25	Off-Line
5/26/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.20	-2.50	6.25	Off-Line
5/27/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	223.80	-2.90	6.25	Off-Line
5/28/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.40	-2.30	6.25	Off-Line
5/29/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.60	-2.10	6.25	Off-Line
5/30/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	225.00	-1.70	6.25	Off-Line
5/31/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	225.20	-1.50	6.25	Off-Line
5/31/2021 18:10	250	0.00	0.10	0.10	6.25	226.70	225.30	-1.40	6.25	On-Line
6/1/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	223.80	-2.90	6.25	Off-Line
6/1/2021 15:26	250	0.00	0.20	0.20	6.25	226.70	224.90	-1.80	6.25	On-Line
6/2/2021 10:39	250	0.00	-0.10	-0.10	6.25	226.70	224.00	-2.70	6.25	Off-Line
6/2/2021 19:01	250	0.00	0.20	0.20	6.25	226.70	225.00	-1.70	6.25	On-Line

The 7-Day Drift Test has been passed.

Gilroy Energy Center LLC for King City

7-Day Drift Test

Turbine #1 SCR CO ppm

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
5/11/2021 10:39	100	0.00	-0.69	-0.69	5.00	90.51	88.33	-2.18	5.00	Off-Line
5/11/2021 15:28	100	0.00	-0.32	-0.32	5.00	90.51	87.90	-2.61	5.00	On-Line
5/12/2021 14:04	100	0.00	-0.69	-0.69	5.00	90.51	88.27	-2.24	5.00	Off-Line
5/13/2021 10:39	100	0.00	-0.77	-0.77	5.00	90.51	88.53	-1.98	5.00	Off-Line
5/13/2021 18:29	100	0.00	-0.57	-0.57	5.00	90.51	88.11	-2.40	5.00	On-Line
5/14/2021 10:39	100	0.00	-0.83	-0.83	5.00	90.51	88.09	-2.42	5.00	Off-Line
5/15/2021 09:13	100	0.00	-0.78	-0.78	5.00	90.51	88.00	-2.51	5.00	On-Line
5/15/2021 10:39	100	0.00	-0.65	-0.65	5.00	90.51	88.30	-2.21	5.00	Off-Line
5/16/2021 09:33	100	0.00	-0.81	-0.81	5.00	90.51	87.98	-2.53	5.00	On-Line
5/16/2021 10:39	100	0.00	-0.80	-0.80	5.00	90.51	87.78	-2.73	5.00	Off-Line
5/17/2021 10:39	100	0.00	-0.85	-0.85	5.00	90.51	88.13	-2.38	5.00	Off-Line
5/18/2021 10:39	100	0.00	-0.78	-0.78	5.00	90.51	88.10	-2.41	5.00	Off-Line
5/19/2021 10:39	100	0.00	-0.84	-0.84	5.00	90.51	87.60	-2.91	5.00	Off-Line
5/20/2021 10:39	100	0.00	-0.72	-0.72	5.00	90.51	87.68	-2.83	5.00	Off-Line
5/21/2021 10:39	100	0.00	-0.95	-0.95	5.00	90.51	87.52	-2.99	5.00	Off-Line
5/22/2021 10:39	100	0.00	-1.01	-1.01	5.00	90.51	87.90	-2.61	5.00	Off-Line
5/23/2021 10:39	100	0.00	-1.01	-1.01	5.00	90.51	87.87	-2.64	5.00	Off-Line
5/24/2021 10:39	100	0.00	-1.03	-1.03	5.00	90.51	87.85	-2.66	5.00	Off-Line
5/25/2021 10:39	100	0.00	-1.19	-1.19	5.00	90.51	87.70	-2.81	5.00	Off-Line
5/26/2021 10:39	100	0.00	-1.25	-1.25	5.00	90.51	87.49	-3.02	5.00	Off-Line
5/27/2021 10:39	100	0.00	-0.89	-0.89	5.00	90.51	87.88	-2.63	5.00	Off-Line
5/28/2021 10:39	100	0.00	-1.12	-1.12	5.00	90.51	87.52	-2.99	5.00	Off-Line
5/29/2021 10:39	100	0.00	-0.90	-0.90	5.00	90.51	87.28	-3.23	5.00	Off-Line
5/30/2021 10:39	100	0.00	-1.02	-1.02	5.00	90.51	87.38	-3.13	5.00	Off-Line
5/31/2021 10:39	100	0.00	-1.10	-1.10	5.00	90.51	87.48	-3.03	5.00	Off-Line
5/31/2021 18:10	100	0.00	-1.47	-1.47	5.00	90.51	87.53	-2.98	5.00	On-Line
6/1/2021 10:39	100	0.00	-1.09	-1.09	5.00	90.51	87.32	-3.19	5.00	Off-Line
6/1/2021 15:26	100	0.00	-0.95	-0.95	5.00	90.51	87.20	-3.31	5.00	On-Line
6/2/2021 10:39	100	0.00	-1.48	-1.48	5.00	90.51	87.34	-3.17	5.00	Off-Line
6/2/2021 19:01	100	0.00	-1.17	-1.17	5.00	90.51	87.37	-3.14	5.00	On-Line

The 7-Day Drift Test has been passed.

APPENDIX3

LINEARITY TEST AND CYLINDER GAS AUDIT

Turbine #1 O2 Linearity

Gilroy Energy Center LLC for King City

Test Information

Test Date: 5/11/2021
Facility: Gilroy Energy Center LLC for King City
Unit: Turbine #1
Test Reason(s): RECERT
Aborted: No

Analyzer and Monitor Information

Range: Single Scale
Instrument Span: 25 %O2
Component ID: 107
Monitoring System ID: 101
Manufacturer: THERMO
Model: 48IQ
Serial Number: 12102110552

Run Number	Time	Reference Gas	CEMS Response	Cylinder Information
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Low Gas

1	4:05 PM	5.50	5.51
2	4:12 PM	5.50	5.52
3	4:20 PM	5.50	5.52

Mean (%O2)	5.50	5.52	
Difference of means (R-A) (%O2)	0.0	Limit 0.5	Passed
Linearity Error (%)	0.3	Limit 5.0	Passed

Cylinder ID: XC023397B
 Expiration Date: 7/22/2028
 EPA Vendor ID: B72020
 Cylinder contains: O2,BALN

Mld Gas

1	4:07 PM	13.75	13.72
2	4:15 PM	13.75	13.73
3	4:22 PM	13.75	13.73

Mean (%O2)	13.75	13.73	
Difference of means (R-A) (%O2)	0.0	Limit 0.5	Passed
Linearity Error (%)	0.2	Limit 5.0	Passed

Cylinder ID: CC420414
 Expiration Date: 11/7/2024
 EPA Vendor ID: B72016
 Cylinder contains: O2,BALN

High Gas

1	4:10 PM	21.97	21.96
2	4:17 PM	21.97	21.98
3	4:25 PM	21.97	21.97

Mean (%O2)	21.97	21.97	
Difference of means (R-A) (%O2)	0.0	Limit 0.5	Passed
Linearity Error (%)	0.0	Limit 5.0	Passed

Cylinder ID: SG9168205BAL
 Expiration Date: 12/26/2027
 EPA Vendor ID: B72019
 Cylinder contains: O2,BALN

