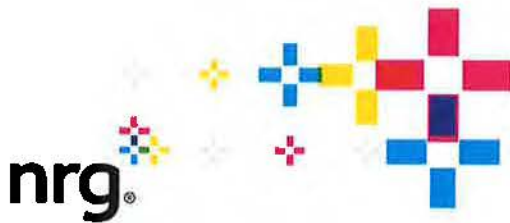


DOCKETED

Docket Number:	07-AFC-06C
Project Title:	Carlsbad Energy Center - Compliance
TN #:	229537
Document Title:	AIR QUALITY QUARTERLY OPERATIONAL REPORT SECOND QUARTER 2019
Description:	AIR QUALITY QUARTERLY OPERATIONAL REPORT- SECOND QUARTER 2019
Filer:	Anwar Ali
Organization:	Carlsbad Energy Center LLC
Submitter Role:	Commission Staff
Submission Date:	8/26/2019 10:24:48 AM
Docketed Date:	8/26/2019



Carlsbad Energy Center LLC
804 Carnegie Center
Princeton, NJ 08540
Phone: 760-710-3970

July 30, 2019

Anwar Ali, Ph.D.
Compliance Project Manager
Carlsbad Energy Center Project (07-AFC-06C)
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

**RE: CARLSBAD ENERGY CENTER PROJECT, DOCKET NO. 07-AFC-06C
CONDITION OF CERTIFICATION, AQ-SC8
QUARTERLY OPERATIONAL REPORT, SECOND QUARTER 2019**

Dear Dr. Ali:

Carlsbad Energy Center LLC ("Project Owner") submits the second quarter 2019 Operational Report in compliance with the AFC Docket No. 07-AFC-06C, Conditions of Certification (COCs) AQ-SC8 for the amended Carlsbad Energy Center Project (ACECP) located at 4950 Avenida Encinas, Carlsbad, California.

This report includes operational and emissions information that demonstrates the facility met all applicable conditions of certification during this operational period.

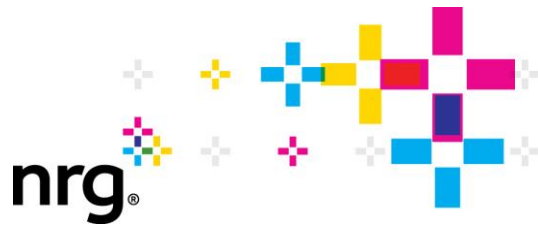
If you have any questions or comments, please do not hesitate to contact Ryan Goerl at (760) 710-3943.

Sincerely,

Paul Mattesich
Plant Manager
Carlsbad Energy Center LLC

Attached: Carlsbad Energy Center Project (07-AFC-06C), California Energy Commission, Quarterly Operational Report, Second Quarter 2019,

Cc: File



Carlsbad Energy Center Project (07-AFC-06C)

**California Energy Commission
Quarterly Operational Report**

Second Quarter 2019

***Submitted by: Carlsbad Energy Center LLC
Date Submitted: 7-30-2019***

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AQ-11: Annual SO2 Emission and Allowances

Attachment B Quality Assurance Plan Compliance Statement:

AQ-14: Shutdown Event Duration

AQ-15: Startup Event Duration

AQ-24: CEMS Data Summaries (Part 60 Subpart KKKK, and 40 CFR Part 75)

AQ-26: CEMS Minute Data Summary

AQ-75: Data Substitution Calculations

AQ-80: Natural Gas Fuel Flow Summary Per Unit

Attachment C Sulfur Content Lab Report:

AQ-22: Natural Gas Sulfur Content

Attachment D Post Commercial Data Summary:

AQ-27: NOx Corrected 2.5 PPM 1-Hour Average Data

AQ-28: CO Corrected 4.0 PPM 1-Hour Average Data

AQ-30: Ammonia Source Test and Calculated Corrected Ammonia Slip 5.0 PPM 1-Hour Average

AQ-31: NOx 42 PPM Limit

AQ-32: NOx 13.6 PPM Limit

AQ-33: NOX 22.6 PPM Limit

AQ-39: NO_x, CO, and VOC Pound Per Operating Hour Summary

AQ-42: NO_x 90 Pound Per Hour and 100 PPM Limit Summary

AQ-43: CO 248 Pound Per Hour and 400 PPM Limit Summary

Attachment E CEMS Startup/Shutdown Report:

AQ-40: NO_x, CO, and VOC Pound Per Startup Summary

AQ-41: NO_x, CO, and VOC Pound Per Shutdown Summary

Attachment F 40 CFR Part 60, Subpart KKKK Report:

AQ-34: Rolling Four-Unit Operating Pound Per Mega Watt Hour Summary

AQ-88: Part 60, KKKK Semiannual Report Summary

Attachment G Air Pollution Control District Monthly Report:

AQ-46: NO_x and PM₁₀ Annual Emissions Summary

AQ-48: Monthly and Rolling 12-Month Calculated NO_x, CO, VOCs, PM₁₀, and SO_x Emissions Summary

Attachment H VOC Statement:

AQ-29: Calculated VOC Corrected 2.0 PPM 1-Hour Average Data

AQ-40: VOC Portion Only

AQ-41: VOC Portion Only

Attachment I Encina Power Station Operations Statement:

AQ-47: Encina Emissions Summary Following CECP Startup

Attachment J Noncompliance Statement:

AQ-76: CEMS Emissions Exceedance Summary

AQ-78: DAHS Programming Compliance Summary

Attachment K Diesel Fire Pump Operations Logs:

AQ-95: Fire Pump Hour Limit

AQ-105: Fire Pump Operating Log

Attachment L Verifications Not Included:

AQ-44: Rolling 12-Month Annual Emissions Summary NO_x, CO, VOC, PM₁₀, and Sox

AQ-45: Rolling 12-Month Annual Emissions CO

AQ-49: Annual Operating Hours Summary

AQ-50: Annual Starts Per Turbine Summary

AQ-51: Commissioning Starts Per Turbine Summary

AQ-90: Initial Startup Notification

I. Summary

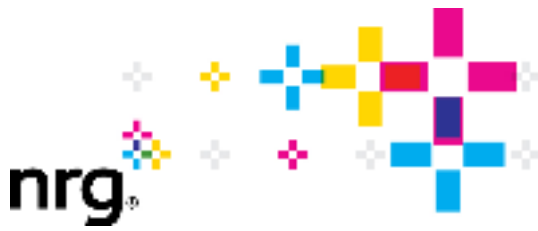
a. Project Quarterly Compliance Summary

The Carlsbad Energy Center Project (CECP) began commercial operation on December 12, 2018. In compliance with the California Energy Commission (Energy Commission) license, CECP submits the information herein demonstrating compliance with condition of certification AQ-SC8 quarterly reporting requirements.

This quarterly report includes data required by AQ-SC8 for the second quarter of 2019.

Attachment A Clean Air Markets Compliance Summary:

AQ-11: Annual SO₂ Emission and Allowances



Carlsbad Energy Center LLC
4950 Avenida Encinas
Carlsbad, CA 92008
Phone: 760-710-3970

July 30, 2019

Subject: CARLSBAD ENERGY CENTER AQ-SC8 REPORT – SO2 COMPLIANCE STATEMENT

The following conditions required in AQ-SC8 Quarterly Report require an annual SO2 allowance and emission report that is generated annually by the EPA based on the prior year's EPA EDR submittals and will not be available until the fourth quarter Quarterly Operations Report:

- AQ-11

Attachment B Quality Assurance Plan Compliance Statement:

AQ-14: Shutdown Event Duration

AQ-15: Startup Event Duration

AQ-24: CEMS Data Summaries (Part 60 Subpart KKKK,
and 40 CFR Part 75)

AQ-26: CEMS Minute Data Summary

AQ-75: Data Substitution Calculations

AQ-80: Natural Gas Fuel Flow Summary Per Unit



Carlsbad Energy Center LLC
4950 Avenida Encinas
Carlsbad, CA 92008
Phone: 760-710-3970

July 30, 2019

Subject: CARLSBAD ENERGY CENTER AQ-SC8 REPORT - QUALITY ASSURANCE
PLAN COMPLIANCE STATEMENT

The following conditions required in AQ-SC8 Quarterly Report are covered in the Quality Assurance Plan:

- AQ-14
- AQ-15
- AQ-24
- AQ-26
- AQ-75
- AQ-80

Attachment C Sulfur Content Lab Report:

AQ-22: Natural Gas Sulfur Content



June 17, 2019

Mr. Timothy R. Sisk
Carlsbad Energy Center LLC
4600 Carlsbad Blvd.
Carlsbad, CA 92008

**Subject: 2Q19 Quarterly Fuel Analysis Results for Carlsbad Energy Center
Report Number: W002AS-563212-RT-2**

Dear Tim,

Montrose Air Quality Services, LLC (MAQS) collected two natural gas samples from Carlsbad Energy Center on May 3rd, 2019. The samples were delivered to Quantum Analytical Services and analyzed for sulfur compounds by EPA Method ASTM D6228-98. The result of the analysis was 1.10 ppmv total reduced sulfur compounds as Sulfur. This letter presents the calculations from ppm to grains per hundred standard cubic feet.

$$\frac{1.10 \text{ scf S}}{10^6 \text{ scf fuel}} * \frac{32 \text{ lb}}{\text{lb-mole}} * \frac{\text{lb-mole}}{379.5 \text{ scf}} * \frac{100 \text{ scf}}{\text{hundred scf}} * \frac{7000 \text{ grains}}{\text{lb}} = \frac{0.07 \text{ grains S}}{\text{hundred scf}}$$

The lab report is attached for your reference. Please give me a call if you have any further questions or comments.

Sincerely,

Needs digital signature

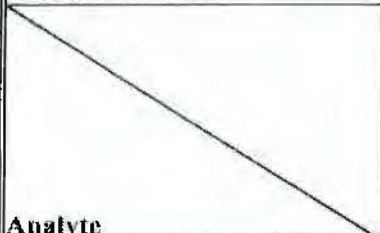
A handwritten signature in black ink, appearing to read "Rik Dupont", is written over a horizontal line.

Rik Dupont
Sr. Field Technician
Montrose Air Quality Services, LLC

ATTACHMENTS

CLIENT MONTROSE
PROJECT NO: NRG Energy
LABORATORY NO: 19-355
SAMPLING DATE: 05/03/19
RECEIVING DATE: 05/03/19
ANALYSIS DATE: 05/03/19
REPORT DATE: 05/07/19

Laboratory Analysis Report

Analysis Method	ASTM D6228-98		
Detection Limits	0.05 PPMV		
	Client ID	1-Fuel	2-Fuel
	Sampling Date	5/3/2019	5/3/2019
	Sampling Time	-	-
	Lab ID	12319-6	12319-7
	Units	PPMV	PPMV
Analyte			
Hydrogen Sulfide	<0.05	<0.05	<0.05
Carbonyl Sulfide	<0.05	<0.05	<0.05
Methyl Mercaptan	<0.05	<0.05	<0.05
Ethyl Mercaptan	<0.05	<0.05	<0.05
t-Butyl Mercaptan	0.57	0.54	0.54
Tetrahydrothiophene	0.62	0.61	0.61
Un-Identified S Compounds	<0.05	<0.05	<0.05
TRS as H2S	1.19	1.15	1.15
TRS as S	1.120	1.08	1.08

TRS: Total Reduced Sulfur as Hydrogen Sulfide



Dr. Andrew Killo
President

CLIENT MONTROSE
PROJECT NO: NRG Energy
LABORATORY NO: 19-355
SAMPLING DATE: 05/03/19
RECEIVING DATE: 05/03/19
ANALYSIS DATE: 05/03/19
REPORT DATE: 05/07/19

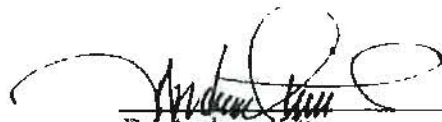
Quality Assurance Report

Sample ID: 2-Fuel

Lab ID: 32418-4

Analysis Method		ASTM D6228-98		
Detection Limit		0.05 PPMV		
Analyte	Aver. Conc. PPMV	Dil. Factor Ambient Air	DF*A/CF PPMV	% Sample† Recovery
Hydrogen Sulfide	<0.05	1.0	<0.05	N/A
Carbonyl Sulfide	<0.05	1.0	<0.05	N/A
Methyl Mercaptan	<0.05	1.0	<0.05	N/A
Ethyl Mercaptan	<0.05	1.0	<0.05	N/A
t-Butyl Mercaptan	0.54	1.0	0.54	100
Tetrahydrothiophene	0.57	1.0	0.53	94
Unidentified S Compounds	<0.05	1.0	<0.05	N/A
TRS as H2S	1.11	1.0	1.07	97

NA: Not Applicable



Dr. Andrew Kitto
President


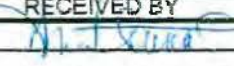
CHAIN OF CUSTODY

19-355

CLIENT: NRG Energy PROJECT NUMBER: 002AS-563212 TEST DATE(S): 5/3/2019
 LOCATION: Carlsbad SAMPLER(S): RD
 SAMPLE LOCATION: Gas Line PROJECT MANAGER: JP
 TEST METHOD(S): ASTM D6228-96 DATE DUE: 5/13/2019
 OUTSIDE LAB REQUIRED?: Yes - Quantum Lab COMPLIANCE TEST? Yes

DATE	TIME	TEST #	SAMPLE DESCRIPTION	CONTAINERS	SAMPLER	COMMENTS
5/3/2019		1-Fuel	5L Tedlar Bag	1	RD	5 L Tedlar Bag
5/3/2019		2-Fuel	5L Tedlar Bag	1	RD	5 L Tedlar Bag

HAZID
563-6
-7

RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	5/3/19 @ 12:31		5/3/19 12:31

ANALYSIS REQUIRED: Please report TRS as Sulfur in addition to H₂S
 USE PO# PO1034145

THIS IS THE LAST PAGE OF THIS DOCUMENT

If you have any questions, please contact one of the following individuals by email or phone.

Name: Rik Dupont
Title: Sr. Field Technician
Region: Western
E-Mail: RDupont@montrose-env.com
Phone: (949) 379-9231

Name: Mr. Matt McCune
Title: Regional Vice President
Region: Western
E-Mail: MMccune@montrose-env.com
Phone: (714) 279-6777

Attachment D Post Commercial Data Summary:

AQ-27: NOx Corrected 2.5 PPM 1-Hour Average Data

AQ-28: CO Corrected 4.0 PPM 1-Hour Average Data

AQ-30: Ammonia Source Test and Calculated Corrected
Ammonia Slip 5.0 PPM 1-Hour Average

AQ-31: NOx 42 PPM Limit

AQ-32: NOx 13.6 PPM Limit

AQ-33: NOX 22.6 PPM Limit

AQ-39: NOx, CO, and VOC Pound Per Operating Hour
Summary

AQ-42: NOx 90 Pound Per Hour and 100 PPM Limit
Summary

AQ-43: CO 248 Pound Per Hour and 400 PPM Limit
Summary

Average Values Report
Generated: 7/22/2019 11:12

Company: NRG Carlsbad
Plant: 4600 Carlsbad Blvd
City/St: Carlsbad, CA 92008
Source: 7

Period Start: 4/1/2019 00:00
Period End: 6/30/2019 23:59
Validation Type: 1/60 min
Averaging Period: 1 hr
Type: Block Avg

Period Start:	Average 7NOxCorOP1 ppm	Average 7NOX#OP1HR LBS	Average 7COCorOP1 ppm	Average 7CO#OP1HR LBS	Average 7NH3CorOP1 ppm
04/01/2019 05:00	1.5	1.6	0.0	0.0	1.7
04/01/2019 06:00	1.5	2.8	0.1	0.3	1.9
04/01/2019 07:00	1.5	1.9	0.0	0.0	2.1
04/01/2019 10:00	1.5	1.9	0.1	0.1	2.1
04/01/2019 11:00	1.4	2.1	0.1	0.1	2.0
04/01/2019 12:00	1.5	2.0	0.1	0.1	1.9
04/01/2019 13:00	1.5	1.9	0.1	0.1	1.7
04/01/2019 14:00	1.5	2.7	0.2	0.2	1.8
04/01/2019 15:00	1.5	2.1	0.1	0.1	1.9
04/01/2019 16:00	1.5	2.1	0.1	0.1	2.0
04/01/2019 17:00	1.5	2.9	0.2	0.2	2.0
04/01/2019 18:00	1.7	3.3	0.7	0.9	1.7
04/01/2019 19:00	1.4	1.9	0.1	0.1	1.9
04/01/2019 20:00	1.5	2.0	0.0	0.0	2.2
04/01/2019 21:00	1.5	2.2	0.0	0.0	2.2
04/01/2019 22:00	1.5	2.7	0.1	0.1	1.9
04/02/2019 05:00	2.7	2.0	0.0	0.0	2.1
04/02/2019 07:00	1.5	1.4	0.0	0.0	2.0
04/02/2019 08:00	1.5	2.0	0.0	0.0	2.0
04/02/2019 09:00	1.5	2.1	0.0	0.0	2.1
04/02/2019 10:00	1.5	1.9	0.0	0.0	2.1
04/02/2019 15:00	1.5	2.0	0.0	0.0	1.9
04/02/2019 16:00	1.5	2.0	0.0	0.0	2.0
04/02/2019 17:00	1.5	2.2	0.0	0.0	1.9
04/02/2019 18:00	1.5	2.4	0.0	0.0	1.8
04/02/2019 19:00	1.6	2.3	0.0	0.0	1.9
04/02/2019 20:00	1.4	1.3	0.1	0.0	1.9
04/04/2019 05:00	1.2	1.8	0.1	0.1	1.7
04/04/2019 06:00	1.5	3.9	0.1	0.2	1.7
04/04/2019 07:00	1.6	1.3	0.2	0.1	1.5
04/04/2019 09:00	1.5	2.9	0.0	0.0	2.2
04/04/2019 11:00	1.5	1.2	0.0	0.0	1.8
04/04/2019 12:00	1.4	2.8	0.1	0.1	1.9
04/04/2019 13:00	1.6	2.2	0.0	0.0	1.7
04/04/2019 18:00	1.6	1.9	0.1	0.0	1.8
04/04/2019 19:00	1.1	0.5	0.1	0.0	1.6
04/05/2019 06:00	1.4	2.9	0.2	0.2	1.3
04/05/2019 07:00	1.5	2.1	0.0	0.0	2.0
04/05/2019 08:00	1.5	2.6	0.0	0.0	1.9
04/05/2019 09:00	1.4	2.0	0.0	0.0	2.0
04/05/2019 10:00	1.5	2.0	0.0	0.0	2.0
04/05/2019 11:00	1.5	2.0	0.0	0.0	2.2
04/05/2019 12:00	1.5	2.1	0.0	0.0	2.1
04/05/2019 13:00	1.5	2.7	0.0	0.1	2.0
04/05/2019 14:00	1.4	1.3	0.1	0.0	2.2
04/05/2019 15:00	1.5	2.3	0.1	0.1	2.0
04/06/2019 05:00	1.5	1.4	0.0	0.0	1.7
04/06/2019 06:00	1.5	2.0	0.0	0.0	2.2
04/06/2019 07:00	1.5	2.0	0.0	0.0	2.2
04/06/2019 08:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 09:00	1.4	1.9	0.0	0.0	2.3
04/06/2019 10:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 11:00	1.4	1.9	0.1	0.1	2.3
04/06/2019 12:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 13:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 14:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 15:00	1.4	1.9	0.0	0.0	2.1
04/06/2019 16:00	1.5	2.0	0.0	0.0	2.2
04/06/2019 17:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 18:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 19:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 20:00	1.5	2.0	0.0	0.0	2.2
04/06/2019 21:00	1.5	1.3	0.1	0.0	2.3
04/06/2019 22:00	1.5	1.9	0.1	0.1	2.3
04/07/2019 09:00	1.5	2.2	0.0	0.0	1.8
04/07/2019 10:00	1.5	2.9	0.2	0.4	1.7
04/07/2019 11:00	1.5	2.2	0.1	0.1	2.0
04/07/2019 12:00	1.4	2.2	0.1	0.1	1.7
04/07/2019 13:00	1.5	2.2	0.0	0.0	1.9
04/07/2019 14:00	1.5	2.6	0.1	0.2	1.9

Manual Calc: 2.4 ppm Nox

Period Start:	Average	Average	Average	Average	Average
	7NOxCorOP1 ppm	7NOx#OP1HR LBS	7COCorOP1 ppm	7CO#OP1HR LBS	7NH3CorOP1 ppm
04/07/2019 15:00	1.7	1.0	0.1	0.0	1.8
04/07/2019 18:00	1.5	0.5	0.0	0.0	1.3
04/07/2019 19:00	1.5	0.9	0.0	0.0	2.2
04/08/2019 16:00	1.0	0.7	0.8	0.3	2.0
04/08/2019 17:00	1.6	4.1	0.2	0.4	1.8
04/08/2019 18:00	1.3	2.9	0.4	0.8	1.7
04/09/2019 07:00	1.5	1.5	0.1	0.1	1.6
04/09/2019 08:00	1.5	2.5	0.1	0.1	1.8
04/09/2019 09:00	1.5	0.4	0.0	0.0	2.0
04/09/2019 10:00	1.4	1.2	0.2	0.1	1.5
04/09/2019 11:00	1.5	0.7	0.2	0.1	1.6
04/09/2019 18:00	1.0	0.7	0.6	0.3	1.9
04/09/2019 19:00	1.5	4.5	0.5	1.1	1.7
04/09/2019 20:00	1.6	0.5	0.0	0.0	1.7
04/10/2019 10:00	1.5	2.1	0.1	0.1	1.7
04/10/2019 11:00	1.5	2.8	0.2	0.4	1.9
04/10/2019 12:00	1.5	2.3	0.1	0.1	1.6
04/10/2019 13:00	1.5	0.6	0.1	0.0	1.7
04/10/2019 18:00	1.6	2.7	0.1	0.1	1.8
04/10/2019 19:00	1.4	2.4	0.2	0.4	1.9
04/10/2019 20:00	1.5	0.9	0.0	0.0	2.1
04/11/2019 06:00	1.6	1.5	0.2	0.1	1.7
04/11/2019 16:00	1.5	1.4	0.0	0.0	1.7
04/11/2019 18:00	0.8	0.1	0.8	0.1	2.0
04/11/2019 19:00	1.1	0.9	0.5	0.3	2.4
04/12/2019 06:00	1.4	4.4	0.7	1.5	1.6
04/12/2019 07:00	1.6	2.2	0.0	0.0	1.9
04/12/2019 08:00	1.5	2.1	0.1	0.1	1.8
04/12/2019 09:00	1.5	2.1	0.1	0.1	1.8
04/12/2019 10:00	1.5	2.2	0.1	0.1	2.0
04/12/2019 11:00	1.5	2.1	0.1	0.1	2.0
04/12/2019 12:00	1.5	2.1	0.1	0.1	1.9
04/12/2019 13:00	1.5	2.1	0.1	0.1	1.9
04/12/2019 14:00	1.5	2.0	0.1	0.1	1.9
04/12/2019 17:00	1.4	2.0	0.0	0.0	1.8
04/12/2019 18:00	1.5	2.5	0.1	0.1	1.9
04/12/2019 19:00	1.5	0.9	0.0	0.0	1.3
04/13/2019 18:00	1.5	2.5	0.2	0.2	1.8
04/13/2019 19:00	1.5	1.2	0.1	0.1	1.8
04/14/2019 08:00	1.5	0.7	0.2	0.1	2.1
04/14/2019 09:00	1.5	2.1	0.2	0.2	1.8
04/14/2019 10:00	1.5	2.0	0.1	0.1	1.9
04/14/2019 11:00	1.5	2.0	0.1	0.1	1.8
04/14/2019 12:00	1.4	2.1	0.1	0.1	1.8
04/14/2019 13:00	1.5	2.4	0.1	0.1	1.7
04/14/2019 14:00	1.5	2.1	0.1	0.1	1.8
04/14/2019 16:00	1.5	0.4	0.1	0.0	1.7
04/14/2019 17:00	1.5	2.1	0.1	0.1	2.0
04/14/2019 18:00	1.5	3.4	0.2	0.3	1.9
04/14/2019 19:00	1.5	1.5	0.4	0.3	1.5
04/15/2019 18:00	1.4	1.4	0.5	0.3	1.3
04/15/2019 19:00	1.5	2.3	0.5	0.5	1.3
04/16/2019 14:00	1.5	0.4	0.1	0.0	1.6
04/16/2019 15:00	1.5	0.9	0.1	0.0	1.6
04/16/2019 18:00	1.5	0.5	0.1	0.0	1.8
04/16/2019 19:00	1.5	2.8	0.2	0.2	1.8
04/16/2019 20:00	1.5	2.1	0.1	0.1	1.9
04/16/2019 21:00	1.5	0.4	0.1	0.0	2.1
04/17/2019 17:00	1.3	1.8	1.0	0.8	1.6
04/17/2019 18:00	1.5	4.7	0.6	1.2	1.6
04/17/2019 19:00	1.6	3.7	0.3	0.5	1.7
04/18/2019 17:00	1.7	1.1	0.3	0.1	1.0
04/18/2019 18:00	1.3	4.5	2.1	4.5	1.1
04/18/2019 19:00	1.6	3.8	1.5	2.3	0.8
04/19/2019 12:00	1.4	2.2	0.3	0.2	0.9
04/19/2019 14:00	1.2	1.0	0.3	0.2	0.7
04/19/2019 15:00	1.5	4.1	0.4	0.6	0.6
04/19/2019 16:00	1.5	3.6	0.2	0.3	0.7
04/19/2019 17:00	1.5	3.6	0.5	0.8	0.9
04/20/2019 08:00	1.5	1.7	0.2	0.1	0.8
04/20/2019 12:00	1.5	2.6	0.4	0.8	1.1
04/20/2019 13:00	1.5	1.3	0.2	0.1	0.9
04/23/2019 18:00	1.5	2.3	0.3	0.3	1.0
04/23/2019 19:00	1.5	1.3	0.2	0.1	1.0
04/24/2019 18:00	1.5	2.2	0.5	0.6	0.6
04/25/2019 17:00	1.6	1.6	0.0	0.0	0.7
04/25/2019 18:00	1.3	4.1	1.2	2.5	1.1
04/25/2019 19:00	1.6	2.8	0.1	0.1	0.9
04/25/2019 20:00	1.5	0.4	0.0	0.0	1.0

