DOCKETED	
Docket Number:	07-AFC-06C
Project Title:	Carlsbad Energy Center - Compliance
TN #:	232689
Document Title:	Annual Compliance Report 2019
Description:	2019 Annual Compliance Report for the Amended Carlsbad Energy Center Project (ACECP)
Filer:	Anwar Ali
Organization:	Carlsbad Energy Center LLC
Submitter Role:	Commission Staff
Submission Date:	4/7/2020 2:03:41 PM
Docketed Date:	4/7/2020

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

March 30, 2020

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, COM-7
ANNUAL COMPLIANCE REPORT, 2019

Dear Dr. Ali:

Carlsbad Energy Center LLC ("Project Owner") submits the 2019 Annual Compliance Report in compliance with the AFC Docket No. 07-AFC-06C, Conditions of Certification (COCs) COM-7 for the amended Carlsbad Energy Center Project (ACECP) located at 4950 Avenida Encinas, Carlsbad, California.

This report includes 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, Annual Compliance Report, 2019

Cc: File

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

California Energy Commission Annual Compliance Report

2019

Submitted by: Carlsbad Energy Center LLC
Date Submitted: 03-30-2020

Table of Contents

List of Attachments

I. Summary

a. Project Annual 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, Carlsbad Energy Center LLC submits the information herein demonstrating compliance with condition of certification COM-8 Annual Compliance Report requirements.

This annual report includes data required by COM-7 for 2019.

II. Operational Status

a. CECP is commercially operational. No significant changes to operations occurred in 2019.

III. Post-Certification Changes to license 07-AFC-06C

a. There were no changes to license 07-AFC-06C in 2019.

IV. Submittal Deadlines Missed

a. The operational report for the fourth quarter of 2018 was submitted on February 28, 2019. This was in compliance with an extension granted by the California Energy Commission on January 28, 2019.

V. List of Files to and Permits Issued by Other Governmental Agencies

a. Filings Submitting:

i. San Diego Air Pollution Control District Variances:

1. Emergency Variance – Petition 4506
2. Emergency Variance – Petition 4510
3. Interim Variance – Petition 4507
4. Regular Variance – Petition 4507

ii. San Diego Air Pollution Control District Permit Modification: September 20, 2019.

b. Permits issued:

i. Department of Environmental Health: DEH2018-HUPFP-004698

ii. Encina Wastewater Authority: Permit #2405

iii. San Diego Air Pollution Control District: Startup Authorization: APCD2014-APP-003480-003486

VI. Evaluation of the Site's Contingency Plan

a. The site's contingency plan was reviewed for potential updates in 2019.

b. The emergency contact list was reviewed for accuracy and minor updates were applied.

VII. List of Complaints, Notices of Violation, Official Warnings, Citations Received:

a. No complaints, notices of violation, official warnings, or citations were in 2019.

Attachment A BIO-2: Annual Biologist Report

Biological Resources Annual Compliance Report

Prepared for:
Carlsbad Energy Center LLC

Carlsbad Energy Center Project
(07-AFC-06C), 2019 Reporting Period

March 2020

The business of sustainability

ERM

Signature Page

March 2020

Biological Resources Annual Compliance Report

Steve Williams, P.G.
Partner

Melissa Fowler
Designated Biologist/Senior Biologist

Environmental Resources Management
1920 Main Street, Suite 300
Irvine, California 92614

CONTENTS

FIGURES

1. INTRODUCTION

This Annual Compliance Report (ACR) summarizes biological resources monitoring activities and documentation conducted during operations at the Carlsbad Energy Center Project (CECP; see Figure 1) from 1 January through 31 December 2019, in accordance with the July 2015 Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and California Energy Commission (CEC) Conditions of Certification (COCs) BIO-6.

1.1 CECP Phase I Overview

Tank demolition/removal, site preparation and remediation activities for Phase I of the Amended CECP were completed in November 2015. Phase I berm removal commenced the first week of February 2016 and was completed in mid-May 2016.

1.2 CECP Phase II Overview

The CEC's Compliance Project Manager (CPM) approved the start of construction on 6 June 2016. Phase II of the Amended CECP began in February 2017 and was completed in October 2018 with complete demobilization in January 2019.

The Construction Closure Report was submitted to the CEC on March 18, 2019 and was approved by the CEC on August 20, 2019.

1.3 COCs Overview

The following biological COCs covered by this ACR include, but are not limited to:

- BIO-2 Designated Biologist Duties
- BIO-5 Worker Environmental Awareness Program (WEAP);
- BIO-6 Biological Resources Mitigation Implementation and Monitoring Plan;
- BIO-7 Impact Avoidance Mitigation Features; and
- BIO-8 Mitigation Management to Avoid Harassment or Harm.

2. OPERATIONS MONITORING SUMMARY

This section summarizes biological monitoring activities conducted by ERM-West, Inc. (ERM) during the 2019 reporting period. This ACR document site conditions and biological monitoring events for CECP Operations. As previously noted, CECP Phase I and Phase II have been completed.

The frequency and duration of monitoring is dependent upon nesting and migratory seasons and the biological resources located within, as well as transiting through the work area. Biological monitoring will continue on a quarterly basis (one visit per quarter), as well as on-call monitoring, until the Designated Biologist determines that a change is necessary for the protection of sensitive biological resources or an increase in monitoring is warranted because of a lack of biological resources within the site.

The Biological Resources Compliance Monitoring Logs are provided in Appendix A. A list of wildlife species observed during the monitoring events are included in Appendix B.

2.1 CECP Operations Monitoring Events and Compliance Inspections

CECP operational activities are monitored on a quarterly basis. Biological monitoring events occurred on 22 March, 11 June, 18 July, and 6 December 2019. The CEC site visit occurred on 24 September 2019. The Biological Resources Compliance Monitoring Logs are provided in Appendix A.

2.2 Nesting Birds

A mourning dove (*Zenaida macroura*) nest was found in a water treatment trailer within the CECP on July 1, 2019. The nest was buffered and successfully fledged. The buffer was removed on July 30, 2019. A house finch (Haemorhous mexicanus) nest was observed near Unit 8, but no buffering was required because of where the nest was located. This nest did not impact plant operations. No additional active nests within the CECP site during operations. The Biological Resources Compliance Monitoring Logs are provided in Appendix B.

2.3 Special-Status Species

Four special-status avian species were observed within the site vicinity during the biological monitoring events, which included: California brown pelican (*Pelecanus occidentalis californicus*; California Department of Fish and Wildlife [CDFW] Fully Protected [FP]; United States Forest Service [USFS] Sensitive [S]), California gull (*Larus californicus*; CDFW Watch List [WL], Cooper's hawk (*Accipiter cooperii*; CDFW WL, and great blue heron (*Ardea herodias*; California Department of Forestry [CDF] S). Buffer zones were not needed for these special-status species because there were no active nests within operating areas. A list of wildlife species observed during the monitoring event is included in Appendix B. California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) were not submitted because birds in transit (fly-overs) or foraging are not recorded according to CNDDB guidelines[1].

[1] California Department of Fish and Wildlife (CDFW). 2016. *Submitting Avian Detections to the CNDDB.* Available online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=25731

2.4 Wildlife Displacement, Injuries, and Mortalities

2.4.1 Migratory Bird Treaty Act Protected Species

No injured or dead species protected by the Migratory Bird Treaty Act (MBTA) or California Department of Fish and Game Codes (3503, 3503.5) were observed at the site. A list of avian species observed during the monitoring event is included in Appendix B.

2.4.2 Other Species

On December 6, 2019, remains of a Norway rat (*Rattus norvegicus*) were found within the site. The remains were disposed of according to site guidelines. No additional injured or dead wildlife species were observed at the site. A list of wildlife species observed during the monitoring event is included in Appendix B.

2.5 Hazardous Material Spills

No hazardous material spills have occurred at the project site during the biological monitoring event.

2.6 Trash

No litter was observed within the project site during the biological monitoring events.

2.7 Non-compliance Report

No formal non-compliance notifications or incident reports were issued.

FIGURE

C:\Users\Austin.Frey\Desktop\NRG Proposal\NRGCarlsbad\NRG_Carlsbad_Figure1_10102016.mxd Created By: Author Under Map Document Properties Date: 10/10/2016 Project: XXXXXXX

Legend

- Demo and Construction Worker Access
- Amended CECP Site Boundary
- Encina Power Station Site

Source: Basemap Source or Aerial Source, Flight Date, and Resolution NAD 1983 UTM Zone 10N

Figure 1
Site Location Map
Carlsbad Energy Center Project
San Diego County, CA
October, 2016

Environmental Resources Management
www.erm.com
ERM

APPENDIX A BIOLOGICAL RESOURCES COMPLIANCE MONITORING LOGS

Carlsbad Energy Center Project (CECP)

BIOLOGICAL RESOURCES
COMPLIANCE MONITORING LOG - OPERATIONS

Date	Monitor	Time (Begin-End)
March 26, 2019	Megan Gleason	06:45-12:00

Temperature (°F)	Humidity (%)	Wind (mph)	Precipitation (Y/N, amount)	Visibility	Weather Comment
48-61	-	3-6	N	-	40% cloud cover

Location(s) of Work Site Activities Monitored

NRG Energy (NRG) CECP site during plant Operations.

Summary of Biological Resources Monitoring Observations

Biological resources monitoring for biological constraints, special-status species, and nesting birds was conducted at the NRG CECP site.

Nesting Bird Observations:

- No observations were noted.

Special-Status Species Observed:

- A California gull (*Larus californicus*; California Department of Fish and Wildlife Service [CDFW] Watch List [WL]) was observed within the project vicinity.
- A Cooper's hawk (*Accipiter cooperii*; CDFW WL) was observed within the project vicinity.
- No additional special-status species were observed.

Other Biological Resources Observations:

- No American peregrine falcon (*Falco peregrinus anatum*; United States Fish and Wildlife [USFWS] Birds of Conservation Concern [BCC]; CDFW Fully Protected [FP]; California Department of Forestry [CDF] Sensitive [S]) activity was observed on or in the vicinity of the Encina stack.
- House finches (*Haemorhous mexicanus*) were observed near Units 8 and 9, but no nests or nesting behaviors were observed.
- No additional observations were noted.

Other Observations/Comments:

- No litter was observed within the CECP site.
- The bio-swales were surveyed, and no biological constraints were observed.
- Drain covers within the site were inspected for functionality and were blocking debris from entering the storm drain system.
- The pump station and administration building were surveyed, and no biological constraints were identified**.**
- Trees along the revegetated berm collapsed after the recent rain and windstorm events.
- The northern area of the project, west of the warehouse, was hydroseeded for ground stabilization.
- No additional observations were noted.

Items Requiring Action/Follow-up

- None.

Wildlife Species Observed

American bushtit (*Psaltriparus minimus*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), Bewick's wren (*Thryomanes bewickii*), black phoebe (*Sayornis nigricans*), California gull, common yellowthroat (*Geothlypis trichas*), Cooper's hawk, desert cottontail (*Sylvilagus audubonii*), European starling (*Sturnus vulgaris*), house finch, mourning dove (*Zenaida macroura*), Say's phoebe (*Sayornis saya*), song sparrow (*Melospiza melodia*), western fence lizard (*Sceloporus occidentalis*), and yellow-rumped warbler (*Setophaga coronata*).

Photo 1			
			
Location	CECP site	**Description**	Overview of the CECP site.

Photo 2			
			
Location	CECP site	**Description**	Waste and recycle bins have been installed in pairs throughout the project area, facing northwest.

Photo 3			
			
Location	CECP site	**Description**	Trees along the revegetated berm were knocked over during rain and wind events, facing south.

Photo 4			
			
Location	CECP site	**Description**	The northwest corner of the site was hydroseeded for stabilization, facing west.

Carlsbad Energy Center Project (CECP)

BIOLOGICAL RESOURCES
COMPLIANCE MONITORING LOG - OPERATIONS

Date	Monitor	Time (Begin-End)
June 7, 2019	Megan Gleason	06:45-12:00

Temperature (°F)	Humidity (%)	Wind (mph)	Precipitation (Y/N, amount)	Visibility	Weather Comment
62-69	-	2-8	N	-	100% cloud cover

Location(s) of Work Site Activities Monitored

NRG Energy (NRG) CECP site during plant Operations.

Summary of Biological Resources Monitoring Observations

Biological resources monitoring for biological constraints, special-status species, and nesting birds was conducted at the NRG CECP site.

Nesting Bird Observations:

- Adult and juvenile house finches (*Haemorhous mexicanus*) were observed near Unit 8, and one nest was observed in the vent.
- No additional observations were noted.

Special-Status Species Observed:

- A California gull (*Larus californicus*; California Department of Fish and Wildlife [CDFW] Watch List [WL]) was observed within the project vicinity.
- No additional special-status species were observed.

Other Biological Resources Observations:

- No American peregrine falcon (*Falco peregrinus anatum*; United States Fish and Wildlife [USFWS] Birds of Conservation Concern [BCC]; CDFW Fully Protected [FP]; California Department of Forestry [CDF] Sensitive [S]) activity was observed on or in the vicinity of the Encina stack.
- No additional observations were noted.

Other Observations/Comments:

- No litter was not observed within the project site.
- Canon substation was surveyed. No biological constraints were observed.
- The pump station and administration building were surveyed, and no biological constraints were identified.
- Five killdeer (*Charadrius vociferous*) were observed on the ground in the northwest corner of the project. No nests were observed.
- No additional observations were noted.

Items Requiring Action/Follow-up

- None.

Wildlife Species Observed

American bushtit (*Psaltriparus minimus*), American crow (*Corvus brachyrhynchos*), Bewick's wren (*Thryomanes bewickii*), black phoebe (*Sayornis nigricans*), California gull, common yellowthroat (*Geothlypis trichas*), European starling (*Sturnus vulgaris*), house finch, killdeer, mourning dove (*Zenaida macroura*), northern shoveler (*Anas clypeata*), Say's phoebe (*Sayornis saya*), song sparrow (*Melospiza melodia*), and western fence lizard (*Sceloporus occidentalis*).

Photo 1			
			
Location	CECP site	**Description**	House finches (juveniles and adults) were observed near Unit 8 and one nest was observed, facing east.

Photo 2			
			
Location	CECP site	**Description**	Three northern shovelers were observed wading in the bio-swale, facing north.

Photo 3			
			
Location	CECP site	**Description**	Five killdeer were observed on the ground in the northwestern corner along the upper road, facing northeast.

Photo 4			
			
Location	CECP site	**Description**	No biological constraints were observed within the pump station and administrative building, facing northwest.

Carlsbad Energy Center Project (CECP)

BIOLOGICAL RESOURCES
COMPLIANCE MONITORING LOG - OPERATIONS

Date	Monitor	Time (Begin-End)
July 18, 2019	Heather Ylitalo	06:30-11:30

Temperature (°F)	Humidity (%)	Wind (mph)	Precipitation (Y/N, amount)	Visibility	Weather Comment
67-70	-	3.10	N	-	10% cloud cover

Location(s) of Work Site Activities Monitored

NRG Energy (NRG) CECP site during plant Operations.

Summary of Biological Resources Monitoring Observations

Biological resources monitoring for biological constraints, special-status species, and nesting birds was conducted at the NRG CECP site.

Nesting Bird Observations:

- No observations were noted.

Special-Status Species Observed:

- A California gull (*Larus californicus*; California Department of Fish and Wildlife [CDFW] Watch List [WL]) was observed within the project vicinity.
- A great blue heron (*Ardea herodias*; California Department of Forestry [CDF] Sensitive [S]) was observed near the project vicinity.
- Two ospreys (*Pandion haliaetus;* CDFW WL; CDF S) were observed within the project vicinity.
- No additional special-status species were observed.

Other Biological Resources Observations:

- No American peregrine falcon (*Falco peregrinus anatum*; United States Fish and Wildlife [USFWS] Birds of Conservation Concern [BCC]; CDFW Fully Protected [FP]; California Department of Forestry [CDF] Sensitive [S]) activity was observed on or in the vicinity of the Encina stack.
- No additional observations were noted.

Other Observations/Comments:

- The Canon substation was surveyed. No biological constraints were observed.
- The mourning dove (*Zenaida macroura)* nest in water trailer remains active and, the Environmentally Sensitive Area (ESA) buffer remains in place.
- The bio-swales in the northeastern corner of the project were surveyed, and no biological constraints were observed.
- Two ospreys were observed circling above the northwestern area of the project. No nest was found.
- The pump station and administration building were surveyed, and no biological constraints were identified.
- No biological constraints were observed during the pump station and administrative building survey **(Photo 9)**.
- No additional observations were noted.

Items Requiring Action/Follow-up

- None.

Wildlife Species Observed

American crow (*Corvus brachyrhynchos*), black-chinned hummingbird (*Archilochus alexandri*), black phoebe (*Sayornis nigricans*), California gull, gadwall (*Mareca strepera*), great blue heron, house finch (*Haemorhous mexicanus*), killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), osprey, song sparrow (*Melospiza melodia*), and western fence lizard (*Sceloporus occidentalis*).

Photo 1			
			
Location	CECP site	**Description**	Mourning dove nest in water trailer, tail of adult and head of chick were observed, facing north.

Photo 2			
			
Location	CECP site	**Description**	ESA buffer zone is blocking the entrance to trailer, facing north.

Photo 3			
			
Location	CECP site	**Description**	Four gadwalls were observed wading in the bio-swale in the northeast corner of the site, facing northwest.

Photo 4			
			
Location	CECP site	**Description**	Overview of the CECP site, facing northwest.

Carlsbad Energy Center Project (CECP)

BIOLOGICAL RESOURCES
COMPLIANCE MONITORING LOG - OPERATIONS

Date	Monitor	Time (Begin-End)
December 6, 2019	Melissa Fowler	07:00-12:00

Temperature (°F)	Humidity (%)	Wind (mph)	Precipitation (Y/N, amount)	Visibility	Weather Comment
55	78	4	N	Good (10.0 mi)	15% cloud cover

Location(s) of Work Site Activities Monitored

NRG Energy (NRG) CECP site during plant Operations.

Summary of Biological Resources Monitoring Observations

Biological resources monitoring for biological constraints, special-status species, and nesting birds was conducted at the NRG CECP site.

Nesting Bird Observations:

- No observations were noted.

Special-Status Species Observed:

- California brown pelicans (*Pelecanus occidentalis californicus*; California Department of Fish and Wildlife Service [CDFW] Fully Protected [FP]; United States Forest Service [USFWS] Sensitive [S]) were observed within the project vicinity.
- An osprey (*Pandion haliaetus*; CDFW WL; California Department of Forestry [CDF] Sensitive [S]) was observed within the project vicinity.
- No additional special-status species were observed.

Other Biological Resources Observations:

- A Norway rat (*Rattus norvegicus*) was observed within the project site. The remains were disposed of according to site guidelines.
- A red-tailed hawk (*Buteo jamaicensis*) was observed eating prey on the ground within the eastern landscaped portion of the site.
- No additional observations were noted.

Other Observations/Comments:

- No litter was observed within the CECP site.
- All trash receptacles within the site had closed lids and no receptacles were overfilled.
- Overall the site exhibited exemplary housekeeping.
- No additional observations were noted.

Items Requiring Action/Follow-up

- None.

Wildlife Species Observed

American bushtit (*Psaltriparus minimus*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), California brown pelican, California towhee (*Melozone crissalis*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), mourning dove (*Zenaida macroura*), Norway rat, osprey, red-tailed hawk, rock pigeon (*Columba livia*), Say's phoebe (*Sayornis saya*), western fence lizard (*Sceloporus occidentalis*), western gull (*Larus occidentalis*), white-crowned sparrow (*Zonotrichia leucophrys*), and yellow-rumped warbler (*Setophaga coronata*).

Photo 1			
			
Location	CECP site	**Description**	Overview of the CECP site, facing northwest.

Photo 2			
			
Location	CECP site	**Description**	Overview of the bio-swale, facing north.

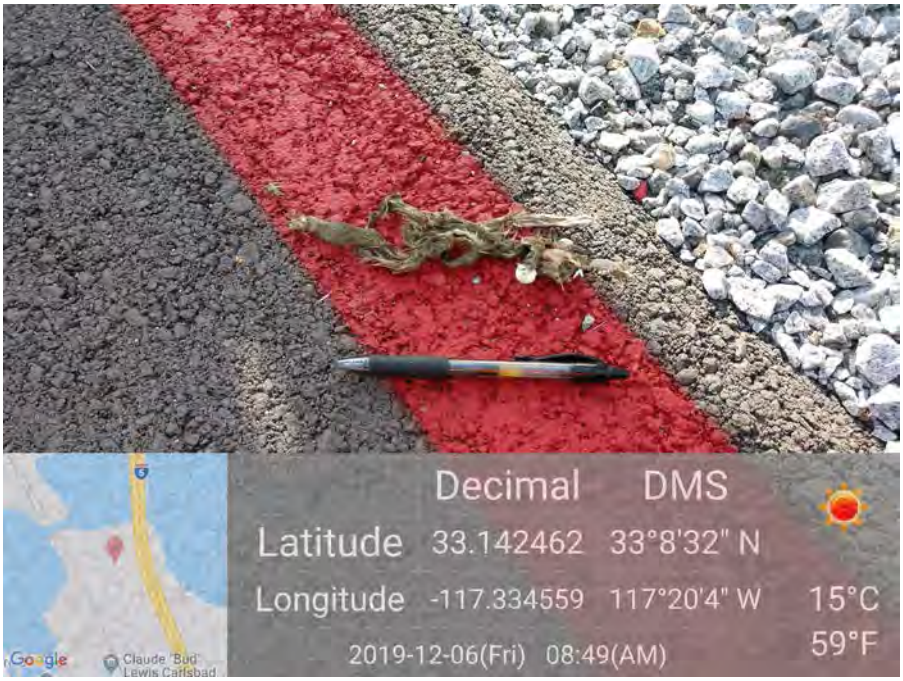
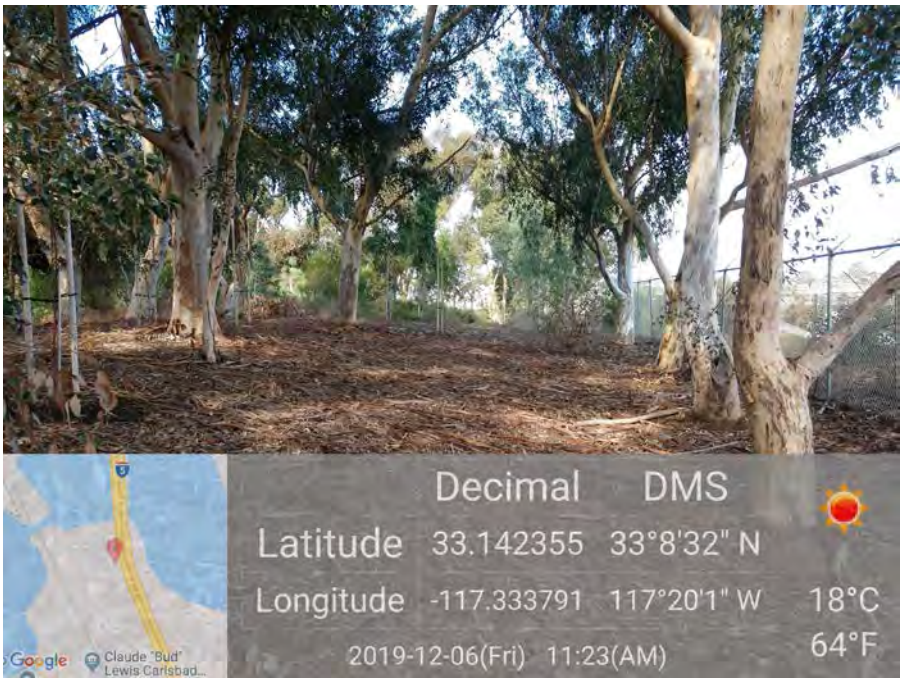
Photo 3			
			
Location	CECP site	**Description**	Desiccated Norway rat remains were found and discarded.

Photo 4			
			
Location	CECP site	**Description**	Overview of the landscaped portion of the site, facing west.

APPENDIX B OBSERVED WILDLIFE SPECIES LIST

Observed Wildlife Species List 2019 Carlsbad Energy Center Project		
Common Name	**Scientific Name**	**Status Federal/State/Other***
Birds		
American bushtit	*Psaltriparus minimus*	--/--/--
American crow	*Corvus brachyrhynchos*	--/--/--
Anna's hummingbird	*Calypte anna*	--/--/--
Bewick's wren	*Thryomanes bewickii*	--/--/--
Black-chinned hummingbird	*Archilochus alexandri*	--/--/--
Black phoebe	*Sayornis nigricans*	--/--/--
California brown pelican	*Pelecanus occidentalis californicus*	--/FP/USFS: S
California gull	*Larus californicus*	--/WL/--
Common yellowthroat	*Geothlypis trichas*	--/--/--
Cooper's hawk	*Accipiter cooperii*	--/WL/--
European starling	*Sturnus vulgaris*	--/--/--
Gadwall	*Mareca strepera*	--/--/--
Great blue heron	*Ardea herodias*	--/--/CDF: S
House finch	*Haemorhous mexicanus*	--/--/--
Killdeer	*Charadrius vociferous*	--/--/--
Lesser goldfinch	*Spinus psaltria*	--/--/--
Mourning dove	*Zenaida macroura*	--/--/--
Northern shoveler	*Anas clypeata*	--/--/--
Red-tailed hawk	*Buteo jamaicensis*	--/--/--
Say's phoebe	*Sayornis saya*	--/--/--
Song sparrow	*Melospiza melodia*	--/--/--
Western gull	*Larus occidentalis*	--/--/--
White-crowned sparrow	*Zonotrichia leucophrys*	--/--/--
Yellow-rumped warbler	*Setophaga coronata*	--/--/--
Mammals		
Desert cottontail	*Sylvilagus audubonii*	--/--/--
Norway rat	*Rattus norvegicus*	--/--/--
Reptiles		
Western fence lizard	*Sceloporus occidentalis*	--/--/--

Source:
California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database. August 2019. Special Animals List. Periodic publication. 67 pp.

Status Codes:
If status codes are not provided, it indicates that the observed species is not a special-status species.
Federal:
FE = Federally listed Endangered: species in danger of extinction throughout a significant portion of its range
FT = Federally listed Threatened: species likely to become endangered within the foreseeable future
BCC = Birds of Conservation Concern
State:
SE = State listed as Endangered
ST = State listed as Threatened
FP = Fully Protected
CSC = California Species of Special Concern Species of concern to California Department of Fish and Wildlife (CDFW) because of declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
S = Sensitive
WL = Watch List
***Other:**
Bureau of Land Management (BLM): Sensitive (S)
California Department of Forestry and Fire Protection (CDF) classifies “sensitive species” as those species that warrant special protection during timber operations.
U.S. Forest Service (USFS): Sensitive (S)

Attachment B HAZ-1: Hazardous Materials Business Plan

Carlsbad Energy Center Project (CERSID: 10765651)

Facility Information Accepted Jan 29, 2020

Submitted on 1/9/2020 1:26:57 PM by *Paul Mattesich* of Carlsbad Energy Center Project (Carlsbad, CA)
Comments by Submitter: Annual Submittal.
Submittal was ***Accepted*** on 1/29/2020 8:16:34 PM by Hasti Javid
Comments by regulator: Hi, Paul. My name is Hasti Javid and I'm the new inspector for this facility. Your Facility Information is being accepted for completeness. Since you submitted all 3 required submittal elements ((Facility Information; Hazardous Materials Inventory; and Emergency Response and Training Plans, this submittal as a whole meets the annual HMBP certification requirement for your facility. Your next annual HMBP certification will be due by January 9, 2021. As a courtesy reminder, any substantial change to your HMBP must be submitted within 30 days of the change per HSC Section 25508.1. Thank you and feel free to contact me if you have any questions or need further assistance. Hasti.Javid@sdcounty.ca.gov; 619-847-0242.

- Business Activities
- Business Owner/Operator Identification

Hazardous Materials Inventory Accepted Jan 29, 2020

Submitted on 1/9/2020 1:26:57 PM by *Paul Mattesich* of Carlsbad Energy Center Project (Carlsbad, CA)
Comments by Submitter: Updated with benzene containing waste oil and oily debris. Updated max daily quantity of sodium hypochlorite.
Submittal was ***Accepted*** on 1/29/2020 8:18:11 PM by Hasti Javid
Comments by regulator: Your Hazardous Materials Inventory is being accepted for completeness. Since you submitted all 3 required submittal elements (Facility Information; Hazardous Materials Inventory; and Emergency Response and Training Plans), this submittal as a whole meets the annual HMBP certification requirement for your facility. Your next annual HMBP certification will be due by January 9, 2021. As a courtesy reminder, any substantial change to your HMBP must be submitted within 30 days of the change per HSC Section 25508.1. Thank you and feel free to contact me if you have any questions or need further assistance. Hasti.Javid@sdcounty.ca.gov; 619-847-0242.

- Hazardous Material Inventory (22)
- Site Map (Official Use Only)
  - *Annotated Site Map (Official Use Only)* (Adobe PDF, 614KB)

Emergency Response and Training Plans Accepted Jan 29, 2020

Submitted on 1/9/2020 1:26:57 PM by *Paul Mattesich* of Carlsbad Energy Center Project (Carlsbad, CA)
Submittal was ***Accepted*** on 1/29/2020 8:19:14 PM by Hasti Javid
Comments by regulator: Your Emergency Response and Training Plan is being accepted for completeness. Since you submitted all 3 required submittal elements (Facility Information; Hazardous Materials Inventory; and Emergency Response and Training Plans), this submittal as a whole meets the annual HMBP certification requirement for your facility. Your next annual HMBP certification will be due by January 9, 2021. As a courtesy reminder, any substantial change to your HMBP must be submitted within 30 days of the change per HSC Section 25508.1. Thank you and feel free to contact me if you have any questions or need further assistance. Hasti.Javid@sdcounty.ca.gov; 619-847-0242.