Linearity Error (LE) Determination

$$LE (\%) = (|R-A| / R) * 100$$

R = Reference gas value

A = Mean of actual CEMS responses

Turbine #1 O2 CGA

Gillroy Energy Center LLC for King City

Test Information

Test Date: 5/10/2021
 Facility: Gillroy Energy Center LLC for King City
 Unit: Turbine #1

Analyzer and Monitor Information

Range: Single Scale
 Instrument Span: 25 %O2
 Manufacturer: THERMO
 Model: 48IQ
 Serial Number: 12102110552

Run Number	Time	Reference Gas	CEMS Response	Cylinder Information
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Low Gas

1	9:56 AM	5.50	5.20
2	10:01 AM	5.50	5.19
3	10:06 AM	5.50	5.19
Mean (%O2)		5.50	5.19
Difference of means (Cm-Ca) (%O2)		-0.3	Limit
CEMS Accuracy (%)		-5.6	Limit 15 Passed

Allowable Reference Values:
 4-6 %O2
 Cylinder ID: XC023397B
 Expiration Date: 7/22/2028
 EPA Vendor ID: B72020
 Cylinder contains: CO/O2

Mid Gas

1	9:59 AM	11.24	11.03
2	10:04 AM	11.24	11.02
3	10:09 AM	11.24	11.03
Mean (%O2)		11.24	11.03
Difference of means (Cm-Ca) (%O2)		-0.2	Limit
CEMS Accuracy (%)		-1.9	Limit 15 Passed

Allowable Reference Values:
 8-12 %O2
 Cylinder ID: CC144473
 Expiration Date: 1/13/2022
 EPA Vendor ID: B32014
 Cylinder contains: CO/O2

CEMS Accuracy Determination (%)

$$\text{Accuracy (\%)} = ((Cm - Ca) / Ca) * 100$$

Ca = Reference gas value

Cm = Mean of actual CEMS responses

Turbine #1 CO CGA

Gilroy Energy Center LLC for King City

Test Information

Test Date: 5/10/2021
 Facility: Gilroy Energy Center LLC for King City
 Unit: Turbine #1

Analyzer and Monitor Information

Range: Single Scale
 Instrument Span: 50 ppm
 Manufacturer: ROSEMOUNT
 Model: NGA 2000 MLT
 Serial Number: 30012581920

Run Number	Time	Reference Gas	CEMS Response	Cylinder Information
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Low Gas

1	9:58 AM	12.57	11.86
2	10:01 AM	12.57	11.86
3	10:06 AM	12.57	11.88
Mean (ppm)		12.57	11.87
Difference of means (Cm-Ca) (ppm)		-0.7	Limit 5 Passed
CEMS Accuracy (%)		-5.6	Limit 15 Passed

Allowable Reference Values:
 10-15 ppm (20-30% of span)
 Cylinder ID: XC023397B
 Expiration Date: 7/22/2028
 EPA Vendor ID: B72020
 Cylinder contains: CO/O2

Mid Gas

1	9:59 AM	27.23	26.63
2	10:04 AM	27.23	26.57
3	10:09 AM	27.23	26.53
Mean (ppm)		27.23	26.58
Difference of means (Cm-Ca) (ppm)		-0.7	Limit 5 Passed
CEMS Accuracy (%)		-2.4	Limit 15 Passed

Allowable Reference Values:
 25-30 ppm (50-60% of span)
 Cylinder ID: CC144473
 Expiration Date: 1/13/2022
 EPA Vendor ID: B32014
 Cylinder contains: CO/O2

CEMS Accuracy Determination (%)

Accuracy (%) = ((Cm - Ca) / Ca) * 100
 Ca = Reference gas value
 Cm = Mean of actual CEMS responses

Turbine #1 NOx/L CGA

Gilroy Energy Center LLC for King City

Test Information

Test Date: 5/10/2021
 Facility: Gilroy Energy Center LLC for King City
 Unit: Turbine #1

Analyzer and Monitor Information

Range: Low
 Instrument Span: 10 ppm
 Manufacturer: THERMO
 Model: 42IQ
 Serial Number: 12102110553

Run Number	Time	Reference Gas	CEMS Response	Cylinder Information
Low Gas				
1	12:03 PM	2.47	2.38	
2	12:08 PM	2.47	2.41	
3	12:13 PM	2.47	2.42	
	Mean (ppm)	2.47	2.40	
	Difference of means (Cm-Ca) (ppm)	-0.1	Limit 5	Passed
	CEMS Accuracy (%)	-2.7	Limit 15	Passed
Mid Gas				
1	12:06 PM	5.58	5.34	
2	12:11 PM	5.58	5.38	
3	12:16 PM	5.58	5.39	
	Mean (ppm)	5.58	5.37	
	Difference of means (Cm-Ca) (ppm)	-0.2	Limit 5	Passed
	CEMS Accuracy (%)	-3.8	Limit 15	Passed

Allowable Reference Values:
 2-3 ppm (20-30% of span)
 Cylinder ID: CC232303
 Expiration Date: 6/26/2021
 EPA Vendor ID: B32018
 Cylinder contains: NO,BALN

Allowable Reference Values:
 5-6 ppm (50-60% of span)
 Cylinder ID: CC496638
 Expiration Date: 3/31/2023
 EPA Vendor ID: B72020
 Cylinder contains: NO,BALN

CEMS Accuracy Determination (%)

$$\text{Accuracy (\%)} = ((Cm - Ca) / Ca) * 100$$

Ca = Reference gas value

Cm = Mean of actual CEMS responses

Turbine #1 NOx/H Linearity

Gilroy Energy Center LLC for King City

Test Information

Test Date: 5/11/2021
Facility: Gilroy Energy Center LLC for King City
Unit: Turbine #1
Test Reason(s): RECERT
Aborted: No

Analyzer and Monitor Information

Range: High
Instrument Span: 200 ppm
Component ID: 106
Monitoring System ID: 101
Manufacturer: THERMO
Model: 42IQ
Serial Number: 12102110553

Run Number	Time	Reference Gas	CEMS Response	Cylinder Information
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Low Gas

1	3:42 PM	50.7	49.6
2	3:49 PM	50.7	50.4
3	3:57 PM	50.7	50.3

Mean (ppm)	50.7	50.1	
Difference of means (R-A) (ppm)	0.6	Limit 5	Passed
Linearity Error (%)	1.2	Limit 5.0	Passed

Cylinder ID: CC210058
Expiration Date: 12/10/2026
EPA Vendor ID: B72018
Cylinder contains: NO,CO,BALN

Mid Gas

1	3:44 PM	109.3	108.9
2	3:52 PM	109.3	109.2
3	3:59 PM	109.3	109.1

Mean (ppm)	109.3	109.1	
Difference of means (R-A) (ppm)	0.2	Limit 5	Passed
Linearity Error (%)	0.2	Limit 5.0	Passed

Cylinder ID: CC99609
Expiration Date: 6/5/2026
EPA Vendor ID: B72018
Cylinder contains: NO,CO,BALN

High Gas

1	3:47 PM	180.8	181.8
2	3:54 PM	180.8	181.9
3	4:02 PM	180.8	181.8

Mean (ppm)	180.8	181.8	
Difference of means (R-A) (ppm)	1.0	Limit 5	Passed
Linearity Error (%)	0.6	Limit 5.0	Passed