Period Start:	Average 7NOxCorOP1 ppm	Average 7NOx#OP1HR LBS	Average 7COCorOP1 ppm	Average 7CO#OP1HR LBS	Average 7NH3CorOP1 ppm
04/26/2019 19:00	1.4	1.3	0.0	0.0	0.9
04/28/2019 19:00	1.4	0.6	0.2	0.1	0.6
05/03/2019 17:00	1.3	2.3	0.4	0.4	1.1
05/03/2019 18:00	1.6	2.7	0.3	0.5	1.4
05/03/2019 19:00	1.5	1.4	0.1	0.1	1.2
05/04/2019 18:00	1.5	2.5	0.4	0.7	1.2
05/04/2019 19:00	1.5	2.0	0.1	0.1	1.2
05/04/2019 20:00	1.5	0.9	0.1	0.0	1.1
05/05/2019 15:00	1.5	1.6	0.2	0.1	1.1
05/05/2019 18:00	1.5	2.7	0.4	0.7	1.2
05/05/2019 19:00	1.4	2.0	0.1	0.1	1.1
05/05/2019 20:00	1.5	1.8	0.1	0.1	1.1
05/06/2019 07:00	1.5	1.6	0.1	0.1	1.2
05/06/2019 08:00	1.4	2.4	0.2	0.2	1.2
05/06/2019 09:00	1.5	2.1	0.1	0.1	1.1
05/06/2019 10:00	1.5	1.3	0.2	0.1	1.1
05/06/2019 11:00	1.5	2.1	0.3	0.3	1.2
05/06/2019 12:00	1.5	2.0	0.2	0.2	1.1
05/06/2019 13:00	1.5	2.1	0.2	0.1	1.2
05/06/2019 14:00	1.4	2.2	0.2	0.2	1.2
05/06/2019 19:00	1.8	0.6	0.1	0.0	1.2
05/06/2019 20:00	1.4	0.9	0.1	0.0	1.1
05/07/2019 07:00	1.4	0.5	0.1	0.0	0.9
05/07/2019 08:00	1.5	1.0	0.1	0.0	0.9
05/08/2019 17:00	1.4	0.4	0.2	0.0	1.1
05/08/2019 18:00	1.5	2.0	0.2	0.2	1.2
05/08/2019 19:00	1.4	2.0	0.1	0.1	1.2
05/08/2019 20:00	1.5	2.0	0.1	0.1	1.1
05/08/2019 21:00	1.5	2.0	0.1	0.1	1.1
05/08/2019 22:00	1.5	1.9	0.1	0.1	1.1
05/09/2019 07:00	1.5	0.9	0.1	0.0	1.2
05/09/2019 08:00	1.5	0.4	0.1	0.0	1.1
05/14/2019 05:00	1.5	0.7	0.2	0.1	0.9
05/14/2019 06:00	1.5	2.2	0.2	0.2	0.9
05/14/2019 07:00	1.5	2.2	0.2	0.1	0.9
05/14/2019 08:00	1.6	4.0	1.2	2.5	1.1
05/14/2019 09:00	2.0	7.2	2.1	4.5	1.0
05/14/2019 10:00	2.0	7.1	1.8	3.9	1.0
05/14/2019 11:00	2.0	7.0	2.0	4.3	1.0
05/14/2019 12:00	2.0	7.1	2.0	4.3	1.0
05/14/2019 13:00	2.0	7.1	2.0	4.3	1.0
05/14/2019 14:00	2.0	7.0	2.0	4.2	1.0
05/14/2019 15:00	2.0	7.1	2.0	4.2	1.0
05/14/2019 16:00	1.6	3.5	0.6	1.0	0.9
05/14/2019 17:00	1.5	2.6	0.2	0.2	1.0
05/14/2019 18:00	1.5	4.8	2.1	4.4	1.3
05/14/2019 19:00	1.5	4.1	1.1	2.2	1.0
05/14/2019 20:00	1.4	1.0	1.8	0.8	1.0
05/15/2019 08:00	1.5	3.7	1.3	1.8	0.8
05/15/2019 09:00	1.5	5.2	1.1	2.3	0.9
05/15/2019 10:00	1.5	3.3	1.2	1.5	0.8
05/15/2019 11:00	1.5	5.2	1.2	2.6	0.8
05/15/2019 12:00	1.6	3.2	0.5	0.8	0.8
05/15/2019 14:00	1.4	3.2	1.3	1.9	1.0
05/15/2019 15:00	1.6	4.1	0.3	0.5	0.9
05/15/2019 16:00	1.4	3.9	0.5	0.9	0.9
05/15/2019 17:00	1.5	4.2	0.5	0.9	0.8
05/15/2019 18:00	1.6	4.2	0.3	0.5	0.8
05/15/2019 19:00	1.5	2.2	0.3	0.4	0.9
05/16/2019 19:00	1.5	2.7	1.2	1.6	0.9
05/21/2019 07:00	1.4	3.5	2.4	3.8	1.1
05/21/2019 08:00	1.5	5.2	2.4	5.2	1.1
05/21/2019 09:00	1.5	5.2	2.1	4.7	1.0
05/21/2019 10:00	1.5	5.1	2.3	5.1	1.1
05/21/2019 11:00	1.5	5.4	2.2	4.7	1.0
05/21/2019 12:00	1.5	5.2	2.3	5.0	1.1
05/21/2019 13:00	1.5	2.1	2.4	2.1	1.1
06/04/2019 07:00	1.3	1.2	1.5	1.0	0.7
06/04/2019 08:00	1.5	3.2	0.8	1.4	1.0
06/04/2019 09:00	1.5	2.1	0.0	0.0	1.0
06/04/2019 10:00	1.5	0.4	0.0	0.0	1.1
06/04/2019 17:00	1.5	1.6	0.0	0.0	0.6
06/04/2019 18:00	1.5	2.3	0.0	0.0	0.7
06/04/2019 19:00	1.5	1.9	0.0	0.0	0.9
06/05/2019 17:00	1.4	1.5	0.0	0.0	0.8
06/05/2019 18:00	1.5	2.1	0.0	0.0	1.0
06/05/2019 19:00	1.5	0.6	0.0	0.0	1.0
06/05/2019 20:00	1.5	0.4	0.0	0.0	0.9
06/07/2019 16:00	1.5	0.8	0.0	0.0	1.1

Period Start:	Average	Average	Average	Average	Average
	7NOxCorOP1 ppm	7NOX#OP1HR LBS	7COCorOP1 ppm	7CO#OP1HR LBS	7NH3CorOP1 ppm
06/07/2019 17:00	1.5	2.0	0.0	0.0	1.1
06/07/2019 18:00	1.5	2.0	0.0	0.0	1.1
06/07/2019 19:00	1.5	2.0	0.0	0.0	1.1
06/07/2019 20:00	1.5	1.9	0.0	0.0	1.1
06/10/2019 14:00	1.5	1.4	1.1	0.9	1.2
06/10/2019 15:00	1.5	3.3	0.2	0.3	1.0
06/10/2019 16:00	1.5	5.0	1.8	3.9	1.4
06/10/2019 17:00	1.5	5.0	1.7	3.6	1.3
06/10/2019 18:00	1.5	5.2	1.6	3.5	1.3
06/10/2019 19:00	1.5	5.2	1.2	2.5	1.2
06/10/2019 20:00	1.5	2.9	0.7	1.1	1.2
Final Average*	1.5	2.3	0.4	0.6	1.5
Maximum*	2.7	7.2	2.4	5.2	2.4
	04/02/2019	05/14/2019	05/21/2019	05/21/2019	04/11/2019
	5:00	9:00	13:00	8:00	19:00
Minimum*	0.8	0.1	0.0	0.0	0.6
	04/11/2019	04/11/2019	06/07/2019	06/07/2019	06/04/2019
	18:00	18:00	20:00	20:00	17:00

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
 Generated: 7/22/2019 11:13

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008
 Source: 8

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Validation Type: 1/60 min
 Averaging Period: 1 hr
 Type: Block Avg

Period Start:	Average 8NOxCorOP1 ppm	Average 8NOX#OP1HR LBS	Average 8COCorOP1 ppm	Average 8CO#OP1HR LBS	Average 8NH3CorOP1 ppm
04/01/2019 06:00	1.5	0.4	1.2	0.2	1.6
04/01/2019 07:00	1.6	1.9	1.2	1.0	2.3
04/01/2019 10:00	1.5	1.9	1.2	0.9	2.2
04/01/2019 11:00	1.5	2.1	1.1	1.0	2.2
04/01/2019 12:00	1.5	1.9	0.9	0.8	2.1
04/01/2019 13:00	1.4	1.1	0.9	0.5	2.4
04/01/2019 14:00	1.3	2.3	1.3	1.5	2.2
04/01/2019 15:00	1.0	1.4	1.0	0.9	2.5
04/01/2019 16:00	1.3	1.9	1.0	0.9	2.3
04/01/2019 17:00	1.4	2.9	1.6	2.1	2.2
04/01/2019 18:00	1.5	5.0	2.6	5.2	2.3
04/01/2019 19:00	1.3	1.7	0.8	0.8	2.6
04/01/2019 20:00	1.4	1.9	0.8	0.7	2.4
04/01/2019 21:00	1.5	2.1	0.9	0.8	2.4
04/01/2019 22:00	1.5	2.8	1.5	1.8	2.3
04/02/2019 05:00	1.6	1.4	0.7	0.4	2.2
04/02/2019 06:00	1.5	3.0	1.5	2.1	2.2
04/02/2019 07:00	1.5	2.0	0.7	0.6	2.3
04/02/2019 08:00	1.5	2.0	0.7	0.6	2.3
04/02/2019 09:00	1.5	2.2	0.9	0.8	2.2
04/02/2019 10:00	1.5	1.8	0.7	0.5	2.5
04/02/2019 15:00	1.5	1.2	1.0	0.5	2.2
04/02/2019 16:00	1.5	2.0	1.0	0.9	2.4
04/02/2019 17:00	1.5	2.2	0.9	0.8	2.1
04/02/2019 18:00	1.5	2.4	1.0	1.1	1.8
04/02/2019 19:00	1.6	2.3	0.8	0.7	2.2
04/02/2019 20:00	1.5	2.2	0.9	0.9	2.1
04/03/2019 05:00	1.4	0.9	3.2	1.4	2.3
04/03/2019 06:00	1.4	4.4	2.3	4.3	1.7
04/03/2019 07:00	1.5	4.5	2.3	4.3	1.8
04/03/2019 08:00	1.5	4.9	2.6	5.2	1.9
04/03/2019 09:00	1.5	4.7	2.3	4.4	2.0
04/03/2019 10:00	1.2	0.3	1.2	0.2	2.1
04/03/2019 11:00	1.3	2.1	2.7	2.6	2.2
04/03/2019 12:00	1.5	4.8	2.3	4.5	1.9
04/03/2019 13:00	1.4	4.4	1.8	3.3	1.8
04/03/2019 14:00	1.5	3.4	1.4	2.1	1.9
04/03/2019 15:00	1.4	3.1	1.5	2.0	1.7
04/03/2019 17:00	2.1	0.4	1.4	0.2	2.3
04/03/2019 18:00	1.6	3.9	2.0	3.4	1.9
04/03/2019 19:00	1.5	4.8	2.8	5.7	2.1
04/03/2019 20:00	1.4	2.8	2.1	2.6	1.8
04/04/2019 05:00	1.3	2.0	3.4	3.2	2.6
04/04/2019 06:00	1.5	4.1	2.1	3.6	2.0
04/04/2019 07:00	1.4	2.9	2.6	3.5	2.2
04/04/2019 11:00	1.5	1.2	0.8	0.4	2.1
04/04/2019 12:00	1.6	3.2	1.6	2.5	2.3
04/04/2019 13:00	1.4	2.0	1.2	1.1	2.0
04/04/2019 18:00	1.6	2.0	1.6	1.2	1.9
04/04/2019 19:00	1.2	0.6	1.7	0.5	2.0
04/06/2019 05:00	1.5	1.4	0.8	0.5	1.7
04/06/2019 06:00	1.5	1.9	0.8	0.7	1.8
04/06/2019 07:00	1.5	1.9	0.8	0.6	2.4
04/06/2019 08:00	1.5	1.9	0.7	0.6	2.3
04/06/2019 09:00	1.5	1.9	0.8	0.7	2.5
04/06/2019 10:00	1.5	1.9	1.2	0.9	2.6
04/06/2019 11:00	1.5	1.2	1.3	0.6	2.6
04/06/2019 12:00	1.5	1.9	1.0	0.8	2.6
04/06/2019 13:00	1.5	1.9	0.8	0.7	2.5
04/06/2019 14:00	1.5	1.9	0.7	0.6	2.5
04/06/2019 15:00	1.5	1.9	0.6	0.5	2.6
04/06/2019 16:00	1.5	1.9	0.6	0.5	2.6
04/06/2019 17:00	1.5	1.9	0.6	0.5	2.6

Period Start:	Average	Average	Average	Average	Average
	8NOxCorOP1 ppm	8NOx#OP1HR LBS	8COCorOP1 ppm	8CO#OP1HR LBS	8NH3CorOP1 ppm
04/06/2019 18:00	1.5	1.9	0.6	0.5	2.5
04/06/2019 19:00	1.5	1.9	0.6	0.5	2.5
04/06/2019 20:00	1.5	1.9	0.6	0.5	2.4
04/06/2019 21:00	1.6	2.0	0.6	0.5	2.6
04/06/2019 22:00	1.5	1.8	0.7	0.5	2.4
04/08/2019 18:00	1.5	2.6	1.9	2.4	2.0
04/10/2019 12:00	1.5	1.6	0.8	0.5	1.8
04/10/2019 13:00	1.6	0.6	0.6	0.2	2.1
04/10/2019 19:00	1.6	0.3	1.0	0.1	1.8
04/10/2019 20:00	1.5	0.7	1.1	0.3	2.4
04/11/2019 18:00	1.4	1.0	3.5	1.5	2.7
04/11/2019 19:00	1.4	1.9	2.1	1.6	3.2
04/12/2019 18:00	1.6	0.6	0.7	0.2	1.4
04/12/2019 19:00	1.5	0.9	0.6	0.2	1.4
04/14/2019 18:00	1.4	1.1	1.7	0.8	1.9
04/14/2019 19:00	1.4	1.5	1.7	1.3	1.9
04/16/2019 14:00	1.6	0.4	1.0	0.2	1.4
04/16/2019 15:00	1.6	0.9	0.9	0.3	1.8
04/16/2019 20:00	1.6	1.6	1.0	0.7	2.2
04/16/2019 21:00	1.5	0.4	1.0	0.2	2.4
04/17/2019 18:00	1.3	1.4	3.7	2.3	2.5
04/17/2019 19:00	1.5	3.9	2.3	3.8	2.7
04/18/2019 17:00	2.2	1.4	1.8	0.7	1.8
04/18/2019 18:00	1.4	4.7	3.7	8.0	2.5
04/18/2019 19:00	1.5	3.7	3.5	5.4	2.2
04/19/2019 12:00	1.4	2.2	1.7	1.7	2.1
04/20/2019 08:00	1.5	1.1	1.4	0.7	1.9
04/20/2019 13:00	1.5	1.5	0.8	0.5	2.0
04/24/2019 18:00	1.4	1.9	1.3	1.3	1.8
04/25/2019 17:00	1.7	1.6	0.8	0.5	1.8
04/25/2019 18:00	1.4	4.8	2.9	5.8	2.4
04/25/2019 19:00	1.5	2.7	1.0	1.4	2.0
04/25/2019 20:00	1.6	0.4	0.6	0.1	2.2
04/28/2019 19:00	1.6	1.3	1.0	0.6	1.5
04/30/2019 19:00	1.5	1.3	1.2	0.6	1.6
05/01/2019 12:00	1.6	1.5	1.1	0.7	2.2
05/01/2019 13:00	1.6	1.5	1.0	0.6	2.4
05/01/2019 17:00	1.5	1.9	1.0	0.8	2.4
05/01/2019 18:00	1.7	2.5	0.9	0.8	2.6
05/01/2019 19:00	1.4	3.1	1.9	3.0	2.5
05/01/2019 20:00	1.5	2.0	0.9	0.8	2.5
05/01/2019 21:00	1.5	1.9	0.9	0.8	2.6
05/01/2019 22:00	1.5	1.8	0.9	0.7	2.6
05/03/2019 18:00	1.8	0.1	1.0	0.0	1.5
05/03/2019 19:00	1.5	1.3	1.0	0.6	2.3
05/04/2019 19:00	1.5	1.6	0.8	0.5	2.0
05/04/2019 20:00	1.5	0.9	0.7	0.3	2.3
05/05/2019 19:00	1.5	1.7	0.9	0.6	1.6
05/05/2019 20:00	1.5	1.9	1.0	0.8	1.9
05/11/2019 18:00	1.2	0.2	0.2	0.0	1.2
05/11/2019 19:00	0.9	0.9	0.3	0.2	2.4
05/11/2019 20:00	0.6	0.6	0.3	0.2	3.5
05/14/2019 09:00	0.4	0.3	0.1	0.0	4.3
05/14/2019 10:00	0.6	0.5	0.3	0.1	3.5
05/14/2019 11:00	1.5	1.9	0.1	0.1	1.6
05/14/2019 12:00	1.4	1.9	0.1	0.1	2.1
05/14/2019 13:00	0.6	0.9	0.1	0.1	2.5
05/14/2019 14:00	0.6	0.8	0.1	0.1	3.5
05/14/2019 15:00	0.8	1.1	0.1	0.1	3.3
05/14/2019 16:00	1.2	2.0	0.1	0.1	2.3
05/14/2019 17:00	0.6	1.2	0.1	0.1	3.2
05/14/2019 18:00	1.1	3.8	0.3	0.6	2.0
05/14/2019 19:00	1.1	3.0	0.2	0.4	2.2
05/14/2019 20:00	1.2	0.9	0.3	0.1	1.7
05/14/2019 21:00	0.8	0.5	0.0	0.0	2.7
05/14/2019 22:00	0.9	0.2	0.0	0.0	2.0
05/15/2019 07:00	0.7	2.0	0.4	0.8	3.9
05/15/2019 08:00	0.6	1.8	0.2	0.4	3.2
05/15/2019 09:00	0.8	2.6	0.2	0.4	2.5
05/15/2019 10:00	1.5	4.9	0.2	0.4	1.2
05/15/2019 11:00	1.5	5.0	0.2	0.4	1.4
05/15/2019 12:00	1.5	2.9	0.1	0.2	1.7

Period Start:	Average	Average	Average	Average	Average
	8NOxCorOP1 ppm	8NOx#OP1HR LBS	8COCorOP1 ppm	8CO#OP1HR LBS	8NH3CorOP1 ppm
05/15/2019 14:00	1.2	1.8	0.4	0.4	1.5
05/15/2019 15:00	1.5	4.2	0.2	0.3	1.1
05/15/2019 16:00	1.5	4.3	0.2	0.3	1.2
05/15/2019 17:00	1.5	4.2	0.2	0.3	1.2
05/15/2019 18:00	1.6	4.3	0.2	0.3	1.2
05/15/2019 19:00	1.5	2.2	0.1	0.1	1.8
05/16/2019 19:00	1.4	2.6	0.0	0.1	1.4
05/21/2019 07:00	1.5	3.7	0.0	0.0	1.6
05/21/2019 08:00	1.5	5.4	0.1	0.1	1.6
05/21/2019 09:00	1.5	5.3	0.0	0.0	1.6
05/21/2019 10:00	1.5	5.1	0.0	0.1	1.6
05/21/2019 11:00	1.5	5.1	0.0	0.1	1.6
05/21/2019 12:00	1.5	5.2	0.0	0.0	1.6
05/21/2019 13:00	1.5	2.1	0.0	0.0	1.6
05/29/2019 05:00	1.5	0.7	0.1	0.0	1.5
05/29/2019 06:00	1.5	2.1	0.0	0.0	1.6
05/29/2019 07:00	1.5	2.1	0.0	0.0	1.5
05/29/2019 08:00	1.6	3.7	0.1	0.2	1.6
05/29/2019 09:00	2.0	7.1	0.1	0.2	3.7
05/29/2019 10:00	2.0	7.0	0.2	0.4	3.9
05/29/2019 11:00	2.0	6.9	0.1	0.3	3.9
05/29/2019 12:00	2.0	6.9	0.1	0.3	2.4
05/29/2019 13:00	1.8	6.1	0.1	0.3	1.3
05/29/2019 14:00	1.6	5.7	0.1	0.3	1.5
05/29/2019 15:00	1.3	4.6	0.1	0.2	1.7
05/29/2019 16:00	1.4	1.0	0.1	0.1	1.5
06/04/2019 06:00	1.7	2.2	0.0	0.0	1.6
06/04/2019 07:00	1.3	3.0	0.0	0.1	2.1
06/04/2019 08:00	1.5	3.4	0.0	0.1	2.0
06/04/2019 09:00	1.5	2.0	0.0	0.0	1.5
06/04/2019 10:00	1.5	0.4	0.0	0.0	1.4
06/04/2019 17:00	1.5	0.8	0.0	0.0	1.7
06/04/2019 18:00	1.5	2.3	0.0	0.0	1.6
06/04/2019 19:00	1.5	2.0	0.0	0.0	1.6
06/05/2019 17:00	1.1	0.5	0.0	0.0	2.2
06/05/2019 18:00	1.6	0.6	0.0	0.0	2.1
06/05/2019 19:00	1.5	1.8	0.0	0.0	1.9
06/05/2019 20:00	1.5	0.4	0.0	0.0	1.8
06/10/2019 14:00	1.4	2.3	0.6	0.7	2.0
06/10/2019 15:00	1.5	3.3	0.2	0.2	1.9
06/10/2019 16:00	1.5	5.3	0.4	0.9	1.6
06/10/2019 17:00	1.5	5.7	0.3	0.7	1.5
06/10/2019 18:00	1.5	5.6	0.3	0.6	1.4
06/10/2019 19:00	1.5	5.5	0.2	0.4	1.7
06/10/2019 20:00	1.5	3.0	0.1	0.2	1.8
06/14/2019 15:00	1.5	1.4	0.0	0.0	1.9
06/14/2019 16:00	1.5	2.0	0.0	0.0	2.1
06/14/2019 17:00	1.5	1.5	0.0	0.0	2.2
06/14/2019 18:00	1.5	1.9	0.0	0.0	2.4
06/14/2019 19:00	1.5	2.0	0.0	0.0	2.1
06/14/2019 20:00	1.5	2.1	0.0	0.0	2.1
06/14/2019 21:00	1.5	1.9	0.0	0.0	1.8
06/15/2019 15:00	1.5	1.4	N/A	N/A	1.6
06/15/2019 16:00	1.5	2.0	N/A	N/A	1.9
06/15/2019 17:00	1.5	2.2	0.0	0.0	1.9
06/15/2019 18:00	1.5	1.9	N/A	N/A	1.6
06/15/2019 19:00	1.6	2.1	0.0	0.0	1.5
06/15/2019 20:00	1.4	1.9	0.0	0.0	1.8
06/22/2019 05:00	0.9	0.9	0.0	0.0	2.4
06/22/2019 06:00	1.5	1.9	0.0	0.0	1.5
06/22/2019 07:00	0.9	1.4	0.0	0.0	2.9
06/22/2019 08:00	1.3	2.2	0.0	0.0	2.2
06/22/2019 09:00	1.3	1.8	0.0	0.0	2.4
06/22/2019 10:00	0.5	0.4	0.0	0.0	4.3
06/22/2019 11:00	0.5	0.7	0.0	0.0	4.3
06/22/2019 12:00	0.5	0.7	0.0	0.0	3.8
06/22/2019 13:00	1.4	2.1	0.0	0.0	2.0
06/22/2019 14:00	1.0	1.4	0.0	0.0	2.8
06/22/2019 15:00	1.2	2.0	0.0	0.0	2.1
06/22/2019 16:00	1.5	1.9	0.0	0.0	1.5
06/22/2019 17:00	1.5	2.4	0.0	0.0	1.7
06/22/2019 18:00	1.5	2.0	0.0	0.0	1.9

Period Start:	Average 8NOxCorOP1 ppm	Average 8NOX#OP1HR LBS	Average 8COCorOP1 ppm	Average 8CO#OP1HR LBS	Average 8NH3CorOP1 ppm
06/22/2019 19:00	1.0	1.3	0.0	0.0	2.3
06/22/2019 20:00	1.5	2.0	0.0	0.0	2.0
06/22/2019 21:00	0.8	1.1	0.0	0.0	3.6
06/22/2019 22:00	1.3	1.9	0.0	0.0	1.9
06/23/2019 12:00	1.4	1.3	0.0	0.0	1.9
06/23/2019 13:00	1.4	1.9	0.0	0.0	2.1
06/23/2019 14:00	1.2	1.6	0.0	0.0	2.1
06/23/2019 15:00	1.5	2.0	0.0	0.0	1.8
06/23/2019 16:00	1.5	1.9	0.0	0.0	1.8
06/23/2019 17:00	1.5	1.8	0.2	0.2	1.9
06/23/2019 18:00	1.5	5.1	0.2	0.3	1.3
06/23/2019 19:00	1.5	5.1	0.0	0.1	1.3
06/23/2019 20:00	1.5	2.0	0.0	0.0	1.7
06/23/2019 21:00	1.3	2.2	0.0	0.0	2.4
06/23/2019 22:00	1.5	1.8	0.0	0.0	1.6
06/29/2019 16:00	1.6	0.8	0.0	0.0	2.1
06/29/2019 17:00	1.4	3.5	0.1	0.2	1.9
06/29/2019 18:00	1.5	2.2	0.0	0.0	1.9
06/29/2019 19:00	1.5	2.1	0.0	0.0	2.1
06/29/2019 20:00	1.5	1.2	0.0	0.0	1.9
06/30/2019 15:00	1.5	0.5	0.0	0.0	1.5
06/30/2019 16:00	1.5	1.9	0.0	0.0	1.5
06/30/2019 17:00	1.6	2.9	0.0	0.0	2.0
06/30/2019 18:00	1.4	4.2	0.0	0.0	1.5
06/30/2019 19:00	1.5	4.4	0.1	0.1	1.4
Final Average*	1.4	2.3	0.7	0.7	2.1
Maximum*	2.2	7.1	3.7	8.0	4.3
	04/18/2019 17:00	05/29/2019 9:00	04/18/2019 18:00	04/18/2019 18:00	06/22/2019 11:00
Minimum*	0.4	0.1	0.0	0.0	1.1
	05/14/2019 9:00	05/03/2019 18:00	06/30/2019 18:00	06/30/2019 18:00	05/15/2019 15:00

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
 Generated: 7/22/2019 11:14

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008
 Source: 9

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Validation Type: 1/60 min
 Averaging Period: 1 hr
 Type: Block Avg