- Emergency Response/Contingency Plan
  - *Emergency Response/Contingency Plan* (Adobe PDF, 1163KB)
- Employee Training Plan
  - Provided In Submital Element: Emergency Response and Training Plans

Aboveground Petroleum Storage Act Accepted Jan 29, 2020

Submitted on 1/9/2020 1:26:57 PM by *Paul Mattesich* of Carlsbad Energy Center Project (Carlsbad, CA)
Submittal was ***Accepted*** on 1/29/2020 8:21:36 PM by Hasti Javid
Comments by regulator: Your APSA submittal is being accepted for completeness. Thank you and feel free to contact me if you have any questions or need further assistance. Hasti.Javid@sdcounty.ca.gov; 619-847-0242.

- Aboveground Petroleum Storage Act Documentation
  - *Aboveground Petroleum Storage Act Documentation* (Adobe PDF, 97KB)
- APSA Facility Information

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**Diesel Fuel, #2** CAS No 68334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Steel Drum, Can Days on Site: 365	**55**	300 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B	**Gasoline** CAS No 86290-81-5	**Gallons** State Liquid Type Pure	**200** Storage Container Can Days on Site: 365	**5**	100 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity				
DOT: 8 - Corrosives (Liquids and Solids) Corrosive	**Lead Acid Batteries** CAS No	**Gallons** State Liquid Type Mixture	**195** Storage Container Other Days on Site: 365	**13**	195 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Physical Explosive - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sulfuric Acid Lead	30 % 70 %	✓	7664-93-9 7439-92-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Nitrogen** CAS No 7727-37-9	**Cu. Feet** State Gas Type Pure	**18000** Storage Container Cylinder Days on Site: 365	**304**	3600 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure				
DOT: 2.1 - Flammable Gases Flammable Gas	**Liquefied Petroleum Gas (lpg)** CAS No 74-98-6	**Gallons** State Gas Type Pure	**3000** Storage Container Cylinder Days on Site: 365	**5**	1200 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure				
DOT: 8 - Corrosives (Liquids and Solids)	**Corrshield MD4100** CAS No	**Gallons** State Liquid Type Mixture	**75** Storage Container Plastic/Non-metalic Drum Days on Site: 365	**5**	55 Pressue Ambient Temperature Ambient	Waste Code	- Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sodium Nitrite	20 %		7632-00-0
DOT: 9 - Misc. Hazardous Materials	**Natural Gas Knockout Tank Oil Waste** CAS No	**Gallons** State Liquid Type Waste	**300** Storage Container Aboveground Tank, Steel Drum, Tank Wagon	**55**	200 Pressue Ambient Temperature Ambient	800 Waste Code 331	- Health Carcinogenicity	Benzene	0 %	✓	71-43-2
DOT: 9 - Misc. Hazardous Materials	**Used Oil With Benzene** CAS No	**Gallons** State Liquid Type Waste	**165** Storage Container Steel Drum Days on Site: 365	**55**	55 Pressue Ambient Temperature Ambient	275 Waste Code 221	- Health Carcinogenicity - Health Hazard Not Otherwise Classified	Waste Petroleum Hydrocarbons Benzene	98 % 2 %		Mixture 71-43-2
DOT: 9 - Misc. Hazardous Materials	**Waste Oily Debris with Benzene** CAS No	**Pounds** State Solid Type Waste	**450** Storage Container Steel Drum Days on Site: 365	**150**	150 Pressue Ambient Temperature Ambient	750 Waste Code 181	- Health Carcinogenicity - Health Hazard Not Otherwise Classified	Oil with Benzene	10 %		

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**CARBON DIOXIDE, COMPRESSED GAS** CAS No: 124-38-9 State: Gas Type: Pure Storage Container: Cylinder Days on Site: 365 Pressue: > Ambient Temperature: Ambient	**Cu. Feet**	**2500**	**143**	400	Waste Code	- Physical Gas Under Pressure				
	Nytro 11 GBXUS Transformer Oil CAS No: State: Liquid Type: Mixture Storage Container: Aboveground Tank Days on Site: 365 Pressue: Ambient Temperature: Ambient	**Gallons**	**49000**	**9062**	49000	Waste Code	- Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Hydrotreated Light Naphthenic Distillate Hydrotreated Middle Naphthenic Distillate Solvent-dewaxed light paraffinic 2,6-ditertiary butyl-4-methyl phenol	60 % 40 % 40 % 0 %		64742-53-6 64742-46-7 64742-56-9 128-37-0

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location **Ammonia Tank**

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Corrosive, Flammable Gas	**Aqueous Ammonia** CAS No	**Gallons** State: Liquid Type: Mixture	**16067** Storage Container: Aboveground Tank Days on Site: 365	**16067**	14000 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Ammonia	19 %	✓	7664-41-7

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location **Fuel Gas Compressors**

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	SAE 40 wt Engine Oil - Compressors CAS No	**Gallons** State: Liquid Type: Mixture	**275** Storage Container: Other Days on Site: 365	**55**	220 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	1-DECENE, HOMOPOLYMER HYDROGENATED TRIPHENYL PHOSPHATE	40 % 0 %		68037-01-4 115-86-6

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location **Hazardous Waste Storage Area**

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 9 - Misc. Hazardous Materials	**USED OIL** CAS No	**Gallons** State: Liquid Type: Waste	**800** Storage Container: Steel Drum Days on Site: 365	**55**	400 Pressue: Ambient Temperature: Ambient	2000 Waste Code: 221	- Health Hazard Not Otherwise Classified	Waste Petroleum Hydrocarbons			Mixture
DOT: 9 - Misc. Hazardous Materials	**OILY DEBRIS** CAS No	**Pounds** State: Solid Type: Waste	**3000** Storage Container: Steel Drum Days on Site: 365	**150**	1000 Pressue: Ambient Temperature: Ambient	6000 Waste Code: 352	- Health Hazard Not Otherwise Classified				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location
In Equipment, Oil Storage

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids	**Mineral Lube Oil** CAS No	**Gallons** State: Liquid Type: Mixture	**48000** Storage Container: Steel Drum, Other Days on Site: 365	**7400**	46000 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	2,6-DI-TERT-BUTYLPHENOL	1 %		128-39-2
Combustible Liquid, Class II	**Synthetic Lube Oil** CAS No	**Gallons** State: Liquid Type: Mixture	**2000** Storage Container: Steel Drum, Tote Bin, Other Days on Site: 365	**300**	1500 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Hazard Not Otherwise Classified - Health Hazard Not Otherwise Classified	N-PHENYL-1-NAPHTHYLAMINE 9,10-ANTHRACENEDIONE, 1,4-DIHYDROXY- ALKYLATED DIPHENYL AMINES TRICRESYL PHOSPHATE	1 % 0 % 5 % 3 %		90-30-2 81-64-1 68411-46-1 1330-78-5
	Hydraulic Lube Oil CAS No	**Gallons** State: Liquid Type: Mixture	**500** Storage Container: Steel Drum, Other Days on Site: 365	**55**	330 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Hazard Not Otherwise Classified	2,6-DI-TERT-BUTYL-P-CRESOL NAPHTHALENESULFONIC ACID, DINONYL-, CALCIUM PHOSPHORODITHIOIC ACID, MIXED 0,0-BIS(2-ETHYL	0 % 1 % 1 %		128-37-0 57855-77-3 68442-22-8

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location
Unit CEMS, Compressed Gas Storage

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	CEMS GAS, CO	**Cu. Feet**	**1120**	**140**	700		- Physical Flammable - Physical Gas Under Pressure - Health Acute Toxicity - Health Reproductive Toxicity - Health Specific Target Organ Toxicity - Health Simple Asphyxiant	Carbon Monoxide	0 %		630-08-0
	CAS No	State: Gas	Storage Container: Cylinder		Pressue: > Ambient	Waste Code		Nitrogen	100 %		7727-37-9
		Type: Mixture	Days on Site: 365		Temperature: Ambient						
	CEMS GAS, NO	**Cu. Feet**	**1920**	**240**	1200		- Physical Gas Under Pressure - Physical Oxidizer - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Nitrogen	100 %		7727-37-9
	CAS No	State: Gas	Storage Container: Cylinder		Pressue: > Ambient	Waste Code		Nitric Oxide	0 %	✓	10102-43-9
		Type: Mixture	Days on Site: 365		Temperature: Ambient						
	CEMS GAS, O2	**Cu. Feet**	**1920**	**240**	1200		- Physical Gas Under Pressure	Nitrogen	80 %		7727-37-9
	CAS No	State: Gas	Storage Container: Cylinder		Pressue: > Ambient	Waste Code		Oxygen	20 %		7782-44-7
		Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Carlsbad Energy Center Project**
Facility Name **Carlsbad Energy Center Project**
4950 Avenida Encinas, Carlsbad 92008

Chemical Location **Water Tank Area**

CERS ID **10765651**
Facility ID **37-000-004698**
Status **Submitted** on 1/9/2020 1:26 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Oxidizing, Class 2	**Sodium Hypochlorite 12.5%** CAS No 7681-52-9	**Gallons** State Liquid Type Pure	**1650** Storage Container Tote Bin, Other Days on Site: 365	**330**	990 Pressue Ambient Temperature Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sodium Hypochlorite	13 %		7681-52-9

Attachment C HAZ-8: Contractor Verification Statement

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

March 30, 2020

Subject: CARLSBAD ENERGY CENTER COM-8 REPORT – HAZ-8: Contractor Verification Statement

The Carlsbad Energy Center Project takes the following actions to maintain compliance with the requirements in HAZ-8:

- All NRG employees at CECP undergo a background check in the onboarding process.
- All contractors are vetted by the NRG and Clearway procurement through the AdaptOne vendor registration and screening process. Vendors must complete and maintain current AdaptOne status before the contractor is allowed to conduct work at CECP.

Attachment D SOIL&WATER-4: EPS Water Reports

Goerl, Ryan

From: Ali, Anwar@Energy <anwar.ali@energy.ca.gov>
Sent: Wednesday, November 27, 2019 1:32 PM
To: Sisk, Tim
Cc: Piantka, George; Wagner, Ralph; Monroe, Kim; Carter, Jerry
Subject: RE: Soil&Water-4 and Soil&Water-9 - Concurrence with Condition of Certification(s)

Hello Tim:

This is to inform you that we have approved Soil&Water-4 and Soil&Water-9.

Thank you and have a wonderful Thanksgiving Holiday.

Anwar

From: Sisk, Tim [mailto:Tim.Sisk@nrg.com]
Sent: Friday, November 22, 2019 11:02 AM
To: Ali, Anwar@Energy <anwar.ali@energy.ca.gov>
Cc: Piantka, George <George.Piantka@nrg.com>; Wagner, Ralph <Ralph.Wagner@nrg.com>; Sisk, Tim <Tim.Sisk@nrg.com>; Monroe, Kim <Kim.Monroe@nrg.com>; Carter, Jerry <Jerry.Carter@nrg.com>
Subject: Soil&Water-4 and Soil&Water-9 - Concurrence with Condition of Certification(s)

Anwar,

As we discussed, please see the attached email from the San Diego Regional Water Quality Control Board which addresses the applicability of the already existing and in-hand Cabrillo Power I LLC water quality permits (Order Nos. R9-2006-0043 and 2009-0009-DWQ) to meet the requirements of Soil&Water-4 and Soil&Water-9.

Please let us know if we can provide any other required documentation or answer any questions.

Regards,
Timothy R. Sisk
Manager, Environmental Business
NRG Energy, West Region
4600 Carlsbad Boulevard
Carlsbad, CA 92008
760-930-1507 (o)
860-334-8081 (c)

Goerl, Ryan

From: Neill, Ben@Waterboards <Ben.Neill@waterboards.ca.gov>
Sent: Friday, November 22, 2019 8:49 AM
To: Sisk, Tim
Cc: Piantka, George; Carter, Jerry; Wagner, Ralph; Walsh, Laurie@Waterboards; Barker, David@Waterboards
Subject: San Diego Water Board Concurrence with Conditions of Certifications
Attachments: 2019-03-22_EPS_ROWD_review.pdf

Hi Tim,

By email dated October 31, 2019, Cabrillo Power I LLC (Discharger) requested the San Diego Regional Water Quality Control Board (San Diego Water Board) concurrence regarding the Discharger's compliance with Conditions of Certification (COC) Soil&Water-4 and Soil&Water-9 in Appendix A of the California Energy Commission (CEC) Carlsbad Energy Center Project Presiding Member's Proposed Decision (June 2015, CEC-800-2015-0001 PMPD). This decision contains the rationale of the CEC for approving the Carlsbad Energy Center Project and requires COCs for the demolition of the Encina Power Station (EPS) owned by Cabrillo Power I LLC. The San Diego Water Board reviewed the COC Soil&Water-4 and Soil&Water-9 and concurs that the Discharger meets the requirements of Soil&Water-4 and Soil&Water-9. The San Diego Water Board's comments follow:

COC Soil&Water-4 states:

> "*The project owner shall submit to the San Diego Regional Water Quality Control Board (SDRWQCB) all information required by the SDRWQCB to obtain a Waste Discharge Requirements (WDR) Order for the discharge of EPS demolition wastewater to the Pacific Ocean in accordance with NPDES requirements. The project owner shall submit to the CPM all copies of correspondence between the project owner and the SDRWQCB regarding the WDR Order within ten days of its receipt or submittal."*

COC Soil&Water-9 states:

> *"Prior to transport and disposal of any facility construction or demolition-related wastewaters offsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project owner shall provide evidence that wastewater is disposed of at an appropriately licensed facility. The project owner shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements).*
>
> *Where discharge of wastewater must comply with the San Diego Regional Water Quality Control Board (SDRWQCB) and State Water Resources Control Board regulatory requirements, the project owner shall submit a Report of Waste Discharge (ROWD) to the compliance project manager (CPM) and SDRWQCB for determination of which regulatory waiver or permit applies to the proposed discharges. The project owner shall pay all necessary fees for filing and review of the ROWD and all other related fees. Checks for such fees shall be submitted to the SDRWQCB and shall be payable to the State Water Resources Control Board. The project owner shall ensure compliance with the provisions of the waiver or permit applicable to the discharge. Where the regulatory requirements are not applied pursuant to a National Pollutant Discharge Elimination System permit, it is the Commission's intent that the requirements of the applicable waiver or permit be enforceable by both the Commission and the SDRWQCB. In furtherance of that objective, the Commission hereby delegates the enforcement of the waiver or permit requirements, and associated monitoring, inspection, and annual fee collection authority, to the SDRWQCB. The CPM and SDRWQCB shall confer with each other and coordinate, as needed, in the enforcement of the requirements."*

The discharge of wastewater from the demolition of EPS is currently regulated by San Diego Water Board Order No. R9-2006-0043, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001350, *Waste Discharge Requirements for Cabrillo Power I LLC Encina Power Plant San Diego County.* On February 22, 2019, the Discharger submitted a Report of Waste Discharge (ROWD) to renew Order No. R9-2006-0043. The San Diego Water Board reviewed the ROWD and considers the application complete for purposes of renewing the permit, see the attached correspondence dated March 22, 2019. The San Diego Water Board is currently drafting tentative requirements to renew the permit and will hold a public hearing in the spring of 2020 for adoption of the tentative requirements. The renewed permit will continue to regulate the discharge of wastewater from the demolition of EPS to ensure that the wastewater discharge does not cause or contribute to an exceedance of water quality standards in the Pacific Ocean.

In addition, on September 26, 2019 the Discharger submitted a Notice of Intent with a Storm Water Pollution Prevention Plan for regulatory coverage under the State Water Resources Control Board Order 2009-0009-DWQ, *NPDES General Permit No. CAS000002 Waste Discharge Requirements for Storm Water Discharges Associated with Construction and Land Disturbance Activities.* The NOI serves as a ROWD for purposes of applying for Order 2009-0009-DWQ. The State Water Board reviewed the NOI and on October 1, 2019, the Discharger was enrolled in Order 2009-0009-DWQ to regulate the discharge of pollutants in storm water and non-storm water discharges from the demolition of EPS.

Together, Order Nos. R9-2006-0043 and 2009-0009-DWQ regulate the discharge of EPS demolition wastewater to the Pacific Ocean as required by COC Soil&Water-4 and Soil&Water-9. The San Diego Water Board concurs that the Discharger has met the requirements of the COCs. If you have any questions regarding this email, please contact me at the contact information below.

Sincerely,

Ben Neill, P. E.
Water Resource Control Engineer
San Diego Regional Water Quality Control Board
Tel: (619) 521-3376
Email: ben.neill@waterboards.ca.gov

SUBJECT: 2019 ANNUAL NPDES WASTE DISCHARGE REPORT- ENCINA POWER STATION/NPDES NO. CA0001350

Pursuant to Order No. R9-2006-0043 (NPDES No. CA0001350), for Cabrillo Power I Encina Power Station, we are herewith submitting the annual summary report for the 2019 operating year.

There were no discharge limitation exceedances at the Encina Power Station during 2019.

No Metal Cleaning Wastes were processed during 2019.

Cooling water intake and discharge temperatures were measured and recorded during plant operation and the daily average temperature differentials did not exceed the 20 degrees Fahrenheit limits.

There were no heat treatments conducted during 2019.

No compliance inspections were conducted during 2019.

Included in this report are:

Tabular and/or graphic summaries of the following monitored parameters:

- Bar Rack Sediment Accumulations — Table 1
- Bar Rack Approach Velocities — Table 2
- Annual Chemical Purchases — Table 3
- Average Monthly Flow Rates – CD — Chart 1/Table 4
- Average Monthly Temperature – CWI & CD — Chart 2/Table 4
- pH (Monthly) – CD — Chart 3/Table 5
- Total Suspended Solids (Monthly) – CD — Chart 4/Table 5
- Total Residual Chlorine (Monthly) – CD — Chart 5/Table 5
- Turbidity (Monthly) – CD — Chart 6/Table 5
- pH (Monthly) – CWI — Chart 7/Table 6
- Total Suspended Solids (Monthly) – CWI — Chart 8/Table 6
- Turbidity (Monthly) – CWI — Chart 9/Table 6
- pH (Monthly) – LVW — Chart 10/Table 7
- Hexane Extractable Material <Oil & Grease> (Monthly) – LVW — Chart 11/Table 7
- Total Suspended Solids (Monthly) – LVW — Chart 12/Table 7
- Annual Total Residual Chlorine Testing — Table 8
- Metal Cleaning Waste — Table 9

Cooling Water Intake structure monitoring data, including:

- Intake Structure – page 6

CABRILLO POWER I LLC - ANNUAL REPORT

FACILITY:	Encina Power Station
ORDER NO:	R9-2006-0043
REPORT FREQUENCY:	Annually
REPORT FOR:	2019
REPORT DUE:	February 1, 2020
REPORT:	Annual Summary of Monitoring Data

By February 1st of each year, the discharger shall submit an annual report to the Executive Officer. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharger into full compliance with the water discharge requirements of this order.

CABRILLO POWER I LLC - ANNUAL REPORT

FACILITY:	Encina Power Station
ORDER NO:	R9-2006-0043
REPORT FREQUENCY:	Annually
REPORT FOR:	2019
REPORT DUE:	February 1, 2020
WASTE STREAM:	Bar Rack and Intake Structure

The discharger shall annually measure bar rack approach velocity and sediment accumulation at the intake structure and shall submit to the Executive Officer an annual summary describing any operational difficulties at the intake structure or the bar rack. The discharger shall also discuss preventive maintenance and corrective measures taken to assure intake water velocities are as close as practical to design levels.

Sediment accumulation at the intake structure was measured on March 19, 2019. The results are shown in Table 1.

Bar rack approach velocities were measured on March 20, 2019. The results are shown in Table 2.

There were no significant operational difficulties affecting the cooling water intake structures or bar racks during 2019.

Measurements taken to assure intake velocities are as close to design levels, include:

1. Bar racks were raked starting at 0830 hours on 03/20/19
2. Racks removed and scraped clean on 03/20/19, from 0830 – 0845 hours, prior to the start of testing
3. Measurements were performed at the center of the racks, 3 feet below the water surface

TABLE 1: 2019 ENCINA POWER PLANT BAR RACK SEDIMENT ACCUMULATIONS

Bar Rack	Sample Date	Sediment Accumulation Above the Bar Rack Base
1 West	03/19/2019	-5”
2	03/19/2019	2”
3	03/19/2019	0”
4 East	03/19/2019	1”

TABLE 2: 2019 ENCINA POWER PLANT BAR RACK APPROACH VELOCITIES

Bar Rack	Sample Date	Time	Tide (feet)*	Velocity (FPS)
1West	03/20/2019	0923	6.5	1.22
2	03/20/2019	0915	6.4	1.36
3	03/20/2019	0906	6.2	1.23
4East	03/20/2019	0900	6.1	0.98

* 2019 San Diego Tides Calendar – Tidelines, Tidelines, P.O. Box 230431, Encinitas, CA 92023-0431.

NOTE:

1. Bar racks were raked starting at 0830 on 03/20/2019. Racks were clean when the testing was performed.
2. CW pumps operating - Unit 4 East; Unit 5 East.
3. FPS = Feet Per Second
4. Measurements were performed at the center of the racks, 3 feet below the water surface.

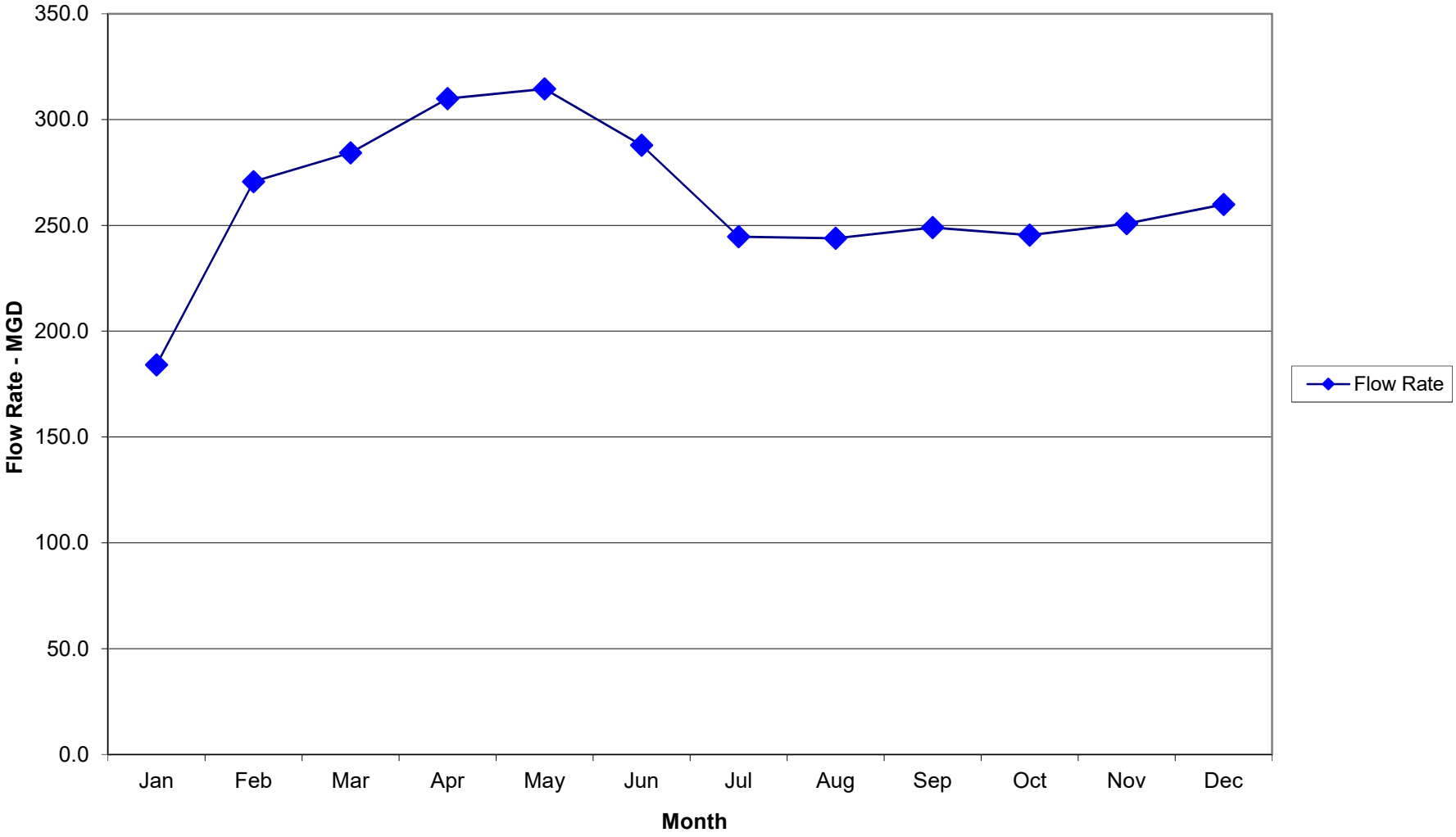
TABLE 3: 2019 ENCINA POWER STATION ANNUAL CHEMICAL PURCHASES

Chemical	Quantity	Point of Use
ELIMINOX	0 lb	Boiler
Disodium phosphate	0 lb	Boiler
Neutralizing amine	0 lb	Boiler
Sodium hydroxide (caustic soda beads)	0 lb	Boiler
Sodium hypochlorite (0.1% solution)	48,328 klb	Cooling water
Sodium hypochlorite (bleach)	0 lb	Reverse Osmosis Unit
Trisodium phosphate	0 lb	Boiler
Hydrochloric acid	0 lb	Reverse Osmosis Unit
Vitec 3000 (antiscalant)	0 lb	Reverse Osmosis Unit
Sulfuric acid	0 lb	Demineralizer, Wastewater, Reverse Osmosis Unit
Sodium hydroxide (50% caustic soda)	0 lb	Demineralizer, Wastewater, Reverse Osmosis Unit
Nalco Trac 107	0 lb	Boiler

TABLE 4: 2019 ENCINA POWER STATION SUMMARY OF WASTE DISCHARGE MONITORING DATA
COMBINED DISCHARGE TEMPERATURE AND FLOW RATE MONTHLY AVERAGE

MONTH	INTAKE (°F)	DISCHARGE (°F)	DELTA T (°F)	FLOW (MGD)
January	59.3	59.7	0.4	184.1
February	57.8	58.3	0.6	270.6
March	60.2	60.3	0.1	284.2
April	63.6	63.6	0.0	309.9
May	65.3	65.4	0.1	314.5
June	67.4	67.1	0.0	287.9
July	71.4	70.9	0.0	244.6
August	72.5	71.9	0.0	243.9
September	73.9	73.8	0.0	249.0
October	66.9	67.0	0.1	245.4
November	63.2	63.6	0.3	250.8
December	59.8	60.3	0.5	259.8

Flow Rate - Combined Discharge
Encina Power Station - 2019 Annual Summary



Mean Temperatures - Intake & Combined Discharge
Encina Power Station - 2019 Annual Summary