Cylinder ID: EB0095955
Expiration Date: 5/26/2028
EPA Vendor ID: B72020
Cylinder contains: NO,CO,BALN

Linearity Error (LE) Determination

$$LE (\%) = (|R-A| / R) * 100$$

R = Reference gas value

A = Mean of actual CEMS responses

Turbine #1 NOx/H CGA

Gilroy Energy Center LLC for King City

Test Information

Test Date: 5/10/2021
 Facility: Gilroy Energy Center LLC for King City
 Unit: Turbine #1

Analyzer and Monitor Information

Range: High
 Instrument Span: 200 ppm
 Manufacturer: THERMO
 Model: 42IQ
 Serial Number: 12102110553

Run Number	Time	Reference Gas	CEMS Response	Cylinder Information
Low Gas				
1	12:41 PM	50.7	49.9	
2	12:48 PM	50.7	50.3	
3	12:56 PM	50.7	50.4	
	Mean (ppm)	50.7	50.2	
	Difference of means (Cm-Ca) (ppm)	-0.5	Limit 5	Passed
	CEMS Accuracy (%)	-1.0	Limit 15	Passed
Mid Gas				
1	12:43 PM	109.3	109.1	
2	12:51 PM	109.3	109.5	
3	12:58 PM	109.3	109.5	
	Mean (ppm)	109.3	109.4	
	Difference of means (Cm-Ca) (ppm)	0.1	Limit 5	Passed
	CEMS Accuracy (%)	0.1	Limit 15	Passed

Allowable Reference Values:
 40-60 ppm (20-30% of span)
 Cylinder ID: CG210058
 Expiration Date: 12/10/2028
 EPA Vendor ID: B72018
 Cylinder contains: NO,BALN

Allowable Reference Values:
 100-120 ppm (50-60% of span)
 Cylinder ID: CC99809
 Expiration Date: 6/5/2026
 EPA Vendor ID: B72018
 Cylinder contains: NO,BALN

CEMS Accuracy Determination (%)

$$\text{Accuracy (\%)} = ((Cm - Ca) / Ca) * 100$$

Ca = Reference gas value

Cm = Mean of actual CEMS responses

APPENDIX4

CYCLE TIME TEST

King City Peaker

CYCLE TIME / RESPONSE TIMETEST

CEM To Maint Mode
1416

Ensure the NH3 Flow Control valve in "Manual" control at steady state value.
Put the CEMS to "Maintenance Mode".

DATE 6/14/2021

Nox High

Start with Stable Online Reading
Inject High Cal Gas
Return to Normal Reading
Inject Zero Cal Gas
Return to Normal Reading

	HH	MM	SS	Reading	Cal Bottle Value
Start Time	14	17		2.23	
Start Time	14	19		180.88	180.8
Start Time	14	21		2.60	
Start Time	14	23		0	0
Start Time	14	23		2.16	

	HH	MM	SS
End Time	14	19	
End Time	14	21	
End Time	14	23	
End Time	14	25	

Nox Low

Start with Stable Online Reading
Inject High Cal Gas
Return to Normal Reading
Inject Zero Cal Gas
Return to Normal Reading

	HH	MM	SS	Reading	Cal Bottle Value
Start Time	14	26		2.15	
Start Time	14	28		9.2	8.89
Start Time	14	30		2.11	
Start Time	14	32		0.15	0
Start Time	14	32		2.15	

	HH	MM	SS
End Time	14	28	
End Time	14	30	
End Time	14	32	
End Time	14	34	

CO

Start with Stable Online Reading
Inject High Cal Gas
Return to Normal Reading
Inject Zero Cal Gas
Return to Normal Reading

	HH	MM	SS	Reading	Cal Bottle Value
Start Time	14	35		1.33	
Start Time	14	37		45.09	45
Start Time	14	39		0.57	
Start Time	14	41		0.07	0
Start Time	14	41		0.55	

	HH	MM	SS
End Time	14	37	
End Time	14	39	
End Time	14	41	
End Time	14	43	

O2

Start with Stable Online Reading
Inject High Cal Gas
Return to Normal Reading
Inject Zero Cal Gas
Return to Normal Reading

	HH	MM	SS	Reading	Cal Bottle Value
Start Time	14	44		15.92	
Start Time	14	46		21.98	21.97
Start Time	14	48		15.75	
Start Time	14	50		0.44	0
Start Time	14	50		15.91	

	HH	MM	SS
End Time	14	46	
End Time	14	48	
End Time	14	50	
End Time	14	52	

Put the CEMS to "Service Mode".
NH3 Flow Control valve in "Auto" control at steady state value.

CEM To Service Mode.

1456

APPENDIX6

GAS CYLINDER CERTIFICATION SHEETS

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E03NI94E15A4620 Reference Number: 153-401854673-1
Cylinder Number: XC023397B Cylinder Volume: 144.8 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72020 Valve Outlet: 590
Gas Code: CO, O2, BALN Certification Date: Jul 22, 2020

Expiration Date: Jul 22, 2028

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	12.60 PPM	12.67 PPM	G1	+/- 0.7% NIST Traceable	07/22/2020
OXYGEN	5.500 %	5.504 %	G1	+/- 0.5% NIST Traceable	07/21/2020
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	08011130	KAL004049	9.855 PPM CARBON MONOXIDE/NITROGEN	0.5%	Jun 05, 2024
NTRM	11060717	CC338461	4.861 % OXYGEN/NITROGEN	0.4%	Dec 13, 2022

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 48i-TLE 1163640031 CO	CO NDIR (Mason)	Jun 22, 2020
Horiba MPA-51D W603MM58 O2	O2 Paramagnetic (Mason)	Jul 16, 2020

Triad Data Available Upon Request



[Signature]
Approved for Release

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number:	E03NI88E15A00K8	Reference Number:	48-124413235-1
Cylinder Number:	CC144473	Cylinder Volume:	145.3 CF
Laboratory:	ASG - Los Angeles - CA	Cylinder Pressure:	2015 PSIG
PGVP Number:	B32014	Valve Outlet:	590
Gas Code:	CO, O2, BALN	Certification Date:	Jan 13, 2014

Expiration Date: Jan 13, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	27.60 PPM	27.23 PPM	G1	+/- 0.7% NIST Traceable	01/11/2014
OXYGEN	11.00 %	11.24 %	G1	+/- 0.4% NIST Traceable	01/13/2014
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	09061823	CC282594	24.35 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	May 24, 2019
NTRM	09060206	CC262089	9.981 % OXYGEN/NITROGEN	+/- 0.3%	Nov 08, 2018

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AMP0900118 CO	FTIR	Dec 18, 2013
SIEMENS OXYMAT 6	PARAMAGNETIC	Dec 26, 2013

Triad Data Available Upon Request

Notes:

Approved for Release

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E03NI94E15A4620 Reference Number: 153-401854673-1
Cylinder Number: XC023397B Cylinder Volume: 144.8 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72020 Valve Outlet: 580
Gas Code: CO, O2, BALN Certification Date: Jul 22, 2020