Period Start:	Average 9NOxCorOP1 ppm	Average 9NOX#OP1HR LBS	Average 9COCorOP1 ppm	Average 9CO#OP1HR LBS	Average 9NH3CorOP1 ppm
04/01/2019 05:00	1.6	1.6	0.0	0.0	1.6
04/01/2019 06:00	1.5	2.7	0.0	0.0	2.0
04/01/2019 07:00	1.5	1.9	0.0	0.0	2.0
04/01/2019 10:00	1.6	1.2	0.0	0.0	2.0
04/01/2019 11:00	1.5	2.1	0.0	0.0	1.9
04/01/2019 12:00	1.5	2.0	0.0	0.0	1.9
04/01/2019 13:00	1.5	1.9	0.0	0.0	2.1
04/01/2019 14:00	1.5	2.7	0.0	0.0	1.8
04/01/2019 15:00	1.5	2.0	0.0	0.0	1.8
04/01/2019 16:00	1.5	2.1	0.0	0.0	2.0
04/01/2019 17:00	1.5	2.9	0.0	0.0	1.8
04/01/2019 18:00	1.6	5.3	0.0	0.1	1.9
04/01/2019 19:00	1.4	1.9	0.0	0.0	2.0
04/01/2019 20:00	1.4	2.0	0.0	0.0	2.1
04/01/2019 21:00	1.5	2.1	0.0	0.0	2.1
04/01/2019 22:00	1.5	2.7	0.0	0.0	1.9
04/02/2019 05:00	1.6	1.4	0.0	0.0	2.2
04/02/2019 06:00	1.4	2.9	0.0	0.0	2.0
04/02/2019 07:00	1.5	2.0	0.0	0.0	2.0
04/02/2019 08:00	1.5	2.0	0.0	0.0	2.1
04/02/2019 09:00	1.5	2.2	0.0	0.0	1.9
04/02/2019 10:00	1.5	1.9	0.0	0.0	2.2
04/02/2019 11:00	1.5	3.1	0.1	0.1	1.8
04/02/2019 12:00	1.5	4.8	0.0	0.0	1.5
04/02/2019 13:00	1.5	5.0	0.0	0.0	1.6
04/02/2019 14:00	1.5	4.1	0.0	0.0	1.6
04/02/2019 15:00	1.5	2.0	0.0	0.0	2.0
04/02/2019 16:00	1.5	2.0	0.0	0.0	2.0
04/02/2019 17:00	1.5	2.1	0.0	0.0	1.9
04/02/2019 18:00	1.4	2.4	0.0	0.0	1.8
04/02/2019 19:00	1.6	2.2	0.0	0.0	1.9
04/02/2019 20:00	1.5	2.2	0.0	0.0	1.9
04/03/2019 05:00	1.1	0.8	0.0	0.0	1.9
04/03/2019 06:00	1.5	4.3	0.0	0.0	1.4
04/03/2019 07:00	1.5	4.5	0.0	0.0	1.5
04/03/2019 08:00	1.5	4.7	0.0	0.0	1.5
04/03/2019 09:00	1.5	4.6	0.0	0.0	1.5
04/03/2019 10:00	1.5	0.4	0.0	0.0	1.3
04/03/2019 11:00	1.3	2.0	0.0	0.0	1.7
04/03/2019 12:00	1.5	4.7	0.0	0.0	1.5
04/03/2019 13:00	1.5	4.4	0.0	0.0	1.4
04/03/2019 14:00	1.6	2.6	0.0	0.0	1.6
04/03/2019 15:00	1.4	2.4	0.0	0.0	1.6
04/03/2019 17:00	1.4	0.5	0.0	0.0	1.6
04/03/2019 18:00	1.5	3.6	0.0	0.1	1.5
04/03/2019 19:00	1.5	5.0	0.0	0.0	1.5
04/03/2019 20:00	1.5	3.0	0.0	0.0	1.4
04/04/2019 05:00	1.3	2.0	0.0	0.0	1.8
04/04/2019 06:00	1.5	4.0	0.0	0.0	1.7
04/04/2019 07:00	1.5	3.0	0.0	0.0	1.6
04/04/2019 11:00	1.5	1.2	0.0	0.0	1.9
04/04/2019 12:00	1.5	2.9	0.0	0.0	2.0
04/04/2019 13:00	1.5	2.2	0.0	0.0	1.6
04/04/2019 18:00	1.6	1.9	0.0	0.0	1.6
04/04/2019 19:00	1.2	0.6	0.0	0.0	1.4
04/05/2019 06:00	1.3	2.9	0.0	0.0	1.4
04/05/2019 07:00	1.6	2.1	0.0	0.0	1.9
04/05/2019 08:00	1.5	1.3	0.0	0.0	1.8
04/05/2019 09:00	1.5	2.0	0.0	0.0	1.9
04/05/2019 10:00	1.5	2.0	0.0	0.0	2.0
04/05/2019 11:00	1.5	1.9	0.0	0.0	2.1
04/05/2019 12:00	1.5	1.9	0.0	0.0	2.1
04/05/2019 13:00	1.5	2.6	0.0	0.0	1.8

Period Start:	Average	Average	Average	Average	Average
	9NOxCorOP1 ppm	9NOX#OP1HR LBS	9COCorOP1 ppm	9CO#OP1HR LBS	9NH3CorOP1 ppm
04/05/2019 14:00	1.5	2.0	0.0	0.0	2.0
04/05/2019 15:00	1.5	2.3	0.0	0.0	1.9
04/06/2019 05:00	1.6	1.4	0.0	0.0	2.0
04/06/2019 06:00	1.5	1.9	0.0	0.0	2.1
04/06/2019 07:00	1.5	1.9	0.0	0.0	2.1
04/06/2019 08:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 09:00	1.5	1.9	0.0	0.0	2.1
04/06/2019 10:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 11:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 12:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 13:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 14:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 15:00	1.5	1.2	0.0	0.0	2.2
04/06/2019 16:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 17:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 18:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 19:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 20:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 21:00	1.5	1.9	0.0	0.0	2.2
04/06/2019 22:00	1.5	1.9	0.0	0.0	2.2
04/07/2019 11:00	1.6	2.1	0.0	0.0	1.9
04/07/2019 12:00	1.4	2.2	0.0	0.0	1.7
04/07/2019 13:00	1.5	2.2	0.0	0.0	1.9
04/07/2019 14:00	1.5	2.6	0.0	0.0	2.0
04/07/2019 15:00	1.7	1.0	0.0	0.0	2.0
04/07/2019 18:00	1.6	0.5	0.0	0.0	1.7
04/07/2019 19:00	1.5	0.9	0.0	0.0	2.1
04/08/2019 18:00	1.5	2.4	0.2	0.2	1.6
04/09/2019 07:00	1.6	1.1	0.0	0.0	1.4
04/09/2019 08:00	1.5	2.6	0.0	0.0	1.6
04/09/2019 09:00	1.6	0.5	0.0	0.0	1.9
04/09/2019 18:00	1.1	0.8	0.0	0.0	2.0
04/09/2019 19:00	1.4	4.5	0.0	0.0	1.7
04/09/2019 20:00	1.6	0.5	0.0	0.0	1.6
04/10/2019 10:00	1.5	2.1	0.0	0.0	1.6
04/10/2019 11:00	1.5	2.8	0.0	0.0	1.7
04/10/2019 12:00	1.5	2.3	0.0	0.0	1.5
04/10/2019 13:00	1.5	0.6	0.0	0.0	2.0
04/10/2019 19:00	1.6	0.9	0.0	0.0	2.0
04/10/2019 20:00	1.5	0.9	0.0	0.0	2.1
04/11/2019 06:00	1.6	1.5	0.0	0.0	1.7
04/12/2019 07:00	1.6	1.7	0.0	0.0	1.9
04/12/2019 08:00	1.5	2.1	0.0	0.0	1.9
04/12/2019 09:00	1.5	2.0	0.0	0.0	1.9
04/12/2019 10:00	1.5	1.9	0.0	0.0	1.9
04/12/2019 11:00	1.5	1.7	0.0	0.0	1.9
04/12/2019 12:00	1.5	2.0	0.0	0.0	1.9
04/12/2019 13:00	1.5	2.1	0.0	0.0	2.0
04/12/2019 14:00	1.5	2.0	0.0	0.0	1.9
04/12/2019 18:00	1.6	0.6	0.0	0.0	1.9
04/12/2019 19:00	1.5	0.9	0.0	0.0	2.1
04/14/2019 08:00	1.5	1.4	0.0	0.0	1.9
04/14/2019 09:00	1.5	2.1	0.0	0.0	1.8
04/14/2019 10:00	1.5	2.0	0.0	0.0	1.9
04/14/2019 11:00	1.5	2.0	0.0	0.0	2.0
04/14/2019 12:00	1.5	2.1	0.0	0.0	1.9
04/14/2019 13:00	1.5	2.4	0.0	0.0	1.8
04/14/2019 14:00	1.5	2.1	0.0	0.0	1.8
04/14/2019 18:00	1.4	1.0	0.0	0.0	1.6
04/14/2019 19:00	1.5	1.6	0.0	0.0	1.4
04/15/2019 15:00	1.4	0.7	0.0	0.0	1.3
04/15/2019 16:00	1.5	2.5	0.0	0.0	1.6
04/15/2019 17:00	1.5	3.4	0.0	0.0	1.8
04/15/2019 18:00	1.5	3.0	0.1	0.1	1.5
04/15/2019 19:00	1.4	2.3	0.0	0.0	1.5
04/16/2019 14:00	1.6	0.4	0.0	0.0	1.7
04/16/2019 15:00	1.6	0.9	0.0	0.0	1.9
04/16/2019 20:00	1.6	1.6	0.0	0.0	1.9
04/16/2019 21:00	1.5	0.4	0.0	0.0	2.0
04/17/2019 18:00	1.3	1.3	0.0	0.0	1.6
04/17/2019 19:00	1.5	3.7	0.0	0.0	1.7
04/18/2019 06:00	1.5	1.4	0.0	0.0	1.8

Period Start:	Average	Average	Average	Average	Average
	9NOxCorOP1 ppm	9NOX#OP1HR LBS	9COCorOP1 ppm	9CO#OP1HR LBS	9NH3CorOP1 ppm
04/18/2019 16:00	1.5	2.4	0.0	0.0	1.7
04/18/2019 17:00	1.6	3.6	0.0	0.0	1.7
04/18/2019 18:00	1.4	4.9	0.0	0.0	1.7
04/18/2019 19:00	1.5	3.9	0.0	0.0	1.5
04/19/2019 11:00	1.4	3.4	0.0	0.1	1.7
04/19/2019 12:00	1.5	2.2	0.0	0.0	1.6
04/19/2019 13:00	1.5	4.4	0.1	0.2	1.7
04/19/2019 14:00	1.5	4.1	0.0	0.0	1.4
04/19/2019 15:00	1.5	4.0	0.0	0.0	1.2
04/19/2019 16:00	1.5	3.5	0.0	0.0	1.3
04/19/2019 17:00	1.5	3.5	0.0	0.0	1.5
04/20/2019 07:00	1.5	2.5	0.0	0.0	2.0
04/20/2019 08:00	1.5	2.1	0.0	0.0	1.6
04/20/2019 13:00	1.5	1.5	0.0	0.0	1.9
04/26/2019 19:00	1.6	1.4	0.0	0.0	1.7
04/28/2019 19:00	1.6	0.7	0.3	0.1	1.5
04/29/2019 05:00	1.7	2.4	0.0	0.0	1.3
04/29/2019 06:00	1.3	4.6	0.4	0.8	1.4
04/29/2019 07:00	1.6	3.5	0.2	0.2	1.2
04/29/2019 16:00	1.3	2.2	0.1	0.1	1.2
04/29/2019 17:00	1.5	2.5	0.0	0.0	1.2
04/29/2019 18:00	1.6	1.9	0.0	0.0	1.7
04/30/2019 06:00	1.5	1.5	0.0	0.0	1.7
04/30/2019 07:00	1.5	2.1	0.0	0.0	1.7
04/30/2019 08:00	1.4	2.3	0.0	0.0	1.7
04/30/2019 09:00	1.5	2.3	0.0	0.0	1.5
04/30/2019 17:00	1.5	0.4	0.0	0.0	1.6
04/30/2019 18:00	1.5	2.9	0.1	0.2	1.6
04/30/2019 19:00	1.5	0.7	0.0	0.0	1.8
05/01/2019 05:00	1.6	1.6	0.0	0.0	1.7
05/01/2019 06:00	1.4	2.1	0.0	0.0	1.8
05/01/2019 07:00	1.5	2.0	0.0	0.0	1.7
05/01/2019 12:00	1.6	1.5	0.0	0.0	1.7
05/01/2019 13:00	1.5	2.6	0.0	0.0	2.0
05/01/2019 14:00	1.5	2.8	0.0	0.0	1.5
05/01/2019 15:00	1.4	2.2	0.0	0.1	1.9
05/01/2019 16:00	1.5	2.8	0.0	0.1	1.6
05/01/2019 17:00	1.5	2.0	0.0	0.0	1.9
05/01/2019 18:00	1.6	2.2	0.0	0.0	1.6
05/01/2019 19:00	1.4	2.9	0.0	0.0	1.6
05/01/2019 20:00	1.5	2.0	0.0	0.0	2.0
05/01/2019 21:00	1.5	1.9	0.0	0.0	2.1
05/01/2019 22:00	1.5	1.8	0.0	0.0	2.1
05/02/2019 05:00	1.6	0.7	0.1	0.0	1.8
05/02/2019 06:00	1.5	2.0	0.0	0.0	1.8
05/02/2019 07:00	1.4	2.0	0.0	0.0	1.9
05/02/2019 08:00	1.6	4.7	0.1	0.2	1.8
05/02/2019 09:00	2.0	6.6	0.1	0.1	1.3
05/02/2019 10:00	2.0	6.6	0.1	0.2	1.3
05/02/2019 11:00	2.0	6.7	0.1	0.3	1.3
05/02/2019 12:00	2.0	6.9	0.2	0.5	1.4
05/02/2019 13:00	2.0	6.7	0.2	0.5	1.3
05/02/2019 14:00	2.0	6.8	0.2	0.5	1.3
05/02/2019 15:00	2.0	6.9	0.1	0.3	1.3
05/02/2019 16:00	2.0	6.8	0.1	0.3	1.3
05/02/2019 17:00	2.0	6.5	0.2	0.4	1.3
05/02/2019 19:00	1.9	3.4	0.1	0.1	1.0
05/02/2019 20:00	1.9	5.0	0.1	0.1	1.2
05/02/2019 21:00	2.1	2.8	0.0	0.0	1.2
05/02/2019 22:00	2.0	2.4	0.0	0.0	1.2
05/04/2019 19:00	2.1	1.2	0.1	0.0	1.4
05/04/2019 20:00	1.6	1.0	0.0	0.0	1.9
05/05/2019 19:00	1.5	1.7	0.0	0.0	1.6
05/05/2019 20:00	1.5	1.8	0.0	0.0	1.5
05/06/2019 07:00	1.6	1.5	0.0	0.0	1.5
05/06/2019 19:00	1.8	0.6	0.0	0.0	1.4
05/06/2019 20:00	1.4	0.9	0.0	0.0	1.6
05/07/2019 07:00	1.2	0.4	0.0	0.0	1.2
05/07/2019 08:00	1.6	1.0	0.0	0.0	1.7
05/07/2019 10:00	1.8	0.6	0.0	0.0	1.8
05/07/2019 11:00	1.4	1.5	0.0	0.0	1.6
05/07/2019 13:00	1.5	1.0	0.0	0.0	1.8

Period Start:	Average	Average	Average	Average	Average
	9NOxCorOP1 ppm	9NOX#OP1HR LBS	9COCorOP1 ppm	9CO#OP1HR LBS	9NH3CorOP1 ppm
05/07/2019 14:00	1.4	1.6	0.0	0.0	1.6
05/08/2019 05:00	1.6	1.5	0.0	0.0	1.7
05/08/2019 06:00	1.6	2.4	0.0	0.0	2.0
05/08/2019 07:00	1.5	2.5	0.0	0.0	1.6
05/08/2019 08:00	1.5	1.1	0.0	0.0	1.9
05/08/2019 11:00	1.5	1.4	0.0	0.0	1.2
05/08/2019 12:00	1.5	1.9	0.0	0.0	1.2
05/08/2019 13:00	1.5	1.9	0.0	0.0	1.2
05/08/2019 14:00	1.5	1.9	0.0	0.0	1.3
05/08/2019 15:00	1.5	1.9	0.0	0.0	1.2
05/08/2019 16:00	1.5	1.9	0.0	0.0	1.2
05/08/2019 17:00	1.5	1.9	0.0	0.0	1.3
05/08/2019 18:00	1.5	1.9	0.0	0.0	1.2
05/08/2019 19:00	1.5	1.9	0.0	0.0	1.3
05/08/2019 20:00	1.5	1.9	0.0	0.0	1.5
05/08/2019 21:00	1.5	1.9	0.0	0.0	1.4
05/08/2019 22:00	1.5	1.8	0.0	0.0	1.8
05/09/2019 06:00	1.6	2.1	0.0	0.0	1.7
05/09/2019 07:00	1.4	2.4	0.2	0.3	1.7
05/09/2019 08:00	1.5	0.4	0.0	0.0	2.1
05/14/2019 09:00	1.2	0.1	0.0	0.0	1.4
05/14/2019 10:00	1.5	2.0	0.1	0.1	1.3
05/14/2019 11:00	1.5	2.0	0.0	0.0	1.0
05/14/2019 12:00	1.5	2.0	0.0	0.0	1.5
05/14/2019 13:00	1.5	2.0	0.0	0.0	1.4
05/14/2019 14:00	1.5	2.0	0.0	0.0	1.4
05/14/2019 15:00	1.5	2.0	0.0	0.0	1.6
05/14/2019 16:00	1.5	2.6	0.0	0.0	1.4
05/14/2019 17:00	1.4	2.5	0.0	0.0	1.2
05/14/2019 18:00	1.5	5.2	0.6	1.3	1.5
05/14/2019 19:00	1.5	4.1	0.3	0.5	1.4
05/14/2019 20:00	1.3	1.0	0.5	0.2	1.5
05/14/2019 21:00	1.5	1.0	0.0	0.0	1.6
05/14/2019 22:00	1.5	0.4	0.0	0.0	1.8
05/15/2019 08:00	1.5	3.5	0.2	0.3	1.1
05/15/2019 09:00	1.5	4.8	0.2	0.4	1.1
05/15/2019 10:00	1.5	4.9	0.2	0.3	1.2
05/15/2019 11:00	1.5	4.9	0.2	0.4	1.1
05/15/2019 12:00	1.5	3.1	0.1	0.1	1.3
05/15/2019 14:00	1.3	1.5	0.2	0.1	1.2
05/15/2019 15:00	1.5	3.8	0.2	0.3	0.9
05/15/2019 16:00	1.5	3.7	0.2	0.3	0.9
05/15/2019 17:00	1.5	3.9	0.1	0.2	0.9
05/15/2019 18:00	1.6	4.1	0.1	0.1	1.1
05/15/2019 19:00	1.5	2.2	0.1	0.1	1.2
05/16/2019 19:00	1.4	2.7	0.3	0.4	1.4
05/21/2019 07:00	1.5	3.8	0.5	0.7	1.6
05/21/2019 08:00	1.5	5.1	0.3	0.7	1.6
05/21/2019 09:00	1.5	5.3	0.3	0.7	1.7
05/21/2019 10:00	1.5	5.1	0.5	1.1	1.7
05/21/2019 11:00	1.5	5.2	0.5	1.0	1.7
05/21/2019 12:00	1.5	5.1	0.4	0.9	1.7
05/21/2019 13:00	1.4	2.1	0.6	0.5	1.7
06/04/2019 09:00	1.6	1.6	0.1	0.1	1.2
06/04/2019 10:00	1.5	0.3	0.1	0.0	1.2
06/04/2019 17:00	1.5	1.3	0.4	0.2	1.4
06/04/2019 18:00	1.5	2.4	0.1	0.1	1.4
06/04/2019 19:00	1.5	1.9	0.1	0.1	1.7
06/05/2019 17:00	1.4	1.5	0.1	0.1	1.4
06/05/2019 18:00	1.5	2.0	0.1	0.1	1.6
06/05/2019 19:00	1.5	0.6	0.1	0.0	2.0
06/05/2019 20:00	1.5	0.4	0.1	0.0	1.7
06/06/2019 17:00	1.4	1.3	0.7	0.5	1.5
06/06/2019 18:00	1.6	2.2	0.1	0.1	1.7
06/06/2019 19:00	1.5	1.8	0.0	0.0	2.0
06/10/2019 14:00	1.4	3.5	0.7	1.1	1.4
06/10/2019 15:00	1.5	3.2	0.4	0.6	1.4
06/10/2019 16:00	1.5	5.1	1.8	3.8	1.6
06/10/2019 17:00	1.5	5.5	0.6	1.3	1.4
06/10/2019 18:00	1.5	5.6	0.5	1.1	1.4
06/10/2019 19:00	1.5	3.5	0.6	0.8	1.6
06/10/2019 20:00	1.5	2.9	0.4	0.4	1.7

Period Start:	Average 9NOxCorOP1 ppm	Average 9NOX#OP1HR LBS	Average 9COCorOP1 ppm	Average 9CO#OP1HR LBS	Average 9NH3CorOP1 ppm
06/11/2019 12:00	1.4	4.5	0.6	1.3	1.6
06/11/2019 13:00	1.5	5.4	0.6	1.2	1.5
06/11/2019 14:00	1.5	4.9	0.6	1.3	1.7
06/11/2019 15:00	1.5	5.0	0.8	1.8	1.7
06/11/2019 16:00	1.5	5.1	0.5	1.1	1.8
06/11/2019 17:00	1.5	4.9	0.6	1.3	1.9
06/11/2019 18:00	1.5	4.9	0.8	1.6	1.8
06/11/2019 19:00	1.5	4.9	0.8	1.6	1.8
06/11/2019 20:00	1.4	1.8	0.7	0.6	1.7
06/13/2019 15:00	1.6	0.2	0.0	0.0	1.3
06/13/2019 16:00	1.5	2.4	0.0	0.0	1.4
06/13/2019 17:00	1.5	2.2	0.0	0.0	1.7
06/13/2019 18:00	1.5	2.0	0.0	0.0	1.7
06/13/2019 19:00	1.5	2.2	0.0	0.0	1.7
06/13/2019 20:00	1.5	1.9	0.0	0.0	1.8
Final Average*	1.5	2.5	0.1	0.1	1.7
Maximum*	2.1	6.9	1.8	3.8	2.2
	05/04/2019 19:00	05/02/2019 15:00	06/10/2019 16:00	06/10/2019 16:00	04/06/2019 22:00
Minimum*	1.1	0.1	0.0	0.0	0.9
	04/09/2019 18:00	05/14/2019 9:00	06/13/2019 20:00	06/13/2019 20:00	05/15/2019 17:00

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
Generated: 7/22/2019 11:11

Company: NRG Carlsbad
Plant: 4600 Carlsbad Blvd
City/St: Carlsbad, CA 92008
Source: 10

Period Start: 4/1/2019 00:00
Period End: 6/30/2019 23:59
Validation Type: 1/60 min
Averaging Period: 1 hr
Type: Block Avg

Period Start:	Average 10NOxCrOP1 ppm	Average 10NOx#OP1H LBS	Average 10COCoOP1 ppm	Average 10CO#OP1HR LBS	Average 10NH3CrNS1 ppm
04/01/2019 05:00	1.6	0.7	0.1	0.0	1.4
04/01/2019 06:00	1.5	2.1	0.1	0.1	1.7
04/01/2019 07:00	1.4	0.9	0.1	0.0	1.6
04/01/2019 11:00	1.6	1.6	0.1	0.1	1.5
04/01/2019 12:00	1.5	2.1	0.1	0.1	1.5
04/01/2019 15:00	1.4	4.5	2.0	4.0	1.7
04/01/2019 16:00	1.5	2.1	0.0	0.0	1.4
04/01/2019 17:00	1.4	2.6	0.2	0.4	1.3
04/01/2019 18:00	1.6	4.2	0.7	1.4	1.3
04/01/2019 19:00	1.5	2.4	0.0	0.0	1.4
04/01/2019 20:00	1.5	2.0	0.0	0.0	1.5
04/02/2019 11:00	1.5	1.5	0.0	0.0	1.3
04/02/2019 12:00	1.5	2.1	0.0	0.0	1.3
04/02/2019 13:00	1.5	2.8	0.3	0.7	1.6
04/02/2019 14:00	1.5	1.5	0.0	0.0	1.3
04/02/2019 18:00	1.4	2.9	1.8	2.4	1.7
04/02/2019 19:00	1.5	0.6	0.5	0.2	1.6
04/03/2019 05:00	1.4	0.9	2.2	0.9	1.7
04/03/2019 06:00	1.6	4.2	1.1	2.4	1.5
04/03/2019 07:00	1.4	4.7	1.4	2.9	1.6
04/03/2019 08:00	1.4	2.2	1.7	1.7	1.6
04/03/2019 10:00	1.4	3.4	1.3	1.9	1.6
04/03/2019 13:00	1.4	3.3	1.6	2.5	1.7
04/03/2019 14:00	1.5	4.9	1.5	3.1	1.6
04/03/2019 15:00	1.6	4.8	1.2	2.6	1.8
04/03/2019 16:00	1.4	4.3	1.3	2.8	1.7
04/03/2019 17:00	1.5	4.3	1.0	2.1	1.7
04/03/2019 18:00	1.5	5.0	1.8	3.9	1.6
04/03/2019 19:00	1.3	0.9	1.3	0.5	2.0
04/03/2019 21:00	1.6	3.0	0.3	0.4	1.3
04/03/2019 22:00	1.4	1.7	0.2	0.2	1.4
04/04/2019 05:00	1.5	3.6	1.8	2.7	1.6
04/04/2019 06:00	1.5	4.9	1.6	3.3	1.6
04/04/2019 08:00	1.8	0.5	0.0	0.0	1.5
04/04/2019 09:00	1.4	3.8	0.8	1.6	1.7
04/04/2019 10:00	1.6	3.9	0.6	1.2	1.6
04/04/2019 18:00	1.5	1.0	2.1	0.9	1.6
04/04/2019 19:00	1.5	1.7	1.0	0.9	1.6
04/05/2019 07:00	1.5	1.5	0.1	0.1	1.2
04/05/2019 08:00	1.5	2.9	0.4	0.6	1.5
04/05/2019 09:00	1.4	2.2	0.0	0.0	1.3
04/05/2019 10:00	1.5	2.3	0.0	0.0	1.4
04/05/2019 11:00	1.5	2.2	0.0	0.0	1.4
04/05/2019 12:00	1.5	2.3	0.0	0.0	1.4
04/05/2019 13:00	1.5	1.7	0.2	0.2	1.6
04/05/2019 14:00	1.4	2.2	0.0	0.0	1.7
04/05/2019 15:00	1.5	2.6	0.4	0.8	1.7
04/06/2019 05:00	1.5	1.5	0.0	0.0	1.1
04/06/2019 06:00	1.5	2.2	0.0	0.0	1.6
04/06/2019 07:00	1.5	2.1	0.0	0.0	1.8
04/06/2019 08:00	1.5	2.1	0.0	0.0	1.6
04/06/2019 09:00	1.5	2.1	0.0	0.0	1.9
04/06/2019 10:00	1.5	2.1	0.0	0.0	1.9
04/06/2019 11:00	1.5	2.1	0.0	0.0	1.7
04/06/2019 12:00	1.5	2.2	0.0	0.0	1.4
04/06/2019 13:00	1.5	2.1	0.0	0.0	1.7
04/06/2019 14:00	1.5	2.1	0.0	0.0	1.7
04/06/2019 15:00	1.4	2.1	0.0	0.0	1.6
04/06/2019 16:00	1.4	2.2	0.0	0.0	1.8
04/06/2019 17:00	1.5	2.2	0.0	0.0	1.4
04/06/2019 18:00	1.5	2.2	0.0	0.0	1.5
04/06/2019 19:00	1.5	2.2	0.0	0.0	1.6
04/06/2019 20:00	1.5	1.5	0.0	0.0	1.4
04/06/2019 21:00	1.5	2.0	0.0	0.0	1.6
04/06/2019 22:00	1.5	2.1	0.0	0.0	1.8
04/07/2019 09:00	1.6	2.1	0.0	0.0	1.6
04/07/2019 10:00	1.5	2.8	0.5	0.9	1.6
04/07/2019 11:00	1.5	2.5	0.1	0.1	1.4
04/07/2019 12:00	1.5	2.0	0.0	0.0	1.5
04/07/2019 13:00	1.5	2.3	0.1	0.1	1.5
04/07/2019 14:00	1.6	3.0	0.5	1.0	1.7
04/07/2019 15:00	1.5	1.0	1.8	0.9	2.2
04/08/2019 09:00	1.6	2.0	0.5	0.6	1.7
04/08/2019 11:00	1.5	1.5	0.0	0.0	1.6
04/08/2019 12:00	1.5	2.1	0.0	0.0	1.6
04/08/2019 13:00	1.5	2.3	0.0	0.1	1.7
04/08/2019 14:00	1.5	2.2	0.2	0.2	1.7
04/08/2019 18:00	1.5	1.2	2.2	1.1	1.8
04/08/2019 19:00	1.3	1.4	1.0	0.9	1.9
04/09/2019 07:00	1.5	1.3	0.0	0.0	1.6
04/09/2019 08:00	1.5	2.2	0.0	0.0	1.5
04/09/2019 09:00	1.5	2.2	0.0	0.0	1.6
04/09/2019 10:00	1.5	2.3	0.1	0.1	1.6
04/09/2019 11:00	1.5	2.4	0.0	0.1	1.6
04/09/2019 12:00	1.5	2.5	0.3	0.5	1.7
04/09/2019 13:00	1.5	2.0	0.0	0.0	1.6
04/09/2019 14:00	1.5	2.5	0.3	0.5	1.7
04/09/2019 19:00	1.5	3.8	1.0	2.1	1.6