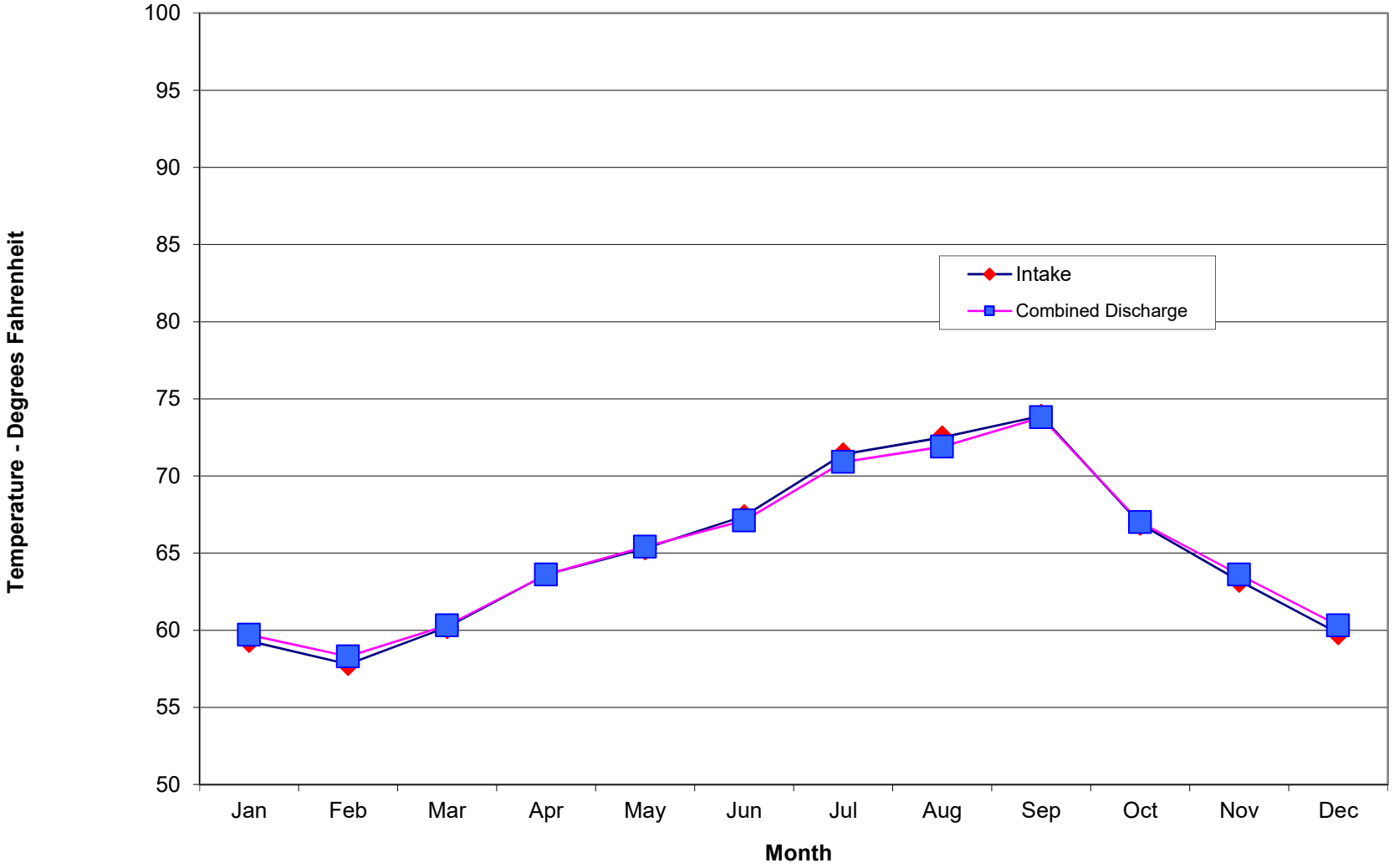


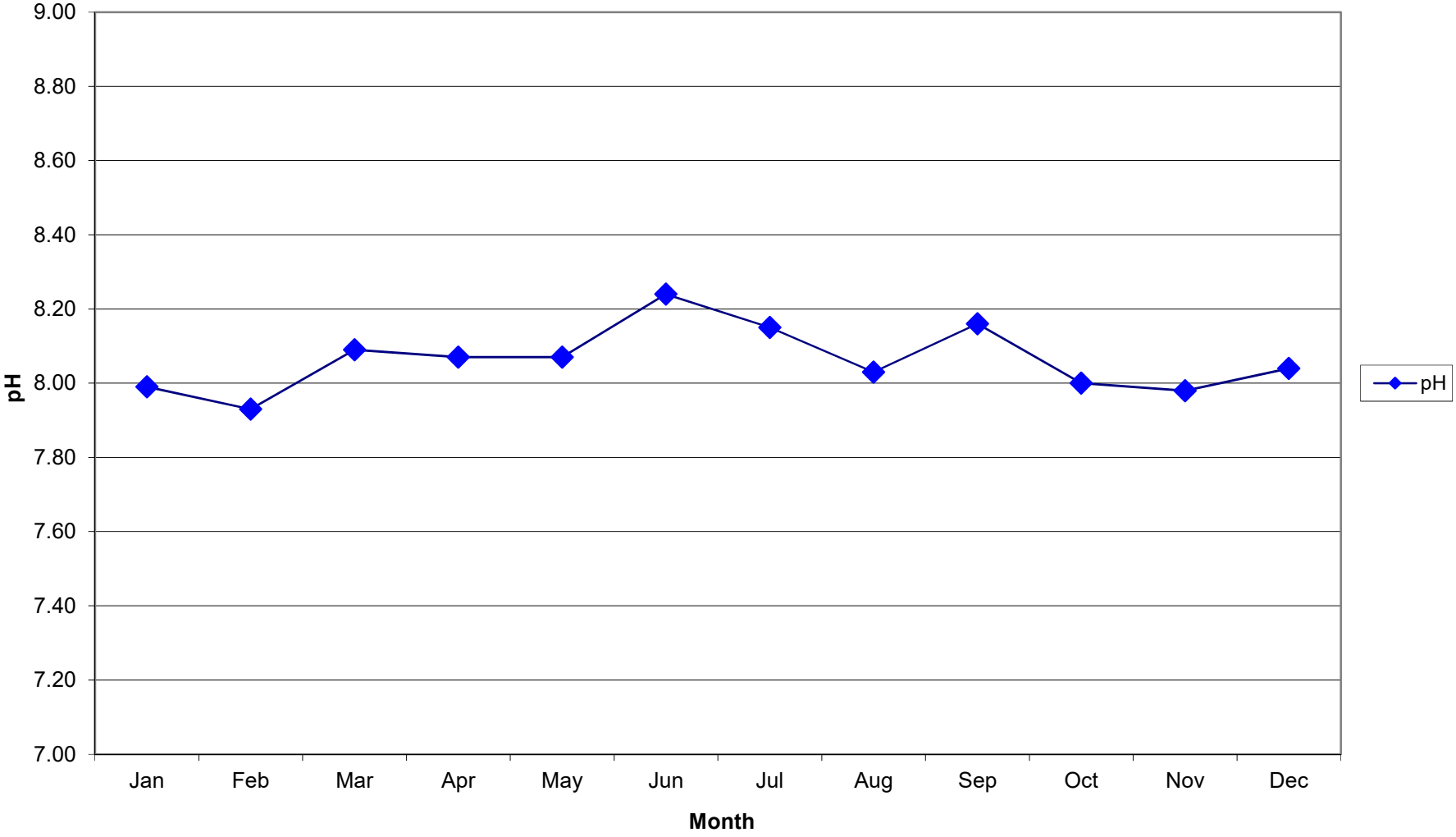
TABLE 5: 2019 ENCINA POWER PLANT SUMMARY OF WASTE DISCHARGE MONITORING DATA
COMBINED DISCHARGE MONTHLY AVERAGE ON DISCHARGE DAYS

MONTH	TURBIDITY (NTU)	TOTAL SUSPENDED SOLIDS (MG/L)	pH (pH Units)	DAILY MAXIMUM TOTAL RESIDUAL CHLORINE (UG/L)
January	3.7	8.1	7.99	<30
February	29.0	49.0	7.93	<30
March	1.8	13.0	8.09	<30
April	2.5	6.9	8.07	<30
May	0.5	11.0	8.07	<30
June	0.9	11.0	8.24	<30
July	0.6	5.8	8.15	<30
August	1.2	6.8	8.03	<30
September	0.5	18.0	8.16	<30
October	1.4	22.0	8.00	<30
November	0.4	14.0	7.98	<30
December	0.7	15.0	8.04	<30

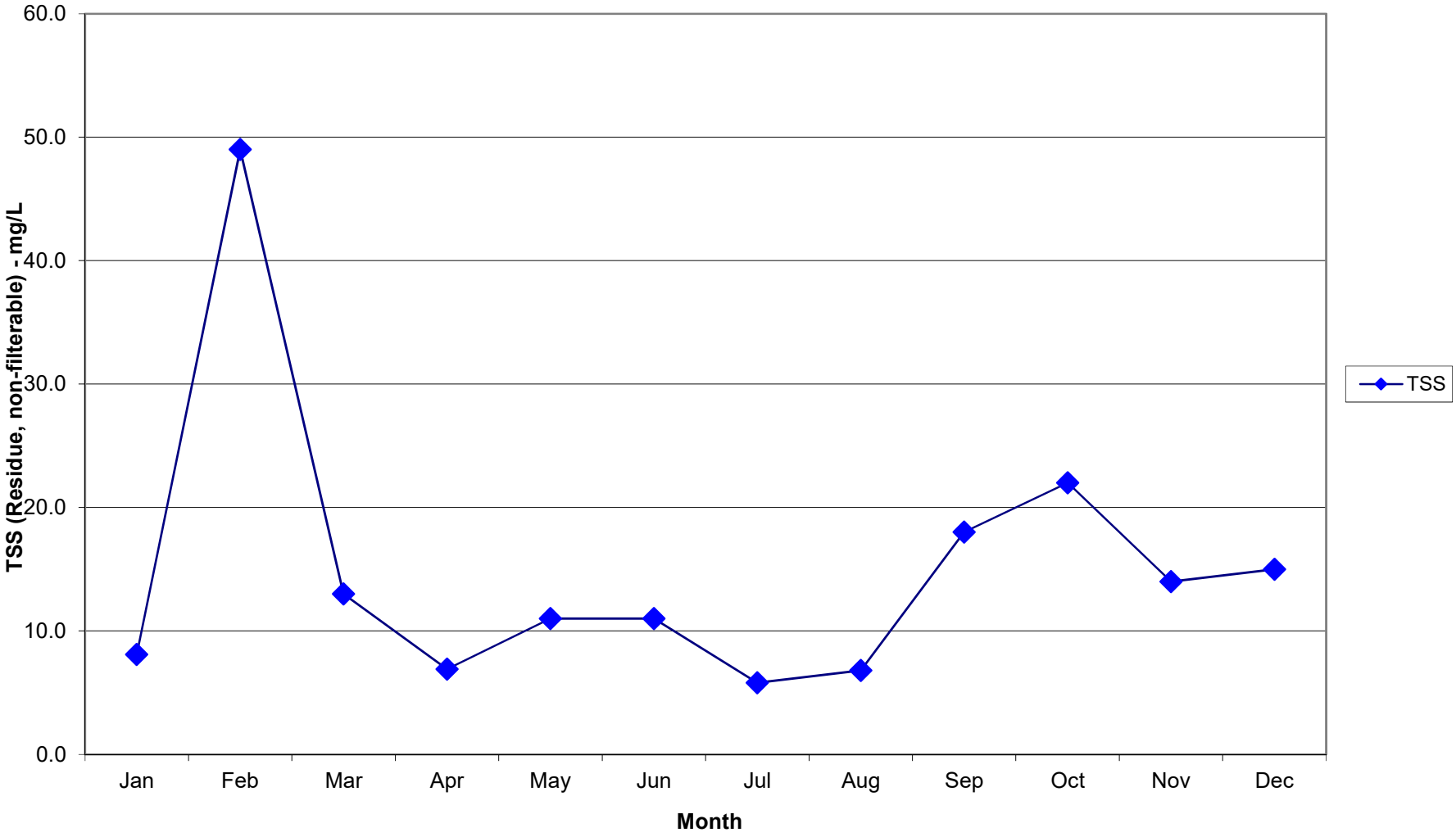
'<' Means that one or more sample result(s) was (were) non-detectable.

PARAMETER NAME	METHOD NAME	DETECTION LIMIT	UNIT
RESIDUE, non-filterable (TSS)	SM 2540 D	1.1	mg/L
TURBIDITY	SM 2130 B	0.10	NTU
pH	SM 4500-H+ B	--	--
CHLORINE, TOTAL RESIDUAL	SM 4500-Cl G	30	µg/L

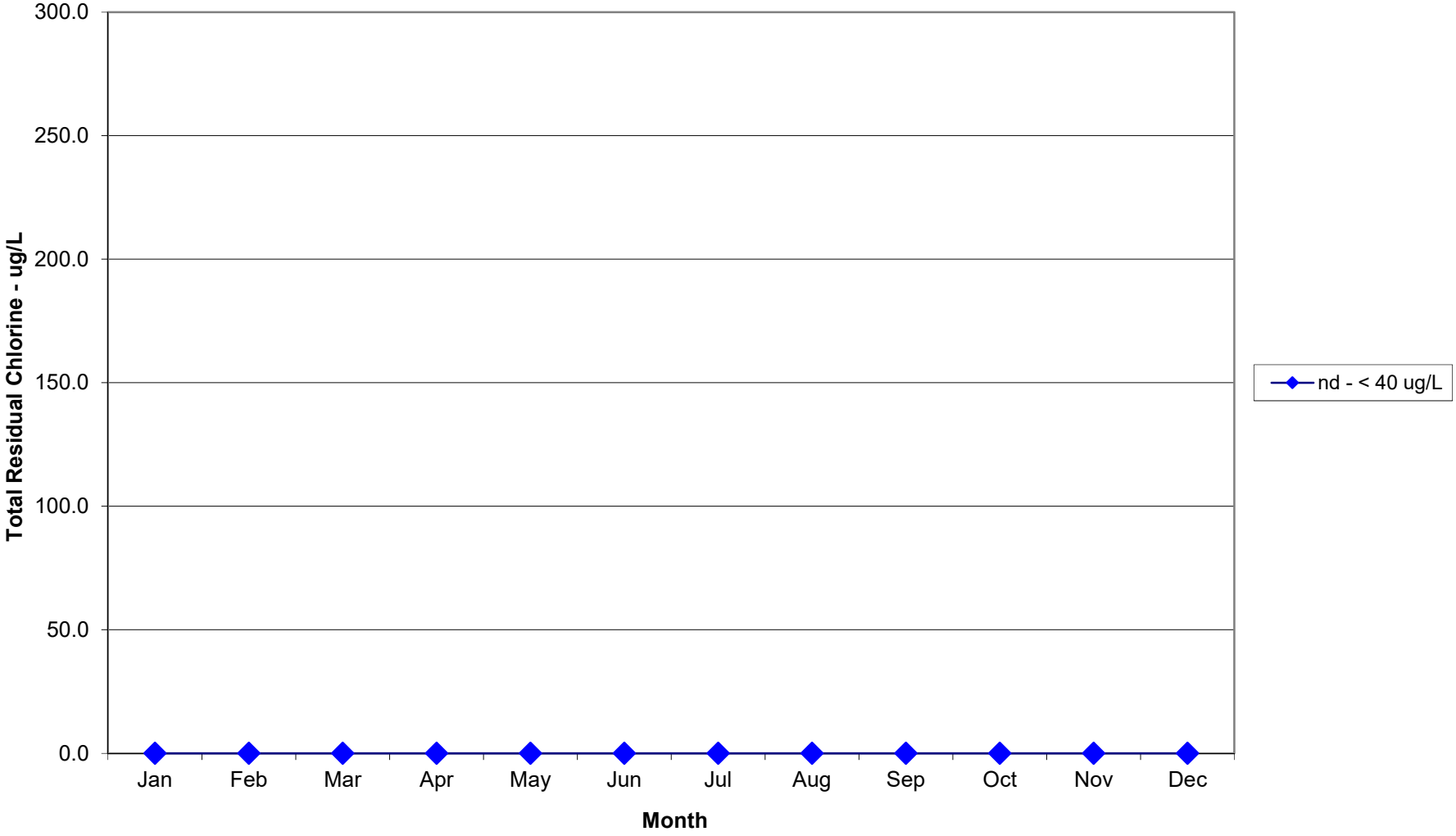
pH - Combined Discharge
Encina Power Station - 2019 Annual Summary



TSS - Combined Discharge
Encina Power Station - 2019 Annual Summary



Total Residual Chlorine - Combined Discharge
Encina Power Station - 2019 Annual Summary



Turbidity - Combined Discharge
Encina Power Station - 2019 Annual Summary

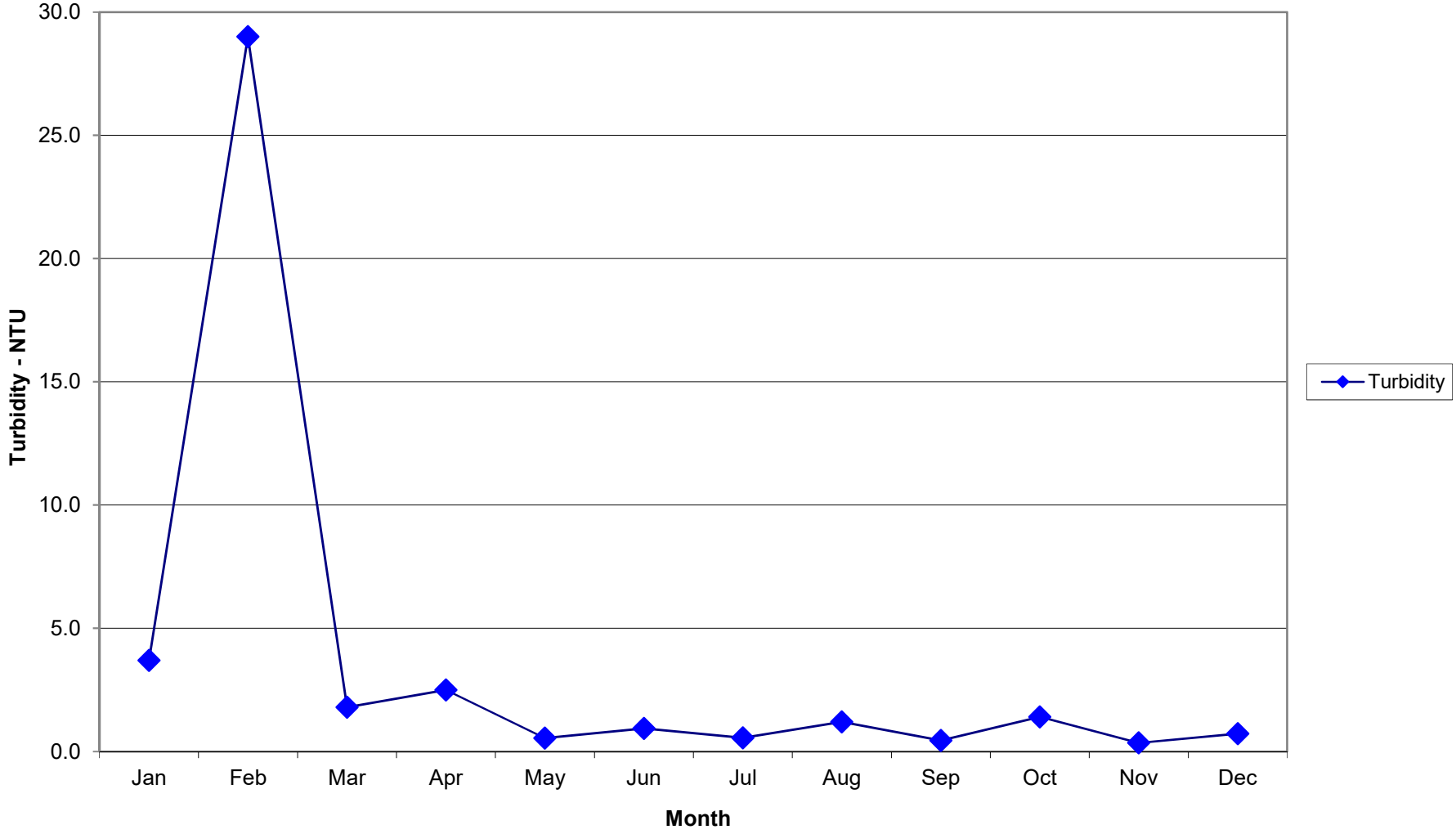
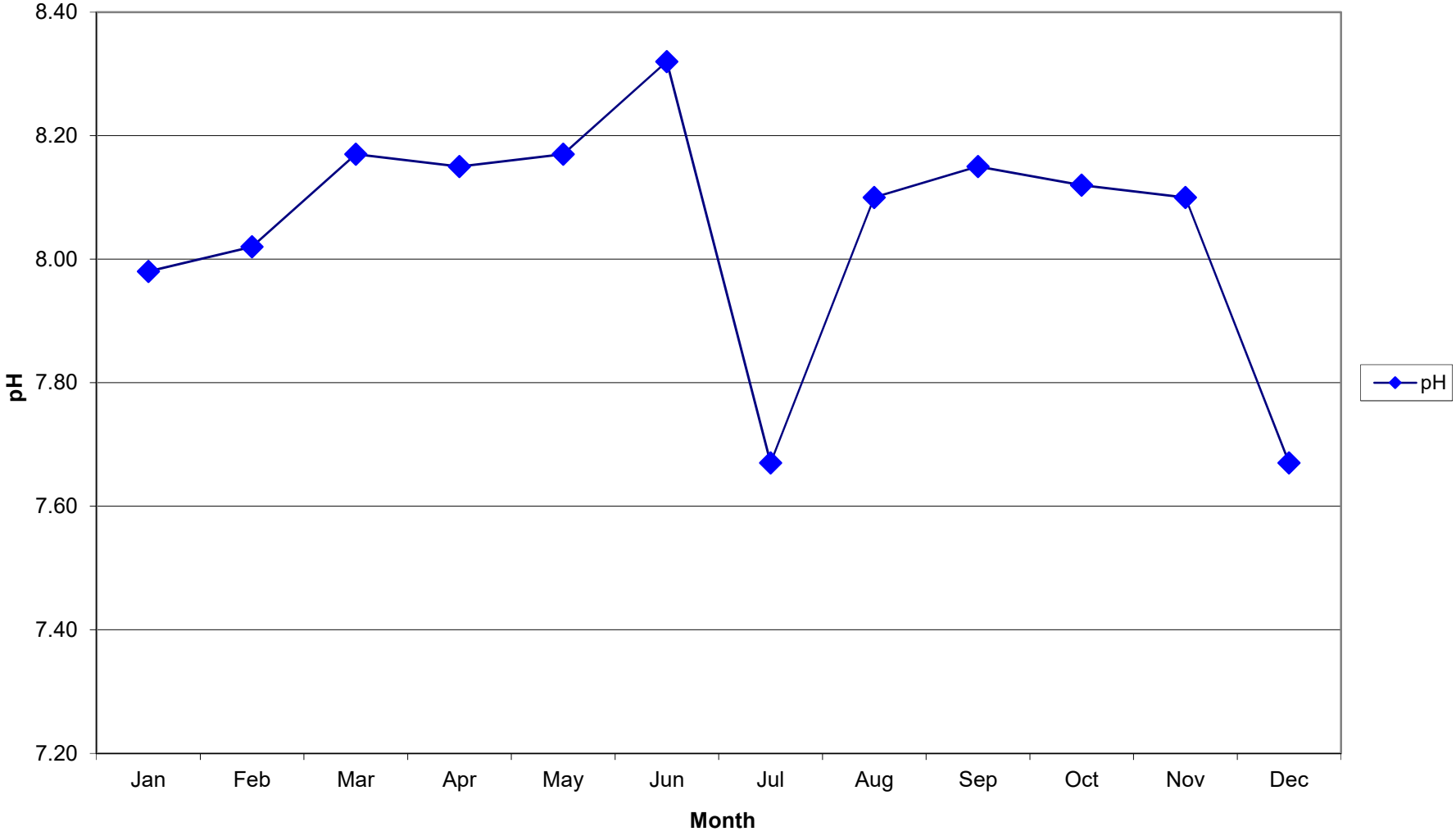


TABLE 6: 2019 ENCINA POWER PLANT SUMMARY OF WASTE DISCHARGE MONITORING DATA
COOLING WATER INTAKE MONTHLY AVERAGE ON DISCHARGE DAYS

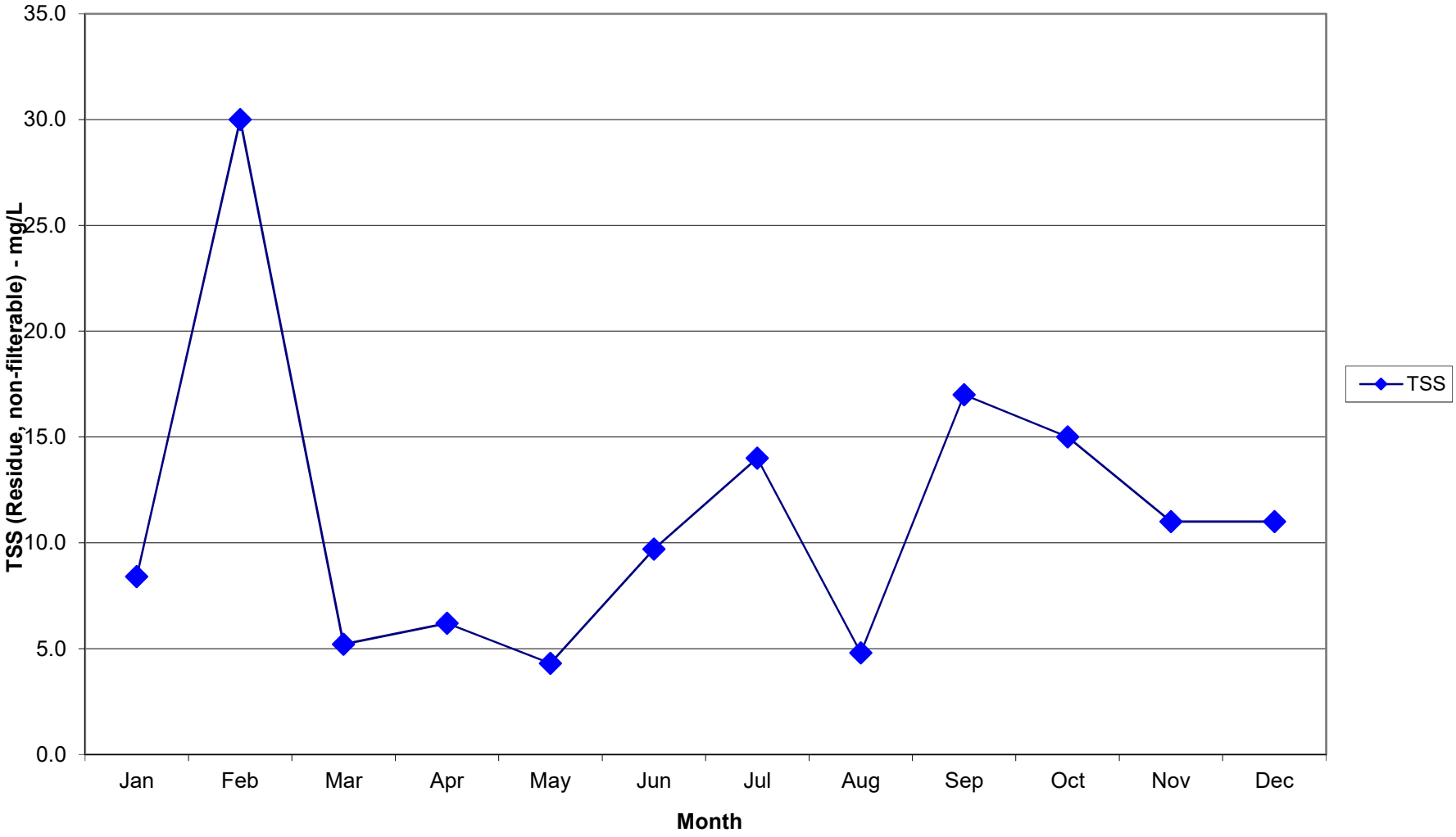
MONTH	TOTAL SUSPENDED SOLIDS (MG/L)	TURBIDITY (NTU)	pH (pH Units)
January	8.4	4.6	7.98
February	30.0	25.0	8.02
March	5.2	1.6	8.17
April	6.2	1.8	8.15
May	4.3	0.8	8.17
June	9.7	0.7	8.32
July	14.0	0.6	7.67
August	4.8	2.1	8.10
September	17.0	1.1	8.15
October	15.0	2.2	8.12
November	11.0	0.4	8.10
December	11.0	0.8	7.67