Expiration Date: Jul 22, 2028

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	12.50 PPM	12.57 PPM	G1	+/- 0.7% NIST Traceable	07/22/2020
OXYGEN	5.500 %	5.504 %	G1	+/- 0.5% NIST Traceable	07/21/2020
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	08011130	KAL004049	9.855 PPM CARBON MONOXIDE/NITROGEN	0.5%	Jun 05, 2024
NTRM	11060717	CC338451	4.881 % OXYGEN/NITROGEN	0.4%	Dec 13, 2022

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 48i-TLE 1163640031 CO	CO NDIR (Mason)	Jun 22, 2020
Horiba MPA-510 VV603MM58 O2	O2 Paramagnetic (Mason)	Jul 16, 2020

Triad Data Available Upon Request



[Signature]
Approved for Release

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number:	E03NI88E15A00K8	Reference Number:	48-124413235-1
Cylinder Number:	CC144473	Cylinder Volume:	145.3 CF
Laboratory:	ASG - Los Angeles - CA	Cylinder Pressure:	2015 PSIG
PGVP Number:	B32014	Valve Outlet:	590
Gas Code:	CO,O2,BALN	Certification Date:	Jan 13, 2014

Expiration Date: Jan 13, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 800/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	27.50 PPM	27.23 PPM	G1	+/- 0.7% NIST Traceable	01/11/2014
OXYGEN	11.00 %	11.24 %	G1	+/- 0.4% NIST Traceable	01/13/2014
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	09061823	CC282594	24.35 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	May 24, 2019
NTRM	09060206	CC282089	9.981 % OXYGEN/NITROGEN	+/- 0.3%	Nov 08, 2018

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AMP0900118 CO	FTIR	Dec 18, 2013
SIEMENS OXYMAT 6	PARAMAGNETIC	Dec 26, 2013

Triad Data Available Upon Request

Notes:

Approved for Release

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number:	E02NI99E15AC008	Reference Number:	48-401210851-1A
Cylinder Number:	CC232303	Cylinder Volume:	144.3 CF
Laboratory:	124 - Los Angeles (SAP) - CA	Cylinder Pressure:	2015 PSIG
PGVP Number:	B32018	Valve Outlet:	660
Gas Code:	NO,NOX,BALN	Certification Date:	Jun 26, 2018

Expiration Date: Jun 26, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 800/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	2,500 PPM	2,487 PPM	G1	+/- 1.0% NIST Traceable	06/19/2018, 06/26/2018
NITRIC OXIDE	2,500 PPM	2,452 PPM	G1	+/- 1.0% NIST Traceable	06/19/2018, 06/26/2018
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	18060747	CC465090	10.08 PPM NITRIC OXIDE/NITROGEN	+/- 1.0%	Jun 28, 2018
NTRM	15061008	CC442634	18.12 PPM NITRIC OXIDE/NITROGEN	+/- 0.7%	Nov 11, 2018
NTRM	18060747	CC465090-NOx	10.08 PPM NOx/NITROGEN	+/- 1.0%	Jun 28, 2018
NTRM	15061008	CC442634-NOx	18.13 PPM NOx/NITROGEN	+/- 0.7%	Nov 11, 2018

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 42-ILS 1115848421 NO	Chemiluminescence	Jun 26, 2018
Thermo 42-ILS 1115848421 NOx	Chemiluminescence	Jun 26, 2018

Triad Data Available Upon Request



[Signature]

Approved for Release

P-400

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E02NI99E15AC007 Reference Number: 153-401765379-1
Cylinder Number: CC496638 Cylinder Volume: 144.3 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72020 Valve Outlet: 660
Gas Code: NO,NOX,BALN Certification Date: Mar 31, 2020

Expiration Date: Mar 31, 2023

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	5.500 PPM	5.588 PPM	G1	+/- 1.2% NIST Traceable	03/24/2020, 03/31/2020
NITRIC OXIDE	5.500 PPM	6.647 PPM	G1	+/- 1.1% NIST Traceable	03/24/2020, 03/31/2020
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	08012126	KAL004291	5.08 PPM NITRIC OXIDE/NITROGEN	1.0%	Jul 05, 2021
NTRM	08012126	KAL004291-NOX	5.08 PPM NOx/NITROGEN	1.0%	Jul 05, 2021

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 42i-LS 1123749327 NO	Chemiluminescence (Mason)	Mar 16, 2020
Thermo 42i-LS 1123749327 NOx	Chemiluminescence (Mason)	Mar 16, 2020

Triad Data Available Upon Request



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Signature on file

Approved for Release

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E03NI94E15A4620 Reference Number: 153-401854673-1
Cylinder Number: XC023397B Cylinder Volume: 144.8 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72020 Valve Outlet: 590
Gas Code: CO,O2,BALN Certification Date: Jul 22, 2020

Expiration Date: Jul 22, 2028

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 800/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	12.50 PPM	12.57 PPM	G1	+/- 0.7% NIST Traceable	07/22/2020
OXYGEN	5.500 %	5.504 %	G1	+/- 0.5% NIST Traceable	07/21/2020
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	08011130	KAL004049	9.855 PPM CARBON MONOXIDE/NITROGEN	0.5%	Jun 05, 2024
NTRM	11060717	CC338451	4.881 % OXYGEN/NITROGEN	0.4%	Dec 13, 2022

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 48i-TLE 1163640031 CO	CO NDIR (Mason)	Jun 22, 2020
Horiba MPA-510 W603MM58 O2	O2 Paramagnetic (Mason)	Jul 16, 2020

Triad Data Available Upon Request



[Signature]
Approved for Release

Airgas Specialty Gases

825 North Industrial Loop Road
Tooele, UT 84074
435-241-5682 Fax: 435-241-5684
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number:	E02N186E15A0488	Reference Number:	153-124586763-1
Cylinder Number:	CC420414	Cylinder Volume:	145.6 CF
Laboratory:	124 - Tooele - UT	Cylinder Pressure:	2016 PSIG
PGVP Number:	B72016	Valve Outlet:	590
Gas Code:	O2,BALN	Certification Date:	Nov.07, 2016

Expiration Date: Nov 07, 2024

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 400 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
OXYGEN	13.75 %	13.75 %	G1	+/- 0.7% NIST Traceable	11/07/2016
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	98051014	SG0162888BAL	12.05 % OXYGEN/NITROGEN	0.7%	Dec 02, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba MPA-51D X9A4UGL8.O2	O2 Paramagnetic (Dixon)	Oct 27, 2016

Triad Data Available Upon Request



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Approved for Release

P-396

Airgas USA, LLC
525 North Industrial Loop Road
Tooele, UT 84074
Airgas.com
PEAKS DAUGHTER
44-0003

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E02NI78E15A0124 Reference Number: 153-401689188-1
Cylinder Number: SG9168205BAL Cylinder Volume: 146.3 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72019 Valve Outlet: 590
Gas Code: O2,BALN Certification Date: Dec 26, 2019

Expiration Date: Dec 26, 2027

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
OXYGEN	22.00 %	21.97 %	G1	+/- 0.5% NIST Traceable	12/26/2019
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12062019	CC367606	22.883 % OXYGEN/NITROGEN	0.050%	May 14, 2024

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba MPA-510 W603MM58 O2	O2 Paramagnetic (Mason)	Nov 27, 2019