Period Start:	Average 10NOxCrOP1 ppm	Average 10NOX#OP1H LBS	Average 10COCorOP1 ppm	Average 10CO#OP1HR LBS	Average 10NH3CrNS1 ppm
04/09/2019 20:00	1.4	0.4	0.0	0.0	1.7
04/10/2019 08:00	1.4	1.3	0.1	0.1	1.5
04/10/2019 09:00	1.5	3.0	0.1	0.1	1.4
04/10/2019 18:00	1.5	1.9	0.0	0.0	1.5
04/11/2019 12:00	1.5	1.1	0.3	0.2	1.6
04/11/2019 13:00	1.5	0.4	0.0	0.0	1.7
04/11/2019 16:00	1.5	0.7	0.0	0.0	1.5
04/12/2019 05:00	2.0	1.8	0.5	0.5	1.5
04/12/2019 06:00	1.1	0.9	2.7	1.2	2.1
04/12/2019 07:00	1.7	1.1	0.0	0.0	1.5
04/12/2019 08:00	1.5	2.2	0.0	0.0	1.6
04/12/2019 09:00	1.5	2.2	0.0	0.0	1.6
04/12/2019 10:00	1.5	2.2	0.0	0.0	1.6
04/12/2019 11:00	1.6	2.2	0.0	0.0	1.5
04/12/2019 12:00	1.4	2.9	0.1	0.1	1.4
04/12/2019 14:00	1.5	1.6	0.0	0.0	1.4
04/12/2019 15:00	1.5	2.2	0.0	0.0	1.6
04/12/2019 16:00	1.5	0.4	0.0	0.0	1.6
04/12/2019 18:00	1.5	1.0	0.0	0.0	1.4
04/12/2019 19:00	1.6	0.4	0.0	0.0	1.4
04/13/2019 18:00	1.5	0.4	0.0	0.0	1.2
04/13/2019 19:00	1.5	0.9	0.0	0.0	1.5
04/14/2019 12:00	1.5	2.8	0.5	0.6	1.3
04/14/2019 13:00	1.6	2.2	0.2	0.2	1.4
04/14/2019 19:00	1.6	1.5	0.1	0.0	1.1
04/15/2019 10:00	1.5	1.4	0.0	0.0	1.6
04/15/2019 18:00	1.4	1.0	2.0	0.8	1.7
04/15/2019 19:00	1.5	3.9	1.1	2.3	1.6
04/15/2019 20:00	1.5	1.0	0.1	0.0	1.4
04/16/2019 14:00	1.4	0.4	0.0	0.0	1.2
04/16/2019 15:00	1.5	1.0	0.0	0.0	1.3
04/16/2019 18:00	1.5	0.5	0.0	0.0	1.3
04/16/2019 19:00	1.5	0.9	0.0	0.0	1.5
04/17/2019 18:00	1.5	4.9	2.1	4.4	1.5
04/17/2019 19:00	1.6	1.7	1.0	0.9	1.5
04/18/2019 19:00	1.6	2.8	1.4	1.7	1.7
04/20/2019 12:00	1.7	0.9	0.1	0.0	1.5
04/20/2019 13:00	1.3	1.0	0.1	0.1	1.6
04/21/2019 15:00	1.5	1.0	0.0	0.0	1.3
04/21/2019 16:00	1.5	0.4	0.0	0.0	1.7
04/22/2019 19:00	1.5	1.5	0.0	0.0	1.2
04/22/2019 20:00	1.5	0.9	0.0	0.0	1.3
04/23/2019 18:00	1.5	2.1	0.0	0.0	1.2
04/23/2019 19:00	1.5	1.5	0.0	0.0	1.4
04/24/2019 17:00	1.3	0.9	2.4	1.1	2.0
04/24/2019 18:00	1.5	2.6	0.0	0.0	1.2
04/24/2019 19:00	1.5	2.2	0.0	0.0	1.4
04/25/2019 17:00	1.3	0.8	1.9	0.8	1.9
04/25/2019 18:00	1.5	2.5	0.0	0.0	1.2
04/25/2019 19:00	1.5	2.7	0.0	0.0	1.3
04/25/2019 20:00	1.1	0.4	0.1	0.0	1.4
04/26/2019 18:00	1.5	1.3	0.1	0.1	1.4
04/26/2019 19:00	1.5	2.0	0.2	0.2	1.2
04/28/2019 14:00	1.4	1.0	0.2	0.1	1.4
04/28/2019 15:00	1.5	0.4	0.1	0.0	1.7
04/28/2019 19:00	1.5	1.3	0.1	0.1	1.4
04/29/2019 12:00	1.5	1.5	0.1	0.1	1.6
04/29/2019 13:00	1.5	2.5	0.1	0.1	1.6
04/29/2019 14:00	1.5	1.9	0.1	0.1	1.6
04/30/2019 05:00	1.5	1.8	2.6	1.9	2.0
04/30/2019 06:00	1.5	5.3	2.1	4.4	7.0 RATA Test - establishing new correction factor
04/30/2019 07:00	1.5	5.4	2.1	4.4	7.1 RATA Test - establishing new correction factor
04/30/2019 08:00	1.5	5.4	2.0	4.3	7.1 RATA Test - establishing new correction factor
04/30/2019 09:00	1.5	5.4	2.1	4.6	6.7 RATA Test - establishing new correction factor
04/30/2019 10:00	1.5	5.4	2.1	4.5	1.5
04/30/2019 11:00	1.5	5.4	2.1	4.5	1.6
04/30/2019 12:00	1.5	5.4	2.1	4.4	1.6
04/30/2019 13:00	1.5	5.5	1.9	4.1	1.5
04/30/2019 14:00	1.4	5.2	2.1	4.4	1.6
04/30/2019 15:00	1.4	5.2	2.2	4.6	1.6
04/30/2019 16:00	1.5	3.9	0.8	1.5	1.6
04/30/2019 17:00	1.5	2.1	0.1	0.1	1.6
05/01/2019 12:00	1.5	1.4	0.1	0.1	1.5
05/01/2019 13:00	1.6	0.4	0.1	0.0	1.7
05/01/2019 15:00	1.5	1.6	0.1	0.1	1.7
05/01/2019 16:00	1.5	2.5	0.2	0.2	1.6
05/01/2019 17:00	1.5	1.3	0.1	0.1	1.4
05/01/2019 18:00	1.5	2.0	0.1	0.1	1.3
05/01/2019 19:00	1.5	2.1	0.1	0.1	1.3
05/01/2019 20:00	1.5	2.0	0.1	0.1	1.3
05/01/2019 21:00	1.5	2.0	0.1	0.1	1.3
05/01/2019 22:00	1.5	2.0	0.1	0.1	1.3
05/02/2019 07:00	1.5	1.3	0.1	0.1	1.7
05/02/2019 11:00	1.0	0.6	0.9	0.4	2.5
05/02/2019 12:00	1.5	2.0	0.0	0.0	1.6
05/02/2019 13:00	1.5	1.8	0.0	0.0	1.6
05/02/2019 14:00	1.5	1.8	0.1	0.1	1.6
05/02/2019 19:00	1.5	1.5	0.0	0.0	1.4
05/02/2019 20:00	1.5	0.4	0.1	0.0	1.4
05/03/2019 18:00	1.5	0.4	0.0	0.0	1.4
05/03/2019 19:00	1.5	1.9	0.0	0.0	1.6
05/03/2019 20:00	1.5	0.4	0.0	0.0	1.7
05/04/2019 05:00	1.5	0.9	0.1	0.0	1.8
05/04/2019 06:00	1.5	2.1	0.0	0.0	1.8
05/04/2019 07:00	1.5	2.1	0.0	0.0	1.8
05/04/2019 08:00	1.5	2.1	0.0	0.0	1.8
05/04/2019 09:00	1.5	2.1	0.0	0.0	1.8

Period Start:	Average 10NOxCrOP1 ppm	Average 10NOx#OP1H LBS	Average 10COCoOP1 ppm	Average 10CO#OP1HR LBS	Average 10NH3CrNS1 ppm
05/04/2019 10:00	1.5	2.0	0.0	0.0	1.8
05/04/2019 11:00	1.5	2.0	0.0	0.0	1.8
05/04/2019 12:00	1.5	2.0	0.0	0.0	1.8
05/04/2019 13:00	1.5	2.1	0.0	0.0	1.8
05/04/2019 14:00	1.5	2.1	0.0	0.0	1.8
05/04/2019 15:00	1.5	2.1	0.0	0.0	1.8
05/04/2019 16:00	1.5	2.1	0.0	0.0	1.7
05/04/2019 17:00	1.5	2.0	0.0	0.0	1.7
05/04/2019 18:00	1.5	1.9	0.0	0.0	1.5
05/04/2019 19:00	1.5	2.0	0.0	0.0	1.4
05/04/2019 20:00	1.5	1.9	0.0	0.0	1.5
05/04/2019 21:00	1.5	1.8	0.0	0.0	1.6
05/04/2019 22:00	1.5	1.8	0.0	0.0	1.7
05/05/2019 06:00	1.7	0.7	0.0	0.0	1.6
05/05/2019 16:00	1.5	1.0	0.0	0.0	1.5
05/05/2019 17:00	1.6	2.5	0.1	0.2	1.7
05/05/2019 18:00	1.5	2.5	0.4	0.8	1.8
05/05/2019 20:00	1.5	2.0	0.4	0.5	1.5
05/05/2019 21:00	1.6	2.2	0.0	0.0	1.3
05/05/2019 22:00	1.5	1.9	0.0	0.0	1.4
05/06/2019 20:00	1.6	1.5	0.0	0.0	1.4
05/07/2019 06:00	1.5	1.3	0.0	0.0	1.7
05/07/2019 09:00	1.5	2.6	0.3	0.5	1.7
05/07/2019 10:00	1.5	2.3	0.1	0.1	1.6
05/07/2019 11:00	1.5	3.2	0.3	0.6	1.5
05/07/2019 12:00	1.5	1.9	0.3	0.2	1.6
05/07/2019 15:00	1.5	1.1	0.1	0.1	1.4
05/07/2019 16:00	1.5	0.4	0.1	0.0	1.5
05/08/2019 05:00	1.6	1.5	0.1	0.0	1.3
05/08/2019 06:00	1.5	2.1	0.0	0.0	1.2
05/08/2019 07:00	1.5	2.0	0.0	0.0	1.2
05/08/2019 08:00	1.5	2.0	0.0	0.0	1.3
05/08/2019 09:00	1.5	2.0	0.0	0.0	1.4
05/08/2019 10:00	1.5	2.0	0.0	0.0	1.4
05/08/2019 11:00	1.5	2.1	0.0	0.0	1.3
05/08/2019 12:00	1.5	2.1	0.0	0.0	1.3
05/08/2019 13:00	1.5	2.1	0.0	0.0	1.3
05/08/2019 14:00	1.5	2.1	0.0	0.0	1.6
05/08/2019 15:00	1.5	2.1	0.0	0.0	1.5
05/08/2019 16:00	1.5	2.1	0.0	0.0	1.7
05/08/2019 17:00	1.5	2.1	0.0	0.0	1.4
05/08/2019 18:00	1.5	2.1	0.0	0.0	1.3
05/08/2019 19:00	1.5	2.1	0.0	0.0	1.4
05/08/2019 20:00	1.5	1.4	0.1	0.0	1.6
05/08/2019 21:00	1.5	2.1	0.0	0.0	1.6
05/08/2019 22:00	1.5	2.0	0.0	0.0	1.8
05/09/2019 05:00	1.6	1.6	0.0	0.0	1.6
05/09/2019 06:00	1.5	2.1	0.0	0.0	1.6
05/09/2019 07:00	1.5	2.0	0.0	0.0	1.5
05/09/2019 08:00	1.5	2.1	0.0	0.0	1.6
05/09/2019 09:00	1.5	2.1	0.0	0.0	1.6
05/09/2019 10:00	1.5	2.5	0.3	0.5	1.6
05/09/2019 11:00	1.5	2.0	0.0	0.0	1.6
05/09/2019 12:00	1.5	1.8	0.0	0.0	1.6
05/21/2019 07:00	1.9	2.5	2.9	2.3	1.6
05/21/2019 08:00	1.9	7.0	2.6	5.8	1.6
05/21/2019 09:00	1.9	7.0	2.6	5.8	1.6
05/21/2019 10:00	1.9	7.0	2.7	6.0	1.6
05/21/2019 11:00	1.9	7.0	2.6	5.8	1.6
05/21/2019 12:00	1.9	7.0	2.6	5.7	1.6
05/21/2019 13:00	1.9	2.7	2.5	2.1	1.6
06/09/2019 14:00	1.7	0.3	0.7	0.1	N/A
06/09/2019 15:00	1.5	1.3	0.7	0.4	3.0
06/09/2019 16:00	1.5	2.9	1.5	2.5	3.0
06/09/2019 17:00	1.5	2.3	0.8	0.9	2.8
06/09/2019 18:00	1.6	2.5	0.5	0.5	2.9
06/09/2019 19:00	1.5	2.0	0.5	0.4	2.4
06/09/2019 20:00	1.5	2.2	0.6	0.5	2.9
06/10/2019 14:00	1.5	1.6	0.6	0.4	2.8
06/10/2019 15:00	1.6	2.4	2.0	2.2	2.8
06/10/2019 16:00	1.5	4.1	2.1	4.1	3.6
06/10/2019 17:00	1.5	2.4	0.6	0.6	2.8
06/10/2019 18:00	1.5	3.0	1.4	2.4	3.1
06/10/2019 19:00	1.4	2.3	0.5	0.5	2.6
06/10/2019 20:00	1.5	2.8	1.0	1.5	3.0
06/10/2019 21:00	1.4	0.4	0.5	0.1	2.9
06/11/2019 14:00	1.7	5.7	2.2	4.5	4.0
06/11/2019 15:00	1.5	3.6	1.1	2.0	3.9
06/11/2019 16:00	1.3	2.1	0.2	0.2	3.8
06/11/2019 17:00	1.5	2.1	0.2	0.1	2.8
06/11/2019 18:00	1.5	2.0	0.1	0.1	2.6
06/11/2019 19:00	1.5	2.0	0.1	0.1	2.6
06/11/2019 20:00	1.5	2.1	0.1	0.1	2.7
06/11/2019 21:00	1.5	1.4	0.1	0.1	2.5
06/12/2019 14:00	1.5	1.5	0.2	0.1	2.7
06/12/2019 15:00	1.5	2.0	0.1	0.1	3.1
06/12/2019 16:00	1.5	2.0	0.1	0.1	3.1
06/12/2019 17:00	1.5	1.3	0.1	0.1	3.1
06/12/2019 18:00	1.5	2.2	0.1	0.1	2.8
06/12/2019 19:00	1.5	2.2	0.1	0.1	2.6
06/12/2019 20:00	1.5	2.1	0.2	0.1	3.2
06/23/2019 15:00	1.5	0.5	0.4	0.1	2.6
06/23/2019 16:00	1.5	1.0	0.3	0.1	3.1
06/29/2019 17:00	1.9	0.9	0.5	0.1	2.8
06/29/2019 18:00	1.4	2.4	1.5	1.9	3.1
Final Average*	1.5	2.2	0.5	0.7	1.8
Maximum*	2.0	7.0	2.9	6.0	7.1

Period Start:	Average 10NOxCrOP1 ppm	Average 10NOX#OP1H LBS	Average 10COCorOP1 ppm	Average 10CO#OP1HR LBS	Average 10NH3CrNS1 ppm
	04/12/2019 5:00	05/21/2019 12:00	05/21/2019 7:00	05/21/2019 10:00	04/30/2019 8:00
Minimum*	1.0	0.3	0.0	0.0	1.1
	05/02/2019 11:00	06/09/2019 14:00	05/09/2019 12:00	05/09/2019 12:00	04/14/2019 19:00

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
 Generated: 7/22/2019 11:12

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008
 Source: 6

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Validation Type: 1/60 min
 Averaging Period: 1 hr
 Type: Block Avg

Period Start:	Average 6NOxCorOP1 ppm	Average 6NOX#OP1HR LBS	Average 6COCorOP1 ppm	Average 6CO#OP1HR LBS	Average 6NH3CorOP1 ppm
04/01/2019 05:00	1.5	1.6	0.3	0.2	2.3
04/01/2019 06:00	1.5	2.9	0.3	0.3	2.3
04/01/2019 07:00	1.5	2.0	0.3	0.2	2.3
04/01/2019 10:00	1.5	2.0	0.3	0.3	2.1
04/01/2019 11:00	1.5	2.2	0.4	0.3	2.2
04/01/2019 12:00	1.4	2.0	0.4	0.3	2.3
04/01/2019 13:00	1.5	2.0	0.4	0.3	2.3
04/01/2019 14:00	1.5	2.7	0.4	0.4	2.1
04/01/2019 15:00	1.5	2.0	0.4	0.3	2.5
04/01/2019 16:00	1.5	2.2	0.4	0.3	2.2
04/01/2019 17:00	1.5	3.1	0.4	0.5	2.0
04/01/2019 18:00	1.6	5.2	0.7	1.4	2.0
04/01/2019 19:00	1.4	1.3	0.5	0.3	2.4
04/01/2019 20:00	1.5	2.1	0.3	0.2	2.3
04/01/2019 21:00	1.5	2.1	0.3	0.2	2.7
04/01/2019 22:00	1.5	2.8	0.3	0.3	2.4
04/02/2019 05:00	1.6	1.4	0.2	0.1	2.4
04/02/2019 06:00	1.5	3.0	0.3	0.4	2.4
04/02/2019 07:00	1.4	2.0	0.2	0.2	2.4
04/02/2019 08:00	1.5	2.1	0.3	0.2	2.3
04/02/2019 09:00	1.5	2.2	0.3	0.2	2.4
04/02/2019 10:00	1.5	1.9	0.3	0.2	2.3
04/02/2019 15:00	1.5	2.0	0.2	0.2	2.3
04/02/2019 16:00	1.5	2.1	0.2	0.2	2.6
04/02/2019 17:00	1.5	2.2	0.2	0.2	2.4
04/02/2019 18:00	1.5	2.6	0.3	0.2	2.3
04/02/2019 19:00	1.5	2.3	0.2	0.2	2.4
04/02/2019 20:00	1.4	1.4	0.4	0.2	2.6
04/03/2019 05:00	1.3	0.9	0.4	0.2	2.1
04/03/2019 06:00	1.5	4.4	0.3	0.6	1.8
04/03/2019 07:00	1.5	4.5	0.4	0.6	1.8
04/03/2019 08:00	1.5	4.7	0.4	0.8	1.8
04/03/2019 09:00	1.5	4.6	0.4	0.7	1.9
04/03/2019 10:00	1.1	0.3	0.3	0.0	2.4
04/03/2019 11:00	1.3	2.0	0.4	0.4	2.0
04/03/2019 12:00	1.5	4.7	0.4	0.7	1.8
04/03/2019 13:00	1.5	4.5	0.4	0.7	1.7
04/03/2019 14:00	1.5	3.4	0.3	0.4	2.0
04/03/2019 15:00	1.5	3.1	0.3	0.4	1.9
04/03/2019 17:00	1.5	0.6	0.2	0.1	2.5
04/03/2019 18:00	1.5	3.8	0.4	0.6	2.1
04/03/2019 19:00	1.5	4.9	0.4	0.8	1.9
04/03/2019 20:00	1.5	3.0	0.3	0.4	1.7
04/04/2019 15:00	1.5	1.5	0.3	0.2	1.9
04/04/2019 16:00	1.6	2.7	0.5	0.4	2.4
04/04/2019 17:00	1.4	4.8	0.4	0.8	2.0
04/04/2019 18:00	1.5	3.8	0.3	0.4	2.1
04/04/2019 19:00	1.2	0.6	0.3	0.1	2.2
04/05/2019 06:00	1.4	3.0	0.4	0.5	1.8
04/05/2019 07:00	1.4	2.0	0.2	0.2	2.6
04/05/2019 08:00	1.5	2.6	0.2	0.3	2.5
04/05/2019 09:00	1.6	1.9	0.0	0.0	2.5
04/05/2019 10:00	1.5	2.1	0.0	0.0	2.7
04/05/2019 11:00	1.5	2.1	0.0	0.0	2.7
04/05/2019 12:00	1.5	2.1	0.0	0.0	2.5
04/05/2019 13:00	1.5	2.7	0.0	0.0	2.3
04/05/2019 14:00	1.4	2.0	0.0	0.0	2.8
04/05/2019 15:00	1.5	1.3	0.1	0.1	2.5
04/06/2019 05:00	1.5	1.5	0.0	0.0	2.0
04/06/2019 06:00	1.5	2.1	0.0	0.0	2.3
04/06/2019 07:00	1.5	2.0	0.0	0.0	2.7
04/06/2019 08:00	1.5	2.0	0.0	0.0	2.8
04/06/2019 09:00	1.5	2.0	0.0	0.0	2.4

Period Start:	Average	Average	Average	Average	Average
	6NOxCorOP1 ppm	6NOX#OP1HR LBS	6COCorOP1 ppm	6CO#OP1HR LBS	6NH3CorOP1 ppm
04/06/2019 10:00	1.5	2.0	0.0	0.0	2.3
04/06/2019 11:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 12:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 13:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 14:00	1.5	2.0	0.0	0.0	2.1
04/06/2019 15:00	1.5	2.0	0.0	0.0	2.1
04/06/2019 16:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 17:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 18:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 19:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 20:00	1.5	2.1	0.0	0.0	2.1
04/06/2019 21:00	1.5	2.1	0.0	0.0	2.4
04/06/2019 22:00	1.5	1.2	0.1	0.1	2.5
04/07/2019 18:00	1.5	0.4	0.0	0.0	2.1
04/07/2019 19:00	1.5	1.0	0.0	0.0	2.2
04/08/2019 18:00	1.4	2.5	0.4	0.5	2.1
04/09/2019 18:00	1.3	0.9	0.3	0.1	2.1
04/09/2019 19:00	1.4	4.5	0.2	0.4	2.1
04/09/2019 20:00	1.5	0.5	0.0	0.0	2.2
04/10/2019 10:00	1.4	2.2	0.0	0.0	2.4
04/10/2019 11:00	1.5	3.0	0.1	0.1	2.4
04/10/2019 12:00	1.4	2.2	0.0	0.0	2.3
04/10/2019 13:00	1.5	0.7	0.0	0.0	2.1
04/10/2019 19:00	1.5	0.9	0.0	0.0	1.9
04/10/2019 20:00	1.5	0.9	0.0	0.0	2.0
04/11/2019 18:00	1.3	0.9	0.4	0.2	2.1
04/11/2019 19:00	1.4	1.9	0.2	0.2	2.4
04/12/2019 18:00	1.5	0.4	0.0	0.0	2.0
04/12/2019 19:00	1.5	0.4	0.3	0.0	2.1
04/14/2019 18:00	1.5	1.1	0.1	0.0	1.8
04/14/2019 19:00	1.3	1.5	0.1	0.1	2.0
04/20/2019 17:00	1.7	0.1	0.1	0.0	2.5
04/20/2019 18:00	1.6	2.2	0.3	0.3	2.5
04/22/2019 18:00	1.5	4.3	0.9	1.8	1.7
04/22/2019 19:00	1.3	1.5	0.2	0.2	2.0
04/24/2019 17:00	1.6	3.5	0.5	0.9	2.0
04/24/2019 18:00	1.3	2.9	0.6	1.1	1.8
04/25/2019 17:00	1.6	1.6	0.1	0.1	2.1
04/25/2019 18:00	1.4	4.5	1.0	2.1	1.7
04/25/2019 19:00	1.5	2.8	0.2	0.3	1.8
04/25/2019 20:00	1.5	0.4	0.1	0.0	2.2
04/26/2019 19:00	1.5	0.6	0.4	0.1	1.9
04/28/2019 17:00	1.2	0.8	1.4	0.6	1.8
04/28/2019 18:00	1.5	3.3	0.7	1.3	1.8
04/28/2019 19:00	1.5	1.4	0.1	0.1	2.0
04/29/2019 05:00	1.6	2.4	0.2	0.1	1.6
04/29/2019 06:00	1.4	4.7	1.2	2.6	1.6
04/29/2019 07:00	1.5	3.4	0.2	0.3	1.4
04/29/2019 09:00	1.5	2.0	0.1	0.1	2.0
04/29/2019 10:00	1.5	2.5	0.1	0.1	1.9
04/29/2019 11:00	1.5	2.2	0.0	0.0	2.3
04/29/2019 12:00	1.5	2.4	0.0	0.0	2.2
04/29/2019 13:00	1.5	3.0	0.1	0.2	1.8
04/29/2019 14:00	1.4	2.4	0.1	0.1	1.8
04/29/2019 16:00	1.3	2.3	0.1	0.1	1.6
04/29/2019 17:00	1.5	2.5	0.0	0.0	1.9
04/29/2019 18:00	1.5	1.2	0.2	0.1	1.9
04/30/2019 19:00	1.5	1.4	0.0	0.0	1.9
05/01/2019 10:00	1.4	0.4	0.1	0.0	1.8
05/01/2019 11:00	1.5	3.1	0.4	0.7	1.8
05/01/2019 12:00	1.5	2.1	0.1	0.1	1.9
05/01/2019 13:00	1.5	1.6	0.1	0.0	2.0
05/01/2019 15:00	1.5	1.0	0.0	0.0	2.0
05/01/2019 16:00	1.5	2.8	0.1	0.1	2.0
05/01/2019 17:00	1.5	2.0	0.0	0.0	1.9
05/01/2019 18:00	1.6	2.4	0.0	0.0	2.0
05/01/2019 19:00	1.4	3.0	0.2	0.3	2.0
05/01/2019 20:00	1.5	2.1	0.0	0.0	2.0
05/01/2019 21:00	1.5	2.0	0.0	0.0	2.1
05/01/2019 22:00	1.5	1.9	0.0	0.0	2.1
05/02/2019 19:00	1.4	2.5	0.2	0.2	1.5
05/02/2019 20:00	1.5	4.0	0.5	0.9	1.7