PARAMETER NAME	METHOD NAME	DETECTION LIMIT	UNIT
RESIDUE, non-filterable (TSS)	SM 2540 D	1.1	mg/L
TURBIDITY	SM 2130 B	0.1	NTU
pH	SM 4500-H+ B	--	--

pH - Cooling Water Intake
Encina Power Station - 2019 Annual Summary



TSS - Cooling Water Intake
Encina Power Station - 2019 Annual Summary



Turbidity - Cooling Water Intake
Encina Power Station - 2019 Annual Summary

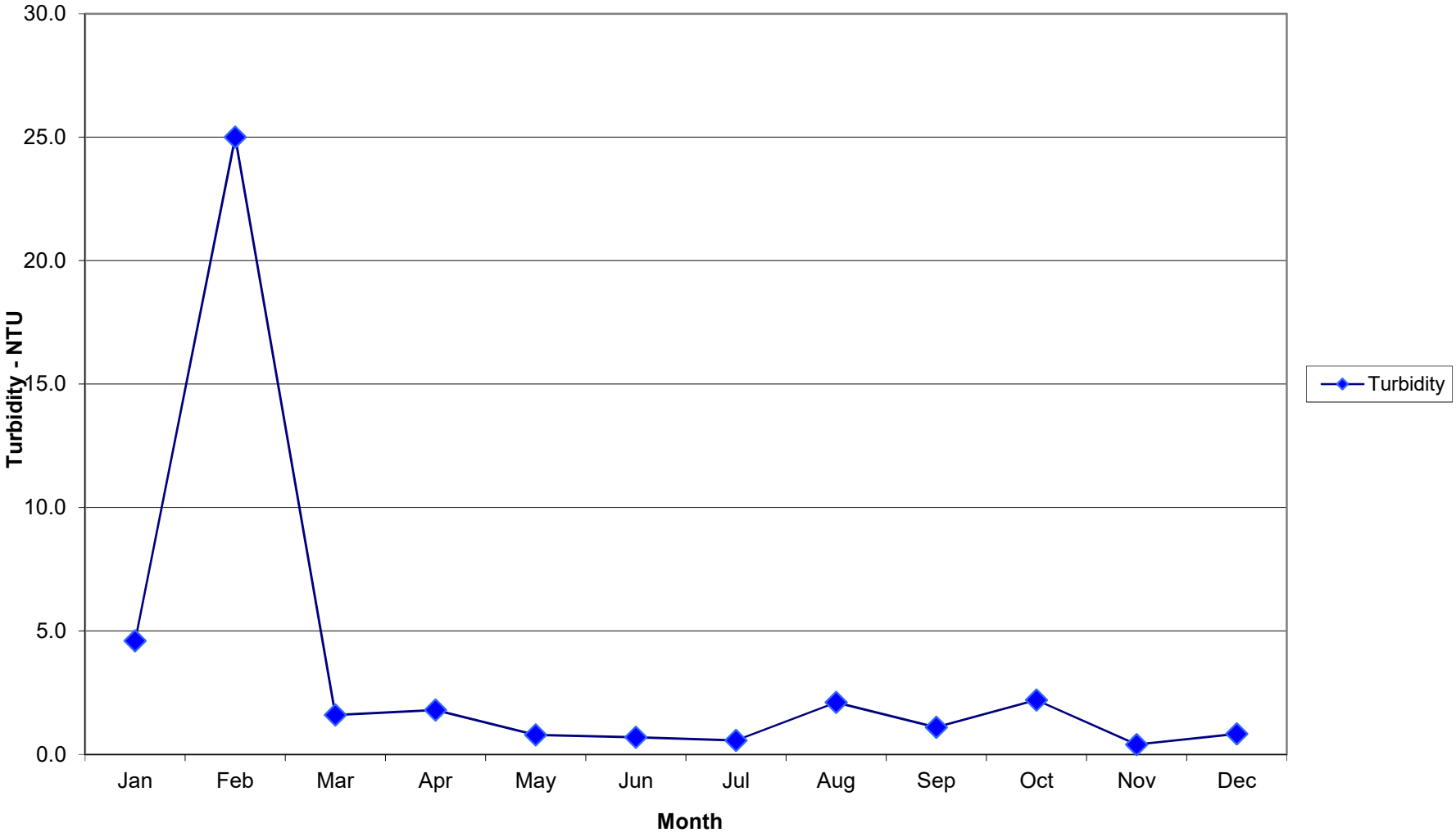
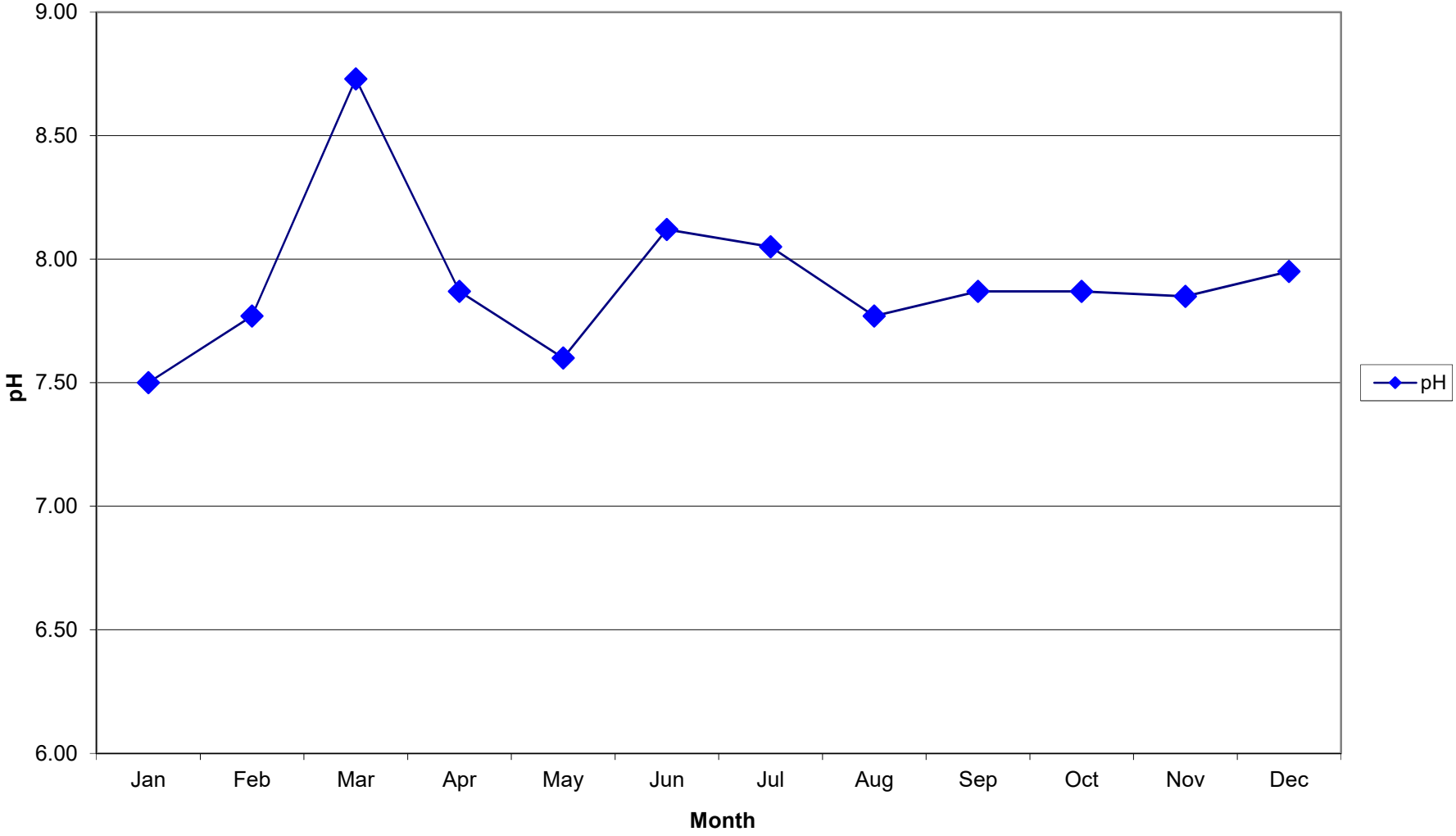


TABLE 7: 2019 ENCINA POWER PLANT SUMMARY OF WASTE DISCHARGE MONITORING DATA
LOW VOLUME WASTE 30-DAY AVERAGE ON DISCHARGE DAYS

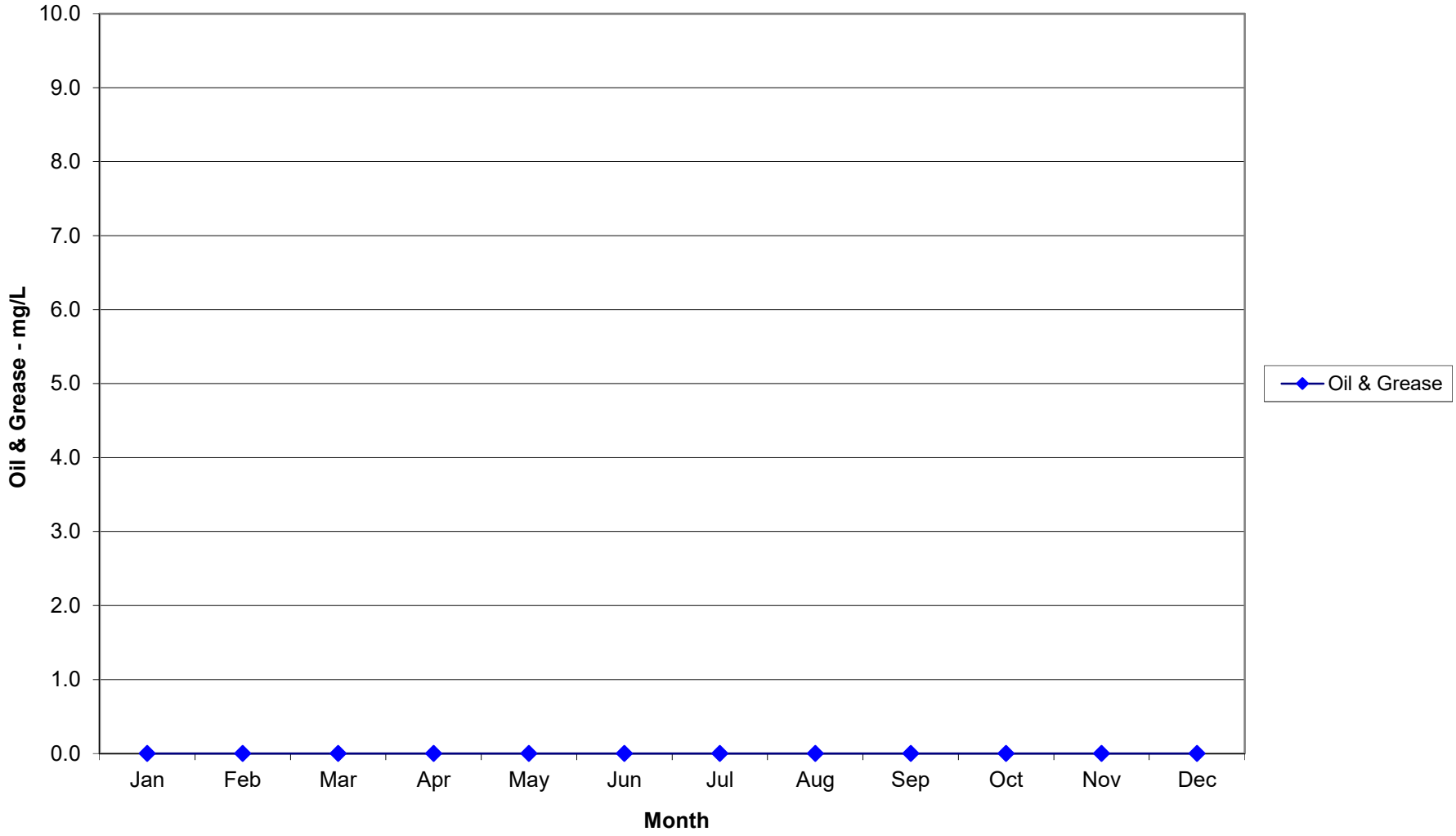
MONTH	FLOW (MGD)	TOTAL SUSPENDED SOLIDS CONC'N (MG/L)	OIL & GREASE CONC'N (MG/L)	pH (pH Units)
January	0.022	5.0	<5.0	7.50
February	0.037	3.6	<5.0	7.77
March	0.039	1.3	<5.0	8.73
April	0.042	1.8	<5.0	7.87
May	0.049	11.0	<5.0	7.60
June	0.032	5.3	<5.0	8.12
July	0.023	10.0	<5.0	8.05
August	0.025	4.1	<5.0	7.77
September	0.026	8.5	<5.0	7.87
October	0.024	12.0	<5.0	7.87
November	0.046	12.0	<5.0	7.85
December	0.03	4.9	<5.0	7.95

PARAMETER NAME	METHOD NAME	DETECTION LIMIT	UNIT
HEXANE EXTRACTABLE MATERIAL (Oil & Grease, gravimetric)	EPA 1664A	5.0	mg/L
RESIDUE, non-filterable (TSS)	SM 2540 D	1.1	mg/L
pH	SM 4500-H+ B	--	--

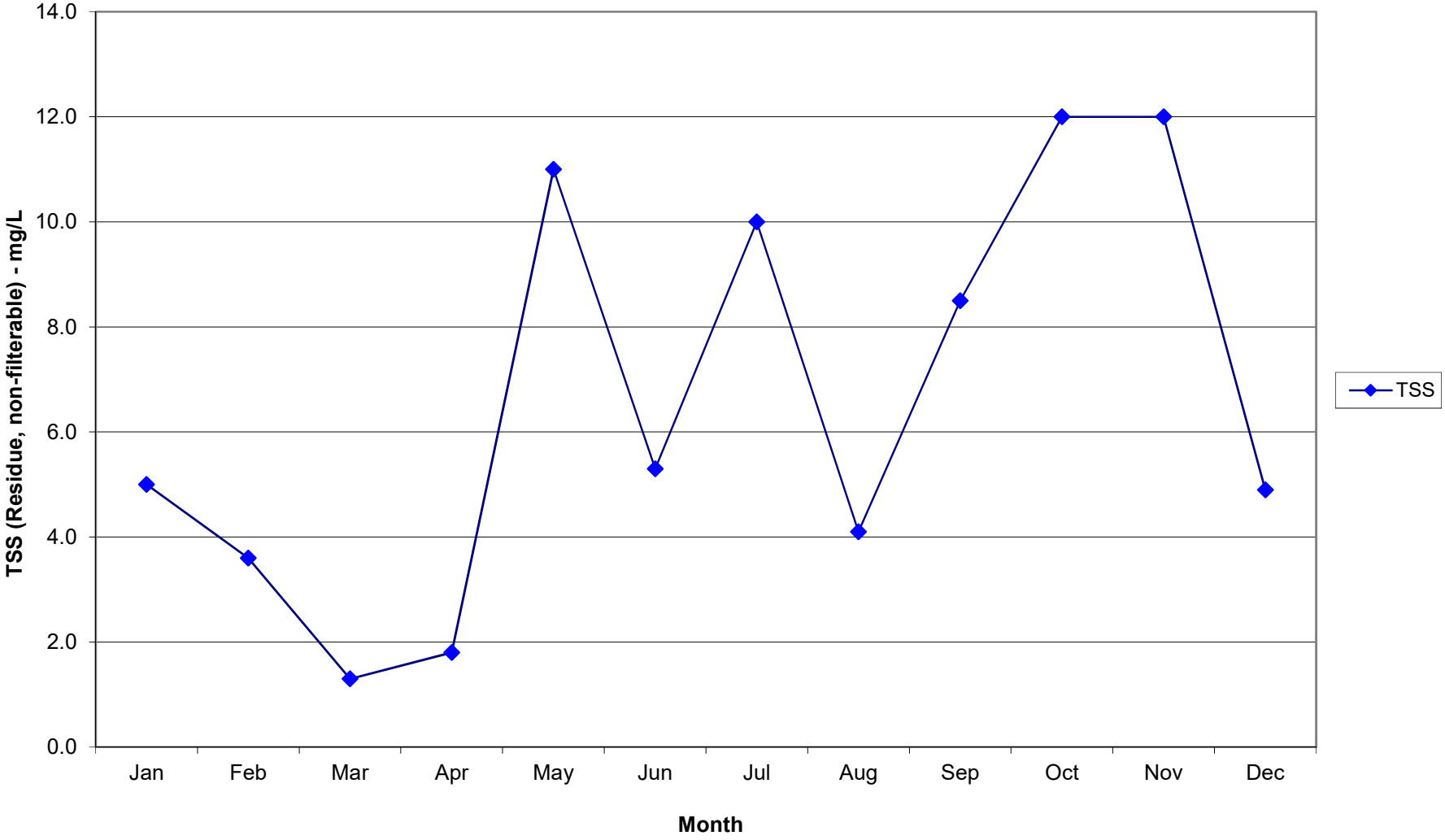
pH - Low Volume Waste
Encina Power Station - 2019 Annual Summary



Hexane Extractable Material (Oil & Grease) - Low Volume Waste
Encina Power Station - 2019 Annual Summary



TSS - Low Volume Waste
Encina Power Station - 2019 Annual Summary



WASTESTREAM NAME: Combined Discharge
PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNIT	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	Comments
UG/L	GRAB	6-Month Median	33	<30	See Table 8
UG/L	GRAB	Daily Maximum	132	<30	

'<' Means that one or more sample result(s) was (were) non-detectable.

TABLE 8: 2019 ENCINA POWER PLANT SUMMARY OF WASTE DISCHARGE MONITORING DATA
ANNUAL TOTAL RESIDUAL CHLORINE (TRC) TESTING

Samples taken from the Plant Intake and Combined Discharge Pond.

DATE	TIME	DESCRIPTION	TRC (µg/L)
03/06/2019	0830	Condenser chlorination system on OFF for the testing.	
03/06/2019	0745	RO brine pumps in the Off mode to fill up the brine pits.	
03/06/2019	0850	Started discharging RO brine, with both brine pumps in the ON (hand) mode.	
03/06/2019	0917	Started testing discharge of the plant with Chlorination System off.	
03/06/2019	0917	During the TRC analyses, the Chlorination was	<30
03/06/2019	0921	placed in the OFF mode – the RO Brine in the	<30
03/06/2019	0925	ON mode and LVW system was left in Auto Mode	<30
03/06/2019	0929		<30
03/06/2019	0934		<30
03/06/2019	0929 - duplicate		<30

CW Pumps in Service:
Unit 1 both pumps OFF
Unit 2 both pump OFF
Unit 3 both pump OFF
Unit 4 West pump ON/East Pump OFF
Unit 5 West pump OFF/East Pump ON

PARAMETER NAME	METHOD NAME	DETECTION LIMIT	UNIT
CHLORINE, TOTAL RESIDUAL	SM 4500-Cl G	30	µg/L

TABLE 9: 2019 ENCINA POWER PLANT SUMMARY OF WASTE DISCHARGE MONITORING DATA
METAL CLEANING WASTE 30-DAY AVERAGE ON DISCHARGE DAYS

No Metal Cleaning Wastes were processed during 2019

MONTH	FLOW (MGD)	TOTAL SUSPENDED SOLIDS CONC (MG/L)	TOTAL SUSPENDED SOLIDS MASS (LB/DAY)	COPPER CONC (MG/L)	COPPER MASS (LB/DAY)	IRON CONC (MG/L)	IRON MASS (LB/DAY)	OIL & GREASE CONC (MG/L)	OIL & GREASE MASS (LB/DAY)
January	0.000	--	--	--	--	--	--	--	--
February	0.000	--	--	--	--	--	--	--	--
March	0.000	--	--	--	--	--	--	--	--
April	0.000	--	--	--	--	--	--	--	--
May	0.000	--	--	--	--	--	--	--	--
June	0.000	--	--	--	--	--	--	--	--
July	0.000	--	--	--	--	--	--	--	--
August	0.000	--	--	--	--	--	--	--	--
September	0.000	--	--	--	--	--	--	--	--
October	0.000	--	--	--	--	--	--	--	--
November	0.000	--	--	--	--	--	--	--	--
December	0.000	--	--	--	--	--	--	--	--

eSMR PDF
Summary: DMR

NPDES Permit #: CA0001350 **Facility:** ENCINA POWER STATION

DMR Parameters

Feature - LS: 001-Y **Monitoring Period:** 01/01/2019 - 12/31/2019

Loc	Sea	Param	Param Text	Q1	Q2	C1	C2	C3	Excur Count	Analy Freq	Sample Type
1	0	50060	Chlorine, total residual				NODI: B 6 Month Median	NODI: B Daily Maximum			
1	0	TTK1D	Static 48Hr Chronic Macrocystis Pyrifera					1.0 tox chronic Daily Maximum	0	Once Every Event	COMP24

Certificate

I certify under penalty of law that all data submitted, including attachments, were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine or imprisonment, for knowing violations. I certify that I am Jerry Carter and am authorized to submit this report on behalf of CABRILLO POWER LLC. I understand that I am submitting an NPDES Discharge Monitoring Report (DMR) for the period ending 12/31/2019 and I understand that data submitted in this report can be used by authorized agencies for water quality management related analyses and enforcement actions, if required.
Entry of my name and title below indicate my certification of this report of my understanding of the above conditions.

Name: Jerry Carter
Title:
Date: 01/20/2020 - 16:11:50

Attachment E SOIL&WATER-5: Potable Water Statement

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

March 30, 2020

Subject: CARLSBAD ENERGY CENTER COM-8 REPORT – SOIL&WATER-5: Potable Water Statement

To date, the City of Carlsbad has not required or requested any water quality monitoring reports related to the potable water system.

Attachment F SOIL&WATER-6: Water Use Report

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

March 30, 2020

Subject: CARLSBAD ENERGY CENTER COM-8 REPORT – SOIL&WATER-6: Potable Water Use

Attached is a report of Carlsbad Energy Center's Title 22 and potable water use for 2019. Due to the level of details given on the monthly potable water bills, only daily averages are able to be given in this report.

In addition, in February 2020, it was found that the fire water meters that are located off property were not being read monthly but that the water use was being estimated based on prior years' usage. The data presented is based off of the last known meter reading, which is from some time in 2018 and the meter reading in February 2020, which was witnessed by Carlsbad Energy Center staff. Based on this data, we believe that the figures presented for the fire water line use represent the maximum amount that could have been used in 2019. The fire water meter totals could also include water use by Encina Power Station due to the cross connects to that property.

2019 Water Usage By Type

Emergency Water Use:		
Month	Gallons	Acre-Feet
Jan-19	0	0
Feb-19	0	0
Mar-19	0	0
Apr-19	0	0
May-19	0	0
Jun-19	0	0
Jul-19	0	0
Aug-19	0	0
Sep-19	0	0
Oct-19	0	0
Nov-19	0	0
Dec-19	0	0

Title 22 Water Use:				
Month	Total (gal)	Daily Average (gal)	Daily Max (gal)	Total (Acre-Feet)
Jan-19	1,474,347.37	47,559.59	258,178.09	4.52
Feb-19	1,155,602.34	41,271.51	273,721.12	3.55
Mar-19	1,364,888.56	44,028.66	234,234.00	4.19
Apr-19	1,143,072.86	38,102.43	231,539.41	3.51
May-19	764,059.20	24,647.07	114,529.22	2.34
Jun-19	115,315.03	3,843.83	145,535.82	0.35
Jul-19	821,573.02	26,502.36	229,138.42	2.52
Aug-19	1,692,830.14	54,607.42	239,036.14	5.20
Sep-19	1,646,651.41	54,888.38	239,150.83	5.05
Oct-19	1,166,054.51	37,614.66	136,309.79	3.58
Nov-19	428,596.23	14,286.54	137,109.73	1.32
Dec-19	1,595,421.68	51,465.22	225,022.87	4.90
Total	13,368,412.36			41.03

Potable Water Use:			
Month	Total (gal)	Daily Average (gal)	Total (Acre-Feet)
Jan-19	13,464.00	434.32	0.04
Feb-19	14,212.00	507.57	0.04
Mar-19	11,968.00	386.06	0.04
Apr-19	17,204.00	573.47	0.05
May-19	16,456.00	530.84	0.05
Jun-19	11,968.00	398.93	0.04
Jul-19	12,716.00	410.19	0.04
Aug-19	12,716.00	410.19	0.04
Sep-19	15,708.00	523.60	0.05
Oct-19	13,464.00	434.32	0.04
Nov-19	13,464.00	448.80	0.04
Dec-19	14,960.00	482.58	0.05

Fire Water Lines				
Meter	Total (gal)	Monthly Average (gal)	Daily Average (gal)	Total (Acre-Feet)
2"	19,448.00	1,620.67	53.28	0.06
8"	311,916.00	25,993.00	854.56	0.96

Total 2019 Potable	
Gallons:	499,664.00
Acre-Feet:	1.53

Attachment G SOIL&WATER-7: Wastewater Quality Monitoring Reports

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

January 13, 2020

Mr. Don Little
Compliance Project Manager
Encina Wastewater Authority
6200 Avenida Encinas
Carlsbad, California 92011

RE: CARLSBAD ENERGY CENTER PROJECT, SEMI ANNUAL COMPLIANCE STATUS REPORT – JULY-DECEMBER 2019

Dear Mr. Little:

Carlsbad Energy Center LLC ("Project Owner") submits the attached semi-annual compliance status report cover the time period of July 2019 to December 2019. This report is submitted in compliance with Section B, Condition 2 of permit number 2405. The results for the self-monitoring sampling events are not included with this report because the Third and Fourth Quarter reports for 2019 have already been submitted to the Encina Wastewater Authority.

If you have any questions or comments, please do not hesitate to contact Ryan Goerl at (760) 573-3802.

Sincerely,

Paul Mattesich
Plant Manager
Carlsbad Energy Center LLC

Attached: 2SA2019 EWA Compliance Status Report

Cc: File

ENCINA WASTEWATER AUTHORITY

6200 AVENIDA ENCINAS, CARLSBAD, CA 92011-0195 TEL:(760)438-3941 FAX:(760)476-9852

REPORTING PERIOD:
JANUARY 1 – JUNE 30
JULY 1 – DECEMBER 31

COMPLIANCE STATUS REPORT (CSR)

I. INDUSTRIAL USER INFORMATION:

Carlsbad Energy Center			
Industrial User Name			
4950 Avenida Encinas	Carlsbad	CA	760-710-3943
Facility Address	City	Zip Code	(Area Code) Phone
Carlsbad Energy Center LLC			
Owner			
Paul Mattesich		Plant Manager	
IU Contact		Title	
City of Carlsbad	2405	4941	
Member Agency	Permit #	SIC Code	

II. ARE PROCESS OR OPERATIONAL CHANGES BEING PLANNED OR IMPLEMENTED? YES (NO)

If yes, explain: _____

III. LIST OF ALL ACTIVE ENVIRONMENTAL PERMIT(S), PERMIT #(S), DATE ISSUED AND EXPIRATION DATE:

See Attached

IV. FLOW SUMMARY

→ INCOMING WATER SOURCE
AVERAGE DAILY FLOW RATE: 40678 gpd
MAXIMUM DAILY FLOW RATE: 238913 gpd

→ PROCESS DISCHARGE TO SANITARY SEWER
AVERAGE DAILY FLOW RATE: 4545 gpd
MAXIMUM DAILY FLOW RATE: 29443 gpd

CONSUMPTION HAS STAYED THE SAME INCREASED OR DECREASED BY MORE THAN 10% FROM THE LAST CSR.
If change indicated, explain: This is the first CSR for the facility since the permit was issued. July-December flow has an average of 4545 GPD. However, annual average GPD is 3144, within 10% of the permit specified 3000 GPD. Flow changes with plant operation which is controlled by SDGE and the California Independent System Operator.

V. THE FOLLOWING HAS BEEN INCLUDED:

YES (NO) NA RESULTS OF SELF MONITORING PERFORMED ON _____ Results for each monitoring event were sent prior.

VI. COMPLIANCE STATUS REPORT CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

[signature]	1/13/20	CARLSBAD
PRESIDENT/VP/GENERAL MGR/CEO (Print and sign name)	DATE	CITY OR COUNTY

Permit List for Carlsbad Energy Center:

San Diego Air Pollution Control District: Startup Authorization APCD2014-APP-003480-003486, Issued May 2019, Expires April 24, 2020.

San Diego Department of Environmental Health: DEH2018-HUPFP-004698, Issued May 2019, Expires April 30, 2020

California Energy Commission: License 07-AFC-06C, Issued August 2015, Expires N/A

Encina WasteWater Authority: Permit# 2405, Issued August 2019, Expires August 1, 2023

Industrial Stormwater Permit: State Water Resources Board (SWRCB) Order 2014-0057-DWQ. Storm Water Pollution Prevention Plan dated July 2019, requires revision before July 2024.

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

October 11, 2019

Mr. Don Little
Compliance Project Manager
Encina Wastewater Authority
6200 Avenida Encinas
Carlsbad, California 92011

RE: CARLSBAD ENERGY CENTER PROJECT, THIRD QUARTER OF 2019 WASTE WATER SAMPLES

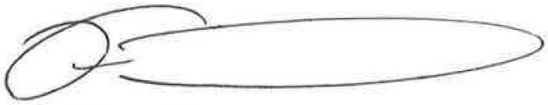
Dear Mr. Little:

Carlsbad Energy Center LLC ("Project Owner") submits the results for the required samples for the Third Quarter of 2019 (3Q2019). This report is submitted in compliance with the table in condition 2 of permit number 2405. The samples were taken on Monday, September 23, 2019. The following table summarizes the results:

			Results		
Constituent	Limit	Units	Sample Point 1	Sample Point 2	Notes
Arsenic, Total	1.5	mg/L	ND	ND	
Cadmium, Total	0.77	mg/L	ND	ND	
Chromium, Total	3.5	mg/L	0.0031	0.0029	
Copper, Total	11	mg/L	ND	0.16	
Lead, Total	5.1	mg/L	ND	ND	
Mercury, Total	0.27	mg/L	0.00012	ND	
Molybdenum, Total	4.1	mg/L	0.037	0.022	
Nickel, Total	15	mg/L	0.0062	0.0064	
Selenium, Total	2.5	mg/L	ND	ND	
Silver, Total	4.2	mg/L	ND	ND	
Zinc, Total	29	mg/L	0.24	1	
Oil and Grease	400	mg/L	1.7	ND	
BOD	500	lb/day	0.18	0.17	Flow - SP1: 8426 gal, SP2: 2927 gal
BOD	N/A	mg/L	2.40	2.30	Sample Results for Calc
TDS	N/A	mg/L	21	370	
TSS	500	lb/day	0.19	0.12	Flow - SP1: 8426 gal, SP2: 2927 gal
TSS	N/A	mg/L	2.60	1.70	Sample Results for Calc

If you have any questions or comments, please do not hesitate to contact Ryan Goerl at (760) 573-3802.