Triad Data Available Upon Request



Paul J. [Signature]
Approved for Release

P-408

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E02NI99E15A0147 Reference Number: 153-401364273-1
Cylinder Number: CC210058 Cylinder Volume: 144.3 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72018 Valve Outlet: 660
Gas Code: NO,NOX,BALN Certification Date: Dec 10, 2018

Expiration Date: Dec 10, 2026

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 800/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	50.74 PPM	G1	+/- 1.2% NIST Traceable	12/03/2018, 12/10/2018
NITRIC OXIDE	50.00 PPM	50.49 PPM	G1	+/- 1.1% NIST Traceable	12/03/2018, 12/10/2018
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12010715	KAL004342	50.03 PPM NITRIC OXIDE/NITROGEN	0.8%	Mar 12, 2024
PRM	12376	D562876	10.01 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Aug 17, 2018
GMIS	7301017103	CC506597	4.451 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Dec 18, 2020

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AMP0900119 NO LNO	FTIR	Nov 21, 2018
Nicolet 6700 AMP0900119 NO2 impurity	FTIR NO2 impurity	Nov 21, 2018

Triad Data Available Upon Request



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Approved for Release

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E02NI99E15A0093 Reference Number: 153-401210852-1
Cylinder Number: CC99609 Cylinder Volume: 144.3 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72018 Valve Outlet: 660
Gas Code: NO,NOX,BALN Certification Date: Jun 05, 2018

Expiration Date: Jun 05, 2026

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	110.0 PPM	109.3 PPM	G1	+/- 1.1% NIST Traceable	05/29/2018, 06/05/2018
NITRIC OXIDE	110.0 PPM	109.2 PPM	G1	+/- 1.1% NIST Traceable	05/29/2018, 06/05/2018
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13010413	KAL004013	97.6 PPM NITRIC OXIDE/NITROGEN	0.8%	May 09, 2019
PRM	12367	APEX1099237	9.82 PPM NITROGEN DIOXIDE/NITROGEN	1.8%	May 29, 2016
GMIS	1114201804	CC507567	4.955 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Nov 14, 2019

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801550 NO LNO	FTIR	May 31, 2018
Nicolet 6700 AHR0801550 NO2 Impurity	FTIR NO2 impurity	May 31, 2018

Triad Data Available Upon Request



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P-4067

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E03NI99E15A4284 Reference Number: 153-401810093-1
Cylinder Number: EB0095955 Cylinder Volume: 144.4 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72020 Valve Outlet: 660
Gas Code: CO,NO,NOX,BALN Certification Date: May 26, 2020

Expiration Date: May 26, 2028

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	180.0 PPM	180.8 PPM	G1	+/- 0.6% NIST Traceable	05/18/2020, 05/26/2020
CARBON MONOXIDE	45.00 PPM	45.85 PPM	G1	+/- 0.7% NIST Traceable	05/18/2020
NITRIC OXIDE	180.0 PPM	180.6 PPM	G1	+/- 0.6% NIST Traceable	05/18/2020, 05/26/2020
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12011236	KAL004576	49.24 PPM CARBON MONOXIDE/NITROGEN	0.6%	Aug 31, 2024
PRM	12376	D562879	10.01 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Aug 17, 2018
NTRM	18060136	KAL004861	249.9 PPM NITRIC OXIDE/NITROGEN	0.4%	Nov 08, 2023
GMIS	7302017111	CC511391	4.634 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Aug 15, 2021

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801550 CO LCO	FTIR	May 06, 2020
Nicolet 6700 AHR0801550 NO MNO	FTIR	May 20, 2020
Nicolet 6700 AHR0801550 NO2 impurity	FTIR NO2 impurity	May 20, 2020

Triad Data Available Upon Request



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P-408

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0147	Reference Number:	153-401384273-1
Cylinder Number:	CC210058	Cylinder Volume:	144.3 CF
Laboratory:	124 - Tooele (SAP) - UT	Cylinder Pressure:	2015 PSIG
PGVP Number:	B72018	Valve Outlet:	660
Gas Code:	NO,NOX,BALN	Certification Date:	Dec 10, 2018

Expiration Date: Dec 10, 2026

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	50.74 PPM	G1	+/- 1.2% NIST Traceable	12/03/2018, 12/10/2018
NITRIC OXIDE	50.00 PPM	50.49 PPM	G1	+/- 1.1% NIST Traceable	12/03/2018, 12/10/2018
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	LotID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12010715	KAL004342	50.03 PPM NITRIC OXIDE/NITROGEN	0.8%	Mar 12, 2024
PRM	12378	D562878	10.01 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Aug 17, 2018
GMIS	7301017103	CC506597	4.451 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Dec 18, 2020

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AMP0900119 NO LNO	FTIR	Nov 21, 2018
Nicolet 6700 AMP0900119 NO2 Impurity	FTIR NO2 Impurity	Nov 21, 2018

Triad Data Available Upon Request



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CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E02NI99E15A0093 Reference Number: 153-401210852-1
Cylinder Number: CC99609 Cylinder Volume: 144.3 CF
Laboratory: 124 - Tooele (SAP) - UT Cylinder Pressure: 2015 PSIG
PGVP Number: B72018 Valve Outlet: 660
Gas Code: NO,NOX,BALN Certification Date: Jun 05, 2018

Expiration Date: Jun 05, 2026

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 800/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	110.0 PPM	109.3 PPM	G1	+/- 1.1% NIST Traceable	05/29/2018, 06/05/2018
NITRIC OXIDE	110.0 PPM	109.2 PPM	G1	+/- 1.1% NIST Traceable	05/29/2018, 06/05/2018
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13010413	KAL004013	97.6 PPM NITRIC OXIDE/NITROGEN	0.8%	May 09, 2019
PRM	12367	APEX1099237	9.82 PPM NITROGEN DIOXIDE/NITROGEN	1.6%	May 29, 2016
GMIS	1114201604	CC507567	4.955 PPM NITROGEN DIOXIDE/NITROGEN	2.0%	Nov 14, 2019

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801550 NO LNO	FTIR	May 31, 2018
Nicolet 6700 AHR0801550 NO2 Impurity	FTIR NO2 impurity	May 31, 2018

Triad Data Available Upon Request



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APPENDIX6

RELATIVE ACCURACY TEST AUDIT REPORT SUMMARY

**(Complete RATA Report submitted under separate
cover on August 5, 2021)**

RELATIVE ACCURACY TEST AUDIT DETERMINATION
Calpine Gilroy Energy Center, LLC for King City
LM6000