Period Start:	Average	Average	Average	Average	Average
	6NOxCorOP1 ppm	6NOX#OP1HR LBS	6COCorOP1 ppm	6CO#OP1HR LBS	6NH3CorOP1 ppm
05/02/2019 21:00	1.5	1.3	0.2	0.1	1.9
05/02/2019 22:00	1.5	2.0	0.0	0.0	1.9
05/03/2019 18:00	1.2	0.1	0.0	0.0	1.8
05/03/2019 19:00	1.5	1.5	0.0	0.0	2.0
05/04/2019 19:00	1.5	1.6	0.0	0.0	2.0
05/04/2019 20:00	1.4	0.9	0.0	0.0	2.0
05/05/2019 15:00	1.5	1.6	0.0	0.0	2.0
05/05/2019 19:00	1.5	1.8	0.0	0.0	1.9
05/05/2019 20:00	1.5	1.8	0.0	0.0	1.8
05/06/2019 08:00	1.5	1.1	0.0	0.0	2.0
05/06/2019 09:00	1.5	2.1	0.0	0.0	1.9
05/06/2019 10:00	1.5	2.1	0.1	0.1	1.9
05/06/2019 11:00	1.5	2.1	0.1	0.1	1.9
05/06/2019 12:00	1.5	2.1	0.1	0.1	1.9
05/06/2019 13:00	1.5	2.1	0.1	0.1	1.9
05/06/2019 14:00	1.5	1.5	0.3	0.2	2.4
05/06/2019 19:00	1.7	0.6	0.0	0.0	1.9
05/06/2019 20:00	1.4	0.9	0.0	0.0	2.0
05/08/2019 05:00	1.5	1.4	0.0	0.0	1.9
05/08/2019 06:00	1.6	2.6	0.1	0.1	2.0
05/08/2019 07:00	1.4	2.5	0.1	0.1	2.0
05/08/2019 08:00	1.5	2.0	0.0	0.0	1.9
05/08/2019 11:00	1.5	1.5	0.0	0.0	2.0
05/08/2019 12:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 13:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 14:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 15:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 16:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 17:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 18:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 19:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 20:00	1.5	1.3	0.2	0.1	2.0
05/08/2019 21:00	1.5	2.0	0.0	0.0	2.0
05/08/2019 22:00	1.5	1.9	0.0	0.0	2.0
05/09/2019 07:00	1.5	0.9	0.0	0.0	2.0
05/09/2019 08:00	1.5	0.4	0.0	0.0	2.0
05/14/2019 09:00	1.5	1.0	0.0	0.0	1.9
05/14/2019 10:00	1.5	2.2	0.0	0.0	1.9
05/14/2019 11:00	1.5	2.1	0.0	0.0	1.9
05/14/2019 12:00	1.5	2.1	0.0	0.0	1.8
05/14/2019 13:00	1.5	2.1	0.0	0.0	1.8
05/14/2019 14:00	1.5	2.1	0.1	0.0	1.8
05/14/2019 15:00	1.5	2.1	0.1	0.1	1.8
05/14/2019 16:00	1.5	1.8	0.1	0.1	1.9
05/16/2019 05:00	1.5	0.7	0.4	0.1	2.1
05/16/2019 06:00	1.5	2.3	0.1	0.1	2.4
05/16/2019 07:00	1.5	2.2	0.0	0.0	2.2
05/16/2019 08:00	1.9	6.3	1.0	2.1	1.7
05/16/2019 09:00	2.0	7.0	0.6	1.3	1.4
05/16/2019 10:00	2.0	7.0	1.0	2.3	1.5
05/16/2019 11:00	2.0	7.1	0.7	1.6	1.5
05/16/2019 12:00	2.0	6.8	0.9	2.0	1.5
05/16/2019 13:00	2.0	6.9	0.9	1.9	1.5
05/16/2019 14:00	2.0	6.8	0.8	1.6	1.5
05/16/2019 15:00	2.0	6.8	1.0	2.2	1.5
05/16/2019 16:00	1.8	6.3	1.0	2.2	1.6
05/16/2019 17:00	1.5	4.6	1.0	2.0	1.7
05/21/2019 07:00	1.5	4.1	1.3	2.1	1.9
05/21/2019 08:00	1.5	5.3	0.9	2.0	2.0
05/21/2019 09:00	1.5	5.2	0.9	2.1	1.8
05/21/2019 10:00	1.5	5.2	1.1	2.5	1.8
05/21/2019 11:00	1.5	5.3	1.1	2.5	1.8
05/21/2019 12:00	1.5	5.3	1.0	2.3	1.8
05/21/2019 13:00	1.5	2.1	1.5	1.3	1.8
06/03/2019 17:00	1.5	0.7	0.5	0.1	2.0
06/03/2019 18:00	1.5	2.1	0.1	0.1	1.9
06/03/2019 19:00	1.5	2.1	0.1	0.1	1.9
06/04/2019 07:00	1.5	2.0	0.7	0.7	1.8
06/04/2019 08:00	1.5	3.4	0.5	0.8	1.9
06/04/2019 09:00	1.5	2.1	0.1	0.1	2.1
06/04/2019 10:00	1.5	0.4	0.1	0.0	2.0
06/04/2019 17:00	1.5	1.6	0.1	0.1	2.0

Period Start:	Average 6NOxCorOP1 ppm	Average 6NOX#OP1HR LBS	Average 6COCorOP1 ppm	Average 6CO#OP1HR LBS	Average 6NH3CorOP1 ppm
06/04/2019 18:00	1.5	2.4	0.1	0.1	1.9
06/04/2019 19:00	1.5	2.0	0.1	0.1	2.0
06/05/2019 17:00	1.2	0.5	0.1	0.0	2.1
06/05/2019 18:00	1.5	0.6	0.1	0.0	2.8
06/05/2019 19:00	1.5	1.8	0.1	0.1	2.8
06/05/2019 20:00	1.6	0.4	0.1	0.0	2.5
06/10/2019 14:00	1.4	2.4	1.1	1.3	1.7
06/10/2019 15:00	1.5	2.0	0.5	0.4	1.6
06/10/2019 16:00	1.5	5.3	1.6	3.5	1.8
06/10/2019 17:00	1.5	5.2	1.3	2.8	1.8
06/10/2019 18:00	1.5	5.2	1.3	2.9	1.8
06/10/2019 19:00	1.5	5.2	1.0	2.2	1.8
06/10/2019 20:00	1.4	2.7	0.6	0.8	1.9
06/16/2019 18:00	1.5	1.4	0.1	0.0	2.1
06/16/2019 19:00	1.5	1.8	0.1	0.0	2.0
06/16/2019 20:00	1.5	1.8	0.1	0.0	2.0
06/24/2019 05:00	1.5	1.3	0.1	0.1	2.0
06/24/2019 06:00	1.5	1.8	0.1	0.1	2.0
06/24/2019 07:00	1.6	2.3	0.1	0.1	2.0
06/24/2019 08:00	1.5	1.9	0.1	0.1	2.0
06/24/2019 09:00	1.5	1.8	0.1	0.1	2.0
06/24/2019 10:00	1.5	2.0	0.1	0.1	2.0
06/24/2019 11:00	1.5	2.1	0.1	0.1	2.0
06/24/2019 12:00	1.5	2.5	0.2	0.3	2.0
06/24/2019 13:00	1.6	2.2	0.1	0.1	2.1
06/24/2019 14:00	1.4	1.1	0.3	0.2	2.1
06/24/2019 15:00	1.5	2.4	0.1	0.1	2.1
06/24/2019 16:00	1.5	2.6	0.2	0.2	2.2
06/24/2019 17:00	1.5	3.2	0.2	0.4	2.0
06/24/2019 18:00	1.4	3.4	0.4	0.6	1.7
06/24/2019 19:00	1.5	2.0	0.1	0.1	2.1
06/24/2019 20:00	1.5	2.2	0.1	0.1	2.0
06/24/2019 21:00	1.5	2.0	0.1	0.1	2.0
06/24/2019 22:00	1.5	2.4	0.1	0.2	2.1
Final Average*	1.5	2.4	0.3	0.4	2.0
Maximum*	2.0	7.1	1.6	3.5	2.8
	05/16/2019 15:00	05/16/2019 11:00	06/10/2019 16:00	06/10/2019 16:00	06/05/2019 19:00
Minimum*	1.1	0.1	0.0	0.0	1.4
	04/03/2019 10:00	05/03/2019 18:00	05/16/2019 7:00	06/16/2019 20:00	05/16/2019 9:00

* Does not include Invalid Averaging Periods ("N/A")

Attachment E CEMS Startup/Shutdown Report:

AQ-40: NO_x, CO, and VOC Pound Per Startup Summary

AQ-41: NO_x, CO, and VOC Pound Per Shutdown Summary

Startup / ShutDown Report
 Generated: 7/22/2019 11:15
 StartUp/ShutDown Event Report NRG Carlsbad Unit 6
 Carlsbad Unit 6

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Unit Name: Unit6

Events	Time	Duration (min)	Total			Total			Total			Event	
			6_GasFlow (kscfh)	Valid Mins	6Gross_MW (MW)	Valid Mins	6COLBHR (LBHR)	Valid Mins	6NOXLBHR (LBHR)	Valid Mins	Nox Lbs	Event CO Lbs	
START_UP	04/01/2019 04:54	~ 04/01/2019 05:18	25	8998.2	25	718.2	25	205.272	25	208.433	25	3.47	3.42
SHUT_DOWN	04/01/2019 07:57	~ 04/01/2019 08:09	13	2091.6	13	55.6	13	2.225	13	17.134	13	0.29	0.04
START_UP	04/01/2019 09:37	~ 04/01/2019 10:01	25	7888.3	25	566.2	25	115.324	25	69.273	25	1.15	1.92
SHUT_DOWN	04/01/2019 22:57	~ 04/01/2019 23:09	13	2080.1	13	55.1	13	1.972	13	11.717	13	0.20	0.03
START_UP	04/02/2019 04:53	~ 04/02/2019 05:17	25	8071.6	25	591.1	25	137.368	25	185.439	25	3.09	2.29
SHUT_DOWN	04/02/2019 10:57	~ 04/02/2019 11:09	13	2148.9	13	60.7	13	2.251	13	16.922	13	0.28	0.04
START_UP	04/02/2019 14:37	~ 04/02/2019 15:01	25	8078.9	25	584.8	25	105.339	25	158.001	25	2.63	1.76
SHUT_DOWN	04/02/2019 20:57	~ 04/02/2019 21:09	13	2228	13	70.4	13	3.481	13	16.358	13	0.27	0.06
START_UP	04/03/2019 05:23	~ 04/03/2019 05:47	25	15900.3	25	1726.4	25	159.618	25	359.475	25	5.99	2.66
SHUT_DOWN	04/03/2019 10:12	~ 04/03/2019 10:24	13	2122.4	13	57.1	13	1.934	13	14.836	13	0.25	0.03
START_UP	04/03/2019 11:07	~ 04/03/2019 11:31	25	13595.6	25	1397.7	25	88.03	25	139.754	25	2.33	1.47
SHUT_DOWN	04/03/2019 15:57	~ 04/03/2019 16:09	13	2179.5	13	62.4	13	1.846	13	11.178	13	0.19	0.03
START_UP	04/03/2019 17:22	~ 04/03/2019 17:46	25	9616.001	25	807.2	25	108.774	25	94.034	25	1.57	1.81
SHUT_DOWN	04/03/2019 20:42	~ 04/03/2019 20:54	13	2252.3	13	71.9	13	2.281	13	10.232	13	0.17	0.04
START_UP	04/04/2019 05:08	~ 04/04/2019 05:16	9	3503.1	9	310.7	9	121.172	9	217.139	9	3.62	2.02
START_UP	04/04/2019 15:07	~ 04/04/2019 15:31	25	12583.7	25	1227	25	161.161	25	287.452	25	4.79	2.69
SHUT_DOWN	04/04/2019 19:12	~ 04/04/2019 19:24	13	2127.6	13	55.8	13	1.817	13	15.375	13	0.26	0.03
START_UP	04/05/2019 05:53	~ 04/05/2019 06:17	25	12302.8	25	1195.6	25	156.372	25	237.377	25	3.96	2.61
SHUT_DOWN	04/05/2019 15:57	~ 04/05/2019 16:09	13	2152.9	13	60.3	13	0	13	17.739	13	0.30	0.00
START_UP	04/06/2019 04:53	~ 04/06/2019 05:17	25	8039.799	25	570	25	164.721	25	199.558	25	3.33	2.75
SHUT_DOWN	04/06/2019 22:57	~ 04/06/2019 23:09	13	2113	13	54.8	13	0	13	16.822	13	0.28	0.00
START_UP	04/07/2019 18:23	~ 04/07/2019 18:47	25	8401.1	25	618.7	25	121.674	25	211.231	25	3.52	2.03
SHUT_DOWN	04/07/2019 19:27	~ 04/07/2019 19:39	13	2099.5	13	53	13	0	13	13.627	13	0.23	0.00
START_UP	04/08/2019 17:48	~ 04/08/2019 18:12	25	14807.1	25	1559.6	25	194.824	25	339.536	25	5.66	3.25
SHUT_DOWN	04/08/2019 18:57	~ 04/08/2019 19:09	13	2423.3	13	92.2	13	0.269	13	10.198	13	0.17	0.00
START_UP	04/09/2019 18:23	~ 04/09/2019 18:47	25	13772.6	25	1410.2	25	213.565	25	271.056	25	4.52	3.56
SHUT_DOWN	04/09/2019 20:12	~ 04/09/2019 20:24	13	2142.2	13	57.7	13	0	13	14.464	13	0.24	0.00
START_UP	04/10/2019 09:38	~ 04/10/2019 10:02	25	8865.199	25	676.7	25	129.753	25	243.391	25	4.06	2.16
SHUT_DOWN	04/10/2019 13:19	~ 04/10/2019 13:31	13	1990.6	13	42.3	13	0.123	13	16.9	13	0.28	0.00
START_UP	04/10/2019 19:08	~ 04/10/2019 19:32	25	8081.2	25	574	25	116.163	25	165.808	25	2.76	1.94
SHUT_DOWN	04/10/2019 20:27	~ 04/10/2019 20:39	13	2088	13	50.7	13	0	13	14.544	13	0.24	0.00
START_UP	04/11/2019 18:23	~ 04/11/2019 18:47	25	10315.3	25	903.5	25	177.454	25	246.917	25	4.12	2.96
SHUT_DOWN	04/11/2019 19:27	~ 04/11/2019 19:39	13	2337.2	13	80.6	13	0	13	8.224	13	0.14	0.00
START_UP	04/12/2019 18:19	~ 04/12/2019 18:43	25	8212.2	25	593	25	243.451	25	213.508	25	3.56	4.06
SHUT_DOWN	04/12/2019 19:27	~ 04/12/2019 19:39	13	2154	13	60.1	13	1.095	13	14.85	13	0.25	0.02
START_UP	04/14/2019 09:17	~ 04/14/2019 09:41	25	3145.5	25	0	25	147.11	25	139.357	25	2.32	2.45
SHUT_DOWN	04/14/2019 09:42	~ 04/14/2019 09:44	3	376.5	3	0	3	0	3	2.722	3	0.05	0.00
START_UP	04/14/2019 18:18	~ 04/14/2019 18:42	25	11200.7	25	1031.6	25	121.59	25	218.84	25	3.65	2.03

START_UP	06/03/2019	16:52	~	06/03/2019	17:16	25	8148.201	25	574.7	25	130.874	25	219.829	25	3.66	2.18
SHUT_DOWN	06/03/2019	19:57	~	06/03/2019	20:09	13	2548	13	108.1	13	1.265	13	18.191	13	0.30	0.02
START_UP	06/04/2019	07:03	~	06/04/2019	07:27	25	8532.6	25	627.9	25	224.646	25	224.017	25	3.73	3.74
SHUT_DOWN	06/04/2019	10:11	~	06/04/2019	10:23	13	2138.6	13	56.5	13	0.682	13	14.713	13	0.25	0.01
START_UP	06/04/2019	16:52	~	06/04/2019	17:16	25	8055.801	25	569.1	25	217.854	25	188.42	25	3.14	3.63
SHUT_DOWN	06/04/2019	19:57	~	06/04/2019	20:09	13	2058.6	13	46.8	13	0.478	13	14.736	13	0.25	0.01
START_UP	06/05/2019	16:53	~	06/05/2019	17:17	25	10814	25	949.7	25	87.169	25	261.648	25	4.36	1.45
SHUT_DOWN	06/05/2019	20:12	~	06/05/2019	20:24	13	2114.3	13	53.4	13	0.684	13	17.452	13	0.29	0.01
START_UP	06/10/2019	13:56	~	06/10/2019	14:20	25	13024.5	25	1268.2	25	221.005	25	308.808	25	5.15	3.68
SHUT_DOWN	06/10/2019	20:41	~	06/10/2019	20:53	13	2203.1	13	61.5	13	1.112	13	11.471	13	0.19	0.02
START_UP	06/16/2019	17:52	~	06/16/2019	18:16	25	8167.1	25	580.3	25	129.048	25	215.84	25	3.60	2.15
SHUT_DOWN	06/16/2019	20:56	~	06/16/2019	21:08	13	2178.6	13	60.7	13	0.215	13	13.114	13	0.22	0.00
START_UP	06/24/2019	04:52	~	06/24/2019	05:16	25	11200.6	25	991.8	25	143.596	25	290.485	25	4.84	2.39
SHUT_DOWN	06/24/2019	22:57	~	06/24/2019	23:09	13	2156.9	13	60.4	13	0.411	13	14.229	13	0.24	0.01

Startup / ShutDown Report
 Generated: 7/22/2019 11:15
 StartUp/ShutDown Event Report NRG Carlsbad Unit 7
 Carlsbad Unit 7

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Unit Name: Unit7

Events	Time	Duration (min)	Total	Valid	Total	Valid	Total	Valid	Total	Valid	Event	Event
			7_GasFlow (kscfh)	Mins	7Gross_MW (MW)	Mins	7COLBHR (LBHR)	Mins	7NOXLBHR (LBHR)	Mins	Nox Lbs	CO Lbs
START_UP	04/01/2019 04:53 ~ 04/01/2019 05:17	25	8821.8	25	698.8	25	88.303	25	289.231	25	4.82	1.47
SHUT_DOWN	04/01/2019 07:57 ~ 04/01/2019 08:09	13	2110.8	13	59.6	13	0.762	13	9.145	13	0.15	0.01
START_UP	04/01/2019 09:37 ~ 04/01/2019 10:01	25	7871	25	566.4	25	106.59	25	93.972	25	1.57	1.78
SHUT_DOWN	04/01/2019 22:57 ~ 04/01/2019 23:09	13	2103.8	13	58.7	13	0.78	13	8.765	13	0.15	0.01
START_UP	04/02/2019 04:53 ~ 04/02/2019 05:17	25	8121.1	25	596.4	25	65.384	25	247.368	25	4.12	1.09
SHUT_DOWN	04/02/2019 05:59 ~ 04/02/2019 06:11	13	1850.3	13	26.7	13	0.501	13	8.159	13	0.14	0.01
START_UP	04/02/2019 06:52 ~ 04/02/2019 07:16	25	8718.898	25	688.3	25	67.109	25	108.991	25	1.82	1.12
SHUT_DOWN	04/02/2019 10:57 ~ 04/02/2019 11:09	13	2136.9	13	61	13	0.721	13	9.127	13	0.15	0.01
START_UP	04/02/2019 14:37 ~ 04/02/2019 15:01	25	8032.8	25	580.8	25	80.655	25	200.835	25	3.35	1.34
SHUT_DOWN	04/02/2019 20:58 ~ 04/02/2019 21:10	13	1995.6	13	44.5	13	0.812	13	7.609	13	0.13	0.01
START_UP	04/03/2019 05:23 ~ 04/03/2019 05:47	25	16236.7	25	1765.5	25	60	25	462	25	7.70	1.00
SHUT_DOWN	04/03/2019 10:12 ~ 04/03/2019 10:24	13	2139	13	60.3	13	0	13	8.88	13	0.15	0.00
START_UP	04/03/2019 11:07 ~ 04/03/2019 11:31	25	13596.9	25	1399	25	66	25	150	1	2.50	1.10
SHUT_DOWN	04/03/2019 15:57 ~ 04/03/2019 16:09	13	2179	13	63.7	13	0	13	6.54	13	0.11	0.00
START_UP	04/03/2019 17:22 ~ 04/03/2019 17:46	25	9592.5	25	805.2	25	78	25	102	25	1.70	1.30
SHUT_DOWN	04/03/2019 20:42 ~ 04/03/2019 20:54	13	2217.9	13	69.2	13	0	13	6.54	13	0.11	0.00
START_UP	04/04/2019 05:08 ~ 04/04/2019 05:32	25	13494.8	25	1369.4	25	68.122	25	383.729	25	6.40	1.14
SHUT_DOWN	04/04/2019 07:42 ~ 04/04/2019 07:54	13	2306.9	13	83.1	13	1.141	13	5.654	13	0.09	0.02
START_UP	04/04/2019 08:37 ~ 04/04/2019 09:01	25	10887.5	25	996.6	25	16.171	25	134.742	25	2.25	0.27
SHUT_DOWN	04/04/2019 09:58 ~ 04/04/2019 10:10	13	2556.5	13	115.7	13	0.638	13	8.091	13	0.13	0.01
START_UP	04/04/2019 10:59 ~ 04/04/2019 11:23	25	10344.6	25	902.8	25	13.861	25	102.711	25	1.71	0.23
SHUT_DOWN	04/04/2019 13:57 ~ 04/04/2019 14:09	13	2279.2	13	78.1	13	0.385	13	9.746	13	0.16	0.01
START_UP	04/04/2019 18:03 ~ 04/04/2019 18:27	25	12699.3	25	1238.4	25	96.237	25	239.391	25	3.99	1.60
SHUT_DOWN	04/04/2019 19:12 ~ 04/04/2019 19:24	13	2132.7	13	57.5	13	0.427	13	14.685	13	0.24	0.01
START_UP	04/05/2019 05:53 ~ 04/05/2019 06:17	25	12460.2	25	1210.1	25	71.378	25	305.662	25	5.09	1.19
SHUT_DOWN	04/05/2019 15:57 ~ 04/05/2019 16:09	13	2168.6	13	63	13	0.795	13	9.27	13	0.15	0.01
START_UP	04/06/2019 04:53 ~ 04/06/2019 05:17	25	8078.5	25	574.2	25	76.458	25	272.303	25	4.54	1.27
SHUT_DOWN	04/06/2019 22:57 ~ 04/06/2019 23:09	13	2092.1	13	53.3	13	1.033	13	9.602	13	0.16	0.02
START_UP	04/07/2019 08:38 ~ 04/07/2019 09:02	25	11416.2	25	1040.8	25	63.258	25	330.291	25	5.50	1.05
SHUT_DOWN	04/07/2019 15:15 ~ 04/07/2019 15:27	13	2203.8	13	69.2	13	1.189	13	5.45	13	0.09	0.02
START_UP	04/07/2019 18:22 ~ 04/07/2019 18:46	25	8666.4	25	658.6	25	103.904	25	237.568	25	3.96	1.73
SHUT_DOWN	04/07/2019 19:27 ~ 04/07/2019 19:39	13	2100.2	13	54	13	0.758	13	8.621	13	0.14	0.01
START_UP	04/08/2019 16:23 ~ 04/08/2019 16:47	25	13067.2	25	1287.7	25	228.684	25	330.497	25	5.51	3.81
SHUT_DOWN	04/08/2019 18:57 ~ 04/08/2019 19:09	13	2428.7	13	94.2	13	1.537	13	8.933	13	0.15	0.03
START_UP	04/09/2019 07:08 ~ 04/09/2019 07:32	25	10603.3	25	929.5	25	88.365	25	381.612	25	6.36	1.47
SHUT_DOWN	04/09/2019 09:12 ~ 04/09/2019 09:24	13	2277	13	72.8	13	0.761	13	7.952	13	0.13	0.01
START_UP	04/09/2019 10:07 ~ 04/09/2019 10:31	25	10909.6	25	965.6	25	24.874	7	46.312	7	0.77	0.41
SHUT_DOWN	04/09/2019 11:12 ~ 04/09/2019 11:24	13	2148.7	13	58.2	13	1.424	13	11.929	13	0.20	0.02

SHUT_DOWN	04/28/2019	19:42	~	04/28/2019	19:54	13	2040.1	13	48.5	13	1.001	13	8.562	13	0.14	0.02
START_UP	05/03/2019	16:48	~	05/03/2019	17:12	25	8290.8	25	605.2	25	85.776	25	297.524	25	4.96	1.43
SHUT_DOWN	05/03/2019	19:42	~	05/03/2019	19:54	13	2163.6	13	61.4	13	0.64	13	9.644	13	0.16	0.01
START_UP	05/04/2019	17:38	~	05/04/2019	18:02	25	11864	25	1110.8	25	93.852	25	302.058	25	5.03	1.56
SHUT_DOWN	05/04/2019	20:27	~	05/04/2019	20:39	13	2047.1	13	47.8	13	0.62	13	8.898	13	0.15	0.01
START_UP	05/05/2019	14:53	~	05/05/2019	15:17	25	8356.1	25	608.6	25	236.552	25	270.869	25	4.51	3.94
SHUT_DOWN	05/05/2019	15:57	~	05/05/2019	16:09	13	2097.4	13	54.5	13	0.709	13	8.909	13	0.15	0.01
START_UP	05/05/2019	17:37	~	05/05/2019	18:01	25	11324.4	25	1025	25	68.635	25	109.231	25	1.82	1.14
SHUT_DOWN	05/05/2019	20:41	~	05/05/2019	20:53	13	2288.6	13	72.8	13	0.784	13	7.611	13	0.13	0.01
START_UP	05/06/2019	06:52	~	05/06/2019	07:16	25	8179	25	586.4	25	171.516	25	261.34	25	4.36	2.86
SHUT_DOWN	05/06/2019	14:57	~	05/06/2019	15:09	13	2073.3	13	53	13	1.329	13	8.752	13	0.15	0.02
START_UP	05/06/2019	19:22	~	05/06/2019	19:46	25	8193.3	25	588.9	25	35.472	25	217.467	25	3.62	0.59
SHUT_DOWN	05/06/2019	20:27	~	05/06/2019	20:39	13	2068	13	50	13	0.429	13	8.638	13	0.14	0.01
START_UP	05/07/2019	07:23	~	05/07/2019	07:47	25	11054.4	25	991.6	25	213.407	25	288.064	25	4.80	3.56
SHUT_DOWN	05/07/2019	08:27	~	05/07/2019	08:39	13	2075	13	50.3	13	0.623	13	8.087	13	0.13	0.01
START_UP	05/08/2019	04:52	~	05/08/2019	05:16	25	8035.2	25	565.2	25	174	25	276	25	4.60	2.90
SHUT_DOWN	05/08/2019	06:41	~	05/08/2019	06:53	13	2059.2	13	47.8	13	0	0	9.36	13	0.16	0.00
START_UP	05/08/2019	10:52	~	05/08/2019	11:16	25	8138.9	25	579	25	60	25	216	25	3.60	1.00
SHUT_DOWN	05/08/2019	22:57	~	05/08/2019	23:09	13	2075.4	13	51.8	13	0.664	13	8.266	13	0.14	0.01
START_UP	05/09/2019	07:09	~	05/09/2019	07:33	25	8252.499	25	598.6	25	102.898	25	255.402	25	4.26	1.71
SHUT_DOWN	05/09/2019	08:12	~	05/09/2019	08:24	13	2150.6	13	57.8	13	0.64	13	9.203	13	0.15	0.01
START_UP	05/14/2019	04:52	~	05/14/2019	05:16	25	8312.3	25	611.6	25	191.16	25	282.584	25	4.71	3.19
SHUT_DOWN	05/14/2019	20:13	~	05/14/2019	20:25	13	2214.4	13	68.8	13	1.744	13	5.113	13	0.09	0.03
START_UP	05/15/2019	07:54	~	05/15/2019	08:18	25	19377.1	25	2184.8	25	168.361	25	462.228	25	7.70	2.81
SHUT_DOWN	05/15/2019	12:58	~	05/15/2019	13:10	13	2400.8	13	94.3	13	1.364	13	15.088	13	0.25	0.02
START_UP	05/15/2019	13:54	~	05/15/2019	14:18	25	19438.4	25	2197.7	25	89.562	25	122.056	25	2.03	1.49
SHUT_DOWN	05/15/2019	19:42	~	05/15/2019	19:54	13	2398.6	13	90.6	13	1.382	13	6.403	13	0.11	0.02
START_UP	05/16/2019	18:53	~	05/16/2019	19:17	25	14237.5	25	1438.2	25	262.107	25	304.308	25	5.07	4.37
SHUT_DOWN	05/16/2019	19:57	~	05/16/2019	20:09	13	2080.9	13	51.1	13	1.02	13	6.418	13	0.11	0.02
START_UP	05/21/2019	06:52	~	05/21/2019	07:16	25	19225.8	25	2160.3	25	244.576	25	505.61	25	8.43	4.08
SHUT_DOWN	05/21/2019	13:25	~	05/21/2019	13:37	13	2248.6	13	73.3	13	1.824	13	5.992	13	0.10	0.03
START_UP	06/04/2019	07:02	~	06/04/2019	07:26	25	8313.301	25	605.6	25	151.944	15	270.663	15	4.51	2.53
SHUT_DOWN	06/04/2019	10:11	~	06/04/2019	10:23	13	2125.2	13	56.4	13	0.026	13	8.74	13	0.15	0.00
START_UP	06/04/2019	16:52	~	06/04/2019	17:16	25	8082.798	25	571.1	25	109.245	25	235.266	25	3.92	1.82
SHUT_DOWN	06/04/2019	19:57	~	06/04/2019	20:09	13	2027.8	13	45.3	13	0.008	13	8.547	13	0.14	0.00
START_UP	06/05/2019	16:53	~	06/05/2019	17:17	25	10856.8	25	952.7	25	70.495	25	309.866	25	5.16	1.17
SHUT_DOWN	06/05/2019	20:12	~	06/05/2019	20:24	13	2156.7	13	59.7	13	0.076	13	10.495	13	0.17	0.00
START_UP	06/07/2019	15:52	~	06/07/2019	16:16	25	7938.5	25	550.5	25	174.302	25	268.46	25	4.47	2.91
SHUT_DOWN	06/07/2019	20:56	~	06/07/2019	21:08	13	2188.3	13	62	13	0.034	13	9.409	13	0.16	0.00
START_UP	06/10/2019	13:57	~	06/10/2019	14:21	25	13850.3	25	1365.9	25	60.527	25	320.89	25	5.35	1.01
SHUT_DOWN	06/10/2019	20:41	~	06/10/2019	20:53	13	2191.5	13	61.7	13	0.499	13	8.532	13	0.14	0.01