Sincerely,



Paul Mattesich
Plant Manager
Carlsbad Energy Center LLC

Attached: TestAmerica Lab Report for Waste Water Samples – September 23, 2019

Cc: File

ENCINA WASTEWATER AUTHORITY

6200 AVENIDA ENCINAS, CARLSBAD, CA 92011-0195 TEL:(760)438-3941 FAX:(760)476-9852

REPORT CERTIFICATION

I. INDUSTRIAL USER INFORMATION:

Carlsbad Energy Center LLC
Industrial User Name

4950 Avenida Encinas	Carlsbad	92008	760-710-3943
Facility Address	City	Zip Code	(Area Code) Phone

Carlsbad Energy Center LLC
Owner

Paul Mattesich	Plant Manager
IU Contact	Title

City of Carlsbad	2405
Member Agency	Permit #

II. CERTIFICATION STATEMENT:

All applications, reports or information submitted to the Encina Wastewater Authority must include the following certification statement and be signed as required by a responsible corporate officer, President, Vice President, Manager, CEO or an authorized representative.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

	10/23/19	CARLSBAD
PRESIDENT/VP/GENERAL MGR/CEO (Print and sign name)	DATE	CITY OR COUNTY

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-250841-1
Client Project/Site: EWA Waste Water Permit

For:
NRG Energy, Inc.
4950 Avenida Encinas
Carlsbad, California 92008

Attn: Anthony Kalis

Authorized for release by:
10/4/2019 4:27:15 PM

Rossina Tomova, Project Manager I
(949)260-3276
rossina.tomova@testamericainc.com

Table of Contents

Sample Summary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-250841-1	Sample Point # 1 - composite	Water	09/23/19 19:30	09/24/19 16:00	
440-250841-2	Sample Point # 1 - First Grab	Water	09/23/19 01:19	09/24/19 16:00	
440-250841-3	Sample Point # 1 - Second Grab	Water	09/23/19 07:13	09/24/19 16:00	
440-250841-4	Sample Point # 1 - Third Grab	Water	09/23/19 13:06	09/24/19 16:00	
440-250841-5	Sample Point # 1 - Fourth Grab	Water	09/23/19 18:49	09/24/19 16:00	
440-250841-6	Sample Point # 1 - (Grab 1-4 composite)	Water	09/23/19 18:49	09/24/19 16:00	
440-250841-7	Sample Point # 2 - composite	Water	09/23/19 19:45	09/24/19 16:00	
440-250841-8	Sample Point # 2 - First Grab	Water	09/23/19 01:28	09/24/19 16:00	
440-250841-9	Sample Point # 2 - Second Grab	Water	09/23/19 07:27	09/24/19 16:00	
440-250841-10	Sample Point # 2 - Third Grab	Water	09/23/19 13:18	09/24/19 16:00	
440-250841-11	Sample Point # 2 - Fourth Grab	Water	09/23/19 19:03	09/24/19 16:00	
440-250841-12	Sample Point # 2 - (Grab 1-4 composite)	Water	09/23/19 19:03	09/24/19 16:00	

Job ID: 440-250841-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-250841-1

Comments
No additional comments.

Receipt
The samples were received on 9/24/2019 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.2º C and 1.5º C.

Metals
Method(s) 200.7 Rev 4.4: The continuing calibration blank (CCB) for 440-570915 contained Molybdenum above the method detection limit (MDL). This target analyte concentration was less than the reporting limit (RL).(CCB 440-570915/18) and (CCB 440-570915/28)

Method(s) 200.7 Rev 4.4: The method blank for preparation batch 440-570737 and analytical batch 440-570915 contained Molybdenum above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: Sample Point # 1 - composite

Lab Sample ID: 440-250841-1
Date Collected: 09/23/19 19:30
Matrix: Water
Date Received: 09/24/19 16:00

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0089	mg/L		09/25/19 08:59	09/25/19 19:03	1
Cadmium	ND		0.0050	0.0025	mg/L		09/25/19 08:59	09/25/19 19:03	1
Chromium	**0.0031**	**J**	0.0050	0.0025	mg/L		09/25/19 08:59	09/25/19 19:03	1
Copper	ND		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 19:03	1
Lead	ND		0.0050	0.0038	mg/L		09/25/19 08:59	09/25/19 19:03	1
Molybdenum	**0.037**	**B**	0.020	0.010	mg/L		09/25/19 08:59	09/25/19 19:03	1
Nickel	**0.0062**	**J**	0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 19:03	1
Selenium	ND		0.010	0.0087	mg/L		09/25/19 08:59	09/25/19 19:03	1
Silver	ND		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 19:03	1
Zinc	**0.24**		0.020	0.012	mg/L		09/25/19 08:59	09/25/19 19:03	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00012**	**J**	0.00020	0.00010	mg/L		09/26/19 13:27	09/27/19 16:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**21**		10	5.0	mg/L			09/27/19 08:28	1
Total Suspended Solids	**2.6**		1.0	0.50	mg/L			09/25/19 18:07	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	**2.4**		2.0	2.0	mg/L			09/25/19 08:37	1

Client Sample ID: Sample Point # 1 - First Grab

Lab Sample ID: 440-250841-2
Date Collected: 09/23/19 01:19
Matrix: Water
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.26**				SU			09/23/19 01:19	1

Client Sample ID: Sample Point # 1 - Second Grab

Lab Sample ID: 440-250841-3
Date Collected: 09/23/19 07:13
Matrix: Water
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.18**				SU			09/23/19 07:13	1

Client Sample ID: Sample Point # 1 - Third Grab

Lab Sample ID: 440-250841-4
Date Collected: 09/23/19 13:06
Matrix: Water
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.82**				SU			09/23/19 13:06	1

Client Sample ID: Sample Point # 1 - Fourth Grab

Lab Sample ID: 440-250841-5
Date Collected: 09/23/19 18:49
Matrix: Water
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.82				SU			09/23/19 18:49	1

Client Sample ID: Sample Point # 1 - (Grab 1-4 composite)

Lab Sample ID: 440-250841-6
Date Collected: 09/23/19 18:49
Matrix: Water
Date Received: 09/24/19 16:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	1.7	J	5.0	1.4	mg/L		09/25/19 10:54	09/25/19 13:15	1

Client Sample ID: Sample Point # 2 - composite

Lab Sample ID: 440-250841-7
Date Collected: 09/23/19 19:45
Matrix: Water
Date Received: 09/24/19 16:00

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0089	mg/L		09/25/19 08:59	09/25/19 19:11	1
Cadmium	ND		0.0050	0.0025	mg/L		09/25/19 08:59	09/25/19 19:11	1
Chromium	0.0029	J	0.0050	0.0025	mg/L		09/25/19 08:59	09/25/19 19:11	1
Copper	0.16		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 19:11	1
Lead	ND		0.0050	0.0038	mg/L		09/25/19 08:59	09/25/19 19:11	1
Molybdenum	0.022	B	0.020	0.010	mg/L		09/25/19 08:59	09/25/19 19:11	1
Nickel	0.0064	J	0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 19:11	1
Selenium	ND		0.010	0.0087	mg/L		09/25/19 08:59	09/25/19 19:11	1
Silver	ND		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 19:11	1
Zinc	1.0		0.020	0.012	mg/L		09/25/19 08:59	09/25/19 19:11	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		09/26/19 13:27	09/27/19 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		10	5.0	mg/L			09/27/19 08:28	1
Total Suspended Solids	1.7		1.0	0.50	mg/L			09/25/19 18:07	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.3		2.0	2.0	mg/L			09/25/19 08:37	1

Client Sample ID: Sample Point # 2 - First Grab

Lab Sample ID: 440-250841-8
Date Collected: 09/23/19 01:28
Matrix: Water
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.68				SU			09/23/19 01:28	1

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Client Sample ID: Sample Point # 2 - Second Grab

Lab Sample ID: 440-250841-9
Matrix: Water
Date Collected: 09/23/19 07:27
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.79				SU			09/23/19 07:27	1

Client Sample ID: Sample Point # 2 - Third Grab

Lab Sample ID: 440-250841-10
Matrix: Water
Date Collected: 09/23/19 13:18
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.87				SU			09/23/19 13:18	1

Client Sample ID: Sample Point # 2 - Fourth Grab

Lab Sample ID: 440-250841-11
Matrix: Water
Date Collected: 09/23/19 19:03
Date Received: 09/24/19 16:00

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.90				SU			09/23/19 19:03	1

Client Sample ID: Sample Point # 2 - (Grab 1-4 composite)

Lab Sample ID: 440-250841-12
Matrix: Water
Date Collected: 09/23/19 19:03
Date Received: 09/24/19 16:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		09/25/19 10:54	09/25/19 13:15	1

Method Summary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM5210B	BOD, 5 Day	SM	TAL IRV
Field Sampling	Field Sampling	EPA	TAL IRV
1664A	HEM and SGT-HEM (SPE)	1664A	TAL IRV
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV
245.1	Preparation, Mercury	EPA	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Client Sample ID: Sample Point # 1 - composite
Lab Sample ID: 440-250841-1
Date Collected: 09/23/19 19:30
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	570737	09/25/19 08:59	BV	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			570915	09/25/19 19:03	P1R	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	571070	09/26/19 13:27	EMS	TAL IRV
Total/NA	Analysis	245.1		1			571402	09/27/19 16:11	EMS	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	571239	09/27/19 08:28	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	570884	09/25/19 18:07	HTL	TAL IRV
Total/NA	Analysis	SM5210B		1	300 mL	300 mL	570720	09/25/19 08:37	KYP	TAL IRV

Client Sample ID: Sample Point # 1 - First Grab
Lab Sample ID: 440-250841-2
Date Collected: 09/23/19 01:19
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 01:19	P1A	TAL IRV

Client Sample ID: Sample Point # 1 - Second Grab
Lab Sample ID: 440-250841-3
Date Collected: 09/23/19 07:13
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 07:13	P1A	TAL IRV

Client Sample ID: Sample Point # 1 - Third Grab
Lab Sample ID: 440-250841-4
Date Collected: 09/23/19 13:06
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 13:06	P1A	TAL IRV

Client Sample ID: Sample Point # 1 - Fourth Grab
Lab Sample ID: 440-250841-5
Date Collected: 09/23/19 18:49
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 18:49	P1A	TAL IRV

Client Sample ID: Sample Point # 1 - (Grab 1-4 composite)
Lab Sample ID: 440-250841-6
Date Collected: 09/23/19 18:49
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			1000 mL	1000 mL	570774	09/25/19 10:54	JC1	TAL IRV
Total/NA	Analysis	1664A		1			570825	09/25/19 13:15	JC1	TAL IRV

Lab Chronicle

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Client Sample ID: Sample Point # 2 - composite

Lab Sample ID: 440-250841-7
Date Collected: 09/23/19 19:45
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	570737	09/25/19 08:59	BV	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			570915	09/25/19 19:11	P1R	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	571070	09/26/19 13:27	EMS	TAL IRV
Total/NA	Analysis	245.1		1			571402	09/27/19 16:25	EMS	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	571239	09/27/19 08:28	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	570884	09/25/19 18:07	HTL	TAL IRV
Total/NA	Analysis	SM5210B		1	300 mL	300 mL	570720	09/25/19 08:37	KYP	TAL IRV

Client Sample ID: Sample Point # 2 - First Grab

Lab Sample ID: 440-250841-8
Date Collected: 09/23/19 01:28
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 01:28	P1A	TAL IRV

Client Sample ID: Sample Point # 2 - Second Grab

Lab Sample ID: 440-250841-9
Date Collected: 09/23/19 07:27
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 07:27	P1A	TAL IRV

Client Sample ID: Sample Point # 2 - Third Grab

Lab Sample ID: 440-250841-10
Date Collected: 09/23/19 13:18
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 13:18	P1A	TAL IRV

Client Sample ID: Sample Point # 2 - Fourth Grab

Lab Sample ID: 440-250841-11
Date Collected: 09/23/19 19:03
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			570900	09/23/19 19:03	P1A	TAL IRV

Client Sample ID: Sample Point # 2 - (Grab 1-4 composite)

Lab Sample ID: 440-250841-12
Date Collected: 09/23/19 19:03
Matrix: Water
Date Received: 09/24/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			1000 mL	1000 mL	570774	09/25/19 10:54	JC1	TAL IRV
Total/NA	Analysis	1664A		1			570825	09/25/19 13:15	JC1	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-570737/1-A
Matrix: Water
Analysis Batch: 570915

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 570737

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0089	mg/L		09/25/19 08:59	09/25/19 18:58	1
Cadmium	ND		0.0050	0.0025	mg/L		09/25/19 08:59	09/25/19 18:58	1
Chromium	ND		0.0050	0.0025	mg/L		09/25/19 08:59	09/25/19 18:58	1
Copper	ND		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 18:58	1
Lead	ND		0.0050	0.0038	mg/L		09/25/19 08:59	09/25/19 18:58	1
Molybdenum	0.0140	J	0.020	0.010	mg/L		09/25/19 08:59	09/25/19 18:58	1
Nickel	ND		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 18:58	1
Selenium	ND		0.010	0.0087	mg/L		09/25/19 08:59	09/25/19 18:58	1
Silver	ND		0.010	0.0050	mg/L		09/25/19 08:59	09/25/19 18:58	1
Zinc	ND		0.020	0.012	mg/L		09/25/19 08:59	09/25/19 18:58	1

Lab Sample ID: LCS 440-570737/2-A
Matrix: Water
Analysis Batch: 570915

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 570737

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.500	0.504		mg/L		101	85 - 115
Cadmium	0.500	0.508		mg/L		102	85 - 115
Chromium	0.500	0.510		mg/L		102	85 - 115
Copper	0.500	0.496		mg/L		99	85 - 115
Lead	0.500	0.507		mg/L		101	85 - 115
Molybdenum	0.500	0.501		mg/L		100	85 - 115
Nickel	0.500	0.514		mg/L		103	85 - 115
Selenium	0.500	0.500		mg/L		100	85 - 115
Silver	0.250	0.245		mg/L		98	85 - 115
Zinc	0.500	0.512		mg/L		102	85 - 115

Lab Sample ID: 440-250841-1 MS
Matrix: Water
Analysis Batch: 570915

Client Sample ID: Sample Point # Point #1 - composite
Prep Type: Total Recoverable
Prep Batch: 570737

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.500	0.501		mg/L		100	70 - 130
Cadmium	ND		0.500	0.505		mg/L		101	70 - 130
Chromium	0.0031	J	0.500	0.507		mg/L		101	70 - 130
Copper	ND		0.500	0.504		mg/L		101	70 - 130
Lead	ND		0.500	0.506		mg/L		101	70 - 130
Molybdenum	0.037	B	0.500	0.526		mg/L		98	70 - 130
Nickel	0.0062	J	0.500	0.518		mg/L		102	70 - 130
Selenium	ND		0.500	0.499		mg/L		100	70 - 130
Silver	ND		0.250	0.245		mg/L		98	70 - 130
Zinc	0.24		0.500	0.744		mg/L		101	70 - 130

Lab Sample ID: 440-250841-1 MSD
Matrix: Water
Analysis Batch: 570915

Client Sample ID: Sample Point # Point #1 - composite
Prep Type: Total Recoverable
Prep Batch: 570737

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.500	0.507		mg/L		101	70 - 130	1	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-250841-1 MSD — **Client Sample ID: Sample Point # Point #1 - composite**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 570915 — **Prep Batch: 570737**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.500	0.510		mg/L		102	70 - 130	1	20
Chromium	0.0031	J	0.500	0.511		mg/L		102	70 - 130	1	20
Copper	ND		0.500	0.510		mg/L		102	70 - 130	1	20
Lead	ND		0.500	0.511		mg/L		102	70 - 130	1	20
Molybdenum	0.037	B	0.500	0.534		mg/L		99	70 - 130	2	20
Nickel	0.0062	J	0.500	0.522		mg/L		103	70 - 130	1	20
Selenium	ND		0.500	0.502		mg/L		100	70 - 130	1	20
Silver	ND		0.250	0.246		mg/L		98	70 - 130	1	20
Zinc	0.24		0.500	0.769		mg/L		106	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-571070/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 571402 — **Prep Batch: 571070**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		09/26/19 13:27	09/27/19 16:05	1

Lab Sample ID: LCS 440-571070/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 571402 — **Prep Batch: 571070**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00400	0.00390		mg/L		97	85 - 115

Lab Sample ID: 440-250841-1 MS — **Client Sample ID: Sample Point # Point #1 - composite**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 571402 — **Prep Batch: 571070**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00012	J	0.00400	0.00389		mg/L		94	75 - 125

Lab Sample ID: 440-250841-1 MSD — **Client Sample ID: Sample Point # Point #1 - composite**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 571402 — **Prep Batch: 571070**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00012	J	0.00400	0.00383		mg/L		93	75 - 125	2	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-570774/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 570825 — **Prep Batch: 570774**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		09/25/19 10:54	09/25/19 13:15	1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 440-570774/2-A
Matrix: Water
Analysis Batch: 570825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 570774

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	34.80		mg/L		87	78 - 114

Lab Sample ID: LCSD 440-570774/3-A
Matrix: Water
Analysis Batch: 570825

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 570774

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	40.0	34.50		mg/L		86	78 - 114	1	11

Lab Sample ID: 440-250841-6 MS
Matrix: Water
Analysis Batch: 570825

Client Sample ID: Sample Point # 1 - (Grab 1-4 composite)
Prep Type: Total/NA
Prep Batch: 570774

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	1.7	J	40.0	36.30		mg/L		86	78 - 114

Lab Sample ID: 440-250841-6 MSD
Matrix: Water
Analysis Batch: 570825

Client Sample ID: Sample Point # 1 - (Grab 1-4 composite)
Prep Type: Total/NA
Prep Batch: 570774

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	1.7	J	40.0	35.40		mg/L		84	78 - 114	3	18

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-571239/1
Matrix: Water
Analysis Batch: 571239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			09/27/19 08:28	1

Lab Sample ID: LCS 440-571239/2
Matrix: Water
Analysis Batch: 571239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	970		mg/L		97	90 - 110

Lab Sample ID: 440-250841-1 DU
Matrix: Water
Analysis Batch: 571239

Client Sample ID: Sample Point # Point #1 - composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	21		20.0		mg/L		5	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-570884/1
Matrix: Water
Analysis Batch: 570884

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			09/25/19 18:07	1

Lab Sample ID: LCS 440-570884/2
Matrix: Water
Analysis Batch: 570884

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	1000		mg/L		100	85 - 115

Lab Sample ID: 440-250841-1 DU
Matrix: Water
Analysis Batch: 570884

Client Sample ID: Sample Point # Point #1 - composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	2.6		2.50		mg/L		4	10

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-570720/1
Matrix: Water
Analysis Batch: 570720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			09/25/19 08:34	1

Lab Sample ID: LCS 440-570720/5
Matrix: Water
Analysis Batch: 570720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	199	210		mg/L		106	85 - 115

Lab Sample ID: LCSD 440-570720/7
Matrix: Water
Analysis Batch: 570720

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	199	211		mg/L		106	85 - 115	0	20

Lab Sample ID: 440-250841-1 DU
Matrix: Water
Analysis Batch: 570720

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	2.4		2.53		mg/L		6	20

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Method: SM5210B_BODCalc -

Lab Sample ID: LCSD 440-570720/6
Matrix:
Analysis Batch: 570720

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand			199	208		mg/L		105	85 - 115	1	20

QC Association Summary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Metals

Prep Batch: 570737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total Recoverable	Water	200.2	
440-250841-7	Sample Point # 2 - composite	Total Recoverable	Water	200.2	
MB 440-570737/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-570737/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-250841-1 MS	Sample Point # Point #1 - composite	Total Recoverable	Water	200.2	
440-250841-1 MSD	Sample Point # Point #1 - composite	Total Recoverable	Water	200.2	

Analysis Batch: 570915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	570737
440-250841-7	Sample Point # 2 - composite	Total Recoverable	Water	200.7 Rev 4.4	570737
MB 440-570737/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	570737
LCS 440-570737/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	570737
440-250841-1 MS	Sample Point # Point #1 - composite	Total Recoverable	Water	200.7 Rev 4.4	570737
440-250841-1 MSD	Sample Point # Point #1 - composite	Total Recoverable	Water	200.7 Rev 4.4	570737

Prep Batch: 571070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total/NA	Water	245.1	
440-250841-7	Sample Point # 2 - composite	Total/NA	Water	245.1	
MB 440-571070/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-571070/2-A	Lab Control Sample	Total/NA	Water	245.1	
440-250841-1 MS	Sample Point # Point #1 - composite	Total/NA	Water	245.1	
440-250841-1 MSD	Sample Point # Point #1 - composite	Total/NA	Water	245.1	

Analysis Batch: 571402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total/NA	Water	245.1	571070
440-250841-7	Sample Point # 2 - composite	Total/NA	Water	245.1	571070
MB 440-571070/1-A	Method Blank	Total/NA	Water	245.1	571070
LCS 440-571070/2-A	Lab Control Sample	Total/NA	Water	245.1	571070
440-250841-1 MS	Sample Point # Point #1 - composite	Total/NA	Water	245.1	571070
440-250841-1 MSD	Sample Point # Point #1 - composite	Total/NA	Water	245.1	571070

General Chemistry

Analysis Batch: 570720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total/NA	Water	SM5210B	
440-250841-7	Sample Point # 2 - composite	Total/NA	Water	SM5210B	
USB 440-570720/1	Method Blank	Total/NA	Water	SM5210B	
LCS 440-570720/5	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-570720/7	Lab Control Sample Dup	Total/NA	Water	SM5210B	
440-250841-1 DU	Sample Point # 1 - composite	Total/NA	Water	SM5210B	

Prep Batch: 570774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-6	Sample Point # 1 - (Grab 1-4 composite)	Total/NA	Water	1664A	
440-250841-12	Sample Point # 2 - (Grab 1-4 composite)	Total/NA	Water	1664A	
MB 440-570774/1-A	Method Blank	Total/NA	Water	1664A	
LCS 440-570774/2-A	Lab Control Sample	Total/NA	Water	1664A	

General Chemistry (Continued)

Prep Batch: 570774 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-570774/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
440-250841-6 MS	Sample Point # 1 - (Grab 1-4 composite)	Total/NA	Water	1664A	
440-250841-6 MSD	Sample Point # 1 - (Grab 1-4 composite)	Total/NA	Water	1664A	

Analysis Batch: 570825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-6	Sample Point # 1 - (Grab 1-4 composite)	Total/NA	Water	1664A	570774
440-250841-12	Sample Point # 2 - (Grab 1-4 composite)	Total/NA	Water	1664A	570774
MB 440-570774/1-A	Method Blank	Total/NA	Water	1664A	570774
LCS 440-570774/2-A	Lab Control Sample	Total/NA	Water	1664A	570774
LCSD 440-570774/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	570774
440-250841-6 MS	Sample Point # 1 - (Grab 1-4 composite)	Total/NA	Water	1664A	570774
440-250841-6 MSD	Sample Point # 1 - (Grab 1-4 composite)	Total/NA	Water	1664A	570774

Analysis Batch: 570884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total/NA	Water	SM 2540D	
440-250841-7	Sample Point # 2 - composite	Total/NA	Water	SM 2540D	
MB 440-570884/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-570884/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-250841-1 DU	Sample Point # Point #1 - composite	Total/NA	Water	SM 2540D	

Analysis Batch: 571239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-1	Sample Point # 1 - composite	Total/NA	Water	SM 2540C	
440-250841-7	Sample Point # 2 - composite	Total/NA	Water	SM 2540C	
MB 440-571239/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-571239/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-250841-1 DU	Sample Point # Point #1 - composite	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 570900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-250841-2	Sample Point # 1 - First Grab	Total/NA	Water	Field Sampling	
440-250841-3	Sample Point # 1 - Second Grab	Total/NA	Water	Field Sampling	
440-250841-4	Sample Point # 1 - Third Grab	Total/NA	Water	Field Sampling	
440-250841-5	Sample Point # 1 - Fourth Grab	Total/NA	Water	Field Sampling	
440-250841-8	Sample Point # 2 - First Grab	Total/NA	Water	Field Sampling	
440-250841-9	Sample Point # 2 - Second Grab	Total/NA	Water	Field Sampling	
440-250841-10	Sample Point # 2 - Third Grab	Total/NA	Water	Field Sampling	
440-250841-11	Sample Point # 2 - Fourth Grab	Total/NA	Water	Field Sampling	

Analysis Batch: 570720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-570720/6	Lab Control Sample Dup	Total/NA		SM5210B_BOD Calc	

Definitions/Glossary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-250841-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: NRG Energy, Inc. Job ID: 440-250841-1
Project/Site: EWA Waste Water Permit

Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	CA ELAP 2706	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Field pH

Eurofins TestAmerica, Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949 261.1022 fax 949 260 3299

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Anthony Kalis	Site Contact: Anthony Kalis	Date: 9/23/19	COC No: 1 of 1 COCs
Carlsbad Energy Center	Email: anthony.kalis@nrg.com	Lab Contact: Rossina Tomova	Carrier:	TALS Project #:
4950 Avenida Encinas	Tel/Fax: 760-427-2382 / Fax #: None			Sampler
Carlsbad, CA 92008	Analysis Turnaround Time			For Lab Use Only:
Phone (760) 427-2382	☐ CALENDAR DAYS ☑ WORKING DAYS			Walk-in Client.
FAX - None	TAT if different from Below ____			Lab Sampling.
Project Name: EWA Quarterly Sampling	☐ 2 weeks			Job / SDG No
Site: Carlsbad Energy Center	☑ 1 week			
PO # 4501864911	☐ 2 days			
	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	200.7 - (MOD) California Admin Manual L; 245.1 - Hg	2540D - TSS; SM5210B_BOD Calc-BOD, 5 Day	2540C_Calcd-TDS	1664A - Oil & Grease (HEM Only)	Field pH
Sample Point # Point # 1 - composite	9/23/2019	19:30	C	H20	8	N	Y	X	X	X		
Sample Point # 1 - First Grab	9/23/2019	1 19	G	H2O	2						X	X
Sample Point # 1 - Second Grab	9/23/2019	7 13	G	H2O	2						X	X
Sample Point # 1 - Third Grab	9/23/2019	13 06	G	H2O	2						X	X
Sample Point # 1 - Fourth Grab	9/23/2019	18 49	G	H2O	2						X	X
Sample Point # 2 - composite	9/23/2019	19:45	C	H2O	4	N	N	X	X	X		
Sample Point # 2 - First Grab	9/23/2019	1:28	G	H2O	2						X	X
Sample Point # 2 - Second Grab	9/23/2019	7:27	G	H2O	2						X	X
Sample Point # 2 -Third Grab	9/23/2019	13:18	G	H2O	2						X	X
Sample Point # 2 - Fourth Grab	9/23/2019	19:03	G	H2O	2						X	X
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								1/4	1	1	1/2	

440-250841 Chain of Custody

Sample Specific Notes:

Composite the 4 Oil & Grease samples of each Sump into one composite sample. Analyse the composite only.

Composite the 4 Oil & Grease samples of each Sump into one composite sample. Analyse the composite only.

	Sample Point # 1/ Time	Sample Point # 2/ time
Field pH 1	6.26 pH/29.8°C @ 0119	6.68 pH/29.1°C @ 0128
Field pH 2	6.18 pH/28.8°C @ 0713	6.79 pH/29.1°C @ 0727
Field pH 3	5.82 pH/30.8°C @ 1306	6.87 pH/30.4°C @ 1318
Field pH 4	5.82 pH/29.3°C @ 1849	6.90 pH/28.5°C @ 1903

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☑ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

1.3 1.5 2.2-89

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 1.0 Corr'd: 1.2 | Therm ID No.:

Relinquished by: Anthony Kalis	Company: NRG Carlsbad Energy Center	Date/Time: 9/24/19 0818	Received by:	Company: TAIRV	Date/Time: 9/24/19 8818
Relinquished by:	Company: TAIRV	Date/Time: 9/24/19 1600	Received by:	Company:	Date/Time:
Relinquished by:	Company	Date/Time:	Received in Laboratory by:	Company: TA IRV	Date/Time: 9/24/19 1600

Form No. CA-C-WI-002, Rev. 4.25, dated 7/8/2019

Login Sample Receipt Checklist

Client: NRG Energy, Inc.

Job Number: 440-250841-1

Login Number: 250841
List Number: 1
Creator: Soderblom, Tim

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	Sample compositing requested.
Residual Chlorine Checked.	N/A	

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

November 22, 2019

Mr. Don Little
Compliance Project Manager
Encina Wastewater Authority
6200 Avenida Encinas
Carlsbad, California 92011

RE: CARLSBAD ENERGY CENTER PROJECT, FOURTH QUARTER OF 2019 WASTE WATER SAMPLES

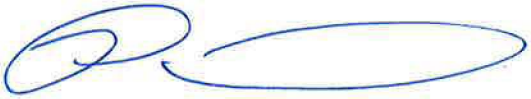
Dear Mr. Little:

Carlsbad Energy Center LLC ("Project Owner") submits the results for the required samples for the Fourth Quarter of 2019 (4Q2019). This report is submitted in compliance with the table in condition 2 of permit number 2405. The samples were taken on Monday, October 28, 2019. The following table summarizes the results:

			Results		
Constituent	Limit	Units	Sample Point 1	Sample Point 2	Notes
Arsenic, Total	1.5	mg/L	ND	ND	
Cadmium, Total	0.77	mg/L	ND	ND	
Chromium, Total	3.5	mg/L	ND	ND	
Copper, Total	11	mg/L	0.014	0.26	
Lead, Total	5.1	mg/L	ND	ND	
Mercury, Total	0.27	mg/L	ND	ND	
Molybdenum, Total	4.1	mg/L	0.022	0.015	
Nickel, Total	15	mg/L	ND	ND	
Selenium, Total	2.5	mg/L	ND	ND	
Silver, Total	4.2	mg/L	ND	ND	
Zinc, Total	29	mg/L	0.83	2.5	
Oil and Grease (HEM)	400	mg/L	8.1	ND	
BOD	500	lb/day	0.30	ND	Flow - SP1: 1906 gal, SP2: 2199 gal
BOD	N/A	mg/L	19	ND	Sample Results for Calc
TDS	N/A	mg/L	59	1000	
TSS	500	lb/day	0.25	0.05	Flow - SP1: 1906 gal, SP2: 2199 gal
TSS	N/A	mg/L	16	3.2	Sample Results for Calc

If you have any questions or comments, please do not hesitate to contact Ryan Goerl at (760) 573-3802.