Test No.	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Run 9	Run 10	Average
Date	6/14/21	6/14/21	6/14/21	6/14/21	6/14/21	6/14/21	6/14/21	6/14/21	6/14/21	6/14/21	Runs 1-10
Start Time	0750-0834	0855-0925	0953-1023	1034-1055	1102-1123	1143-1204	1211-1232	1239-1300	1308-1329	1338-1359	—
Reference temperature, °F	68	68	68	68	68	68	68	68	68	68	68
Part 75 Load, MW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GT turbine gross load, MW	45.9	45.8	45.7	45.7	45.7	45.6	45.6	45.6	45.7	45.7	45.7
Fuel heat content, Btu/scf	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013
CT fuel flow rate, scfh	441,681	441,449	440,706	440,757	440,574	439,359	438,697	439,110	438,685	438,459	439,948
CT heat input, MMBtu/hr	453.2	452.9	452.2	452.2	452.0	450.8	450.1	450.5	450.1	449.9	451.4
DB fuel flow rate, scfh	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	#DIV/0!
DB heat input, MMBtu/hr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	#DIV/0!
Total fuel flow rate, scfh	441,681	441,449	440,706	440,757	440,574	439,359	438,697	439,110	438,685	438,459	439,948
Total heat input rate, MMBtu/hr	453.2	452.9	452.2	452.2	452.0	450.8	450.1	450.5	450.1	449.9	451.4
Steam injection rate, lb/hr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	#DIV/0!
Ammonia injection rate, lb/hr	78.2	78.7	79.8	80.3	80.3	78.3	76.3	77.8	78.2	79.5	78.7
Fuel SO ₂ , gr/100 scf	0.1321	0.1321	0.1321	0.1321	0.1321	0.1321	0.1321	0.1321	0.1321	0.1321	0.1321
"F _d " factor @ 68 °F, dscf/MMBtu	8,646	8,646	8,646	8,646	8,646	8,646	8,646	8,646	8,646	8,646	8,646
HHV @ 60 °F, btu/scf	441,681	441,449	440,706	440,757	440,574	439,359	438,697	439,110	438,685	438,459	439,948
Stack flow rate - based on fuel, dscfm	306,250	304,016	292,925	292,959	293,476	292,667	295,451	292,501	290,948	288,913	295,011
O ₂ , % volume dry	16.50	16.47	16.31	16.31	16.32	16.32	16.37	16.32	16.30	16.27	16.35
CO ₂ , % volume dry	2.470	2.478	2.577	2.580	2.584	2.544	2.546	2.577	2.599	2.611	2.557
CO, ppm volume dry	0.925	0.757	0.741	0.712	0.709	0.666	0.642	0.637	0.606	0.640	0.704
CO, ppm dry @ 15% O ₂	1.240	1.008	0.952	0.915	0.913	0.858	0.836	0.821	0.777	0.816	0.914
CO, lb/hr	1.24	1.00	0.95	0.91	0.91	0.85	0.83	0.81	0.77	0.81	0.91
CO, lb/day (24 hours)	29.652	24.089	22.720	21.833	21.780	20.402	19.854	19.503	18.455	19.354	21.76
NO _x , ppm volume dry	1.823	2.009	1.925	1.974	2.023	1.915	2.031	1.968	1.993	1.970	1.963
NO _x , ppm dry @ 15% O ₂	2.444	2.676	2.474	2.537	2.606	2.467	2.645	2.535	2.556	2.510	2.545
NO _x , lb/hr as NO ₂	4.00	4.38	4.04	4.14	4.25	4.02	4.30	4.12	4.15	4.08	4.15
NO _x , lb/day (24 hours) as NO ₂	96	105	97	99	102	96	103	99	100	98	100
NO _x , lb/MMBtu as NO ₂	0.0089	0.0098	0.0090	0.0093	0.0095	0.0090	0.0097	0.0093	0.0093	0.0092	0.01

RELATIVE ACCURACY TEST AUDIT DETERMINATION
EPA CFR 40, PART 60, APPENDIX B, PS 3
Calpine Gilroy Energy Center, LLC for King City
LM6000

O₂, % volume dry

<u>Run #</u>	<u>Date</u>	<u>Time</u>	<u>RM</u>	<u>CEMS</u>	<u>Difference</u>	<u>n</u>	<u>t_{0.975}</u>
Run 1	6/14/21	0750-0834	16.50	16.35	0.15	1	100.00
Run 2	6/14/21	0855-0925	16.47	16.26	0.21	2	12.706
Run 3	6/14/21	0953-1023	16.31	16.13	0.18	3	4.303
Run 4	6/14/21	1034-1055	16.31	16.11	0.20	4	3.182
Run 5	6/14/21	1102-1123	16.32	16.09	0.23	5	2.776
Run 6	6/14/21	1143-1204	16.32	16.12	0.20	6	2.571
Run 7	6/14/21	1211-1232	16.37	16.14	0.23	7	2.447
Run 8	6/14/21	1239-1300	16.32	16.09	0.23	8	2.365
Run 9	6/14/21	1308-1329	16.30	16.05	0.25	9	2.306
Run 10	6/14/21	1338-1359	16.27	16.05	0.22	10	2.262
AVERAGES:			16.35	16.15	0.21		
STANDARD DEVIATION:					0.027		
CONFIDENCE COEFFICIENT:					0.021		
RELATIVE ACCURACY (BASED ON ABSOLUTE DIFFERENCE), %:							
						<u>Criteria</u>	<u>Result</u>
						≤1	0.2

Note: The relative accuracy (RA) of the CEMS must be no greater than 1.0 percent O₂.

RELATIVE ACCURACY TEST AUDIT DETERMINATION
EPA CFR 40, PART 75, APPENDIX A
Calpine Gilroy Energy Center, LLC for King City
LM6000

O₂, % volume dry

<u>Run #</u>	<u>Date</u>	<u>Time</u>	<u>RM</u>	<u>CEMS</u>	<u>Difference</u>	<u>n</u>	<u>t_{0.975}</u>				
Run 1	6/14/21	0750-0834	16.50	16.35	0.15	1	100.00				
Run 2	6/14/21	0855-0925	16.47	16.26	0.21	2	12.706				
Run 3	6/14/21	0953-1023	16.31	16.13	0.18	3	4.303				
Run 4	6/14/21	1034-1055	16.31	16.11	0.20	4	3.182				
Run 5	6/14/21	1102-1123	16.32	16.09	0.23	5	2.776				
Run 6	6/14/21	1143-1204	16.32	16.12	0.20	6	2.571				
Run 7	6/14/21	1211-1232	16.37	16.14	0.23	7	2.447				
Run 8	6/14/21	1239-1300	16.32	16.09	0.23	8	2.365				
Run 9	6/14/21	1308-1329	16.30	16.05	0.25	9	2.306				
Run 10	6/14/21	1338-1359	16.27	16.05	0.22	10	2.262				
AVERAGES:			16.35	16.15	0.21						
STANDARD DEVIATION:					0.027						
CONFIDENCE COEFFICIENT:					0.021						
RELATIVE ACCURACY (BASED ON REFERENCE METHOD), %:							<table><tr><th><u>Criteria</u></th><th><u>Result</u></th></tr><tr><td>≤10</td><td>1.4</td></tr></table>	<u>Criteria</u>	<u>Result</u>	≤10	1.4
<u>Criteria</u>	<u>Result</u>										
≤10	1.4										

Note: The relative accuracy (RA) of the CEMS shall not exceed 10.0 percent. The relative accuracy test results are also acceptable if the difference between the mean value of the CEMS O₂ monitor measurements and the corresponding reference method (RM) measurement mean value does not exceed 1.0 percent O₂.