Startup / ShutDown Report
 Generated: 7/22/2019 11:15
 StartUp/ShutDown Event Report NRG Carlsbad Unit 8
 Carlsbad Unit 8

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Unit Name: Unit8

Events	Time	Duration (min)	Total			Total			Total			Event	
			8_GasFlow (kscfh)	Valid Mins	8Gross_MW (MW)	Valid Mins	8COLBHR (LBHR)	Valid Mins	8NOXLBHR (LBHR)	Valid Mins	Nox Lbs	Event CO Lbs	
START_UP	04/01/2019 06:22	~ 04/01/2019 06:46	25	9818.4	25	835.1	25	132.555	25	383.741	25	6.40	2.21
SHUT_DOWN	04/01/2019 07:57	~ 04/01/2019 08:09	13	2144	13	59.2	13	3.127	13	10.932	13	0.18	0.05
START_UP	04/01/2019 09:37	~ 04/01/2019 10:01	25	7941.8	25	567.7	25	139.851	25	78.947	25	1.32	2.33
SHUT_DOWN	04/01/2019 22:57	~ 04/01/2019 23:09	13	2102.2	13	55.6	13	2.688	13	8.752	13	0.15	0.04
START_UP	04/02/2019 04:53	~ 04/02/2019 05:17	25	8130.3	25	589.9	25	118.232	25	232.439	25	3.87	1.97
SHUT_DOWN	04/02/2019 10:57	~ 04/02/2019 11:09	13	2154.9	13	62.3	13	2.58	13	10.243	13	0.17	0.04
START_UP	04/02/2019 14:37	~ 04/02/2019 15:01	25	8063.9	25	581.5	25	130.537	25	181.229	25	3.02	2.18
SHUT_DOWN	04/02/2019 20:58	~ 04/02/2019 21:10	13	2025.9	13	44	13	2.018	13	8.921	13	0.15	0.03
START_UP	04/03/2019 05:23	~ 04/03/2019 05:47	25	16236.4	25	1751.7	25	171.85	25	468.537	25	7.81	2.86
SHUT_DOWN	04/03/2019 10:12	~ 04/03/2019 10:24	13	2159.4	13	59.9	13	2.989	13	10.717	13	0.18	0.05
START_UP	04/03/2019 11:07	~ 04/03/2019 11:31	25	13691.2	25	1402.2	25	145.107	25	154.51	25	2.58	2.42
SHUT_DOWN	04/03/2019 15:57	~ 04/03/2019 16:09	13	2178.8	13	60.7	13	2.957	13	8.015	13	0.13	0.05
START_UP	04/03/2019 17:22	~ 04/03/2019 17:46	25	9642.6	25	803.8	25	89.413	9	40.163	9	0.67	1.49
SHUT_DOWN	04/03/2019 20:42	~ 04/03/2019 20:54	13	2252.6	13	69.3	13	3.585	13	7.209	13	0.12	0.06
START_UP	04/04/2019 05:08	~ 04/04/2019 05:32	25	13503.3	25	1364.6	25	143.06	25	396.354	25	6.61	2.38
SHUT_DOWN	04/04/2019 07:43	~ 04/04/2019 07:55	13	2069.2	13	53.1	13	3.149	13	6.157	13	0.10	0.05
START_UP	04/04/2019 10:59	~ 04/04/2019 11:23	25	10398.2	25	899.5	25	100.299	25	207.452	25	3.46	1.67
SHUT_DOWN	04/04/2019 13:57	~ 04/04/2019 14:09	13	2329.8	13	80.6	13	3.578	13	11.266	13	0.19	0.06
START_UP	04/04/2019 18:03	~ 04/04/2019 18:27	25	12725.7	25	1234.5	25	162.431	25	230.742	25	3.85	2.71
SHUT_DOWN	04/04/2019 19:12	~ 04/04/2019 19:24	13	2178.3	13	59.8	13	2.68	13	11.316	13	0.19	0.04
START_UP	04/06/2019 04:53	~ 04/06/2019 05:17	25	8110.5	25	569.2	25	135.206	25	270.417	25	4.51	2.25
SHUT_DOWN	04/06/2019 22:57	~ 04/06/2019 23:09	13	2132.5	13	54.9	13	2.56	13	10.97	13	0.18	0.04
START_UP	04/08/2019 17:48	~ 04/08/2019 18:12	25	14936	25	1561.8	25	201.571	25	391.024	25	6.52	3.36
SHUT_DOWN	04/08/2019 18:57	~ 04/08/2019 19:09	13	2411.9	13	88.8	13	4.007	13	7.243	13	0.12	0.07
START_UP	04/10/2019 11:48	~ 04/10/2019 12:12	25	13583.9	25	1356.5	25	352.813	25	429.512	25	7.16	5.88
SHUT_DOWN	04/10/2019 13:19	~ 04/10/2019 13:31	13	2002.8	13	41.9	13	1.435	13	10.082	13	0.17	0.02
START_UP	04/10/2019 19:08	~ 04/10/2019 19:32	25	8163.601	25	574.2	25	101.252	25	222.521	25	3.71	1.69
SHUT_DOWN	04/10/2019 20:27	~ 04/10/2019 20:39	13	2123.9	13	52	13	2.927	13	10.326	13	0.17	0.05
START_UP	04/11/2019 18:23	~ 04/11/2019 18:47	25	10406.8	25	903.1	25	186.059	25	311.567	25	5.19	3.10
SHUT_DOWN	04/11/2019 19:27	~ 04/11/2019 19:39	13	2360.6	13	81.8	13	2.791	13	5.923	13	0.10	0.05
START_UP	04/12/2019 18:18	~ 04/12/2019 18:42	25	8059.4	25	574.6	25	231.861	25	278.246	25	4.64	3.86
SHUT_DOWN	04/12/2019 19:27	~ 04/12/2019 19:39	13	2175.7	13	60.1	13	1.483	13	10.472	13	0.17	0.02
START_UP	04/14/2019 18:18	~ 04/14/2019 18:42	25	11331.3	25	1035.7	25	153.644	25	308.099	25	5.13	2.56
SHUT_DOWN	04/14/2019 19:28	~ 04/14/2019 19:40	13	2016.1	13	42.8	13	2.712	13	7.422	13	0.12	0.05
START_UP	04/16/2019 14:23	~ 04/16/2019 14:47	25	8215.001	25	587.9	25	151.798	25	283.595	25	4.73	2.53
SHUT_DOWN	04/16/2019 15:27	~ 04/16/2019 15:39	13	2159.9	13	58.1	13	3.018	13	10.62	13	0.18	0.05
START_UP	04/16/2019 19:47	~ 04/16/2019 20:11	25	8705.199	25	658.4	25	218.654	25	244.24	25	4.07	3.64
SHUT_DOWN	04/16/2019 21:12	~ 04/16/2019 21:24	13	2149.8	13	56.6	13	3.245	13	10.199	13	0.17	0.05

START_UP	04/17/2019	18:18	~	04/17/2019	18:42	25	16548.6	25	1774.6	25	164.043	25	390.438	25	6.51	2.73
SHUT_DOWN	04/17/2019	19:57	~	04/17/2019	20:09	13	2149.9	13	56.5	13	3.034	13	9.779	13	0.16	0.05
START_UP	04/18/2019	17:22	~	04/18/2019	17:46	25	8267.899	25	602.4	25	241.67	25	277.649	25	4.63	4.03
SHUT_DOWN	04/18/2019	19:44	~	04/18/2019	19:56	13	2996.2	13	165.3	13	15.845	13	12.854	13	0.21	0.26
START_UP	04/19/2019	11:48	~	04/19/2019	12:12	25	12601.9	25	1197.5	25	128.742	25	328.528	25	5.48	2.15
SHUT_DOWN	04/19/2019	12:57	~	04/19/2019	13:09	13	2180.7	13	62.5	13	4.415	13	8.358	13	0.14	0.07
START_UP	04/20/2019	07:48	~	04/20/2019	08:12	25	9527.7	25	759.6	25	117.864	17	280.804	17	4.68	1.96
SHUT_DOWN	04/20/2019	08:57	~	04/20/2019	09:09	13	2315	13	77.1	13	4.48	13	10.665	13	0.18	0.07
START_UP	04/20/2019	12:47	~	04/20/2019	13:11	25	9205	25	717.1	25	123.186	25	230.943	25	3.85	2.05
SHUT_DOWN	04/20/2019	13:57	~	04/20/2019	14:09	13	2163.5	13	59.3	13	2.051	13	10.769	13	0.18	0.03
START_UP	04/24/2019	17:50	~	04/24/2019	18:14	25	18081.2	25	2017.6	25	285.814	25	498.118	25	8.30	4.76
SHUT_DOWN	04/24/2019	18:57	~	04/24/2019	19:09	13	2056.3	13	43.6	13	1.506	13	9.424	13	0.16	0.03
START_UP	04/25/2019	16:53	~	04/25/2019	17:17	25	7953.1	25	552	25	310.766	25	254.917	25	4.25	5.18
SHUT_DOWN	04/25/2019	20:12	~	04/25/2019	20:24	13	2066.5	13	48.2	13	1.483	13	10.107	13	0.17	0.02
START_UP	04/28/2019	18:38	~	04/28/2019	19:02	25	9041.7	25	697.3	25	93.523	25	314.928	25	5.25	1.56
SHUT_DOWN	04/28/2019	19:42	~	04/28/2019	19:54	13	2071	13	48	13	3.216	13	9.792	13	0.16	0.05
START_UP	04/30/2019	18:37	~	04/30/2019	19:01	25	8093.901	25	579.5	25	224.355	25	281.792	25	4.70	3.74
SHUT_DOWN	04/30/2019	19:42	~	04/30/2019	19:54	13	2095.1	13	51.7	13	3.579	13	9.797	13	0.16	0.06
START_UP	05/01/2019	11:52	~	05/01/2019	12:16	25	9190.399	25	722.5	25	240.59	25	300.134	25	5.00	4.01
SHUT_DOWN	05/01/2019	13:44	~	05/01/2019	13:56	13	2276.8	13	75.9	13	4.066	13	11.224	13	0.19	0.07
START_UP	05/01/2019	16:17	~	05/01/2019	16:41	25	10855	25	976	25	104.368	25	126.607	25	2.11	1.74
SHUT_DOWN	05/01/2019	22:57	~	05/01/2019	23:09	13	2087.4	13	54.7	13	2.806	13	9.862	13	0.16	0.05
START_UP	05/03/2019	18:32	~	05/03/2019	18:56	25	8419.699	25	624.3	25	194.735	25	288.247	25	4.80	3.25
SHUT_DOWN	05/03/2019	19:42	~	05/03/2019	19:54	13	2197.5	13	61.6	13	3.574	13	9.311	13	0.16	0.06
START_UP	05/04/2019	18:48	~	05/04/2019	19:12	25	8164.799	25	587.4	25	166.558	25	265.303	25	4.42	2.78
SHUT_DOWN	05/04/2019	20:27	~	05/04/2019	20:39	13	2077.9	13	49.4	13	1.43	13	9.764	13	0.16	0.02
START_UP	05/05/2019	10:57	~	05/05/2019	11:21	25	3110.6	25	0	25	245.22	25	158.134	25	2.64	4.09
SHUT_DOWN	05/05/2019	11:22	~	05/05/2019	11:24	3	377.8	3	0	3	0.135	3	1.166	3	0.02	0.00
START_UP	05/05/2019	18:48	~	05/05/2019	19:12	25	9185.701	25	711.7	25	73.763	25	274.286	25	4.57	1.23
SHUT_DOWN	05/05/2019	20:42	~	05/05/2019	20:54	13	2012.4	13	41.1	13	1.9	13	6.928	13	0.12	0.03
START_UP	05/11/2019	18:12	~	05/11/2019	18:36	25	10543.4	25	914.5	25	195.111	25	301	25	5.02	3.25
SHUT_DOWN	05/11/2019	18:42	~	05/11/2019	18:54	13	2517.2	13	102.1	13	1.752	13	10.016	13	0.17	0.03
START_UP	05/11/2019	19:18	~	05/11/2019	19:42	25	17397	25	1913.8	25	13.844	25	152.84	25	2.55	0.23
SHUT_DOWN	05/11/2019	20:20	~	05/11/2019	20:32	13	2307.1	13	75	13	1.925	13	6.061	13	0.10	0.03
START_UP	05/14/2019	09:08	~	05/14/2019	09:32	25	11515.4	25	1070	25	235.073	25	341.292	25	5.69	3.92
SHUT_DOWN	05/14/2019	20:13	~	05/14/2019	20:25	13	2228.2	13	68.3	13	1.747	13	6.19	13	0.10	0.03
START_UP	05/14/2019	21:07	~	05/14/2019	21:31	25	8358.2	25	609.5	25	27.8	25	43.375	25	0.72	0.46
SHUT_DOWN	05/14/2019	22:12	~	05/14/2019	22:24	13	2074.8	13	49.8	13	1.052	13	7.766	13	0.13	0.02
START_UP	05/15/2019	06:38	~	05/15/2019	07:02	25	14809.6	25	1532.3	25	101.778	25	293.972	25	4.90	1.70
SHUT_DOWN	05/15/2019	12:58	~	05/15/2019	13:10	13	2434.8	13	95.8	13	1.373	13	18.744	13	0.31	0.02
START_UP	05/15/2019	13:54	~	05/15/2019	14:18	25	19414	25	2207.6	25	60.921	18	122.972	18	2.05	1.02
SHUT_DOWN	05/15/2019	19:42	~	05/15/2019	19:54	13	2415	13	90.8	13	1.479	13	7.483	13	0.12	0.02
START_UP	05/16/2019	18:53	~	05/16/2019	19:17	25	14152.8	25	1434.4	25	62.231	25	311.813	25	5.20	1.04
SHUT_DOWN	05/16/2019	19:57	~	05/16/2019	20:09	13	2095.7	13	51.2	13	0.004	13	8.549	13	0.14	0.00
START_UP	05/21/2019	06:52	~	05/21/2019	07:16	25	19624.7	25	2220.6	25	206.748	25	529.235	25	8.82	3.45
SHUT_DOWN	05/21/2019	13:25	~	05/21/2019	13:37	13	2227.3	13	68.3	13	0	13	8.274	13	0.14	0.00
START_UP	05/29/2019	04:52	~	05/29/2019	05:16	25	7801.5	25	544.9	25	283.618	25	266.425	25	4.44	4.73
SHUT_DOWN	05/29/2019	16:12	~	05/29/2019	16:24	13	2573.3	13	110.9	13	0.295	13	8.28	13	0.14	0.00
START_UP	06/04/2019	05:52	~	06/04/2019	06:16	25	8112.3	25	569.3	25	126.345	25	264.047	25	4.40	2.11
SHUT_DOWN	06/04/2019	10:11	~	06/04/2019	10:23	13	2158.8	13	58.9	13	0	13	9.381	13	0.16	0.00
START_UP	06/04/2019	16:52	~	06/04/2019	17:16	25	8297.7	25	588.9	25	28.422	25	234.551	25	3.91	0.47

SHUT_DOWN	06/04/2019	19:57	~	06/04/2019	20:09	13	2029.6	13	44.3	13	0	13	8.674	13	0.14	0.00
START_UP	06/05/2019	16:54	~	06/05/2019	17:18	25	10788.1	25	952.4	25	228.129	25	305.302	25	5.09	3.80
SHUT_DOWN	06/05/2019	20:12	~	06/05/2019	20:24	13	2155.2	13	58.9	13	0	13	11.667	13	0.19	0.00
START_UP	06/10/2019	13:57	~	06/10/2019	14:21	25	13718.3	25	1357.5	25	255.483	25	395.843	25	6.60	4.26
SHUT_DOWN	06/10/2019	20:41	~	06/10/2019	20:53	13	2202.9	13	62	13	0.817	13	8.299	13	0.14	0.01
START_UP	06/14/2019	14:52	~	06/14/2019	15:16	25	8104	25	574.7	25	212.696	25	281.967	25	4.70	3.54
SHUT_DOWN	06/14/2019	21:56	~	06/14/2019	22:08	13	2169.6	13	60.7	13	0	13	9.363	13	0.16	0.00
START_UP	06/15/2019	14:52	~	06/15/2019	15:16	25	8229.3	25	591.4	25	113.863	11	259.332	25	4.32	1.90
SHUT_DOWN	06/15/2019	20:56	~	06/15/2019	21:08	13	2116.3	13	54.1	13	0	10	8.168	13	0.14	0.00
START_UP	06/22/2019	04:52	~	06/22/2019	05:16	25	8567.4	25	624.1	25	82.275	25	284.456	25	4.74	1.37
SHUT_DOWN	06/22/2019	22:56	~	06/22/2019	23:08	13	2155.9	13	57.7	13	0.018	13	8.481	13	0.14	0.00
START_UP	06/23/2019	11:52	~	06/23/2019	12:16	25	8295.299	25	590.6	25	124.515	25	257.977	25	4.30	2.08
SHUT_DOWN	06/23/2019	22:57	~	06/23/2019	23:09	13	2054.1	13	47	13	0	13	9.066	13	0.15	0.00
START_UP	06/29/2019	16:22	~	06/29/2019	16:46	25	10099.9	25	853.3	25	189.789	25	305.142	25	5.09	3.16
SHUT_DOWN	06/29/2019	20:26	~	06/29/2019	20:38	13	2197.2	13	64	13	0	13	7.657	13	0.13	0.00
START_UP	06/30/2019	15:18	~	06/30/2019	15:42	25	8054.501	25	568.4	25	225.809	25	263.526	25	4.39	3.76
SHUT_DOWN	06/30/2019	19:57	~	06/30/2019	20:09	13	2324.6	13	82.9	13	0.177	13	6.022	13	0.10	0.00

Startup / ShutDown Report
 Generated: 7/22/2019 11:15
 StartUp/ShutDown Event Report NRG Carlsbad Unit 9
 Carlsbad Unit 9

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008

Period Start: 4/1/2019 00:00
 Period End: 6/30/2019 23:59
 Unit Name: Unit9

Events	Time	Duration (min)	Total			Total			Total			Event	
			9_GasFlow (kscfh)	Valid Mins	9Gross_MW (MW)	Valid Mins	9COLBHR (LBHR)	Valid Mins	9NOXLBHR (LBHR)	Valid Mins	Nox Lbs	Event CO Lbs	
START_UP	04/01/2019 04:53	~ 04/01/2019 05:17	25	8742.6	25	693.2	25	180.63	25	255.746	25	4.26	3.01
SHUT_DOWN	04/01/2019 07:57	~ 04/01/2019 08:09	13	2151.8	13	63.1	13	0	13	13.407	13	0.22	0.00
START_UP	04/01/2019 09:37	~ 04/01/2019 10:01	25	7926.1	25	571.6	25	134.783	25	75.973	25	1.27	2.25
SHUT_DOWN	04/01/2019 22:57	~ 04/01/2019 23:09	13	2117.1	13	60.2	13	0	13	9.43	13	0.16	0.00
START_UP	04/02/2019 04:53	~ 04/02/2019 05:17	25	8078.899	25	590.7	25	140.182	25	225.595	25	3.76	2.34
SHUT_DOWN	04/02/2019 20:58	~ 04/02/2019 21:10	13	2081.1	13	53.7	13	0	13	12.428	13	0.21	0.00
START_UP	04/03/2019 05:23	~ 04/03/2019 05:47	25	15961	25	1736.4	25	148.84	25	410.295	25	6.84	2.48
SHUT_DOWN	04/03/2019 10:12	~ 04/03/2019 10:24	13	2156.1	13	61.1	13	0	13	12.211	13	0.20	0.00
START_UP	04/03/2019 11:07	~ 04/03/2019 11:31	25	13652.3	25	1406.2	25	11.731	25	148.252	25	2.47	0.20
SHUT_DOWN	04/03/2019 15:57	~ 04/03/2019 16:09	13	2214.1	13	66.6	13	0	10	7.52	10	0.13	0.00
START_UP	04/03/2019 17:22	~ 04/03/2019 17:46	25	9631.299	25	809.1	25	109.111	25	101.044	25	1.68	1.82
SHUT_DOWN	04/03/2019 20:42	~ 04/03/2019 20:54	13	2225.3	13	69.1	13	0	13	9.673	13	0.16	0.00
START_UP	04/04/2019 05:08	~ 04/04/2019 05:32	25	13452.9	25	1373	25	128.098	25	340.508	25	5.68	2.13
SHUT_DOWN	04/04/2019 07:42	~ 04/04/2019 07:54	13	2340.9	13	85.9	13	0	13	8.91	13	0.15	0.00
START_UP	04/04/2019 10:59	~ 04/04/2019 11:23	25	10350.7	25	903.2	25	108.461	25	192.972	25	3.22	1.81
SHUT_DOWN	04/04/2019 13:58	~ 04/04/2019 14:10	13	2016.2	13	46.8	13	0	13	12.972	13	0.22	0.00
START_UP	04/04/2019 18:03	~ 04/04/2019 18:27	25	12710.5	25	1239.7	25	129.392	25	214.48	25	3.57	2.16
SHUT_DOWN	04/04/2019 19:12	~ 04/04/2019 19:24	13	2176.3	13	61.1	13	0	13	15.677	13	0.26	0.00
START_UP	04/05/2019 05:53	~ 04/05/2019 06:17	25	12373.3	25	1203.8	25	147.553	25	264.708	25	4.41	2.46
SHUT_DOWN	04/05/2019 15:57	~ 04/05/2019 16:09	13	2191.2	13	65.7	13	0	13	11.843	13	0.20	0.00
START_UP	04/06/2019 04:53	~ 04/06/2019 05:17	25	8021.101	25	568.5	25	172.499	25	238.156	25	3.97	2.87
SHUT_DOWN	04/06/2019 22:57	~ 04/06/2019 23:09	13	2146.7	13	59.1	13	0	13	13.417	13	0.22	0.00
START_UP	04/07/2019 10:38	~ 04/07/2019 11:02	25	9082.5	25	707.7	25	118.897	25	276.711	25	4.61	1.98
SHUT_DOWN	04/07/2019 15:15	~ 04/07/2019 15:27	13	2207	13	68	13	0	13	6.665	13	0.11	0.00
START_UP	04/07/2019 18:22	~ 04/07/2019 18:46	25	8729.101	25	665.1	25	119.443	25	227.29	25	3.79	1.99
SHUT_DOWN	04/07/2019 19:27	~ 04/07/2019 19:39	13	2111	13	54.7	13	0	13	11.037	13	0.18	0.00
START_UP	04/08/2019 17:48	~ 04/08/2019 18:12	25	14824.4	25	1563.1	25	189.305	25	340.04	25	5.67	3.16
SHUT_DOWN	04/08/2019 18:57	~ 04/08/2019 19:09	13	2442.5	13	94.5	13	0	13	9.08	13	0.15	0.00
START_UP	04/09/2019 07:08	~ 04/09/2019 07:32	25	10480.1	25	913.7	25	142.584	11	305.399	11	5.09	2.38
SHUT_DOWN	04/09/2019 09:12	~ 04/09/2019 09:24	13	2283.2	13	72.9	13	0	13	10.611	13	0.18	0.00
START_UP	04/09/2019 18:23	~ 04/09/2019 18:47	25	13872.2	25	1424.7	25	144.605	25	287.398	25	4.79	2.41
SHUT_DOWN	04/09/2019 20:12	~ 04/09/2019 20:24	13	2143.7	13	58	13	0	13	13.569	13	0.23	0.00
START_UP	04/10/2019 09:38	~ 04/10/2019 10:02	25	8889.6	25	680.1	25	147.188	25	283.971	25	4.73	2.45
SHUT_DOWN	04/10/2019 13:19	~ 04/10/2019 13:31	13	2013	13	42.9	13	0	13	12.468	13	0.21	0.00
START_UP	04/10/2019 19:08	~ 04/10/2019 19:32	25	8096	25	574.8	25	136.393	25	211.961	25	3.53	2.27
SHUT_DOWN	04/10/2019 20:27	~ 04/10/2019 20:39	13	2103	13	52.9	13	0	13	13.04	13	0.22	0.00
START_UP	04/11/2019 05:53	~ 04/11/2019 06:17	25	8205.801	25	583.9	25	133.437	25	261.814	25	4.36	2.22
SHUT_DOWN	04/11/2019 06:57	~ 04/11/2019 07:09	13	2170.8	13	59.6	13	0	13	14.571	13	0.24	0.00