Sincerely,



Paul Mattesich
Plant Manager
Carlsbad Energy Center LLC

Attached: TestAmerica Lab Report for Waste Water Samples – October 28, 2019
EWA Report Certification dated November 22, 2019

Cc: File

ENCINA WASTEWATER AUTHORITY

6200 AVENIDA ENCINAS, CARLSBAD, CA 92011-0195 TEL:(760)438-3941 FAX:(760)476-9852

REPORT CERTIFICATION

I. INDUSTRIAL USER INFORMATION:

Carlsbad Energy Center LLC
Industrial User Name

4950 Avenida Encinas	Carlsbad	92008	760-710-3943
Facility Address	City	Zip Code	(Area Code) Phone

Carlsbad Energy Center LLC
Owner

Paul Mattesich	Plant Manager
IU Contact	Title

City of Carlsbad	2405
Member Agency	Permit #

II. CERTIFICATION STATEMENT:

All applications, reports or information submitted to the Encina Wastewater Authority must include the following certification statement and be signed as required by a responsible corporate officer, President, Vice President, Manager, CEO or an authorized representative.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

PAUL MATTESICH	11/22/19	CARLSBAD
PRESIDENT/VP/GENERAL MGR/CEO (Print and sign name)	DATE	CITY OR COUNTY

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-253354-1
Client Project/Site: EWA Waste Water Permit

For:
NRG Energy, Inc.
4950 Avenida Encinas
Carlsbad, California 92008

Attn: Anthony Kalis

Authorized for release by:
11/13/2019 12:17:28 PM

Rossina Tomova, Project Manager I
(949)260-3276
rossina.tomova@testamericainc.com

Table of Contents

Sample Summary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-253354-1	Sample Point # 1 - composite	Water	10/28/19 20:15	10/29/19 15:15	
440-253354-2	Sample Point # 1 - First Grab	Water	10/28/19 01:01	10/29/19 15:15	
440-253354-3	Sample Point # 1 - Second Grab	Water	10/28/19 07:04	10/29/19 15:15	
440-253354-4	Sample Point # 1 - Third Grab	Water	10/28/19 13:03	10/29/19 15:15	
440-253354-5	Sample Point # 1 - Fourth Grab	Water	10/28/19 19:21	10/29/19 15:15	
440-253354-6	Sample Point # 1 Grabs 1 - 4 (Composite)	Water	10/28/19 19:21	10/29/19 15:15	
440-253354-7	Sample Point # 2 - composite	Water	10/28/19 20:27	10/29/19 15:15	
440-253354-8	Sample Point # 2 - First Grab	Water	10/28/19 01:21	10/29/19 15:15	
440-253354-9	Sample Point # 2 - Second Grab	Water	10/28/19 07:21	10/29/19 15:15	
440-253354-10	Sample Point # 2 - Third Grab	Water	10/28/19 13:14	10/29/19 15:15	
440-253354-11	Sample Point # 2 - Fourth Grab	Water	10/28/19 19:31	10/29/19 15:15	
440-253354-12	Sample Point # 2 Grabs 1 - 4 (Composite)	Water	10/28/19 19:31	10/29/19 15:15	

Case Narrative

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Job ID: 440-253354-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-253354-1

Comments
No additional comments.

Receipt
The samples were received on 10/29/2019 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4º C and 3.5º C.

Metals
Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for 440-578947 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for 440-578947 contained Antimony and Titanium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: Sample Point # 1 - composite

Lab Sample ID: 440-253354-1
Matrix: Water
Date Collected: 10/28/19 20:15
Date Received: 10/29/19 15:15

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0089	mg/L		10/30/19 08:05	10/30/19 15:13	1
Cadmium	ND		0.0050	0.0025	mg/L		10/30/19 08:05	10/30/19 15:13	1
Chromium	ND		0.0050	0.0025	mg/L		11/11/19 10:49	11/11/19 20:07	1
Copper	**0.014**		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:13	1
Lead	ND		0.0050	0.0038	mg/L		10/30/19 08:05	10/30/19 15:13	1
Molybdenum	**0.022**		0.020	0.010	mg/L		10/30/19 08:05	10/30/19 15:13	1
Nickel	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:13	1
Selenium	ND		0.010	0.0087	mg/L		10/30/19 08:05	10/30/19 15:13	1
Silver	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:13	1
Zinc	**0.83**	**B**	0.020	0.012	mg/L		10/30/19 08:05	10/30/19 15:13	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		10/30/19 16:19	10/31/19 01:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**59**		10	5.0	mg/L			11/01/19 08:54	1
Total Suspended Solids	**16**		4.0	2.0	mg/L			10/29/19 15:28	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	**19**		8.6	8.6	mg/L			10/30/19 16:23	1

Client Sample ID: Sample Point # 1 - First Grab

Lab Sample ID: 440-253354-2
Matrix: Water
Date Collected: 10/28/19 01:01
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.86**				SU			10/28/19 01:01	1
Field Temperature	**26.50**				Celsius			10/28/19 01:01	1

Client Sample ID: Sample Point # 1 - Second Grab

Lab Sample ID: 440-253354-3
Matrix: Water
Date Collected: 10/28/19 07:04
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.78**				SU			10/28/19 07:04	1
Field Temperature	**25.10**				Celsius			10/28/19 07:04	1

Client Sample ID: Sample Point # 1 - Third Grab

Lab Sample ID: 440-253354-4
Matrix: Water
Date Collected: 10/28/19 13:03
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.20**				SU			10/28/19 13:03	1
Field Temperature	**27.30**				Celsius			10/28/19 13:03	1

Client Sample ID: Sample Point # 1 - Fourth Grab

Lab Sample ID: 440-253354-5
Date Collected: 10/28/19 19:21
Matrix: Water
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.25				SU			10/28/19 19:21	1
Field Temperature	26.20				Celsius			10/28/19 19:21	1

Client Sample ID: Sample Point # 1 Grabs 1 - 4 (Composite)

Lab Sample ID: 440-253354-6
Date Collected: 10/28/19 19:21
Matrix: Water
Date Received: 10/29/19 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	8.1		5.0	1.4	mg/L		10/30/19 16:26	10/30/19 17:13	1

Client Sample ID: Sample Point # 2 - composite

Lab Sample ID: 440-253354-7
Date Collected: 10/28/19 20:27
Matrix: Water
Date Received: 10/29/19 15:15

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0089	mg/L		10/30/19 08:05	10/30/19 15:19	1
Cadmium	ND		0.0050	0.0025	mg/L		10/30/19 08:05	10/30/19 15:19	1
Chromium	ND		0.0050	0.0025	mg/L		11/11/19 10:49	11/11/19 20:14	1
Copper	0.26		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:19	1
Lead	ND		0.0050	0.0038	mg/L		10/30/19 08:05	10/30/19 15:19	1
Molybdenum	0.015	J	0.020	0.010	mg/L		10/30/19 08:05	10/30/19 15:19	1
Nickel	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:19	1
Selenium	ND		0.010	0.0087	mg/L		10/30/19 08:05	10/30/19 15:19	1
Silver	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:19	1
Zinc	2.5	B	0.020	0.012	mg/L		10/30/19 08:05	10/30/19 15:19	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		10/30/19 16:19	10/31/19 01:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10	5.0	mg/L			11/01/19 08:54	1
Total Suspended Solids	3.2		1.0	0.50	mg/L			10/29/19 15:28	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			10/30/19 16:23	1

Client Sample ID: Sample Point # 2 - First Grab

Lab Sample ID: 440-253354-8
Date Collected: 10/28/19 01:21
Matrix: Water
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.03				SU			10/28/19 01:21	1
Field Temperature	25.30				Celsius			10/28/19 01:21	1

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Client Sample ID: Sample Point # 2 - Second Grab

Lab Sample ID: 440-253354-9
Date Collected: 10/28/19 07:21
Matrix: Water
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.01				SU			10/28/19 07:21	1
Field Temperature	24.60				Celsius			10/28/19 07:21	1

Client Sample ID: Sample Point # 2 - Third Grab

Lab Sample ID: 440-253354-10
Date Collected: 10/28/19 13:14
Matrix: Water
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.02				SU			10/28/19 13:14	1
Field Temperature	26.40				Celsius			10/28/19 13:14	1

Client Sample ID: Sample Point # 2 - Fourth Grab

Lab Sample ID: 440-253354-11
Date Collected: 10/28/19 19:31
Matrix: Water
Date Received: 10/29/19 15:15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.93				SU			10/28/19 19:31	1
Field Temperature	25.60				Celsius			10/28/19 19:31	1

Client Sample ID: Sample Point # 2 Grabs 1 - 4 (Composite)

Lab Sample ID: 440-253354-12
Date Collected: 10/28/19 19:31
Matrix: Water
Date Received: 10/29/19 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		10/30/19 16:26	10/30/19 17:13	1

Method Summary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM5210B	BOD, 5 Day	SM	TAL IRV
Field Sampling	Field Sampling	EPA	TAL IRV
1664A	HEM and SGT-HEM (SPE)	1664A	TAL IRV
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV
245.1	Preparation, Mercury	EPA	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Client Sample ID: Sample Point # 1 - composite
Lab Sample ID: 440-253354-1
Date Collected: 10/28/19 20:15
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	577342	10/30/19 08:05	BV	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			577535	10/30/19 15:13	P1R	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	579419	11/11/19 10:49	KE	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			579517	11/11/19 20:07	P1R	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	577497	10/30/19 16:19	DB	TAL IRV
Total/NA	Analysis	245.1		1			577660	10/31/19 01:02	MEM	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	577852	11/01/19 08:54	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	250 mL	1000 mL	577222	10/29/19 15:28	XL	TAL IRV
Total/NA	Analysis	SM5210B		1	70 mL	300 mL	577375	10/30/19 16:23	MMP	TAL IRV

Client Sample ID: Sample Point # 1 - First Grab
Lab Sample ID: 440-253354-2
Date Collected: 10/28/19 01:01
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 01:01	A1W	TAL IRV

Client Sample ID: Sample Point # 1 - Second Grab
Lab Sample ID: 440-253354-3
Date Collected: 10/28/19 07:04
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 07:04	A1W	TAL IRV

Client Sample ID: Sample Point # 1 - Third Grab
Lab Sample ID: 440-253354-4
Date Collected: 10/28/19 13:03
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 13:03	A1W	TAL IRV

Client Sample ID: Sample Point # 1 - Fourth Grab
Lab Sample ID: 440-253354-5
Date Collected: 10/28/19 19:21
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 19:21	A1W	TAL IRV

Client Sample ID: Sample Point # 1 Grabs 1 - 4 (Composite)
Lab Sample ID: 440-253354-6
Date Collected: 10/28/19 19:21
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			1000 mL	1000 mL	577501	10/30/19 16:26	AJH	TAL IRV
Total/NA	Analysis	1664A		1			577513	10/30/19 17:13	AJH	TAL IRV

Lab Chronicle

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Client Sample ID: Sample Point # 2 - composite

Lab Sample ID: 440-253354-7
Date Collected: 10/28/19 20:27
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	577342	10/30/19 08:05	BV	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			577535	10/30/19 15:19	P1R	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	579419	11/11/19 10:49	KE	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			579517	11/11/19 20:14	P1R	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	577497	10/30/19 16:19	DB	TAL IRV
Total/NA	Analysis	245.1		1			577660	10/31/19 01:10	MEM	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	577852	11/01/19 08:54	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	577222	10/29/19 15:28	XL	TAL IRV
Total/NA	Analysis	SM5210B		1	300 mL	300 mL	577375	10/30/19 16:23	MMP	TAL IRV

Client Sample ID: Sample Point # 2 - First Grab

Lab Sample ID: 440-253354-8
Date Collected: 10/28/19 01:21
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 01:21	A1W	TAL IRV

Client Sample ID: Sample Point # 2 - Second Grab

Lab Sample ID: 440-253354-9
Date Collected: 10/28/19 07:21
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 07:21	A1W	TAL IRV

Client Sample ID: Sample Point # 2 - Third Grab

Lab Sample ID: 440-253354-10
Date Collected: 10/28/19 13:14
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 13:14	A1W	TAL IRV

Client Sample ID: Sample Point # 2 - Fourth Grab

Lab Sample ID: 440-253354-11
Date Collected: 10/28/19 19:31
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			577538	10/28/19 19:31	A1W	TAL IRV

Client Sample ID: Sample Point # 2 Grabs 1 - 4 (Composite)

Lab Sample ID: 440-253354-12
Date Collected: 10/28/19 19:31
Matrix: Water
Date Received: 10/29/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			1000 mL	1000 mL	577501	10/30/19 16:26	AJH	TAL IRV
Total/NA	Analysis	1664A		1			577513	10/30/19 17:13	AJH	TAL IRV

Lab Chronicle

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-577342/1-A
Matrix: Water
Analysis Batch: 577535

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 577342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0089	mg/L		10/30/19 08:05	10/30/19 15:08	1
Cadmium	ND		0.0050	0.0025	mg/L		10/30/19 08:05	10/30/19 15:08	1
Copper	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:08	1
Lead	ND		0.0050	0.0038	mg/L		10/30/19 08:05	10/30/19 15:08	1
Molybdenum	ND		0.020	0.010	mg/L		10/30/19 08:05	10/30/19 15:08	1
Nickel	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:08	1
Selenium	ND		0.010	0.0087	mg/L		10/30/19 08:05	10/30/19 15:08	1
Silver	ND		0.010	0.0050	mg/L		10/30/19 08:05	10/30/19 15:08	1
Zinc	0.0145	J	0.020	0.012	mg/L		10/30/19 08:05	10/30/19 15:08	1

Lab Sample ID: LCS 440-577342/2-A
Matrix: Water
Analysis Batch: 577535

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 577342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.500	0.483		mg/L		97	85 - 115
Cadmium	0.500	0.484		mg/L		97	85 - 115
Copper	0.500	0.486		mg/L		97	85 - 115
Lead	0.500	0.487		mg/L		97	85 - 115
Molybdenum	0.500	0.452		mg/L		90	85 - 115
Nickel	0.500	0.488		mg/L		98	85 - 115
Selenium	0.500	0.484		mg/L		97	85 - 115
Silver	0.250	0.238		mg/L		95	85 - 115
Zinc	0.500	0.501		mg/L		100	85 - 115

Lab Sample ID: 440-253354-1 MS
Matrix: Water
Analysis Batch: 577535

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total Recoverable
Prep Batch: 577342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.500	0.501		mg/L		100	70 - 130
Cadmium	ND		0.500	0.494		mg/L		99	70 - 130
Copper	0.014		0.500	0.522		mg/L		102	70 - 130
Lead	ND		0.500	0.498		mg/L		100	70 - 130
Molybdenum	0.022		0.500	0.488		mg/L		93	70 - 130
Nickel	ND		0.500	0.499		mg/L		100	70 - 130
Selenium	ND		0.500	0.501		mg/L		100	70 - 130
Silver	ND		0.250	0.245		mg/L		98	70 - 130
Zinc	0.83	B	0.500	1.32		mg/L		97	70 - 130

Lab Sample ID: 440-253354-1 MSD
Matrix: Water
Analysis Batch: 577535

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total Recoverable
Prep Batch: 577342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.500	0.495		mg/L		99	70 - 130	1	20
Cadmium	ND		0.500	0.485		mg/L		97	70 - 130	2	20
Copper	0.014		0.500	0.511		mg/L		99	70 - 130	2	20
Lead	ND		0.500	0.484		mg/L		97	70 - 130	3	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-253354-1 MSD — **Client Sample ID: Sample Point # 1 - composite**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 577535 — **Prep Batch: 577342**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum	0.022		0.500	0.487		mg/L		93	70 - 130	0	20
Nickel	ND		0.500	0.488		mg/L		98	70 - 130	2	20
Selenium	ND		0.500	0.486		mg/L		97	70 - 130	3	20
Silver	ND		0.250	0.241		mg/L		96	70 - 130	2	20
Zinc	0.83	B	0.500	1.28		mg/L		91	70 - 130	3	20

Lab Sample ID: MB 440-579419/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 579517 — **Prep Batch: 579419**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050	0.0025	mg/L		11/11/19 10:49	11/11/19 19:54	1

Lab Sample ID: LCS 440-579419/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 579517 — **Prep Batch: 579419**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.500	0.492		mg/L		98	85 - 115

Lab Sample ID: 440-253354-1 MS — **Client Sample ID: Sample Point # 1 - composite**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 579517 — **Prep Batch: 579419**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND		0.500	0.504		mg/L		101	70 - 130

Lab Sample ID: 440-253354-1 MSD — **Client Sample ID: Sample Point # 1 - composite**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 579517 — **Prep Batch: 579419**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		0.500	0.485		mg/L		97	70 - 130	4	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-577497/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 577660 — **Prep Batch: 577497**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		10/30/19 16:19	10/31/19 00:57	1

Lab Sample ID: LCS 440-577497/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 577660 — **Prep Batch: 577497**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00400	0.00433		mg/L		108	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 440-253354-1 MS
Matrix: Water
Analysis Batch: 577660

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total/NA
Prep Batch: 577497

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00400	0.00367		mg/L		92	75 - 125

Lab Sample ID: 440-253354-1 MSD
Matrix: Water
Analysis Batch: 577660

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total/NA
Prep Batch: 577497

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00400	0.00353		mg/L		88	75 - 125	4	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-577501/1-A
Matrix: Water
Analysis Batch: 577513

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 577501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		10/30/19 16:26	10/30/19 17:13	1

Lab Sample ID: LCS 440-577501/2-A
Matrix: Water
Analysis Batch: 577513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 577501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	39.50		mg/L		99	78 - 114

Lab Sample ID: LCSD 440-577501/3-A
Matrix: Water
Analysis Batch: 577513

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 577501

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	40.0	39.10		mg/L		98	78 - 114	1	11

Lab Sample ID: 440-253354-6 MS
Matrix: Water
Analysis Batch: 577513

Client Sample ID: Sample Point # 1 Grabs 1 - 4 (Composite)
Prep Type: Total/NA
Prep Batch: 577501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	8.1		40.0	48.90		mg/L		102	78 - 114

Lab Sample ID: 440-253354-6 MSD
Matrix: Water
Analysis Batch: 577513

Client Sample ID: Sample Point # 1 Grabs 1 - 4 (Composite)
Prep Type: Total/NA
Prep Batch: 577501

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	8.1		40.0	47.70		mg/L		99	78 - 114	2	18

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-577852/1
Matrix: Water
Analysis Batch: 577852

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			11/01/19 08:54	1

Lab Sample ID: LCS 440-577852/2
Matrix: Water
Analysis Batch: 577852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	966		mg/L		97	90 - 110		

Lab Sample ID: 440-253354-1 DU
Matrix: Water
Analysis Batch: 577852

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	59			58.0		mg/L				2	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-577222/1
Matrix: Water
Analysis Batch: 577222

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			10/29/19 15:28	1

Lab Sample ID: LCS 440-577222/2
Matrix: Water
Analysis Batch: 577222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	999		mg/L		100	85 - 115		

Lab Sample ID: 440-253354-1 DU
Matrix: Water
Analysis Batch: 577222

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	16			14.8		mg/L				5	10

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-577375/1
Matrix: Water
Analysis Batch: 577375

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			10/30/19 09:55	1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: LCS 440-577375/5
Matrix: Water
Analysis Batch: 577375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			199	212		mg/L		107	85 - 115		

Lab Sample ID: LCSD 440-577375/6
Matrix: Water
Analysis Batch: 577375

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand			199	218		mg/L		110	85 - 115	3	20

Lab Sample ID: LCSD 440-577375/7
Matrix: Water
Analysis Batch: 577375

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand			199	207		mg/L		104	85 - 115	2	20

Lab Sample ID: 440-253354-1 DU
Matrix: Water
Analysis Batch: 577375

Client Sample ID: Sample Point # 1 - composite
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	19			18.2		mg/L				4	20

Metals

Prep Batch: 577342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total Recoverable	Water	200.2	
440-253354-7	Sample Point # 2 - composite	Total Recoverable	Water	200.2	
MB 440-577342/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-577342/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-253354-1 MS	Sample Point # 1 - composite	Total Recoverable	Water	200.2	
440-253354-1 MSD	Sample Point # 1 - composite	Total Recoverable	Water	200.2	

Prep Batch: 577497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total/NA	Water	245.1	
440-253354-7	Sample Point # 2 - composite	Total/NA	Water	245.1	
MB 440-577497/1-A	Method Blank	Total/NA	Water	245.1	
LCS 440-577497/2-A	Lab Control Sample	Total/NA	Water	245.1	
440-253354-1 MS	Sample Point # 1 - composite	Total/NA	Water	245.1	
440-253354-1 MSD	Sample Point # 1 - composite	Total/NA	Water	245.1	

Analysis Batch: 577535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	577342
440-253354-7	Sample Point # 2 - composite	Total Recoverable	Water	200.7 Rev 4.4	577342
MB 440-577342/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	577342
LCS 440-577342/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	577342
440-253354-1 MS	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	577342
440-253354-1 MSD	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	577342

Analysis Batch: 577660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total/NA	Water	245.1	577497
440-253354-7	Sample Point # 2 - composite	Total/NA	Water	245.1	577497
MB 440-577497/1-A	Method Blank	Total/NA	Water	245.1	577497
LCS 440-577497/2-A	Lab Control Sample	Total/NA	Water	245.1	577497
440-253354-1 MS	Sample Point # 1 - composite	Total/NA	Water	245.1	577497
440-253354-1 MSD	Sample Point # 1 - composite	Total/NA	Water	245.1	577497

Prep Batch: 579419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total Recoverable	Water	200.2	
440-253354-7	Sample Point # 2 - composite	Total Recoverable	Water	200.2	
MB 440-579419/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-579419/4-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-253354-1 MS	Sample Point # 1 - composite	Total Recoverable	Water	200.2	
440-253354-1 MSD	Sample Point # 1 - composite	Total Recoverable	Water	200.2	

Analysis Batch: 579517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	579419
440-253354-7	Sample Point # 2 - composite	Total Recoverable	Water	200.7 Rev 4.4	579419
MB 440-579419/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	579419
LCS 440-579419/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	579419
440-253354-1 MS	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	579419
440-253354-1 MSD	Sample Point # 1 - composite	Total Recoverable	Water	200.7 Rev 4.4	579419

QC Association Summary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

General Chemistry

Analysis Batch: 577222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total/NA	Water	SM 2540D	
440-253354-7	Sample Point # 2 - composite	Total/NA	Water	SM 2540D	
MB 440-577222/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-577222/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-253354-1 DU	Sample Point # 1 - composite	Total/NA	Water	SM 2540D	

Analysis Batch: 577375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total/NA	Water	SM5210B	
440-253354-7	Sample Point # 2 - composite	Total/NA	Water	SM5210B	
USB 440-577375/1	Method Blank	Total/NA	Water	SM5210B	
LCS 440-577375/5	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-577375/6	Lab Control Sample Dup	Total/NA	Water	SM5210B	
LCSD 440-577375/7	Lab Control Sample Dup	Total/NA	Water	SM5210B	
440-253354-1 DU	Sample Point # 1 - composite	Total/NA	Water	SM5210B	

Prep Batch: 577501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-6	Sample Point # 1 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	
440-253354-12	Sample Point # 2 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	
MB 440-577501/1-A	Method Blank	Total/NA	Water	1664A	
LCS 440-577501/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-577501/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
440-253354-6 MS	Sample Point # 1 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	
440-253354-6 MSD	Sample Point # 1 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	

Analysis Batch: 577513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-6	Sample Point # 1 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	577501
440-253354-12	Sample Point # 2 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	577501
MB 440-577501/1-A	Method Blank	Total/NA	Water	1664A	577501
LCS 440-577501/2-A	Lab Control Sample	Total/NA	Water	1664A	577501
LCSD 440-577501/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	577501
440-253354-6 MS	Sample Point # 1 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	577501
440-253354-6 MSD	Sample Point # 1 Grabs 1 - 4 (Composite)	Total/NA	Water	1664A	577501

Analysis Batch: 577852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-1	Sample Point # 1 - composite	Total/NA	Water	SM 2540C	
440-253354-7	Sample Point # 2 - composite	Total/NA	Water	SM 2540C	
MB 440-577852/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-577852/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-253354-1 DU	Sample Point # 1 - composite	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 577538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-2	Sample Point # 1 - First Grab	Total/NA	Water	Field Sampling	
440-253354-3	Sample Point # 1 - Second Grab	Total/NA	Water	Field Sampling	
440-253354-4	Sample Point # 1 - Third Grab	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 577538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-253354-5	Sample Point # 1 - Fourth Grab	Total/NA	Water	Field Sampling	
440-253354-8	Sample Point # 2 - First Grab	Total/NA	Water	Field Sampling	
440-253354-9	Sample Point # 2 - Second Grab	Total/NA	Water	Field Sampling	
440-253354-10	Sample Point # 2 - Third Grab	Total/NA	Water	Field Sampling	
440-253354-11	Sample Point # 2 - Fourth Grab	Total/NA	Water	Field Sampling	

Definitions/Glossary

Client: NRG Energy, Inc.
Project/Site: EWA Waste Water Permit

Job ID: 440-253354-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: NRG Energy, Inc. Job ID: 440-253354-1
Project/Site: EWA Waste Water Permit

Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	CA ELAP 2706	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Field pH
Field Sampling		Water	Field Temperature

Chain of Custody Record

Eurofins TestAmerica, Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949 261.1022 fax 949.260.3299

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Anthony Kalis	Site Contact: Anthony Kalis	10/28/2019	COC No:
Carlsbad Energy Center	Email: anthony.kalis@nrg.com	Lab Contact: Rossina Tomova	Carrier:	1 of 1 COCs
4950 Avenida Encinas	Tel/Fax: 760-427-2382 / Fax #: None			TALS Project #:
Carlsbad, CA 92008	Analysis Turnaround Time			Sampler:
Phone: (760) 427-2382	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
FAX - None	TAT if different from Below _____			Walk-in Client:
Project Name. EWA Quarterly Sampling	☐ 2 weeks			Lab Sampling:
Site: Carlsbad Energy Center	☑ 1 week			Job / SDG No.:
PO # 4501864911	☐ 2 days			
	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	200.7 - (MOD) California Admin Manual Li; 245.1 - Hg	2540D - TSS; SM5210B_BOD Calc-BOD, 5 Day	2540C_Calcd-TDS	1664A - Oil & Grease (HEM Only)	Field pH	Sample Specific Notes:
Sample Point # Point # 1 - composite	10/28/2019	20.15	C	H20	8	N	Y	X	X	X			
Sample Point # 1 - First Grab	10/28/2019	1.01	G	H2O	2	N	Y				X	X	**Composite the 4 Oil & Grease samples of each Sump into one composite sample. Analyse the composite only.**
Sample Point # 1 - Second Grab	10/28/2019	7 04	G	H2O	2	N	Y				X	X	
Sample Point # 1 - Third Grab	10/28/2019	13:03	G	H2O	2	N	Y				X	X	
Sample Point # 1 - Fourth Grab	10/28/2019	19:21	G	H2O	2	N	Y				X	X	
Sample Point # 2 - composite	10/28/2019	20:27	C	H2O	4	N	N	X	X	X			
Sample Point # 2 - First Grab	10/28/2019	1:21	G	H2O	2	N	N				X	X	**Composite the 4 Oil & Grease samples of each Sump into one composite sample. Analyse the composite only.**
Sample Point # 2 - Second Grab	10/28/2019	7 21	G	H2O	2	N	N				X	X	
Sample Point # 2 -Third Grab	10/28/2019	13 14	G	H2O	2	N	N				X	X	
Sample Point # 2 - Fourth Grab	10/28/2019	19:31	G	H2O	2	N	N				X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								1/4	1	1	1/2		

	Sample Point # 1/ Time	Sample Point # 2/ time
Field pH 1	5.86 pH/26.5°C @ 0101	7 03 pH/25 3°C @ 0121
Field pH 2	5 78 pH/25.1°C @ 0704	7.01 pH/24.6°C @ 0721
Field pH 3	6 20 pH/27.3°C @ 1303	7.02 pH/26.4°C @ 1314
Field pH 4	6.25 pH/26.2°C @ 1921	6.93 pH/25.6°C @ 1931

10/29/19 LD

440-253354 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☑ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C): Obs'd _____ Corr'd _____ Therm ID No.:_____

Relinquished by: Anthony Kalis	Company: NRG	Date/Time: 10/29/19 0922	Received by:	Company: TA-IRV	Date/Time: 10-29-19	9:22
Relinquished by	Company:	Date/Time.	Received by:	Company	Date/Time:	
Relinquished by	Company: TA-IRV	Date/Time: 10-29-19 15:15	Received in Laboratory by:	Company: TA IRV	Date/Time: 10/29/19	1515

1.2/1.4 3.3/3.5 IR-89

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11/15/2019

Login Sample Receipt Checklist

Client: NRG Energy, Inc.

Job Number: 440-253354-1

Login Number: 253354
List Number: 1
Creator: Soderblom, Tim

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment H TLSN-3: Transmission Line Activities

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

March 30, 2020

Subject: CARLSBAD ENERGY CENTER COM-8 REPORT – TLSN-3: Transmission Line Activities

Through visual inspection, Carlsbad Energy Center has determined that all transmission equipment is compliance with section 2492 of the Public Resources Code and Section 1250 of Title 14 of the California Code of Regulations.