RELATIVE ACCURACY TEST AUDIT DETERMINATION
EPA CFR 40, PART 60, APPENDIX B, PS 4/4A
Calpine Gilroy Energy Center, LLC for King City
LM6000

CO, ppm @ 15% O₂

<u>Run #</u>	<u>Date</u>	<u>Time</u>	<u>RM</u>	<u>CEMS</u>	<u>Difference</u>	<u>n</u>	<u>t_{0.975}</u>
Run 1	6/14/21	0750-0834	1.24	0.47	0.77	1	100.00
Run 2	6/14/21	0855-0925	1.01	0.46	0.55	2	12.706
Run 3	6/14/21	0953-1023	0.95	0.37	0.58	3	4.303
Run 4	6/14/21	1034-1055	0.92	0.37	0.55	4	3.182
Run 5	6/14/21	1102-1123	0.91	0.34	0.57	5	2.776
Run 6	6/14/21	1143-1204	0.86	0.31	0.55	6	2.571
Run 7	6/14/21	1211-1232	0.84	0.24	0.60	7	2.447
Run 8	6/14/21	1239-1300	0.82	0.26	0.56	8	2.365
Run 9	6/14/21	1308-1329	0.78	0.23	0.55	9	2.306
Run 10	6/14/21	1338-1359	0.82	0.28	0.54	10	2.262
AVERAGES:			0.88	0.32	0.56		
STANDARD DEVIATION:					0.020		
CONFIDENCE COEFFICIENT:					0.016		
RELATIVE ACCURACY (BASED ON DIFFERENCE), PPM:					-4A only -		
						<u>Criteria</u>	<u>Result</u>
						≤5	0.6

Note: Performance Specification (PS) 4 is to be used on sources operating above 200 ppm analyzer span and PS 4A on sources operating below 200 ppm analyzer span. The relative accuracy (RA) of the CEMS must be no greater than 10 percent when the average reference method (RM) value is used to calculate RA, 5 percent when the applicable standard (AS) is used to calculate RA, or within 5 ppm (to be used with PS 4A only) when the RA is calculated as the absolute average difference between the RM and CEMS plus the 2.5 percent confidence coefficient.

RELATIVE ACCURACY TEST AUDIT DETERMINATION

EPA CFR 40, PART 60, APPENDIX B, PS 4(A)

Calpine Gilroy Energy Center, LLC for King City

LM6000

CO, lb/hr

<u>Run #</u>	<u>Date</u>	<u>Time</u>	<u>RM</u>	<u>CEMS</u>	<u>Difference</u>	<u>n</u>	<u>t_{0.975}</u>
Run 1	6/14/21	0750-0834	1.24	0.48	0.76	1	100.00
Run 2	6/14/21	0855-0925	1.00	0.46	0.54	2	12.706
Run 3	6/14/21	0953-1023	0.95	0.37	0.58	3	4.303
Run 4	6/14/21	1034-1055	0.91	0.39	0.52	4	3.182
Run 5	6/14/21	1102-1123	0.91	0.36	0.55	5	2.776
Run 6	6/14/21	1143-1204	0.85	0.32	0.53	6	2.571
Run 7	6/14/21	1211-1232	0.83	0.24	0.59	7	2.447
Run 8	6/14/21	1239-1300	0.81	0.26	0.55	8	2.365
Run 9	6/14/21	1308-1329	0.77	0.23	0.54	9	2.306
Run 10	6/14/21	1338-1359	0.81	0.28	0.53	10	2.262
AVERAGES:			0.87	0.32	0.55		
STANDARD DEVIATION:					0.023		
CONFIDENCE COEFFICIENT:					0.017		
RELATIVE ACCURACY (BASED ON DIFFERENCE), LB/HR:							
					<u>Criteria</u>	<u>Result</u>	
					≤6.41	0.6	

Note: Performance Specification (PS) 4 is to be used on sources operating above 200 ppm analyzer span and PS 4A on sources operating below 200 ppm analyzer span. The relative accuracy (RA) of the CEMS must be no greater than 20 percent when the average reference method (RM) value is used to calculate RA, 5 percent when the applicable standard (AS) is used to calculate RA, or within 5 ppm (to be used with PS 4A only) when the RA is calculated as the absolute average difference between the RM and CEMS plus the 2.5 percent confidence coefficient.

RELATIVE ACCURACY TEST AUDIT DETERMINATION

EPA CFR 40, PART 60, APPENDIX B, PS 2

Calpine Gilroy Energy Center, LLC for King City

LM6000

NO_x, ppm @ 15% O₂

Run #	Date	Time	RM	CEMS	Difference	n	£0.975				
Run 1	6/14/21	0750-0834	2.44	2.85	-0.41	1	100.00				
Run 2	6/14/21	0855-0925	2.68	2.79	-0.11	2	12.706				
Run 3	6/14/21	0953-1023	2.47	2.72	-0.25	3	4.303				
Run 4	6/14/21	1034-1055	2.54	2.71	-0.17	4	3.182				
Run 5	6/14/21	1102-1123	2.61	2.70	-0.09	5	2.776				
Run 6	6/14/21	1143-1204	2.47	2.69	-0.22	6	2.571				
Run 7	6/14/21	1211-1232	2.65	2.74	-0.09	7	2.447				
Run 8	6/14/21	1239-1300	2.54	2.69	-0.15	8	2.365				
Run 9	6/14/21	1308-1329	2.56	2.68	-0.12	9	2.306				
Run 10	6/14/21	1338-1359	2.51	2.68	-0.17	10	2.262				
AVERAGES:			2.56	2.71	-0.15	> 50% of limit,					
EMISSION LIMIT:					5.0	<u>must use RM criteria</u>					
STANDARD DEVIATION:					0.054	<table><tr><th><u>Criteria</u></th><th><u>Result</u></th></tr><tr><td>≤20</td><td>7.7</td></tr></table>		<u>Criteria</u>	<u>Result</u>	≤20	7.7
<u>Criteria</u>	<u>Result</u>										
≤20	7.7										
CONFIDENCE COEFFICIENT:					0.042						
RELATIVE ACCURACY (BASED ON REFERENCE METHOD), %:											

Note: The relative accuracy (RA) of the CEMS must be no greater than 20 percent when the reference method (RM) is used in the denominator of Equation 2-6 (the average emissions during the test are greater than 50 percent of the emission standard) or 10 percent when the applicable standard (AS) is used in the denominator of Equation 2-6 (the average emissions during the test are less than 50 percent of the emission standard).