START_UP	04/12/2019	06:48	~	04/12/2019	07:12	25	9275.399	25	743.6	25	176.063	25	335.828	25	5.60	2.93
SHUT_DOWN	04/12/2019	14:57	~	04/12/2019	15:09	13	2166.9	13	61.4	13	0	13	10.464	13	0.17	0.00
START_UP	04/12/2019	18:18	~	04/12/2019	18:42	25	8226.899	25	596.6	25	208.674	25	178.427	25	2.97	3.48
SHUT_DOWN	04/12/2019	19:27	~	04/12/2019	19:39	13	2151.8	13	60	13	0	13	13.257	13	0.22	0.00
START_UP	04/14/2019	07:53	~	04/14/2019	08:17	25	8205.2	25	607.7	25	202.621	25	264.483	25	4.41	3.38
SHUT_DOWN	04/14/2019	14:57	~	04/14/2019	15:09	13	2096.4	13	55.8	13	0	13	11.547	13	0.19	0.00
START_UP	04/14/2019	18:17	~	04/14/2019	18:41	25	11061.5	25	1012.4	25	126.092	25	200.708	25	3.35	2.10
SHUT_DOWN	04/14/2019	19:28	~	04/14/2019	19:40	13	2016.2	13	43.3	13	0	13	8.992	13	0.15	0.00
START_UP	04/15/2019	15:23	~	04/15/2019	15:47	25	11538.6	25	1061.8	25	145.372	25	293.219	25	4.89	2.42
SHUT_DOWN	04/15/2019	19:28	~	04/15/2019	19:40	13	2494.1	13	103.6	13	0	13	13.655	13	0.23	0.00
START_UP	04/16/2019	14:23	~	04/16/2019	14:47	25	8175.4	25	591.4	25	170.456	25	246.366	25	4.11	2.84
SHUT_DOWN	04/16/2019	15:27	~	04/16/2019	15:39	13	2127.6	13	57.6	13	0	13	11.773	13	0.20	0.00
START_UP	04/16/2019	19:47	~	04/16/2019	20:11	25	8674.101	25	662.7	25	181.022	25	227.528	25	3.79	3.02
SHUT_DOWN	04/16/2019	21:12	~	04/16/2019	21:24	13	2090.6	13	53.3	13	0	13	12.676	13	0.21	0.00
START_UP	04/17/2019	18:18	~	04/17/2019	18:42	25	16578.9	25	1794.7	25	133.288	25	336.254	25	5.60	2.22
SHUT_DOWN	04/17/2019	19:57	~	04/17/2019	20:09	13	2113.1	13	54.6	13	0	13	11.045	13	0.18	0.00
START_UP	04/18/2019	05:53	~	04/18/2019	06:17	25	8346.8	25	605.4	25	142.829	25	251.458	25	4.19	2.38
SHUT_DOWN	04/18/2019	06:57	~	04/18/2019	07:09	13	2176.2	13	60.7	13	0	13	11.368	13	0.19	0.00
START_UP	04/18/2019	15:38	~	04/18/2019	16:02	25	8290.3	25	604.7	25	179.667	25	242.198	25	4.04	2.99
SHUT_DOWN	04/18/2019	19:44	~	04/18/2019	19:56	13	2960.8	13	161.9	13	0	13	11.513	13	0.19	0.00
START_UP	04/19/2019	10:38	~	04/19/2019	11:02	25	9014.101	25	699.7	25	138.244	25	262.673	25	4.38	2.30
SHUT_DOWN	04/19/2019	17:57	~	04/19/2019	18:09	13	2527.2	13	108.5	13	0	13	9.264	13	0.15	0.00
START_UP	04/20/2019	06:38	~	04/20/2019	07:02	25	8308.5	25	605.6	25	151.543	25	236.267	25	3.94	2.53
SHUT_DOWN	04/20/2019	08:57	~	04/20/2019	09:09	13	2257.1	13	72.8	13	0	13	12.053	13	0.20	0.00
START_UP	04/20/2019	12:47	~	04/20/2019	13:11	25	9202.602	25	721	25	133.848	25	210.158	25	3.50	2.23
SHUT_DOWN	04/20/2019	13:57	~	04/20/2019	14:09	13	2167	13	61.6	13	0	13	13.248	13	0.22	0.00
START_UP	04/20/2019	21:49	~	04/20/2019	22:13	25	3099.9	25	0	25	159.956	25	165.144	25	2.75	2.67
SHUT_DOWN	04/20/2019	22:14	~	04/20/2019	22:16	3	375.4	3	0	3	0	3	1.939	3	0.03	0.00
START_UP	04/26/2019	18:53	~	04/26/2019	19:17	25	8262.799	25	594.9	25	112.107	25	302.757	25	5.05	1.87
SHUT_DOWN	04/26/2019	19:57	~	04/26/2019	20:09	13	2123.1	13	54.7	13	0	13	12.148	13	0.20	0.00
START_UP	04/28/2019	18:38	~	04/28/2019	19:02	25	9025.799	25	699.9	25	140.819	23	310.546	23	5.18	2.35
SHUT_DOWN	04/28/2019	19:42	~	04/28/2019	19:54	13	2070.2	13	50.4	13	0.248	13	11.225	13	0.19	0.00
START_UP	04/29/2019	04:53	~	04/29/2019	05:17	25	9560.4	25	765.1	25	104.192	25	271.42	25	4.52	1.74
SHUT_DOWN	04/29/2019	07:57	~	04/29/2019	08:09	13	2117.8	13	55.4	13	0.156	13	7.438	13	0.12	0.00
START_UP	04/29/2019	15:53	~	04/29/2019	16:17	25	10447	25	897.4	25	264.639	25	282.669	25	4.71	4.41
SHUT_DOWN	04/29/2019	18:57	~	04/29/2019	19:09	13	2110.8	13	54.8	13	0	13	11.402	13	0.19	0.00
START_UP	04/30/2019	05:53	~	04/30/2019	06:17	25	8653.8	25	644	25	257.008	25	255.191	25	4.25	4.28
SHUT_DOWN	04/30/2019	09:57	~	04/30/2019	10:09	13	2122.2	13	54.4	13	0	13	11.84	13	0.20	0.00
START_UP	04/30/2019	17:23	~	04/30/2019	17:47	25	8666.601	25	644.7	25	105.182	25	239.582	25	3.99	1.75
SHUT_DOWN	04/30/2019	19:42	~	04/30/2019	19:54	13	2099.4	13	53.3	13	0.613	12	10.84	12	0.18	0.01
START_UP	05/01/2019	04:53	~	05/01/2019	05:17	25	8520.3	25	627.1	25	120.141	25	251.186	25	4.19	2.00
SHUT_DOWN	05/01/2019	07:57	~	05/01/2019	08:09	13	2118.4	13	54.7	13	0	13	12.574	13	0.21	0.00
START_UP	05/01/2019	11:52	~	05/01/2019	12:16	25	9454.801	25	747.5	25	97.78	25	208.183	25	3.47	1.63
SHUT_DOWN	05/01/2019	22:57	~	05/01/2019	23:09	13	2102.8	13	56.8	13	0	13	12.997	13	0.22	0.00
START_UP	05/02/2019	04:53	~	05/02/2019	05:17	25	8255.601	25	608.5	25	115.706	25	230.007	25	3.83	1.93
SHUT_DOWN	05/02/2019	17:58	~	05/02/2019	18:10	13	2960.5	13	168	13	0.866	13	15.468	13	0.26	0.01
START_UP	05/02/2019	18:52	~	05/02/2019	19:16	25	10465.4	25	917.7	25	11.306	25	107.394	25	1.79	0.19
SHUT_DOWN	05/02/2019	22:57	~	05/02/2019	23:09	13	2085.4	13	53.3	13	0	13	13.973	13	0.23	0.00
START_UP	05/04/2019	18:48	~	05/04/2019	19:12	25	8204.301	25	591.7	25	164.084	25	260.766	25	4.35	2.73
SHUT_DOWN	05/04/2019	20:27	~	05/04/2019	20:39	13	2117.7	13	54	13	0	13	12.318	13	0.21	0.00
START_UP	05/05/2019	18:48	~	05/05/2019	19:12	25	9256.5	25	721.1	25	243.636	25	292.128	25	4.87	4.06

SHUT_DOWN	05/05/2019	20:42	~	05/05/2019	20:54	13	2054.8	13	44.1	13	0	13	9.757	13	0.16	0.00
START_UP	05/06/2019	06:52	~	05/06/2019	07:16	25	8235	25	590.1	25	220.099	25	248.342	25	4.14	3.67
SHUT_DOWN	05/06/2019	07:59	~	05/06/2019	08:11	13	2340.3	13	64.8	13	0	13	31.762	13	0.53	0.00
START_UP	05/06/2019	19:22	~	05/06/2019	19:46	25	7992.899	25	568.1	25	193.728	25	250.05	25	4.17	3.23
SHUT_DOWN	05/06/2019	20:27	~	05/06/2019	20:39	13	2041.2	13	45.2	13	0	13	11.193	13	0.19	0.00
START_UP	05/07/2019	07:23	~	05/07/2019	07:47	25	11063.3	25	990.9	25	107.857	25	278.114	25	4.64	1.80
SHUT_DOWN	05/07/2019	08:27	~	05/07/2019	08:39	13	2098.7	13	51.3	13	0	13	11.238	13	0.19	0.00
START_UP	05/07/2019	10:23	~	05/07/2019	10:47	25	8336.4	25	608.9	25	151.58	25	89.466	25	1.49	2.53
SHUT_DOWN	05/07/2019	11:42	~	05/07/2019	11:54	13	2102.9	13	50.3	13	0	13	11.849	13	0.20	0.00
START_UP	05/07/2019	13:07	~	05/07/2019	13:31	25	8536.2	25	622.5	25	220.309	25	87.488	25	1.46	3.67
SHUT_DOWN	05/07/2019	14:42	~	05/07/2019	14:54	13	2106.8	13	50.4	13	0	13	10.413	13	0.17	0.00
START_UP	05/08/2019	04:52	~	05/08/2019	05:16	25	8087.6	25	568.4	25	220.862	25	255.347	25	4.26	3.68
SHUT_DOWN	05/08/2019	08:57	~	05/08/2019	09:09	13	2073.2	13	46.6	13	0	13	11.612	13	0.19	0.00
START_UP	05/08/2019	10:52	~	05/08/2019	11:16	25	8246.601	25	587.4	25	238.981	25	80.967	25	1.35	3.98
SHUT_DOWN	05/08/2019	22:57	~	05/08/2019	23:09	13	2093.8	13	52	13	0	13	11.169	13	0.19	0.00
START_UP	05/09/2019	05:52	~	05/09/2019	06:16	25	8259.6	25	601.8	25	214.387	25	227.56	25	3.79	3.57
SHUT_DOWN	05/09/2019	08:12	~	05/09/2019	08:24	13	2170.9	13	58.5	13	0	13	12.027	13	0.20	0.00
START_UP	05/14/2019	09:08	~	05/14/2019	09:32	25	11820.3	25	1094	25	26.861	25	320.532	25	5.34	0.45
SHUT_DOWN	05/14/2019	20:13	~	05/14/2019	20:25	13	2275.3	13	73.2	13	0.679	13	7.541	13	0.13	0.01
START_UP	05/14/2019	21:07	~	05/14/2019	21:31	25	8380.801	25	608	25	17.326	25	67.867	25	1.13	0.29
SHUT_DOWN	05/14/2019	22:12	~	05/14/2019	22:24	13	2074.3	13	48.7	13	0	13	11.626	13	0.19	0.00
START_UP	05/15/2019	07:54	~	05/15/2019	08:18	25	19367.7	25	2189.9	25	164.577	25	422.787	25	7.05	2.74
SHUT_DOWN	05/15/2019	12:58	~	05/15/2019	13:10	13	2424.6	13	93.5	13	0	13	18.389	13	0.31	0.00
START_UP	05/15/2019	13:54	~	05/15/2019	14:18	25	19501.5	25	2208.3	25	28.158	25	146.219	25	2.44	0.47
SHUT_DOWN	05/15/2019	19:42	~	05/15/2019	19:54	13	2394.2	13	87.1	13	0.172	13	7.958	13	0.13	0.00
START_UP	05/16/2019	18:53	~	05/16/2019	19:17	25	14290.9	25	1445.1	25	115.126	25	287.37	25	4.79	1.92
SHUT_DOWN	05/16/2019	19:57	~	05/16/2019	20:09	13	2086.4	13	49.9	13	0	13	10.263	13	0.17	0.00
START_UP	05/21/2019	06:52	~	05/21/2019	07:16	25	19323	25	2176.6	25	320.068	25	486.606	25	8.11	5.33
SHUT_DOWN	05/21/2019	13:25	~	05/21/2019	13:37	13	2233.4	13	69.2	13	0.521	13	8.572	13	0.14	0.01
START_UP	06/04/2019	08:47	~	06/04/2019	09:11	25	10334.7	25	886.2	25	220.682	25	376.324	25	6.27	3.68
SHUT_DOWN	06/04/2019	10:11	~	06/04/2019	10:23	13	2150.7	13	56.6	13	0.45	13	10.693	13	0.18	0.01
START_UP	06/04/2019	16:52	~	06/04/2019	17:16	25	8167.299	25	576.4	25	151.847	12	196.782	12	3.28	2.53
SHUT_DOWN	06/04/2019	19:57	~	06/04/2019	20:09	13	2042.2	13	44.7	13	0.424	13	10.771	13	0.18	0.01
START_UP	06/05/2019	16:54	~	06/05/2019	17:18	25	10818.4	25	954.1	25	220.186	25	277.424	25	4.62	3.67
SHUT_DOWN	06/05/2019	20:12	~	06/05/2019	20:24	13	2157.8	13	57.4	13	0.499	13	11.766	13	0.20	0.01
START_UP	06/06/2019	16:52	~	06/06/2019	17:16	25	9132.301	25	708.7	25	229.66	25	315.829	25	5.26	3.83
SHUT_DOWN	06/06/2019	19:57	~	06/06/2019	20:09	13	2140.3	13	54.1	13	0.337	13	11.089	13	0.18	0.01
START_UP	06/10/2019	13:37	~	06/10/2019	14:01	25	11752.3	25	1076.7	25	199.906	25	276.041	25	4.60	3.33
SHUT_DOWN	06/10/2019	20:41	~	06/10/2019	20:53	13	2201	13	61.4	13	1.735	13	9.214	13	0.15	0.03
START_UP	06/11/2019	11:37	~	06/11/2019	12:01	25	13933.4	25	1407.3	25	270.134	25	271.775	25	4.53	4.50
SHUT_DOWN	06/11/2019	20:27	~	06/11/2019	20:39	13	2529.5	13	105.1	13	2.524	13	10.208	13	0.17	0.04
START_UP	06/13/2019	15:28	~	06/13/2019	15:52	25	7993.2	25	559.4	25	192.231	25	240.731	25	4.01	3.20
SHUT_DOWN	06/13/2019	20:56	~	06/13/2019	21:08	13	2172.5	13	59.2	13	0	13	11.436	13	0.19	0.00

Startup / ShutDown Report
 Generated: 7/29/2019 12:15
 StartUp/ShutDown Event Report NRG Carlsbad Unit 10
 Carlsbad Unit 10

Company: NRG Carlsbad
 Plant: 4600 Carlsbad Blvd
 City/St: Carlsbad, CA 92008

Period Start: 1/1/2019 00:00
 Period End: 7/29/2019 12:14
 Unit Name: Unit10

Events	Time	Duration (min)	Total 10 GasFlow (kscfh)	Valid Mins	Total 10Gross MW (MW)	Valid Mins	Total 10COLBHR (LBHR)	Valid Mins	Total 10NOXLBHR (LBHR)	Valid Mins
START_UP	04/01/2019 04:53 ~ 04/01/2019 05:17	25	8478.3	25	652.2	25	104.993	25	264.016	25
SHUT_DOWN	04/01/2019 07:27 ~ 04/01/2019 07:39	13	2232	13	73.9	13	0.24	13	13.297	13
START_UP	04/01/2019 10:52 ~ 04/01/2019 11:16	25	8778.1	25	688.8	25	72.711	25	186.99	25
SHUT_DOWN	04/01/2019 12:57 ~ 04/01/2019 13:09	13	2198.7	13	70.7	13	0.638	13	10.102	13
START_UP	04/01/2019 14:39 ~ 04/01/2019 15:03	25	15013.7	25	1618.3	25	98.713	25	151.996	25
SHUT_DOWN	04/01/2019 20:57 ~ 04/01/2019 21:09	13	2134.9	13	62.6	13	0	13	10.02	13
START_UP	04/02/2019 10:53 ~ 04/02/2019 11:17	25	8672.999	25	666.7	25	73.503	25	270.481	25
SHUT_DOWN	04/02/2019 14:42 ~ 04/02/2019 14:54	13	2202.8	13	68.7	13	0	13	11.137	13
START_UP	04/02/2019 17:37 ~ 04/02/2019 18:01	25	13553.4	25	1394.2	25	100.138	23	162.111	23
SHUT_DOWN	04/02/2019 19:12 ~ 04/02/2019 19:24	13	2175.2	13	65.1	13	0	13	10.86	13
START_UP	04/03/2019 05:23 ~ 04/03/2019 05:47	25	19251.7	25	2202.1	25	140.449	25	472.609	25
SHUT_DOWN	04/03/2019 08:28 ~ 04/03/2019 08:40	13	2508.7	13	111	13	0.505	13	12.221	13
START_UP	04/03/2019 09:52 ~ 04/03/2019 10:16	25	19144.9	25	2219.3	25	129.314	25	181.457	25
SHUT_DOWN	04/03/2019 10:58 ~ 04/03/2019 11:10	13	2371.2	13	93	13	0.495	13	10.206	13
START_UP	04/03/2019 12:52 ~ 04/03/2019 13:16	25	16096.5	25	1768.2	25	164.127	25	172.311	25
SHUT_DOWN	04/03/2019 19:12 ~ 04/03/2019 19:24	13	2206.8	13	68	13	0	13	10.827	13
START_UP	04/03/2019 20:52 ~ 04/03/2019 21:16	25	16213.7	25	1775	25	96.873	25	122.414	25
SHUT_DOWN	04/03/2019 22:57 ~ 04/03/2019 23:09	13	2212.8	13	71.2	13	0.544	13	12.389	13
START_UP	04/04/2019 04:53 ~ 04/04/2019 05:17	25	18692	25	2137.1	25	128.401	25	415.856	25
SHUT_DOWN	04/04/2019 06:58 ~ 04/04/2019 07:10	13	2517.2	13	110.7	13	1.728	13	9.692	13
START_UP	04/04/2019 08:22 ~ 04/04/2019 08:46	25	13949.4	25	1435.1	25	82.742	25	132.344	25
SHUT_DOWN	04/04/2019 10:57 ~ 04/04/2019 11:09	13	2401.2	13	93.9	13	0.104	13	11.989	13
START_UP	04/04/2019 18:23 ~ 04/04/2019 18:47	25	18172.9	25	2038.8	25	133.39	25	343.367	25
SHUT_DOWN	04/04/2019 19:28 ~ 04/04/2019 19:40	13	2082.2	13	54.3	13	0	13	10.827	13
START_UP	04/05/2019 06:53 ~ 04/05/2019 07:17	25	8848.5	25	678.7	25	64.969	25	267.639	25
SHUT_DOWN	04/05/2019 15:58 ~ 04/05/2019 16:10	13	2027.7	13	48.6	13	0.041	13	10.632	13
START_UP	04/06/2019 04:53 ~ 04/06/2019 05:17	25	8735.301	25	659.3	25	86.746	25	272.888	25
SHUT_DOWN	04/06/2019 22:57 ~ 04/06/2019 23:09	13	2243.2	13	73.3	13	0	13	12.247	13
START_UP	04/07/2019 08:38 ~ 04/07/2019 09:02	25	8646.1	25	650.1	25	57.924	25	247.769	25
SHUT_DOWN	04/07/2019 15:14 ~ 04/07/2019 15:26	13	2399	13	93.7	13	1.549	13	7.369	13
START_UP	04/08/2019 08:53 ~ 04/08/2019 09:17	25	13278.2	25	1312.2	25	114.868	25	304.292	25
SHUT_DOWN	04/08/2019 10:00 ~ 04/08/2019 10:12	13	2424.3	13	95.4	13	1.926	13	7.463	13
START_UP	04/08/2019 10:52 ~ 04/08/2019 11:16	25	7950	25	571.2	25	5.312	25	82.433	25
SHUT_DOWN	04/08/2019 14:57 ~ 04/08/2019 15:09	13	2409.8	13	94.3	13	2.354	13	7.34	13
START_UP	04/08/2019 18:22 ~ 04/08/2019 18:46	25	10993	25	1002.7	25	93.722	25	226.432	25
SHUT_DOWN	04/08/2019 19:27 ~ 04/08/2019 19:39	13	2200.6	13	67.2	13	0.045	13	9.076	13

START_UP	04/09/2019	06:53	~	04/09/2019	07:17	25	8358.101	25	612.7	25	45.53	11	236.487	11
SHUT_DOWN	04/09/2019	14:57	~	04/09/2019	15:09	13	2073.9	13	53.2	13	0	13	9.551	13
START_UP	04/09/2019	18:38	~	04/09/2019	19:02	25	18292.2	25	2034	25	109.908	25	284.676	25
SHUT_DOWN	04/09/2019	20:12	~	04/09/2019	20:24	13	2239.4	13	71.7	13	0	13	11.599	13
START_UP	04/10/2019	08:08	~	04/10/2019	08:32	25	11339.9	25	1014	25	102.815	25	355.913	25
SHUT_DOWN	04/10/2019	09:57	~	04/10/2019	10:09	13	2317.2	13	78.4	13	0.095	13	13.105	13
START_UP	04/10/2019	17:38	~	04/10/2019	18:02	25	9558.3	25	762.4	25	53.324	25	276.285	25
SHUT_DOWN	04/10/2019	18:57	~	04/10/2019	19:09	13	2164.6	13	60.6	13	0	13	11.154	13
START_UP	04/11/2019	12:08	~	04/11/2019	12:32	25	9356.4	25	734.2	25	62.327	25	287.371	25
SHUT_DOWN	04/11/2019	13:12	~	04/11/2019	13:24	13	2108.2	13	55.2	13	0	13	10.324	13
START_UP	04/11/2019	15:22	~	04/11/2019	15:46	25	9774.501	25	811.1	25	85.139	22	96.975	22
SHUT_DOWN	04/11/2019	16:27	~	04/11/2019	16:39	13	2154.4	13	59.4	13	0	13	10.873	13
START_UP	04/12/2019	05:08	~	04/12/2019	05:32	25	16502.8	25	1756.9	25	117.331	25	371.193	25
SHUT_DOWN	04/12/2019	06:13	~	04/12/2019	06:25	13	2305.5	13	79.6	13	1.343	13	8.34	13
START_UP	04/12/2019	07:08	~	04/12/2019	07:32	25	8400.699	25	621.4	25	3.307	25	83.344	25
SHUT_DOWN	04/12/2019	12:58	~	04/12/2019	13:10	13	2157.2	13	63.1	13	0	13	7.569	13
START_UP	04/12/2019	13:53	~	04/12/2019	14:17	25	8428.301	25	629.8	25	6.56	25	89.417	25
SHUT_DOWN	04/12/2019	16:12	~	04/12/2019	16:24	13	2160.1	13	64.5	13	0	13	11.03	13
START_UP	04/12/2019	18:07	~	04/12/2019	18:31	25	9276	25	760.3	25	163.626	25	117.053	25
SHUT_DOWN	04/12/2019	19:12	~	04/12/2019	19:24	13	2185.9	13	64.1	13	0	13	12.529	13
START_UP	04/13/2019	18:23	~	04/13/2019	18:47	25	8274.501	25	598.2	25	78.301	25	254.345	25
SHUT_DOWN	04/13/2019	19:27	~	04/13/2019	19:39	13	2142.1	13	61.3	13	0.091	13	10.627	13
START_UP	04/14/2019	11:53	~	04/14/2019	12:17	25	13102	25	1292.4	25	58.303	25	329.947	25
SHUT_DOWN	04/14/2019	13:58	~	04/14/2019	14:10	13	2579.9	13	118.8	13	1.243	13	10.948	13
START_UP	04/14/2019	18:37	~	04/14/2019	19:01	25	8732.301	25	671.3	25	70.974	25	223.488	25
SHUT_DOWN	04/14/2019	19:42	~	04/14/2019	19:54	13	2163.4	13	64.6	13	0.368	13	10.175	13
START_UP	04/15/2019	09:53	~	04/15/2019	10:17	25	12054.8	25	1144.1	25	63.719	25	334.178	25
SHUT_DOWN	04/15/2019	10:57	~	04/15/2019	11:09	13	2323.4	13	83.7	13	0.044	13	11.741	13
START_UP	04/15/2019	18:23	~	04/15/2019	18:47	25	17347.1	25	1924.2	25	162.813	25	356.664	25
SHUT_DOWN	04/15/2019	20:27	~	04/15/2019	20:39	13	2114.2	13	58.2	13	0.493	13	11.427	13
START_UP	04/16/2019	14:23	~	04/16/2019	14:47	25	12959.5	25	1271.1	25	117.148	25	391.214	25
SHUT_DOWN	04/16/2019	15:27	~	04/16/2019	15:39	13	2193.8	13	67.5	13	0.091	13	11.487	13
START_UP	04/16/2019	18:22	~	04/16/2019	18:46	25	8236	25	595.5	25	66.736	25	176.484	25
SHUT_DOWN	04/16/2019	19:27	~	04/16/2019	19:39	13	2114.4	13	55.3	13	0.047	13	10.235	13
START_UP	04/17/2019	17:38	~	04/17/2019	18:02	25	18696	25	2108.4	25	134.356	25	410.723	25
SHUT_DOWN	04/17/2019	19:27	~	04/17/2019	19:39	13	2173.9	13	62	13	0.092	13	9.94	13
START_UP	04/18/2019	18:54	~	04/18/2019	19:18	11	20177.9	11	2307.7	11	414	11	450	25
SHUT_DOWN	04/18/2019	19:57	~	04/18/2019	20:09	13	2203.4	13	66.1	13	0.622	13	7.839	13
START_UP	04/20/2019	11:53	~	04/20/2019	12:17	25	8371.4	25	610	25	52.56	23	272.805	23
SHUT_DOWN	04/20/2019	13:27	~	04/20/2019	13:39	13	2239.9	13	70.7	13	0.045	13	13.59	13
START_UP	04/21/2019	15:07	~	04/21/2019	15:31	25	7956.401	25	566.1	25	209.538	25	269.216	25
SHUT_DOWN	04/21/2019	16:12	~	04/21/2019	16:24	13	2016.7	13	45.1	13	0	13	11.151	13
START_UP	04/22/2019	18:52	~	04/22/2019	19:16	25	8928.7	25	696.5	25	240.001	25	278.991	25
SHUT_DOWN	04/22/2019	20:27	~	04/22/2019	20:39	13	2099.3	13	55.4	13	0	13	10.31	13
START_UP	04/23/2019	17:37	~	04/23/2019	18:01	25	7884.7	25	568.2	25	318.274	25	272.246	25
SHUT_DOWN	04/23/2019	19:43	~	04/23/2019	19:55	13	2015.6	13	47.5	13	0	13	9.904	13
START_UP	04/24/2019	17:22	~	04/24/2019	17:46	25	16617	25	1816	25	254.563	25	351.342	25
SHUT_DOWN	04/24/2019	19:57	~	04/24/2019	20:09	13	2118.4	13	58.8	13	0	13	9.906	13
START_UP	04/25/2019	17:24	~	04/25/2019	17:48	25	18164.7	25	2037.2	25	176.487	25	391.378	25