Attachment I VIS-1: Surface Treatment Summary

Carlsbad Energy Center Project - Major Surface Treatment					
Unit	Equipment/System	Color/Finish	Current Condition	2019 Maintenance Activities	Planned 2020 Maintenance Activities
6	Selective Catalytic Reduction	Gray	Good	None	None Planned
6	Stack	Gray	Good	None	None Planned
6	Intercooler	Black	Good	None	None Planned
6	VBV Stack	Gray	Good	None	None Planned
6	Combustion Turbine Enclosure	Gray	Good	None	None Planned
6	CT Air Inlet	Gray	Visible Rusting on West Side	None	Possible Rust Mitigation Activities
6	PCM	Gray	Good	None	None Planned
6/7	PDC	Gray	Good	None	None Planned
6/7	CEMS Shack	Gray	Good	None	None Planned
7	Selective Catalytic Reduction	Gray	Good	None	None Planned
7	Stack	Gray	Good	None	None Planned
7	Intercooler	Black	Good	None	None Planned
7	VBV Stack	Gray	Good	None	None Planned
7	Combustion Turbine Enclosure	Gray	Good	None	None Planned
7	CT Air Inlet	Gray	Visible Rusting on West Side	None	Possible Rust Mitigation Activities
7	PCM	Gray	Good	None	None Planned
8	Selective Catalytic Reduction	Gray	Good	None	None Planned
8	Stack	Gray	Good	None	None Planned
8	Intercooler	Black	Good	None	None Planned
8	VBV Stack	Gray	Good	None	None Planned
8	Combustion Turbine Enclosure	Gray	Good	None	None Planned

8	CT Air Inlet	Gray	Visible Rusting on West Side	None	Possible Rust Mitigation Activities
8	PCM	Gray	Good	None	None Planned
8/9	PDC	Gray	Good	None	None Planned
8/9	CEMS Shack	Gray	Good	None	None Planned
9	Selective Catalytic Reduction	Gray	Good	None	None Planned
9	Stack	Gray	Good	None	None Planned
9	Intercooler	Black	Good	None	None Planned
9	VBV Stack	Gray	Good	None	None Planned
9	Combustion Turbine Enclosure	Gray	Good	None	None Planned
9	CT Air Inlet	Gray	Visible Rusting on West Side	None	Possible Rust Mitigation Activities
9	PCM	Gray	Good	None	None Planned
10	Selective Catalytic Reduction	Gray	Good	None	None Planned
10	Stack	Gray	Good	None	None Planned
10	Intercooler	Black	Good	None	None Planned
10	VBV Stack	Gray	Good	None	None Planned
10	Combustion Turbine Enclosure	Gray	Good	None	None Planned
10	CT Air Inlet	Gray	Visible Rusting on West Side	None	Possible Rust Mitigation Activities
10	PCM	Gray	Good	None	None Planned
10	CEMS Shack	Gray	Good	None	None Planned
10/BOP	PDC	Gray	Good	None	None Planned
BOP	Fuel Gas Compressor A	Gray	Good	None	None Planned
BOP	Fuel Gas Compressor B	Gray	Good	None	None Planned
BOP	Fuel Gas Compressor C	Gray	Good	None	None Planned
BOP	Fuel Gas Compressor D	Gray	Good	None	None Planned
BOP	Raw Water Tank	Gray	Good	None	None Planned
BOP	Demin Water Tank	Gray	Good	None	None Planned
BOP	Fire Pump Structure	Gray	Good	None	None Planned

Common	Administrative Building	Tate Olive	Good	None	None Planned
Common	Warehouse	Tate Olive	Good	None	None Planned
Common	Existing Control House	Galvanized Steel	Minor surface rust	None	None Planned
Common	Transmission Poles	Galvanized	Good	None	None Planned
Common	Transmission Conductor Lines	Non-Reflective	Good	None	None Planned
Common	Transmission Line Insulators	Non-Reflective	Good	None	None Planned
Common	Perimeter Fence	Galvanized	Good	None	None Planned

Attachment J VIS-2/VIS-3: Landscape Maintenance Summary

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

March 30, 2020

Subject: CARLSBAD ENERGY CENTER COM-8 REPORT – VIS-2/VIS-3: Landscape Maintenance Summary

Carlsbad Energy Center contracts with Brightview for routine landscape activities. The activities include weekly maintenance for weeding services and removal of any downed branches found on the site.

One dead tree was removed after a visit from the California Energy Commission in October 2019. In addition, two eucalyptus trees were found to be dead or dying on the east side of the facility along the fence-line by Interstate 5. Details and pictures of these trees were sent to the California Energy Commission on November 22, 2019. As of the date of this report, Carlsbad Energy Center was instructed to not remove the trees as they continue to provide visual screening benefit and maintain soil/slope stability.

Attachment K WASTE-9: Waste Generation Report

Hazardous Waste 2019

NON-RCRA	codes	lbs	comments
Oily debris	352	2181	from regular operations
Oily Water	223	25143	from regular operations
Used Oil	223	820	from regular operations
Oily water 25%oil	223	3150	from regular operations
Used filters	352	1000	from regular operations
Waste paint related material	331	53	from regular operations
Rinsate w/bleach	135	12935	Spill remediation
PPE w/bleach	181	2400	Spill remediation
DMs prev cont oil	352	330	from regular operations
Aminoacid F-hach	331	11	from regular operations
Non rcra wastes	331, 141	636	Disposal of materials from construction
	TOTAL	48659	

RCRA	codes	lbs	comments
oil w/benzene	D018, 331, 221	8316	from regular operations
oily debris w/benzene	D018, 181	782	from regular operations
filters w/benzene	D018, 352	995	from regular operations
Used Aerosols	D001, 223-352	61	from regular operations
Citric Acid - hach	D002, 141	12	from regular operations
302 plus unused	D002, 141	5	Disposal of materials from construction
Age trident	D002, D001, 141	400	Disposal of materials from construction
Empty cont.prev corrshield	D002, 141	20	Disposal of materials from construction
Sodium Hydroxide	D002, 122	605	
PVC primer part B	D001, 331	5	Disposal of materials from construction
Debris with 302	D001, 181	5	Disposal of materials from construction
	TOTAL	11206	

Attachment L Compliance Matrix

Carlsbad Energy Center Project
Pre-Construction Compliance Matrix: July 2014

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**5**		N	This equipment shall be properly maintained and kept in good operating condition at all times and, to the extent practicable, the project owner shall maintain and operate the equipment and any associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. [Rule 21 and 40 CFR §60.11]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**6**		N	The project owner shall operate the project in accordance with all data and specifications submitted with the application under which this license is issued and District Application Nos. 2014-APP-003480, 2014-APP- 003481, 2014-APP-003482, 2014-APP-003483, 2014-APP-003484, 2014- APP-003485, 2014-APP-003486, and 2014-APP-003487. [Rule 14]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**7**		N	The project owner shall provide access, facilities, utilities, and any necessary safety equipment, with the exception of personal protective equipment requiring individual fitting and specialized training, for source testing and inspection upon request of the Air Pollution Control District. [Rule 19]	The project owner shall provide facilities, utilities, and safety equipment for source testing and inspections upon request of the District, ARB, and the Energy Commission.	N	as needed	N/A	Source Testing/Inspections	Ongoing	
AQ	**11**		Y	The project owner shall comply with all applicable provisions of 40 CFR Part 73, including requirements to offset, hold and retire sulfur dioxide (SO2) allowances. [40 CFR Part 73]	The project owner shall submit to the CPM and the District the combustion turbine generator (CTG) annual SO2 emission total and SO2 allowance information demonstrating compliance with all applicable provisions of 40 CFR 73 as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**12**		N	All records required by this permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rule 1421]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A			Ongoing	
AQ	**22**	a	Y	The combustion turbines shall be fired on Public Utility Commission (PUC) quality natural gas. The project owner shall maintain, on site, quarterly records of the natural gas sulfur content expressed in units of grains of sulfur compounds per 100 dscf of natural gas and hourly records of the higher and lower heating values of the natural gas expressed in Btu/scf. These records shall be provided to District personnel upon request. [Rule 20.3(d)(1)] Natural gas sulfur content records must be kept with a minimum reporting limit of 0.25 grains sulfur compounds per 100 dscf of natural gas. [Rule 20.3(d)(1)]	The project owner shall submit the quarterly fuel sulfur content values in the in the Quarterly Operation Reports (AQ-SC8)	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**22**	b	N		Make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**23**		N	Unless otherwise specified in this permit, all continuous monitoring data shall be collected at least once every clock-minute. [Rules 69.3, 69.3.1, and 20.3(d)(1)]	None required.	N	N/A			Ongoing	
AQ	**24**		Y	For purposes of determining compliance with emission limits based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on a Continuous Emission Monitoring System (CEMS), data collected in accordance with the CEMS protocol shall be used and the averages for averaging periods specified herein shall be calculated as specified in the CEMS protocol. [Rules 69.3, 69.3.1, 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, 40 CFR Part 60 Appendix B and F, and 40 CFR Part 75]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58. CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**25**		Y	For purposes of determining compliance with emission limits based on CEMS data, all CEMS calculations, averages, and aggregates shall be performed in accordance with the CEMS protocol approved in writing by the District. [Rules 69.3, 69.3.1, 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, 40 CFR Part 60 Appendix B and F, and 40 CFR Part 75]	CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**26**		Y	For each emission limit expressed as pounds, pounds per hour, or parts per million based on a one-hour or less averaging period or compliance period, compliance shall be based on using data collected at least once every minute when compliance is based on CEMS data except as specified in the District approved CEMS Protocol. [Rules 69.3, 69.3.1, and 20.3(d)(1)]	CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**27**		Y	When a combustion turbine is combusting fuel (operating), the emission concentration of oxides of nitrogen (NOX), calculated as nitrogen dioxide (NO2), shall not exceed 2.5 parts per million by volume on a dry basis (ppmvd) corrected to 15 percent oxygen, averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. [Rule 20.3(d)(1)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**28**		Y	When a combustion turbine is operating, the emission concentration of carbon monoxide (CO) shall not exceed 4.0 ppmvd corrected to 15 percent oxygen, averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. [Rule 20.3(d)(1)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**29**		Y	When a combustion turbine is operating, the volatile organic compound (VOC) concentration, calculated as methane, measured in the exhaust stack, shall not exceed 2.0 ppmvd corrected to 15 percent oxygen, averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. For purposes of determining compliance based on the CEMS, the District approved VOC/CO surrogate relationship and the CO CEMS data averaged over a one-clock-hour period shall be used. The VOC/CO surrogate relationship shall be verified and/or modified, if necessary, based on source testing. [Rule 20.3(d)(1)]	The project owner shall provide the CEMS data, using the appropriate CO/VOC surrogate relationship, to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports		
AQ	**30**		Y	When a combustion turbine is operating, the ammonia concentration (ammonia slip), shall not exceed 5.0 ppmvd corrected to 15 percent oxygen and averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. [Rule 1200]	The project owner shall provide the estimated ammonia concentrations and ammonia emissions based on the annual source test data, the CEMS data and SCR ammonia flow data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**31**		Y	When a combustion turbine is operating, the emission concentration of NOX, calculated as nitrogen dioxide (NO2), shall not exceed 42 ppmvd averaged over each one-clock-hour period and corrected to 15 percent oxygen except for startup and shutdown periods for that turbine, as defined in Rule 69.3. [Rule 69.3]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**32**		Y	When a combustion turbine is operating with post-combustion air pollution control equipment that controls oxides of nitrogen (NOX) emissions, the emission concentration of NOX, calculated as nitrogen dioxide (NO2), shall not exceed 13.6 ppmvd averaged over each one-clock-hour period and corrected to 15 percent oxygen, except for startup and shutdown periods for that turbine, as defined in Rule 69.3.1. This limit does not apply during any period in which the facility is subject to a variance from the emission limits contained in Rule 69.3.1. [Rule 69.3.1]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**33**		Y	When a combustion turbine is operating without any post-combustion air pollution control equipment that controls oxides of nitrogen (NOx) emissions, the emission concentration of NOx calculated as nitrogen dioxide (NO2) from each turbine shall not exceed 22.6 parts per million by volume on a dry basis (ppmvd) averaged over each one-clock-hour period and corrected to 15 percent oxygen, except for periods of startup and shutdown, as defined in Rule 69.3.1. This limit does not apply during any period in which the facility is subject to a variance from the emission limits contained in Rule 69.3.1. [Rule 69.3.1]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**34**		Y	For each rolling four-unit operating hour period, average emission concentration of oxides of nitrogen (NOx) for each turbine calculated as nitrogen dioxide (NO2) in parts per million by volume dry (ppmvd) corrected to 15 percent oxygen or, alternatively, as elected by the project owner, the average NOx emission rate in pounds per megawatt-hour (lb/MWh) shall not exceed an average emission limit calculated in accordance with 40 CFR Section 60.4380(b)(3). The emission concentration and emission rate averages shall be calculated in accordance with 40 CFR Section 60.4380(b)(1). The average emission concentration limit and emission rate limit shall be based on an average of hourly emission limits over the four-unit operating hour period including the operating-hour and three unit operating-hours immediately preceding. For any unit operating hour where multiple emission standards would apply based on load of the turbine, the applicable standard shall be the higher of the two limits. The hourly emission concentration limit and emission rate limit shall be as follows based on the load of the turbine over the four unit operating hour period: Case Emission Limit, ppmvd at 15 percent O2 Emission Limit, lb/MWh i. All four hrs at or above 75% Load 15 0.43 ii. All four hrs below 75% Load 96 4.7 iii. Combination of hrs (a x 15+b x 96)/4 (a x 0.43+b x 4.7)/4 Where: a = the number of unit operating hrs in four hour period with all operation above 75% load and b = 4-a. The averages shall exclude all clock hours occurring before the Initial Emission Source Test but shall include emissions during all other times that the equipment is operating including, but not limited to, emissions during startup and shutdown periods. For each six-calendar-month period, emissions in excess of these limits and monitor downtime shall be identified in accordance with 40 CFR Sections 60.4350 and 60.4380(b)(2), except that Section 60.4350(c) shall not apply for identifying periods in excess of a NOX concentration limit. For the purposes of this condition, unit operating hours shall have the meaning as defined in 40 CFR 60.4420. [40 CFR Part 60 Subpart KKKK]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**35**		Y	The emissions of particulate matter less than or equal to ten microns in diameter (PM10) from the exhaust stacks of the combustion turbine shall not exceed 5.0 pounds per hour for each combustion turbine. [Rule 20.3(d)(1)(2)]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	Completion of RATA/Source Tests		

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**36**		Y	The emissions of particulate matter less than or equal to ten microns in diameter (PM10) from the exhaust stacks of the combustion turbines shall not exceed 3.5 pounds per hour per turbine, averaged over all six combustion turbines, calculated as the arithmetic average of the most recent source test for each turbine. [Rule 20.3(d)(1),(2)]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	Completion of RATA/Source Tests		
AQ	**37**		Y	The discharge of particulate matter from the exhaust stack of each combustion turbine shall not exceed 0.10 grains per dry standard cubic foot (0.23 grams/dscm) corrected to 12 percent carbon dioxide. The District may require periodic testing to verify compliance with this standard. [Rule 53]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	Completion of RATA/Source Tests	Ongoing	
AQ	**38**		N	Visible emissions from the lube oil vents and the exhaust stack of each combustion turbine shall not exceed 20 percent opacity for more than three minutes in any period of 60 consecutive minutes. [Rule 50]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**39**		Y	Mass emissions from each combustion turbine of oxides of nitrogen (NOx), calculated as NO2; carbon monoxide (CO); and volatile organic compounds (VOC), calculated as methane, shall not exceed the following limits, except during commissioning, startup and shutdown periods for that turbine. A one-clock-hour averaging period for these limits shall apply to CEMS data. [Rule 20.3(d)(2)] Pollutant Emission Limit, lb/hr a. NOx 9.1 b. CO 8.8 c. VOC 2.5	The project owner shall submit to the CPM operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**40**		Y	Excluding any minutes that are coincident with a shutdown period, cumulative mass emissions of oxides of nitrogen (NOx), calculated as NO2; carbon monoxide (CO); and volatile organic compounds (VOC), calculated as methane, shall not exceed the following limits during any startup period, except during that turbine's commissioning period. [Rule 20.3(d)(1)]. Pollutant Emission Limit,lb a. NOx 14.7 b. CO 7.4 c. VOC 2.0 [NOx and VOC: Rule 20.3(d)(1); CO: Rule 20.3(d)(2)]	The project owner shall submit to the CPM operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**41**		Y	Cumulative mass emissions from each combustion turbine of oxides of nitrogen (NOx), calculated as NO2; carbon monoxide (CO); and volatile organic compounds (VOC), calculated as methane, shall not exceed the following limits during each of that turbine's shutdown periods, except during that turbine's commissioning period. [Rule 20.3(d)(1)] Pollutant Emission Limit,lb a. NO 0.6 b. CO 3.4 c. VOC **2.4**	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**42**		Y	Emissions of oxides of nitrogen (NOx), calculated as nitrogen dioxide (NO2), from each combustion turbine shall not exceed 90 pounds per hour measured over each one-clock-hour period. In addition, the emission concentration of NOx, calculated as NO2, from each turbine shall not exceed 100 parts per million by volume on a dry basis (ppmvd) averaged over each one-clock-hour period and corrected to 15 percent oxygen. These emission limits shall apply during all times a turbine is operating, including, but not limited to, emissions during commissioning, startup and shutdown for that turbine. [Rule 20.3(d)(2)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**43**		Y	The carbon monoxide (CO) emissions from each combustion turbine shall not exceed 248 pounds per hour measured over each one-clock-hour period. In addition, the emission concentration of CO from each turbine shall not exceed 400 parts per million by volume on a dry basis (ppmvd) averaged over each one-clock-hour period and corrected to 15 percent oxygen. This emission limit shall apply during all times that a turbine is operating, including, but not limited to emissions during commissioning, startup and shutdown periods. [Rule 20.3(d)(2)(i)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**44**		Y	Total emissions from the equipment authorized to be constructed under this permit, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1) as it exists on the date the permit to operate for this equipment is approved and except for CO emissions during any rolling 12-calendar-month period in which a turbine commissioning period occurs, shall not exceed the following limits for each rolling 12-calendar-month period, beginning with the 12-calendar-month period beginning with the month in which the earliest initial startup among the equipment authorized to be constructed under this permit occurs: Pollutant Emission Limit, tons per year a. NOx 84.18 b. CO 77.8 c. VOC 24.1 d. PM10 28.4 e. SOx (calculated as SO2) 5.6 The aggregate emissions of each pollutant shall include emissions during all times that the equipment is operating, except for CO emissions during any rolling 12-calendar-month period in which a turbine commissioning period occurs. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	The project owner shall submit to the CPM and the District the facility annual operating and emissions data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**45**		Y	Total emissions of CO during any rolling 12-calendar-month period in which a turbine commissioning period occurs from the equipment authorized to be constructed under this permit except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1) as it exists on the date the permit to operate for this equipment is approved shall not exceed the following limit for each rolling 12-calendar-month period, beginning with the 12-calendar-month period that begins with the month in which the earliest initial startup among the equipment authorized to be constructed under this permit occurs: 77.8 tons per year + N x 4.05 tons/yr Where N=number of turbines with commissioning periods occurring within the 12-calendar-month period. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	The project owner shall submit to the CPM and District the facility annual operating and emissions data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	4th Quarter	Quarterly Operation Reports	Ongoing	
AQ	**46**		Y	Total emissions from each combustion turbine shall not exceed 14.3 tons per year of NOx calculated as nitrogen dioxide and shall not exceed 4.73 tons per year of PM10. For the purposes of this condition emissions shall be calculated on a rolling 12-calendar-month basis beginning with the calendar month in which the initial startup of the turbine occurs. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**47**			Total emissions from the equipment permitted under APCD2003-PTO-001267, APCD2003-PTO-000791, APCD2003-PTO-000792, APCD2003-PTO-000793, APCD2003-PTO-001770 and APCD2003-PTO-005238 shall not exceed any of the following mass emission limits according to the schedule based on the number of turbines that have undergone their initial startup as described in the following table: Number of Turbines Started NOx (ton/yr) PM10 (ton/yr) 1 No Limit No Limit 2 No Limit No Limit 3 41.57 No Limit 4 27.42 27.6 5 13.27 22.9 6 0.0 18.2 For the purposes of this condition, emissions shall be calculated on a rolling 12-calendar-month basis beginning with the calendar month in which 180 days has passed since the latest initial start from among the indicated number of turbines. Once a turbine has undergone its initial startup, it is included in determining the number of turbines started from the initial startup date going forward. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	This condition requires the existing Encina boilers and turbine to cease operations once the amended CECP is operational. The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	48		Y	For each calendar month and each rolling 12-calendar-month period, the project owner shall maintain records, as applicable, on a calendar monthly basis, of mass emissions during each calendar month and rolling 12-calendar-month period of NOx (calculated as NO2), CO, VOCs (calculated as methane), PM10, and SOx (calculated as SO2), in tons, from each emission unit located at this stationary source, except for emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1). These records shall be made available for inspection within 15 calendar days after the end of each calendar month. [Rules 20.3(d)(3), 20.3(d)(8) and 21]	The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	49			For each combustion turbine, the number of annual operating hours in each calendar year shall not exceed 2,700. For the purposes of this condition, the number of operating hours shall be calculated as the total number of unit operating minutes divided by 60 rounded to the nearest hundredth of an hour. [Rules 1200, 20.3(d)(2) and 21]	The project owner shall submit facility annual operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	50		Y	For each combustion turbine, the number of startup periods occurring in each calendar year shall not exceed 400. When determining compliance with this limit, any startup that occurs during the commissioning period shall not be included. [Rules 1200, 20.3(d)(2) and 21]	The project owner shall submit facility annual operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	4th Quarter	Quarterly Operation Reports	Ongoing	
AQ	51	`	Y	For each combustion turbine, the number of startup periods occurring during its commissioning period shall not exceed 350. [Rules 1200, 20.3(d)(2) and 21]	The project owner shall submit facility annual operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	4th Quarter	Quarterly Operation Reports	Ongoing	
AQ	53		N	When a combustion turbine is operating, ammonia shall be injected at all times that the associated selective catalytic reduction (SCR) system outlet temperature is 540 degrees Fahrenheit or greater. [Rule 20.3 (d)(1)]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	55		N	Except during periods when the ammonia injection system is being tuned or one or more ammonia injection systems is in manual control for compliance with applicable permit conditions, the automatic ammonia injection system serving the SCR system shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR system. Manufacturer specifications shall be maintained on site and made available to District personnel upon request. [Rule 20.3(d)(1)]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	56	a	N	The concentration of ammonia solution used in the ammonia injection system shall be less than 20 percent ammonia by weight. Records of ammonia solution concentration shall be maintained on site and made available to District personnel upon request. [Rule 14, 21]	The project owner shall maintain on site and provide on request of the CPM or District the ammonia delivery records that demonstrate compliance with this condition.	N	as needed	N/A	Inspections	Ongoing	
AQ	56	b	Y		Testing witnessed by the District, a proposed test protocol shall be submitted to the District for written approval at least 60 days prior to source testing.	N	60	prior to	Source Test	Ongoing	
AQ	56	c	Y		Additionally, the District shall be notified a minimum of 30 days prior to the test so that observers may be present unless otherwise authorized in writing by the District. [Rules 20.3(d)(1) and 1200 and 40 CFR Part60 Subpart KKKK and 40 CFR.	N	30	prior to	Source Test	Ongoing	
AQ	57	a	Y	All source test or other tests required by this permit shall be performed by the District or an independent contractor approved by the District. Unless otherwise specified in this permit or authorized in writing by the District, if testing will be performed by an independent contractor and witnessed by the District, a proposed test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. Additionally, the District shall be notified a minimum of 30 days prior to the test so that observers may be present unless otherwise authorized in writing by the District. [Rules 20.3(d)(1) and 1200 and 40 CFR Part60 Subpart KKKK and 40 CFR §60.8]	The project owner shall submit to the CPM for review and the District for approval the initial source test protocol at least 60 days prior to the initial source test.	N	60	prior to	Initial Source Test	Ongoing	
AQ	57	b	Y		The project owner shall notify the CPM and District no later than 30 days prior to the proposed source test date and time.	N	30	prior to	Source Test	Ongoing	
AQ	58		Y	Unless otherwise specified in this permit or authorized in writing by the District, within 45 days after completion of a source test or Relative Accuracy Test Audit (RATA) performed by an independent contractor, a final test report shall be submitted to the District for review and approval. [Rules 20.3(d)(1) and 1200 and 40 CFR Part 60 Subpart KKKK, 40 CFR §60.8, and 40 CFR Part 75]	The project owner will submit all RATA or source test reports to the CPM for review and the District for approval within 45 days of the completion of those tests.	N	45	after	completion of RATA/Source Tests	Ongoing	
AQ	59		Y	All testing conducted to measure concentrations or emissions of Volatile Organic Compounds (VOCs) shall include measurement of formaldehyde and the result shall be added to the result determined for other VOC concentrations or emissions, as applicable. Measurement of VOC emissions shall be conducted in accordance with EPA Method 18, or alternative methods approved by the District and EPA. Measurement of emissions of formaldehyde shall be conducted in accordance with EPA Method 316 or 323, or an alternative method approved by the District and EPA.	The project owner shall submit to the CPM for review and the District for approval the initial source test protocol and source test report within the timeframes specified in Conditions AQ-57 and AQ-58.	N	60	prior to	Initial Source Test		

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**62**		Y	A renewal source test and a NOx and CO Relative Accuracy Test Audit (RATA) shall be periodically conducted on each combustion turbine to demonstrate compliance with the NOx, CO, VOC, PM10, and ammonia emission standards of this permit and applicable relative accuracy requirements for the CEMS systems using District approved methods. The renewal source test and the NOx and CO RATAs shall be conducted in accordance with the applicable RATA frequency requirements of 40 CFR75, Appendix B, Sections 2.3.1 and 2.3.3. The renewal source test shall be conducted in accordance with a protocol complying with all the applicable requirements of the source test protocol for the Initial Emissions Source Test. [Rule 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval the periodic RATA and source test protocols, and RATA source test reports within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	completion of RATA/Source Tests	Ongoing	
AQ	**63**		Y	Relative Accuracy Test Audit (RATAs) and all other required certification tests shall be performed and completed on the NOx CEMS in accordance with applicable provisions of 40 CFR Part 75 Appendix A and B and 40 CFR §60.4405 and on the CO CEMS in accordance with applicable provisions of 40 CFR Part 60 Appendix B and F. [Rule 21, Rule 20.3 (d)(1), 40 CFR Part 60 Subpart KKKK and 40 CFR Part 75]	The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval as required by Condition AQ-58.	N	45	after	completion of RATA/Source Tests	Ongoing	
AQ	**65**		Y	The District may require one or more of the following compounds, or additional compounds to be quantified through source testing periodically to ensure compliance with Rule 1200 and other conditions of this permit and to quantify toxic emissions: a. Acetaldehyde b. Acrolein c. Benzene d. Formaldehyde e. Toluene f. Xylenes If the District requires the project owner to perform this source testing, the District shall request the testing in writing a reasonable period of time prior to the testing date. [Rule 1200 California H&S Code §41510]	The results and field data collected during source tests required by the District under this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.	N	60	after	Source Testing	Ongoing	
AQ	**66**		N	The higher heating value of the combustion turbine fuel shall be measured by ASTM D1826–94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter or ASTM D1945–96, Standard Method for Analysis of Natural Gas by Gas Chromatography or an alternative test method approved by the District and EPA. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**67**		N	The sulfur content of the combustion turbine fuel shall be sampled not less than once each calendar quarter in accordance with a protocol approved by the District, which shall be submitted to the District for approval not later than 90 days before the earliest initial startup dates for any of the combustion turbines and measured with ASTM D1072–90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases; ASTM D3246–05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry; ASTM D4468–85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry; ASTM D6228–98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection; or ASTM D6667–04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence or an alternative test method approved by the District and EPA. [Rule 20.3 (d)(1), Rule 21, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	90	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**68**		N	The project owner shall comply with the applicable continuous emission monitoring requirements of 40 CFR Part 75 and 40 CFR Part 60. [40 CFR Part 75 and 40 CFR Part 60]	The project owner shall maintain a copy of the CEMS protocol required by AQ-70 on site and provide it, other CEMS data, and the CEMS for inspection on request by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**69**		Y	A continuous emission monitoring system (CEMS) shall be installed on each combustion turbine and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol: A. Clock-hourly average concentration of oxides of nitrogen (NOX) in parts per million (ppmvd) both uncorrected and corrected to 15 percent oxygen; B. Clock-hourly average concentration of carbon monoxide (CO) in parts per million (ppmvd) both uncorrected and corrected to 15 percent oxygen; C. Percent oxygen (O2) in the exhaust gas for each unit operating minute; D. Clock-hourly mass emissions of oxides of nitrogen (NOx) calculated as NO2, in pounds; E. Cumulative mass emissions of oxides of nitrogen (NOx) calculated as NO2, in each startup and shutdown period, in pounds; F. Calendar-daily mass emissions of oxides of nitrogen (NOx) calculated as NO2, in pounds; G. Calendar monthly mass emissions of oxides of nitrogen (NOx) calculated as NO2, in pounds; H. Rolling four unit operating hour average concentration of oxides of nitrogen (NOx) in parts per million (ppmvd) corrected to 15 percent oxygen; I. Rolling four unit operating hour average emission rate of oxides of nitrogen (NOx), calculated as NO2, in pounds per megawatt-hour (lb/MWh). J. Calendar quarter, calendar year, and rolling 12-calendar-month period mass emissions of oxides of nitrogen (NOx) calculated as NO2, in tons; K. Cumulative mass emissions of carbon monoxide (CO) in each startup and shutdown period, in pounds L. Clock-hourly mass emissions of carbon monoxide (CO), in pounds; M. Calendar-daily mass emission of carbon monoxide (CO), in pounds; N. Calendar-monthly mass emission of carbon monoxide (CO), in pounds; O. Rolling 12-calendar-month period mass emission of carbon monoxide (CO), in tons; P. Average concentration of oxides of nitrogen (NOx) and carbon monoxide (CO) in parts per million (ppmvd) both uncorrected and corrected to 15 percent oxygen during each unit operating minute; and Q. Average emission rate in pounds per hour of oxides of nitrogen (NOx) calculated	The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by AQ-70, which includes description of the methods of compliance with the requirements of this condition.	N	90	prior to	Initial Startup	Ongoing	
AQ	**69**		N		The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**72**		Y	A monitoring plan in conformance with 40 CFR 75.53 shall be submitted to U.S. EPA Region 9 and the District at least 45 calendar days prior to the Relative Accuracy Test Audit (RATA), as required in 40 CFR 75.62. [40 CFR Part 75]	The project owner shall submit to the CPM for review and the District and the U.S. EPA Region 9 for approval a monitoring plan in compliance with this condition at least 45 days prior to the RATA test.	N	45	prior to	RATA/Source Tests	Ongoing	
AQ	**73**		Y	The oxides of nitrogen (NOx) and oxygen (O2) components of the CEMS shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of sections 75.10 and 75.12 of title 40, Code of Federal Regulations Part 75 (40 CFR 75), the performance specifications of Appendix A of 40 CFR 75, the Quality Assurance procedures of Appendix B of 40 CFR 75 and the CEMS protocol approved by the District. The carbon monoxide (CO) components of the CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit, and the CEMS protocol approved by the District. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by AQ-70, which includes description of the methods of compliance with the requirements of this condition.	N	90	prior to	Initial Startup	Ongoing	
AQ	**73**		N		The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**74**		N	The CEMS shall be in operation in accordance with the District approved CEMs protocol at all times when the turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**76**		N	Any violation of any emission standard as indicated by the CEMS shall be reported to the District's compliance division within 96 hours after such occurrence. [Rule 19.2	The project owner shall notify the District regarding any emission standard violation as required in this condition and	N	96 hours	after	Violation of Emission Standard	Ongoing	
AQ	**76**		Y		shall document all such occurrences in each Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**77**		Y	The CEMS shall be maintained and operated, and reports submitted, in accordance with the requirements of rule 19.2 Sections (d), (e), (f)(1), (f)(2), (f)(3), (f)(4) and (f)(5), and a CEMS protocol approved by the District. [Rule 19.2]	The project owner shall submit to the District the CEMS reports as required in this condition and shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	