RELATIVE ACCURACY TEST AUDIT DETERMINATION

EPA CFR 40, PART 60, APPENDIX B, PS 2 / 6

Calpine Gilroy Energy Center, LLC for King City

LM6000

NO_x, lb/hr

<u>Run #</u>	<u>Date</u>	<u>Time</u>	<u>RM</u>	<u>CEMS</u>	<u>Difference</u>	<u>n</u>	<u>t_{0.975}</u>				
Run 1	6/14/21	0750-0834	4.00	4.75	-0.75	1	100.00				
Run 2	6/14/21	0855-0925	4.38	4.65	-0.27	2	12.706				
Run 3	6/14/21	0953-1023	4.04	4.53	-0.49	3	4.303				
Run 4	6/14/21	1034-1055	4.14	4.51	-0.37	4	3.182				
Run 5	6/14/21	1102-1123	4.25	4.49	-0.24	5	2.776				
Run 6	6/14/21	1143-1204	4.02	4.45	-0.43	6	2.571				
Run 7	6/14/21	1211-1232	4.30	4.54	-0.24	7	2.447				
Run 8	6/14/21	1239-1300	4.12	4.46	-0.34	8	2.365				
Run 9	6/14/21	1308-1329	4.15	4.43	-0.28	9	2.306				
Run 10	6/14/21	1338-1359	4.08	4.43	-0.35	10	2.262				
AVERAGES:			4.16	4.50	-0.33	< 50% of limit,					
EMISSION LIMIT:					8.7	<u>you must use AS criteria</u>					
STANDARD DEVIATION:					0.087	<table><tr><th><u>Criteria</u></th><th><u>Result</u></th></tr><tr><td>≤10</td><td>4.6</td></tr></table>		<u>Criteria</u>	<u>Result</u>	≤10	4.6
<u>Criteria</u>	<u>Result</u>										
≤10	4.6										
CONFIDENCE COEFFICIENT:					0.067						
RELATIVE ACCURACY (BASED ON APPLICABLE STANDARD), %:											

Note: Since this unit incorporates the total equipment required for the determining and recording the pollutant mass emission rate (in terms of mass per unit of time), the unit is technically defined as a continuous emissions rate monitoring system (CERMS) and is subject to Performance Specification (PS) 6. The relative accuracy (RA) of the CERMS shall be no greater than 20 percent of the mean value of the reference method (RM) test data in terms of the units of the emission standard, or 10 percent of the applicable standard (AS), whichever is greater.

RELATIVE ACCURACY TEST AUDIT DETERMINATION

EPA CFR 40, PART 75, APPENDIX A

EDR TABLE

Calpine Gilroy Energy Center, LLC for King City
LM6000

NO_x, lb/MMBtu

Run #	Date	Time	RM	CEMS	Difference	n	t _{0.975}	MW						
Run 1	6/14/21	0750-0834	0.009	0.011	-0.002	1	100.00	45.9						
Run 2	6/14/21	0855-0925	0.010	0.010	0.000	2	12.706	45.8						
Run 3	6/14/21	0953-1023	0.009	0.010	-0.001	3	4.303	45.7						
Run 4	6/14/21	1034-1055	0.009	0.010	-0.001	4	3.182	45.7						
Run 5	6/14/21	1102-1123	0.010	0.010	0.000	5	2.776	45.7						
Run 6	6/14/21	1143-1204	0.009	0.010	-0.001	6	2.571	45.6						
Run 7	6/14/21	1211-1232	0.010	0.010	0.000	7	2.447	45.6						
Run 8	6/14/21	1239-1300	0.009	0.010	-0.001	8	2.365	45.6						
Run 9	6/14/21	1308-1329	0.009	0.010	-0.001	9	2.306	45.7						
Run 10	6/14/21	1338-1359	0.009	0.010	-0.001	10	2.262	45.7						
AVERAGES:			0.009	0.010	-0.001	> 50% of limit, you may choose either the RM or the difference		45.7						
BIAS ADJUSTMENT FACTOR:					1.000	<table><tr><th>Criteria</th><th>Result</th></tr><tr><td>0.020</td><td>0.001</td></tr><tr><td>N/A</td><td>45.7</td></tr></table>			Criteria	Result	0.020	0.001	N/A	45.7
Criteria	Result													
0.020	0.001													
N/A	45.7													
STANDARD DEVIATION:					0.001									
CONFIDENCE COEFFICIENT:					0.000									
RELATIVE ACCURACY (BASED ON lb/MMBtu DIFFERENCE), lb/MMBtu:														
UNIT LOAD, MW:														

Note: The relative accuracy (RA) of the CEMS must be no greater than 20 percent when the reference method (RM) is used in the denominator of Equation 2-6 (the average emissions during the test are greater than 50 percent of the emission standard) or 10 percent when the applicable standard (AS) is used in the denominator of Equation 2-6 (the average emissions during the test are less than 50 percent of the emission standard).

Attachment 3

2021 Annual Facility Emission Summary

Attachment 3 - Annual Facility Emissions

	2021				
	December				
Gilroy Energy Center 2021	1	2	3	4	Total
NOx Emissions	248.53	283	714	437	1,681.91
CO Emissions	46.64	31	40	24	141.08
PM-10 Emissions	56.55	101	274	128	559.37
VOC Emissions	27.01	40	138	62	267.27
SOx Emissions	7.08	13	36	16	72.42
NH3 Emissions	44.12	102	254	126	526.80
King City Cogen 2021	1	2	3	4	Total
NOx Emissions	2721.54	5,710	15,248	565	24,243.77
CO Emissions	721.34	1,465	2,978	171	5,335.86
PM-10 Emissions	189.47	346	996	36	1,566.83
VOC Emissions	25.03	45	132	4	206.99
SOx Emissions	12.99	23	69	2	107.99
NH3 Emissions	142.83	213	613	27	995.63
Total King City 2021	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
NOx Limit (lbs)	72,452	73,178	73,905	73,905	293,440
NOx Emissions	2,970	5,993	15,962	1,001	25,926
CO Limit (lbs)	58,445	59,095	59,744	59,744	237,028
CO Emissions	768	1,496	3,018	195	5,477
PM-10 Limit (lbs)	12,071	12,204	12,339	12,339	48,953
PM-10 Emissions	246	447	1,270	164	2,126
VOC Limit (lbs)	4,762	4,815	4,868	4,868	19,313
VOC Emissions	52	86	271	66	474
SOx Limit (lbs)	1,748	1,768	1,787	1,787	7,090
SOx Emissions	20	36	106	18	180
NH3 Emissions	187	315	867	153	1,522

Attachment 4

2021 Fire Marshall Inspection Record

CARMEL FIRE PROTECTION
INSPECTION RECORD

1. ADMINISTRATIVE INFORMATION

Business Name

CALPINE

Address

Mailing Address

ON FILE

Telephone

Owner/First Contact

Second Contact

Website

2. INSPECTION FINDINGS

☒ NO FIRE HAZARDS FOUND! Thanks for keeping our community firesafe!

☐ Repair holes in ceilings/walls to maintain fire resistance.

☐ Remove combustible materials within 30" of gas fueled appliances.

☐ Maintain storage clearances from ceilings or sprinklers (18" minimum).

☐ Electrical extension cords and multi-tap adapters not permitted.

☐ Remove obstructions from exits, aisles, corridors and stairways.

☐

☐

☐

☐



CARMEL FIRE PROTECTION
King City Operations

Art Black
Fire Marshal

www.carmelfire.com
art@carmelfire.com

3. FIRE PROTECTION SYSTEMS

Fire Extinguishers

10/21 ALPHA

Automatic Fire Sprinklers

ALPHA

Standpipes

Fixed Fire Protection Systems

Fire Alarm and Detection Systems

ALPHA

Other Systems

Hazardous Materials?

4. NOTICES AND ORDERS

Please make all corrections by:

Failure to do so may result in a fee charged for each additional inspection, a citation into municipal court, or both.

Date 10/27/21 Inspector BLANK

5. OWNER ACKNOWLEDGEMENT

I acknowledge that I have received a copy of this inspection report and that the required corrections and reinspection date have been explained to me.

Signature Gary Fuller

Print Name: Gary Fuller

6. REINSPECTION RECORD

Date	Description	Actions