SHUT_DOWN	04/25/2019	20:12	~	04/25/2019	20:24	13	2241.4	13	74.8	13	0.094	13	10.162	13
START_UP	04/26/2019	17:37	~	04/26/2019	18:01	25	7907.3	25	566.5	25	344.905	25	259.955	25
SHUT_DOWN	04/26/2019	19:57	~	04/26/2019	20:09	13	2161.8	13	63.4	13	0.904	13	10.803	13
START_UP	04/28/2019	14:07	~	04/28/2019	14:31	25	9751.5	25	816.9	25	311.111	25	288.588	25
SHUT_DOWN	04/28/2019	15:12	~	04/28/2019	15:24	13	2081.5	13	54.3	13	0.662	13	10.875	13
START_UP	04/28/2019	18:37	~	04/28/2019	19:01	25	8674.3	25	657.7	25	46.936	25	197.91	25
SHUT_DOWN	04/28/2019	19:42	~	04/28/2019	19:54	13	2105.5	13	58	13	0.678	13	9.124	13
START_UP	04/29/2019	11:52	~	04/29/2019	12:15	24	8902.4	24	740.1	24	241.906	24	270.627	24
START_UP	04/30/2019	04:52	~	04/30/2019	05:16	25	19309.3	25	2218.4	25	435.254	25	507.667	25
SHUT_DOWN	04/30/2019	17:57	~	04/30/2019	18:09	13	2079.9	13	51.7	13	0.662	13	11.997	13
START_UP	05/01/2019	11:52	~	05/01/2019	12:16	25	8395	25	624.8	25	242.821	25	264.365	25
SHUT_DOWN	05/01/2019	13:12	~	05/01/2019	13:24	13	2110.8	13	57.1	13	0.668	13	11.245	13
START_UP	05/01/2019	14:52	~	05/01/2019	15:16	25	9662.701	25	806.1	25	288.634	25	106.108	25
SHUT_DOWN	05/01/2019	22:57	~	05/01/2019	23:09	13	2171.2	13	68	13	0.632	13	10.44	13
START_UP	05/02/2019	06:53	~	05/02/2019	07:17	25	10212.3	25	885.2	25	279.21	25	285.072	25
SHUT_DOWN	05/02/2019	07:57	~	05/02/2019	08:09	13	2036.8	13	49.5	13	0.65	13	9.872	13
START_UP	05/02/2019	11:22	~	05/02/2019	11:46	25	9446.8	25	790.5	25	40.43	25	202.209	25
SHUT_DOWN	05/02/2019	14:57	~	05/02/2019	15:09	13	2027.9	13	48.2	13	0.883	13	9.915	13
START_UP	05/02/2019	18:52	~	05/02/2019	19:16	25	8517.801	25	640.7	25	44.031	25	196.907	25
SHUT_DOWN	05/02/2019	20:12	~	05/02/2019	20:24	13	2082.5	13	54	13	0.59	13	8.918	13
START_UP	05/03/2019	18:22	~	05/03/2019	18:46	25	7954.699	25	581.6	25	295.221	25	263.441	25
SHUT_DOWN	05/03/2019	20:12	~	05/03/2019	20:24	13	2048.3	13	50.5	13	0	13	10.163	13
START_UP	05/04/2019	04:52	~	05/04/2019	05:16	25	7833.899	25	560.1	25	234.948	21	241.707	21
SHUT_DOWN	05/04/2019	22:57	~	05/04/2019	23:09	13	2020.7	13	47.2	13	0	13	11.029	13
START_UP	05/05/2019	05:52	~	05/05/2019	06:16	25	12639.2	25	1237.3	25	210.32	25	304.662	25
SHUT_DOWN	05/05/2019	06:57	~	05/05/2019	07:09	13	2117.7	13	58.5	13	0	13	11.778	13
START_UP	05/05/2019	16:07	~	05/05/2019	16:31	25	9215.1	25	727.5	25	215.258	25	248.171	25
SHUT_DOWN	05/05/2019	18:57	~	05/05/2019	19:09	13	2260.7	13	73.2	13	0.097	13	8.175	13
START_UP	05/05/2019	19:52	~	05/05/2019	20:16	25	8883	25	671	25	7.844	25	90.005	25
SHUT_DOWN	05/05/2019	22:57	~	05/05/2019	23:09	13	2066.3	13	50.3	13	0	13	10.364	13
START_UP	05/06/2019	19:52	~	05/06/2019	20:16	25	15559.7	25	1664.7	25	259.543	25	394.504	25
SHUT_DOWN	05/06/2019	20:57	~	05/06/2019	21:09	13	2064.9	13	52.6	13	0	13	10.499	13
START_UP	05/07/2019	05:52	~	05/07/2019	06:16	25	10054.2	25	858.4	25	211.226	25	295.676	25
SHUT_DOWN	05/07/2019	06:57	~	05/07/2019	07:09	13	2033.8	13	48.3	13	0.047	13	25.986	13
START_UP	05/07/2019	08:37	~	05/07/2019	09:01	25	8547.601	25	635.3	25	32.082	25	90.894	25
SHUT_DOWN	05/07/2019	12:57	~	05/07/2019	13:09	13	2045.9	13	47.1	13	0.714	13	9.524	13
START_UP	05/07/2019	15:07	~	05/07/2019	15:31	25	8757.899	25	662.8	25	67.748	25	88.96	25
SHUT_DOWN	05/07/2019	16:12	~	05/07/2019	16:24	13	2036.8	13	45.8	13	0.576	13	10.281	13
START_UP	05/08/2019	04:52	~	05/08/2019	05:16	25	8539.8	25	636	25	274.309	25	267.38	25
SHUT_DOWN	05/08/2019	22:57	~	05/08/2019	23:09	13	2135.8	13	60.5	13	0.086	13	10.626	13
START_UP	05/09/2019	04:52	~	05/09/2019	05:16	25	10459	25	907.9	25	144.003	25	236.208	25
SHUT_DOWN	05/09/2019	12:57	~	05/09/2019	13:09	13	2026.4	13	46.8	13	0.225	13	10.295	13
START_UP	05/12/2019	10:41	~	05/12/2019	11:05	25	3106.6	25	0	25	105.019	25	160.696	25
SHUT_DOWN	05/12/2019	11:06	~	05/12/2019	11:07	2	247.2	2	0	2	0.14	2	0.764	2
START_UP	05/21/2019	06:52	~	05/21/2019	07:16	25	20018.2	25	2270.4	25	342.534	25	547.647	25
SHUT_DOWN	05/21/2019	13:23	~	05/21/2019	13:35	13	2970.7	13	169.7	13	9.003	13	16.586	13
START_UP	06/09/2019	13:52	~	06/09/2019	14:16	25	9946.799	25	817.1	25	167.951	25	302.5	25
SHUT_DOWN	06/09/2019	20:56	~	06/09/2019	21:08	13	2256.4	13	71.8	13	2.637	13	11.226	13
START_UP	06/10/2019	13:52	~	06/10/2019	14:16	25	8812.6	25	673.1	25	198.756	25	273.948	25

SHUT_DOWN	06/10/2019	21:11	~	06/10/2019	21:23	13	2318	13	79.9	13	3.04	13	10.568	13
START_UP	06/11/2019	13:37	~	06/11/2019	14:01	25	18702	25	2089.4	25	222.841	25	443.014	25
SHUT_DOWN	06/11/2019	21:41	~	06/11/2019	21:53	13	2234.5	13	70.1	13	0.689	13	9.456	13
START_UP	06/12/2019	13:52	~	06/12/2019	14:16	25	8488	25	632	25	190.414	25	284.998	25
SHUT_DOWN	06/12/2019	20:56	~	06/12/2019	21:08	13	2226.3	13	69.8	13	0.539	13	11.583	13
START_UP	06/23/2019	15:22	~	06/23/2019	15:46	25	8736.499	25	654.2	25	404.833	25	290.009	25
SHUT_DOWN	06/23/2019	16:26	~	06/23/2019	16:38	13	2260.4	13	71.4	13	1.41	13	10.603	13

Attachment F 40 CFR Part 60, Subpart KKKK Report:

AQ-34: Rolling Four-Unit Operating Pound Per Mega Watt
Hour Summary

AQ-88: Part 60, KKKK Semiannual Report Summary

**Summary Report
Gaseous Excess Emission and Monitoring System Performance
Version 43.0**

**Reporting dates 1/1/2019 00:00 through 6/30/2019 23:59
Generated: 7/22/2019 11:21**

**Pollutant: NOx
Emission Limit: SubPart KKKK, 15 ppmc @ 15% O2 4 Hour Rolling**

Company Name: Carlsbad Energy Center
Address: 4950 Avenida Encinas, Carlsbad, CA
Model: Teledyne T200

Description: Unit 9

Date of Latest CEMS Certification or Audit: May 2, 2019

Total source operating time in reporting period: **1189.0 hours**

Emission Data Summary(note 1)	CEMS Downtime Summary(note 1)
1. Duration of excess emissions in period due to:	1. Duration of CEMS downtime in period due to:
a. Start Up/Shut Down..... 0.0	a. Monitoring Equipment Malfunction..... 0.0
b. Control Equipment Failure..... 0.0	b. Non-Monitoring Equipment Malfunction... 0.0
c. Process Problems..... 0.0	c. Quality Assurance..... 1.0
d. Other Known Excess Emissions Cause..... 0.0	d. Other Known Monitor Downtime Cause..... 0.0
e. Unknown Excess Emissions Cause..... 0.0	e. UnKnown Monitor Downtime Cause..... 0.0
2. Total duration of excess emission..... 0.0	2. Total duration of CEMS downtime..... 1.0
3. Excess emission duration (%)..... 0.00%	3. CEMS downtime (%)..... 0.08%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

- ¹ For opacity, record all times in minutes. For gases, record all times in hours.
- ² For the reporting period: If the total duration of excess emissions is 1% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name:

Signature: _____

Title: General Manager

Date: _____

**Summary Report
Gaseous Excess Emission and Monitoring System Performance
Version 43.0**

**Reporting dates 1/1/2019 00:00 through 6/30/2019 23:59
Generated: 7/22/2019 11:21**

**Pollutant: NOx
Emission Limit: SubPart KKKK, 15 ppmc @ 15% O2 4 Hour Rolling**

Company Name: Carlsbad Energy Center
Address: 4950 Avenida Encinas, Carlsbad, CA
Model: Teledyne T200

Description: Unit 10

Date of Latest CEMS Certification or Audit: April 30, 2019

Total source operating time in reporting period: **1134.0 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	3.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. Unknown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	3.0
3. Excess emission duration (%).....	0.00%	3. CEMS downtime (%).....	0.26%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

- ¹ For opacity, record all times in minutes. For gases, record all times in hours.
- ² For the reporting period: If the total duration of excess emissions is 1% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: _____

Signature: _____

Title: General Manager

Date: _____

**Summary Report
Gaseous Excess Emission and Monitoring System Performance
Version 43.0**

**Reporting dates 1/1/2019 00:00 through 6/30/2019 23:59
Generated: 7/22/2019 11:21**

**Pollutant: NOx
Emission Limit: SubPart KKKK, 15 ppmc @ 15% O2 4 Hour Rolling**

Company Name: Carlsbad Energy Center
Address: 4950 Avenida Encinas, Carlsbad, CA
Model: Teledyne T200

Description: Unit 6

Date of Latest CEMS Certification or Audit: May 16, 2019

Total source operating time in reporting period: **1209.0 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	1.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. Unknown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	1.0
3. Excess emission duration (%).....	0.00%	3. CEMS downtime (%).....	0.08%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

- ¹ For opacity, record all times in minutes. For gases, record all times in hours.
- ² For the reporting period: If the total duration of excess emissions is 1% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: _____

Signature: _____

Title: General Manager

Date: _____

**Summary Report
Gaseous Excess Emission and Monitoring System Performance
Version 43.0**

**Reporting dates 1/1/2019 00:00 through 6/30/2019 23:59
Generated: 7/22/2019 11:21**

**Pollutant: NOx
Emission Limit: SubPart KKKK, 15 ppmc @ 15% O2 4 Hour Rolling**

Company Name: Carlsbad Energy Center
Address: 4950 Avenida Encinas, Carlsbad, CA
Model: Teledyne T200

Description: Unit 7

Date of Latest CEMS Certification or Audit: May 14, 2019

Total source operating time in reporting period: **1268.0 hours**

Emission Data Summary(note 1)	CEMS Downtime Summary(note 1)
1. Duration of excess emissions in period due to:	1. Duration of CEMS downtime in period due to:
a. Start Up/Shut Down..... 0.0	a. Monitoring Equipment Malfunction..... 0.0
b. Control Equipment Failure..... 0.0	b. Non-Monitoring Equipment Malfunction... 0.0
c. Process Problems..... 0.0	c. Quality Assurance..... 2.0
d. Other Known Excess Emissions Cause..... 0.0	d. Other Known Monitor Downtime Cause..... 1.0
e. Unknown Excess Emissions Cause..... 0.0	e. UnKnown Monitor Downtime Cause..... 0.0
2. Total duration of excess emission..... 0.0	2. Total duration of CEMS downtime..... 3.0
3. Excess emission duration (%)..... 0.00%	3. CEMS downtime (%)..... 0.24%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

- ¹ For opacity, record all times in minutes. For gases, record all times in hours.
- ² For the reporting period: If the total duration of excess emissions is 1% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name:

Signature: _____

Title: General Manager

Date: _____

**Summary Report
Gaseous Excess Emission and Monitoring System Performance
Version 43.0**

**Reporting dates 1/1/2019 00:00 through 6/30/2019 23:59
Generated: 7/22/2019 11:21**

**Pollutant: NOx
Emission Limit: SubPart KKKK, 15 ppmc @ 15% O2 4 Hour Rolling**

Company Name: Carlsbad Energy Center
Address: 4950 Avenida Encinas, Carlsbad, CA
Model: Teledyne T200

Description: Unit 8

Date of Latest CEMS Certification or Audit: May 29, 2019

Total source operating time in reporting period: **991.0 hours**

Emission Data Summary(note 1)	CEMS Downtime Summary(note 1)
1. Duration of excess emissions in period due to:	1. Duration of CEMS downtime in period due to:
a. Start Up/Shut Down..... 0.0	a. Monitoring Equipment Malfunction..... 0.0
b. Control Equipment Failure..... 0.0	b. Non-Monitoring Equipment Malfunction... 0.0
c. Process Problems..... 0.0	c. Quality Assurance..... 2.0
d. Other Known Excess Emissions Cause..... 0.0	d. Other Known Monitor Downtime Cause..... 0.0
e. Unknown Excess Emissions Cause..... 0.0	e. UnKnown Monitor Downtime Cause..... 0.0
2. Total duration of excess emission..... 0.0	2. Total duration of CEMS downtime..... 2.0
3. Excess emission duration (%)..... 0.00%	3. CEMS downtime (%)..... 0.20%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

- ¹ For opacity, record all times in minutes. For gases, record all times in hours.
- ² For the reporting period: If the total duration of excess emissions is 1% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name:

Signature: _____

Title: General Manager

Date: _____

Attachment G Air Pollution Control District Monthly Report:

AQ-46: NO_x and PM₁₀ Annual Emissions Summary

AQ-48: Monthly and Rolling 12-Month Calculated NO_x, CO, VOCs, PM₁₀, and SO_x Emissions Summary

2019

All Emission Values are Totals In Lbs

Unit 6

	Monthly						12 Mo Rolling					
	MMBTU	Nox	CO	PM10	SO2		MMBTU	Nox	CO	PM10	SO2	
Jul-18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Aug-18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sep-18	52121.69	422.60	71.86	109.46	31.27	52121.69	422.60	71.86	109.46	31.27	31.27	
Oct-18	8960.90	87.79	20.99	18.82	5.38	61082.59	510.39	92.85	128.27	36.65	36.65	
Nov-18	79227.68	652.62	93.31	166.38	47.54	140310.27	1163.00	186.16	294.65	84.19	84.19	
Dec-18	67593.31	521.34	96.28	141.95	40.56	207903.57	1684.34	282.44	436.60	124.74	124.74	
Jan-19	114540.68	782.82	165.33	240.54	68.72	322444.25	2467.17	447.77	677.13	193.47	193.47	
Feb-19	117263.11	758.54	91.31	246.25	70.36	439707.36	3225.71	539.08	923.39	263.82	263.82	
Mar-19	110328.82	744.29	184.96	231.69	66.20	550036.18	3969.99	724.04	1155.08	330.02	330.02	
Apr-19	56364.87	382.89	111.08	118.37	33.82	606401.05	4352.88	835.13	1273.44	363.84	363.84	
May-19	39417.30	267.66	72.42	82.78	23.65	645818.35	4620.54	907.55	1356.22	387.49	387.49	
Jun-19	56364.87	382.89	111.08	118.37	33.82	702183.22	5003.43	1018.63	1474.58	421.31	421.31	

Unit 7

	Monthly						12 Mo Rolling					
	MMBTU	Nox	CO	PM10	SO2		MMBTU	Nox	CO	PM10	SO2	
Jul-18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Aug-18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	776.63	0.00	0.00	
Sep-18	23144.88	174.63	35.23	43.98	13.89	23144.88	174.63	91.31	43.98	13.89	13.89	
Oct-18	4485.50	41.20	13.17	8.52	2.69	27630.38	215.82	184.96	52.50	16.58	16.58	
Nov-18	83831.16	678.36	78.18	159.28	50.30	111461.54	894.19	263.14	211.78	66.88	66.88	
Dec-18	66338.08	534.01	65.15	126.04	39.80	177799.62	1428.19	328.30	337.82	106.68	106.68	
Jan-19	106864.79	787.11	105.44	203.04	64.12	284664.41	2215.31	433.74	540.86	170.80	170.80	
Feb-19	108414.84	807.74	97.66	205.99	65.05	393079.25	3023.05	531.39	746.85	235.85	235.85	
Mar-19	137989.29	941.19	125.58	262.18	82.79	531068.54	3964.23	656.97	1009.03	318.64	318.64	
Apr-19	76813.90	549.05	107.43	145.95	46.09	607882.44	4513.28	764.40	1154.98	364.73	364.73	
May-19	41633.28	290.99	131.06	79.10	24.98	649515.73	4804.27	895.46	1234.08	389.71	389.71	
Jun-19	11750.71	79.10	27.87	22.33	7.05	661266.44	4883.37	923.33	1256.41	396.76	396.76	

Unit 8

	Monthly						12 Mo Rolling					
	MMBTU	Nox	CO	PM10	SO2		MMBTU	Nox	CO	PM10	SO2	
Jul-18	27397.50	205.35	20.89	54.79	16.44	27397.50	205.35	20.89	54.79	16.44	16.44	
Aug-18	51389.95	444.57	58.62	102.78	30.83	78787.45	649.93	79.50	157.57	47.27	47.27	
Sep-18	244.12	5.78	4.54	0.49	0.15	79031.56	655.70	84.04	158.06	47.42	47.42	
Oct-18	4752.15	50.29	11.40	9.50	2.85	83783.72	705.99	95.44	167.57	50.27	50.27	
Nov-18	79309.83	687.65	146.43	158.62	47.59	163093.54	1393.64	241.87	326.19	97.86	97.86	
Dec-18	53981.76	434.91	146.29	107.96	32.39	217075.31	1828.55	388.16	434.15	130.25	130.25	
Jan-19	86598.79	644.99	153.72	173.20	51.96	303674.09	2473.54	541.89	607.35	182.20	182.20	
Feb-19	101888.84	727.26	232.62	203.78	61.13	405562.93	3200.80	774.51	811.13	243.34	243.34	
Mar-19	61724.97	490.60	191.31	123.45	37.03	467287.90	3691.39	965.82	934.58	280.37	280.37	
Apr-19	45401.64	346.36	228.18	90.80	27.24	512689.53	4037.76	1194.00	1025.38	307.61	307.61	
May-19	38384.13	240.47	58.16	76.77	23.03	551073.66	4278.22	1252.16	1102.15	330.64	330.64	
Jun-19	32900.81	204.38	31.45	65.80	19.74	583974.48	4482.61	1283.61	1167.95	350.38	350.38	

Unit 9

	Monthly						12 Mo Rolling					
	MMBTU	Nox	CO	PM10	SO2		MMBTU	Nox	CO	PM10	SO2	
Jul-18	25178.91	210.60	37.15	50.36	15.11	25178.91	210.60	37.15	50.36	15.11	15.11	
Aug-18	31445.38	301.60	40.10	62.89	18.87	56624.29	512.20	77.24	113.25	33.97	33.97	
Sep-18	10411.96	94.17	12.03	20.82	6.25	67036.25	606.37	89.27	134.07	40.22	40.22	
Oct-18	1185.24	12.89	3.50	2.37	0.71	68221.49	619.26	92.77	136.44	40.93	40.93	
Nov-18	86816.92	722.05	79.03	173.63	52.09	155038.41	1341.31	171.80	310.08	93.02	93.02	
Dec-18	57843.81	477.46	70.48	115.69	34.71	212882.22	1818.77	242.28	425.76	127.73	127.73	
Jan-19	90025.91	667.25	122.63	180.05	54.02	302908.13	2486.02	364.91	605.82	181.74	181.74	
Feb-19	105237.67	738.73	112.73	210.48	63.14	408145.80	3224.75	477.65	816.29	244.89	244.89	
Mar-19	104623.74	747.40	133.62	209.25	62.77	512769.55	3972.15	611.27	1025.54	307.66	307.66	
Apr-19	77986.83	540.32	99.30	155.97	46.79	590756.38	4512.47	710.57	1181.51	354.45	354.45	
May-19	52130.00	351.69	65.58	104.26	31.28	642886.38	4864.15	776.15	1285.77	385.73	385.73	
Jun-19	20886.00	134.18	47.55	41.77	12.53	663772.38	4998.33	823.70	1327.54	398.26	398.26	

Unit 10

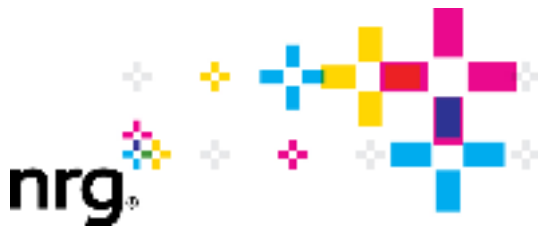
	Monthly						12 Mo Rolling					
	MMBTU	Nox	CO	PM10	SO2		MMBTU	Nox	CO	PM10	SO2	
Jul-18	36868.49	312.19	48.17	88.48	22.12	36868.49	312.19	48.17	88.48	22.12	22.12	
Aug-18	29792.10	290.43	74.49	71.50	17.88	66660.59	602.62	122.66	159.99	40.00	40.00	
Sep-18	494.44	6.54	3.48	1.19	0.30	67155.03	609.16	126.14	161.17	40.29	40.29	
Oct-18	0.00	0.00	0.00	0.00	0.00	67155.03	609.16	126.14	161.17	40.29	40.29	
Nov-18	64496.64	532.38	230.68	154.79	38.70	131651.67	1141.54	356.82	315.96	78.99	78.99	
Dec-18	59455.10	478.70	212.40	142.69	35.67	191106.77	1620.24	569.22	458.66	114.66	114.66	
Jan-19	86813.57	692.28	159.26	208.35	52.09	277920.33	2312.52	728.48	667.01	166.75	166.75	
Feb-19	70807.68	566.15	142.58	169.94	42.48	348728.01	2878.68	871.06	836.95	209.24	209.24	
Mar-19	105238.55	812.79	187.92	252.57	63.14	453966.56	3691.46	1058.97	1089.52	272.38	272.38	
Apr-19	80334.01	587.79	197.74	192.80	48.20	534300.57	4279.25	1256.72	1282.32	320.58	320.58	
May-19	37100.20	261.45	70.60	89.04	22.26	571400.76	4540.70	1327.32	1371.36	342.84	342.84	
Jun-19	15329.28	105.80	43.20	36.79	9.20	586730.04	4646.50	1370.52	1408.15	352.04	352.04	

Attachment H VOC Statement:

AQ-29: Calculated VOC Corrected 2.0 PPM 1-Hour Average
Data

AQ-40: VOC Portion Only

AQ-41: VOC Portion Only



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4950 Avenida Encinas
Carlsbad, CA 92008
Phone: 760-710-3970

July 30, 2019

Subject: CARLSBAD ENERGY CENTER AQ-SC8 REPORT – VOLATILE ORGANIC COMPOUNDS COMPLIANCE STATEMENT

The San Diego Air Pollution Control District has not established a surrogate calculation for volatile organic compounds. The following conditions cannot be fulfilled until such a surrogate is established:

- AQ-29
- AQ-40: Only VOC Element
- AQ-41: Only VOC Element

Attachment I Encina Power Station Operations Statement:

AQ-47: Encina Emissions Summary Following CECP
Startup



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July 30, 2019

Subject: CARLSBAD ENERGY CENTER AQ-SC8 REPORT – ENCINA POWER STATION OPERATIONS COMPLIANCE STATEMENT

Encina Power Station ceased operations on December 11, 2018 and no longer operable. The following condition is fulfilled due to Encina no longer generating emissions:

- AQ-47

Attachment J Noncompliance Statement:

AQ-76: CEMS Emissions Exceedance Summary

AQ-78: DAHS Programming Compliance Summary



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July 30, 2019

Subject: CARLSBAD ENERGY CENTER AQ-SC8 REPORT – NONCOMPLIANCE STATEMENT

Carlsbad Energy Center had no permit exceedances in post-commercial operations in the second quarter of 2019 that did not qualify as breakdowns. In addition, no Data Acquisition Handling System (DAHS) programming changes were made in the second quarter of 2019. The following conditions are fulfilled:

- AQ-76
- AQ-78

Attachment K Diesel Fire Pump Operations Logs:

AQ-95: Fire Pump Hour Limit

AQ-105: Fire Pump Operating Log



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July 30, 2019

Subject: CARLSBAD ENERGY CENTER AQ-SC8 REPORT – Diesel Statement

Attached are operator logs for the two diesel test runs in 2Q2019. The logs show that the diesel has run under its hour limit for this year.

All Entries

<p>06/24/2019 17:29 PDT</p>	<p>Round: Weekly Diesel Firepump</p> <p>Details: Diesel data before Start Engine hours: 11.1; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 1. . .</p> <p>Completed Items: 13 of 13</p>	<p>Complete</p>
<p>06/17/2019 14:17 PDT</p>	<p>Round: Weekly Diesel Firepump</p> <p>Details: Diesel data before Start Engine hours: 10.7; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 1. . .</p> <p>Completed Items: 13 of 13</p>	<p>Complete</p>
<p>06/12/2019 09:25 PDT</p>	<p>Round: Weekly Diesel Firepump</p> <p>Details: Diesel data before Start Engine hours: 10.3; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 0. . .</p> <p>Completed Items: 13 of 13</p>	<p>Complete</p>
<p>06/08/2019 05:13 PDT</p>	<p>Round: Weekly Diesel Firepump</p> <p>Details: Diesel data before Start Engine hours: 9.8; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 09. . .</p> <p>Completed Items: 13 of 13</p> <p>Appended Comments:</p> <ul style="list-style-type: none"> ▪ This is a copy of the round completed 6/5/19 by Kristie (ASiegel, 6/08/2019 05:13 PDT) 	<p>Complete</p>
<p>06/05/2019 10:25 PDT</p>	<p>Round: Weekly Diesel Firepump</p> <p>Details: Diesel data before Start Engine hours: 9.8; Diesel data before Start Diesel tank level (decimal entry): 875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 093. . .</p> <p>Completed Items: 13 of 13</p>	<p>Complete</p>
<p>05/28/2019 12:13 PDT</p>	<p>Round: Weekly Diesel Firepump</p> <p>Details: Diesel data before Start Engine hours: 9.6; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 12. . .</p> <p>Completed Items: 12 of 13</p> <p>Appended Comments:</p> <ul style="list-style-type: none"> ▪ Round for 05/23/19 (ASiegel, 5/28/2019 12:13 PDT) 	<p>Complete</p>
<p>05/25/2019 08:51 PDT</p>	<p>Round: Weekly Diesel Firepump</p>	<p>Complete</p>

	<p>Details: Diesel data before Start Engine hours: 9.7; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: N/A; Start Diesel Fire Pump Start time: 08. . .</p> <p>Completed Items: 13 of 13</p>	
05/09/2019 11:33 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Start Diesel Fire Pump Normal Startup? Comment: None; Diesel Running Parameters normal(Leakoff, pressure etc..) Comment: N/A; Ensure Diesel stops at 10 minutes Did Diesel run and stop OK? Comment: None</p> <p>Appended Comments:</p> <ul style="list-style-type: none"> For testing. (ASiegel, 5/09/2019 13:55 PDT) 	Complete
05/08/2019 15:07 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Diesel data before Start Engine hours: 9.6; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: None; Start Di. . .</p>	Complete
05/05/2019 12:31 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Start Diesel Fire Pump Normal Startup? Comment: None; Diesel Running Parameters normal(Leakoff, pressure etc..) Comment: N/A; Ensure Diesel stops at 10 minutes Did Diesel run and stop OK? Comment: None</p>	Complete
04/29/2019 08:37 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Diesel data before Start Engine hours: 9.5; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: None; Start Di. . .</p>	Complete
04/25/2019 07:55 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Diesel data before Start Engine hours: 9.4; Diesel data before Start Diesel tank level (decimal entry): 0.87; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: None; Start Di. . .</p>	Complete
04/08/2019 17:32 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Diesel data before Start Engine hours: 9.3; Diesel data before Start Diesel tank level (decimal entry): 0.875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: None; Start D. . .</p>	Complete
04/01/2019 11:53 PDT	<p>Category: Weekly Diesel FP PM</p> <p>Data: Diesel data before Start Engine hours: 9.2; Diesel data before Start Diesel tank level (decimal entry): .875; Start Diesel Fire Pump Normal Startup?: Normal; Start Diesel Fire Pump Normal Startup? Comment: None; Start Di. . .</p>	Complete

Attachment L Verifications Not Included:

AQ-44: Rolling 12-Month Annual Emissions Summary NOx, CO, VOC, PM10, and Sox

AQ-45: Rolling 12-Month Annual Emissions CO

AQ-49: Annual Operating Hours Summary

AQ-50: Annual Starts Per Turbine Summary

AQ-51: Commissioning Starts Per Turbine Summary

AQ-90: Initial Startup Notification