Carlsbad Energy Center Project
Pre-Construction Compliance Matrix: July 2014

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**78**		Y	Except for changes that are specified in the initial approved CEMS protocol or a subsequent revision to that protocol that is approved in advance, in writing by the District, the District shall be notified in writing at least thirty (30) calendar days prior to any planned changes made in the CEMS or Data Acquisition and Handling System (DAHS), including, but not limited to, the programmable logic controller, software which affects the value of data displayed on the CEMS/DAHS monitors with respect to the parameters measured by their respective sensing devices and any planned changes to the software that controls the ammonia flow to the SCR. Unplanned or emergency changes shall be reported within 96 hours. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval any revision to the CEMS/DAHS or ammonia flow control software, as required by this condition, to be approved in advance at least 30 days before any planned changes are made.	N	30	prior to	Revisions to Monitoring Software	Ongoing	
AQ	**78**		N		The project owner shall notify the District regarding any unplanned emergency changes to these software systems within 96 hours and	N	96 hours	after	Emergency Changes to Monitoring Software	Ongoing	
AQ	**78**		Y		shall document all such occurrences in each Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**80**		Y	Fuel flowmeters shall be installed and maintained to measure the fuel flow rate, corrected for temperature and pressure, to each combustion turbine. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR Part 75, Appendix D, and Section 2.1.6. [Rule 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Park 60 Subpart KKKK, and 40 CFR Part75]	The project owner shall submit to the CPM the natural gas usage data from the fuel flow meters as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**83**		N	Operating logs or Data Acquisition and Handling System (DAHS) records shall be maintained to record the beginning and end times and durations of all startup and shutdown periods to the nearest minute, quantity of fuel used in each clock minute, clock hour, calendar month, and 12-calendar-month period in standard cubic feet; hours of operation each day; and hours of operation during each calendar year. For purposes of this condition, the hours of turbine operation is defined as the total minutes the turbine is combusting fuel during the calendar year divided by 60 rounded to the nearest hundredth of an hour. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**87**		Y	The project owner shall file semiannual reports in accordance with 40 CFR §60.4375. [40 CFR Part 60 Subpart KKKK]	None Required	N				Ongoing	
AQ	**88**	a	Y	Each semiannual report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each such semiannual compliance report shall be postmarked or delivered no later than January 30 or July 30, whichever date is the first date following the end of the semiannual reporting period. [40 CFR Part 60 Subpart KKKK and Rule 21]	The project owner shall provide the District's Compliance Division the semi-annual reports required in this condition within the due dates specified in this condition,	N	N/A	Semi-Annual	Semi-Annual Report	Ongoing	
AQ	**88**	b	Y		shall provide summaries of these semi-annual reports in the Quarterly Operation Reports (AQ-SC8) following each semi-annual report, and shall provide full copies of these reports to the CPM upon request.	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**89**		N	All semiannual compliance reports shall be submitted to the District Compliance Division [40 CFR §60.7]	None required.	N				Ongoing	
AQ	**93**		N	This EPA certified engine shall be installed, configured, operated and maintained according to the manufacturer's emission related instructions. The owner or operator may not change any emission related settings unless those changes are permitted by the manufacturer and do not affect the engine's compliance with the emission standards to which it is certified. [40 CFR 60 subpart IIII]	The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**94**		N	The engine shall be operated exclusively during emergencies as defined in Rule 69.4.1, 40 CFR Part 60 Subpart IIII or 17 CCR §93115 as applicable, or for maintenance and testing.	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**95**		Y	Engine operation for maintenance and testing purposes shall not exceed 35 hours per calendar year unless otherwise required by the National Fire Protection Association (NFPA) Section 25. [Rules 69.4.1, 40 CFR Part 60 Subpart IIII, and 17 CCR §93115]	The project owner shall submit to the CPM the fire pump engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ	**96**		N	The engine shall only use CARB Diesel Fuel. [Rules 20.3(d)(1), 69.4.1, and 17 CCR §93115]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**97**		N	Visible emissions including crankcase smoke shall comply with Air Pollution Control District Rule 50. [Rule 50]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**98**		N	The equipment described above shall not cause or contribute to public nuisance. [Rule 51]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
AQ	**99**		N	This engine shall not operate for non-emergency use during the following periods, as applicable: A. Whenever there is any school sponsored activity, if engine is located on school grounds or B. Between 7:30 and 3:30 PM on days when school is in session, if the engine is located within 500 feet of, but not on school grounds. This condition shall not apply to an engine located at or near any school grounds that also serve as the student's place of residence. (ATCM reportable) [17 CCR §93115]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**100**	a	Y	A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operating hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within ten calendar days. The written notification shall include the following information: A. Old meter's hour reading. B. Replacement meter's manufacturer name, model, and serial number if available and current hour reading on replacement meter. C. Copy of receipt of new meter or of installation work order. A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. [Rules 69.4.1, 17 CCR §93115, and 40 CFR Part 60 Subpart IIII]	The project owner shall provide notification to the District as required by this condition and	N	10	after	Meter Replacement	Ongoing	
AQ	**100**	b	N		shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**101**		N	The owner or operator shall conduct periodic maintenance of this engine and add-on control equipment, if any, as recommended by the engine and control equipment manufacturers or as specified by the engine servicing company's maintenance procedure. The periodic maintenance shall be conducted at least once each calendar year. [Rule 69.4.1and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**102**		N	The owner or operator shall keep manuals of recommended maintenance as provided by the engine and control equipment manufacturers for at least the same period of time as the engine to which the records apply is located on site. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**103**		N	The owner or operator of this engine shall maintain records of all maintenance conducted on the engine, including a description of the maintenance and date the maintenance was performed. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**104**		N	The owner or operator shall maintain documentation for all fuel deliveries identifying the fuel as CARB diesel. [Rule 69.4.1, 17 CCR §93115, and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections	Ongoing	
AQ	**105**		Y	The owner or operator of this engine equipment shall maintain a monthly operating log containing, at a minimum, the following: A. Dates and times of engine operation, whether the operation was for compliance with the testing requirements of National Fire Protection Association (NFPA) 25 or emergency use, and the nature of the emergency, if known; B. Hours of operation for all uses other than those specified above and identification of the nature of that use. [Rule 69.4.1, 40 CFR subpart IIII and 17 CCR §93115]	The project owner shall submit to the CPM the fire pump engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports	Ongoing	
AQ-SC	**6**	a	Y/N	The project owner shall submit to the CPM for review and approval any project air permit modification proposed by the project owner. The project owner shall submit to the CPM any modification to any permit proposed by the District or U.S. EPA, and any revised permit issued by the District or U.S. EPA, for the project.	The project owner shall submit any proposed air permit modification to the CPM within five working days of its submittal either by: 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency.	N	5	prior to	Air Permit Modification	Ongoing	
AQ-SC	**6**	b	Y		The project owner shall submit all modified air permits to the CPM within 15 days of receipt.	N	15	after	Air Permit Modification	Ongoing	
AQ-SC	**8**		Y	The project owner shall submit to the CPM Quarterly Operation Reports, following the end of each calendar quarter that include operational and emissions information as necessary to demonstrate compliance with the conditions of certification herein. The Quarterly Operation Report will specifically state that the facility meets all applicable conditions of certification or note or highlight all incidences of noncompliance.	The project owner shall submit the Quarterly Operation Reports to the CPM and District, if requested by the District, no later than 30 days following the end of each calendar quarter.	N	30	following end of quarter	Quarterly Operation Reports	Ongoing	

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AQ-SC	**9**			The gas turbines shall only be operated between the military time hours of 0600 to 2400, except in the event of a California Independent System Operator declared emergency.	The project owner shall submit the Quarterly Operation Reports to the CPM and District, if requested by the District, no later than 30 days following the end of each calendar quarter that demonstrate the operating hours and provide documentation regarding declared emergency events when the gas turbines are operated between the hours of 2400 and 0600, military time.	N	30	following end of quarter	Quarterly Operation Reports	Ongoing	
BIO	**1**	b	Y		If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM at least ten working days prior to the termination or release of the preceding designated biologist. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to the CPM for consideration.	N	10	prior to	Termination of DB, CRS, PRS	Ongoing	
BIO	**2**	b		5. inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (i.e., parking lots) for animals in harm's way; 6. notify the project owner and the CPM of any non-compliance with any **Biological Resources** Condition of Certification; 7. respond directly to inquiries of the CPM regarding biological resource issues; 8. maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the monthly compliance report and the annual report; and 9. train the biological monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and all permits.	During project operation, the Designated Biologist shall submit record summaries in the annual compliance report unless his/her duties are ceased as approved by the CPM.	N	N/A	Annual	Annual Compliance Report	Ongoing	
BIO	**5**	d	N		The signed training acknowledgement forms from construction shall be kept on file by the project owner for a period of at least 6 months after the start of commercial operation. During project operation, signed statements for active project operational personnel shall be kept on file for 6 months following the termination of an individual's employment.	N	6 months	after	Commercial Operation	Ongoing	
BIO	**5**	e	N		During project operation, signed statements for active project operational personnel shall be kept on file for six months following the termination of an individual's employment.	N	>180	N/A	Termination of Individual's Employment		
BIO	**6**	b	Y		If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to the CPM, the CDFW, and USFWS within five days of their receipt, and	N	5	after	Receipt of permits for BRMIMP		
BIO	**6**	c	Y		the BRMIMP shall be revised or supplemented to reflect the permit condition within ten days of their receipt by the project owner.	N	10	after	Receipt of permits for BRMIMP		
BIO	**6**	e	Y		The project owner shall notify the CPM no less than five working days before implementing any modifications to the approved BRMIMP to obtain CPM approval. Any changes to the approved BRMIMP must also be approved by the CPM in consultation with CDFW, the USFWS, and appropriate agencies to ensure no conflicts exist.	N	5	prior to	Modifications to BRMIMP		

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BIO	**6**	f	Y	9. all locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction; 10. aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities — one set prior to any site (and related facilities) mobilization disturbance and one set subsequent to completion of project construction. Include planned timing of aerial photography and a description of why times were chosen; 11. duration for each type of monitoring and a description of monitoring methodologies and frequency; 12. performance standards to be used to help decide if/when proposed mitigation is or is not successful; 13. all performance standards and remedial measures to be implemented if performance standards are not met; 14. a preliminary discussion of biological resources related facility closure measures; 15. restoration and revegetation plan; and 16. a process for proposing plan modifications to the CPM and appropriate agencies for review and approval.	Implementation of BRMIMP measures will be reported in the monthly compliance reports by the Designated Biologist (i.e., survey results, construction activities that were monitored, species observed).	N	N/A	Monthly	Monthly Compliance Report		
COMPLIANCE	**1**		N	**Unrestricted Access.** The project owner shall take all steps necessary to ensure that the CPM, responsible Energy Commission staff, and delegated agencies or consultants have unrestricted access to the facility site, related facilities, project-related staff, and the records maintained to facilitate audits, surveys, inspections, and general or closure-related site visits. Although the CPM shall normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time, whether such visits are by the CPM in person or through representatives from Energy Commission staff, delegated agencies, or consultants.		N	as needed	N/A	Inspections	Ongoing	
COMPLIANCE	**2**		N	**Compliance Record.** The project owner shall maintain electronic copies of all project files and submittals on-site, or at an alternative site approved by the CPM, for the operational life and closure of the project. The files shall also contain at least one hard copy of: 1. the facility's Application(s) for Certification; 2. all amendment petitions and Energy Commission orders; 3. all site-related environmental impact and survey documentation; 4. all appraisals, assessments, and studies for the project; 5. all finalized original and amended structural plans and "as-built" drawings for the entire project; 6. all citations, warnings, violations, or corrective actions applicable to the project; and 7. the most current versions of any plans, manuals and training documentation required by the conditions of certification or applicable LORS. Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files maintained pursuant to this condition.		N	as needed	N/A	Inspections	Ongoing	

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COMPLIANCE	**3**		Y	**Compliance Verification Submittals.** Verification lead times associated with the start of construction or closure may require the project owner to file submittals during the AFC process, particularly if construction is planned to commence shortly after certification. The verification procedures, unlike the conditions, may be modified as necessary by the CPM. A cover letter from the project owner or an authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter subject line shall identify the project by AFC number, cite the appropriate condition of certification number(s), and give a brief description of the subject of the submittal. When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal and the condition(s) of certification applicable. All reports and plans required by the project's conditions of certification shall be submitted in a searchable electronic format (.pdf, MS Word, or Excel, etc.) and include standard formatting elements such as a table of contents, identifying by title and page number each section, table, graphic, exhibit, or addendum. All report and/or plan graphics and maps shall be adequately scaled and shall include a key with descriptive labels, directional headings, a bar scale, and the most recent revision date. The project owner is responsible for the content and delivery of all verification submittals to the CPM, whether the actions required by the verification were satisfied by the project owner or an agent of the project owner. All submittals shall be accompanied by an electronic copy on an electronic storage medium, or by e-mail, as agreed upon by the CPM. If hard-copy submittals are required, please address as follows: Compliance Project Manager Carlsbad Energy Center Project (07-AFC-6C) California Energy Commission 1516 Ninth Street (MS-2000) Sacramento, CA 95814		N	N/A	N/A	General compliance	Ongoing	
COMPLIANCE	**5**		Y	**Compliance Matrix**. The project owner shall submit a compliance matrix to the CPM with each MCR and ACR. The compliance matrix provides the CPM with the status of all conditions of certification in a spreadsheet format. The compliance matrix shall identify: 1. the technical area (e.g., biological resources, facility design, etc.); 2. the condition number; 3. a brief description of the verification action or submittal required by the condition; 4. the date the submittal is required (e.g., sixty (60) days prior to construction, after final inspection, etc.); 5. the expected or actual submittal date; 6. the date a submittal or action was approved by the CBO, CPM, or delegate agency, if applicable; 7. the compliance status of each condition (e.g., "not started," "in progress," or "completed" (include the date); and 8. if the condition was amended, the updated language and the date the amendment was proposed or approved. The CPM can provide a template for the compliance matrix upon request.	A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report.	Y	Monthly	Monthly	Monthly Compliance Report		

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COMPLIANCE	**7**	a	Y	**Annual Compliance Reports.** After construction is complete, the project owner must submit searchable electronic ACRs instead of MCRs. ACRs are due for each year of commercial operation and may be required for a specified period after decommissioning to monitor closure compliance, as specified by the CPM. The searchable electronic copies may be filed on an electronic storage medium or by e-mail, subject to CPM approval. Each ACR must include the AFC number, identify the reporting period, and contain the following: 1. an updated compliance matrix showing the status of all conditions of certification (fully satisfied conditions do not need to be included in the matrix after they have been reported as completed); 2. a summary of the current project operating status and an explanation of any significant changes to facility operations during the year; 3. documents required by specific conditions to be submitted along with the ACR; each of these items shall be identified in the transmittal letter with the condition it satisfies and submitted as an attachment to the ACR; 4. a cumulative list of all post-certification changes approved by the Energy Commission or the CPM; 5. an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided; 6. a list of filings submitted to, and permits issued by, other governmental agencies during the year; 7. a projection of project compliance activities scheduled during the next year; 8. a list of the year's additions to the on-site compliance file; 9. an evaluation of the Site Contingency Plan, including amendments and plan updates; and 10. a list of complaints, notices of violation, official warnings, and citations received during the year, a description of how the issues were resolved, and the status of any unresolved matters.	ACRs are due for each year of commercial operation and may be required for a specified period after decommissioning to monitor closure compliance, as specified by the CPM.	N	N/A	Annual	Annual Compliance Report	Ongoing	
COMPLIANCE	**7**	b	Y		Include an updated Provisional Closure Plan and Cost Estimate in every fifth-year ACR for CPM review and approval.	N	N/A	Every 5 Years	Annual Compliance Report		
COMPLIANCE	**8**		Y	**Confidential Information.** Any information that the project owner designates as confidential shall be submitted to the Energy Commission's Executive Director with an application for confidentiality, pursuant to Title 20, California Code of Regulations, section 2505 (a). Any information deemed confidential pursuant to the regulations shall remain undisclosed, as provided in Title 20,		N	N/A	N/A	General compliance	Ongoing	
COMPLIANCE	**9**		Y	**Annual Energy Facility Compliance Fee.** Pursuant to the provisions of section 25806 (b) of the Public Resources Code, the project owner is required to pay an annually adjusted compliance fee. Current compliance fee information is available on the Energy Commission's website at http://www.energy.ca.gov/siting/filing_fees.html. The project owner may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission dockets its final Decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification.	The initial payment is due on the date the Energy Commission dockets its final Decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification.	N	N/A	N/A	General compliance	Ongoing	
COMPLIANCE	**10**		Y	**Amendments, Staff-Approved Project Modifications, Ownership Changes, and Verification Changes.** The project owner shall petition the Energy Commission, pursuant to Title 20, California Code of Regulations, section 1769, to modify the design, operation, or performance requirements of the project or linear facilities, or to transfer ownership or operational control of the facility. The CPM will determine whether staff approval will be sufficient, or whether Commission approval will be necessary. It is the project owner's responsibility to contact the CPM to determine if a proposed project change triggers the requirements of section 1769. Section 1769 details the required contents for a Petition to Amend an Energy Commission Decision. The only change that can be requested by means of a letter to the CPM is a request to change the verification method of a condition of certification. Implementation of a project modification without first securing Energy Commission, or Energy Commission staff, approval may result in an enforcement action, including civil penalties, in accordance with section 25534 of the Public Resources Code. If the Energy Commission's rules regarding amendments are revised, the rules in effect at the time the change is requested shall apply.		Y	N/A	Prior to	Project Change on Design	Ongoing	Approved by Start of Tank Demolition Letter from CPM, received on 12-9-14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remedation letter 8-31-15.
COMPLIANCE	**11**	b	Y		The project owner shall respond to all complaints within 24 hours or the next business day.	N	1	after	Complaint	Ongoing	

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COMPLIANCE	**11**	c	Y		In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations.	N	N/A	Monthly	Monthly Compliance Report	Ongoing	
COMPLIANCE	**11**	d	Y		In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations.	N	N/A	Annual	Annual Compliance Report	Ongoing	
COMPLIANCE	**11**	e	Y		In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations.	N	10	after	Complaint	Ongoing	
COMPLIANCE	**12**		Y	**Emergency Response Site Contingency Plan**. No less than 60 days prior to the start of commercial operation (or other date agreed to by the CPM), the project owner shall submit for CPM review and approval, an Emergency Response Site Contingency Plan (Contingency Plan). The Contingency Plan shall evidence a facility's coordinated emergency response and recovery preparedness for a series of reasonably foreseeable emergency events. The CPM may require the updating of the Contingency Plan over the life of the facility. Contingency Plan elements include, but are not limited to: 1. a site-specific list and direct contact information for persons, agencies, and responders to be notified for an unanticipated event; 2. a detailed and labeled facility map, including all fences and gates, the windsock location (if applicable), the on- and off-site assembly areas, and the main roads and highways near the site; 3. a detailed and labeled map of population centers, sensitive receptors, and the nearest emergency response facilities; 4. a description of the on-site, first response and backup emergency alert and communication systems, site-specific emergency response protocols, and procedures for maintaining the facility's contingency response capabilities, including a detailed map of interior and exterior evacuation routes, and the planned location(s) of all permanent safety equipment; 5. an organizational chart including the name, contact information, and first aid/emergency response certification(s) and renewal date(s) for all personnel regularly on-site; 6. a brief description of reasonably foreseeable, site-specific incidents and accident sequences (on- and off-site), including response procedures and protocols and site security measures to maintain twenty-four-hour site security; 7. procedures for maintaining contingency response capabilities; and 8. the procedures and implementation sequence for the safe and secure shutdown of all non-critical equipment and removal of hazardous materials and waste (see also specific conditions of certification for the technical areas of Public Health, Waste Management, Hazardous Materials Management, and Worker Safety).	No less than 60 days prior to the start of commercial operation (or other date agreed to by the CPM), the project owner shall submit for CPM review and approval, an Emergency Response Site Contingency Plan (Contingency Plan).	N	60	prior to	Commercial Operation	Ongoing	
COMPLIANCE	**13**	a		**Incident-Reporting Requirements.** Within one hour after it is safe and feasible, the project owner shall notify the CPM or compliance office manager, by telephone and e-mail, of any incident at the power plant or appurtenant facilities that results, or could result, in any of the following: 1. health and safety impacts on the surrounding population; 2. property damage off-site; 3. response by off-site emergency response agencies; 4. serious on-site injury; 5. serious environmental damage; or 6. emergency reporting to any federal, state, or local agency. The notice shall describe the circumstances, status, and expected duration of the incident. If warranted, as soon as it is safe and feasible, the project owner shall implement the safe shutdown of any non-critical equipment and removal of any hazardous materials and waste that pose a threat to public health and safety and to environmental quality (also, see specific conditions of certification for the technical areas of HAZARDOUS MATERIALS MANAGEMENT and WASTE MANAGEMENT).	Within one hour after it is safe and feasible, the project owner shall notify the CPM or compliance office manager, by telephone and e-mail, of any incident at the power plant or appurtenant facilities	N	1 hour	after	Incident	Ongoing	

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COMPLIANCE	**13**	b		Within one week of the incident, the project owner shall submit to the CPM a detailed incident report, which includes, as appropriate, the following information: 1. a brief description of the incident, including its date, time, and location; 2. a description of the cause of the incident, or likely causes if it is still under investigation; 3. the location of any off-site impacts; 4. description of any resultant impacts; 5. a description of emergency response actions associated with the incident; 6. identification of responding agencies; 7. identification of emergency notifications made to federal, state, and/or local agencies; 8. identification of any hazardous materials released and an estimate of the quantity released; 9. a description of any injuries, fatalities, or property damage that occurred as a result of the incident; 10. fines or violations assessed or being processed by other agencies; 11. name, phone number, and e-mail address of the appropriate facility contact person having knowledge of the event; and 12. corrective actions to prevent a recurrence of the incident. The project owner shall maintain all incident report records for the life of the project, including closure. After the submittal of the initial report for any incident, the project owner shall submit to the CPM copies of incident reports within 24 hours of a request.	Within one week of the incident, the project owner shall submit to the CPM a detailed incident report.	N	5	after	Incident	Ongoing	
COMPLIANCE	**14**	a	Y	**Non-operation**. If the facility ceases operation temporarily, either planned or unplanned, for longer than one week, but less than three months (or other CPM-approved date), the project owner shall notify the CPM (by telephoneand e-mail), interested agencies, and nearby property owners. Notice of planned non-operation shall be given at least two weeks prior to the scheduled date. Notice of unplanned non-operation shall be provided no later than one week after non-operation begins. For any non-operation, a Repair/Restoration Plan for conducting the activities necessary to restore the facility to availability and reliable and/or improved performance shall be submitted to the CPM within one week after notice of non-operation is given. If non-operation is due to an unplanned incident, temporary repairs and/or corrective actions may be undertaken before the Repair/Restoration Plan is submitted. The Repair/Restoration Plan shall include: 1. identification of operational and non-operational components of the plant; 2. a detailed description of the repair or restoration activities; 3. a proposed schedule for completing the repair or restoration activities; 4. an assessment of whether or not the proposed activities would require changing, adding, and/or deleting any conditions of certification, and/or would cause noncompliance with any applicable LORS; and 5. planned activities during non-operation, including any measures toensure continued compliance with all conditions of certification and LORS.	Notify the CPM (by telephone and e-mail), interested agencies, and nearby property owners of planned non-operation at least two weeks prior to the scheduled date.	N	10	prior to	Planned Non-Operation	Ongoing	
COMPLIANCE	**14**	b	Y		Notify the CPM (by telephone and e-mail), interested agencies, and nearby property owners of unplanned non-operation shall be provided no later than one week after non-operation begins.	N	5	prior to	Unplanned Non-Operation	Ongoing	
COMPLIANCE	**14**	c	Y		For any non-operation, a Repair/Restoration Plan for conducting the activities necessary to restore the facility to availability and reliable and/or improved performance shall be submitted to the CPM within one week after notice of non-operation is given.	N	5	after	Notice of Non-Operation	Ongoing	

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COMPLIANCE	**14**	d	Y	The CPM will determine if CBO oversight or compliance site monitoring is required. Written updates to the CPM for non-operational periods, until operation resumes, shall include: 1. progress relative to the schedule; 2. developments that delayed or advanced progress or that may delay or advance future progress; 3. any public, agency, or media comments or complaints; and 4. projected date for the resumption of operation. During non-operation, all applicable conditions of certification and reporting requirements remain in effect. If, after one year from the date of the project owner's last report of productive Repair/Restoration Plan work, the facility does not resume operation or does not provide a plan to resume operation, the Executive Director may assign suspended status to the facility and recommend commencement of permanent closure activities. Within 90 days of the Executive Director's determination, the project owner shall do one of the following: 1. If the facility has a closure plan, the project owner shall update it and submit it for Energy Commission review and approval. 2. If the facility does not have a closure plan, the project owner shall develop one consistent with the requirements in this Compliance Plan and submit it for Energy Commission review and approval.	Within 90 days of the Executive Director's determination, the project owner shall do one of the following: 1. If the facility has a closure plan, the project owner shall update it and submit it for Energy Commission review and approval. 2. If the facility does not have a closure plan, the project owner shall develop one consistent with the requirements in this Compliance Plan and submit it for Energy Commission review and approval.	N	90	after	Permanent Closure	Ongoing	
COMPLIANCE	**15**	a	Y	**Facility Closure Planning.** To ensure that a facility's eventual permanent closure and long-term maintenance do not pose a threat to public health and safety and/or to environmental quality, the project owner shall coordinate with the Energy Commission to plan and prepare for eventual permanent closure. A. Provisional Closure Plan and Estimate of Permanent Closure Costs To assure satisfactory long-term site maintenance and adequate closure for "the whole of a project," the project owner shall submit a Provisional Closure Plan and Cost Estimate for CPM review and approval within 60 days after the start of commercial operation. The Provisional Closure Plan and Cost Estimate shall consider applicable final closure plan requirements, and reflect the use of an independent third party to carry out the permanent closure. The Provisional Closure Plan and Cost Estimate shall provide for a phased closure process and include but not be limited to: 1. comprehensive scope of work and itemized budget; 2. closure plan development costs; 3. dismantling and demolition; 4. recycling and site clean-up; 5. mitigation and monitoring direct, indirect, and cumulative impacts; 6. site remediation and/or restoration; 7. interim and long term operation monitoring and maintenance, including long-term equipment replacement costs; and 8. contingencies. The project owner shall include an updated Provisional Closure Plan and Cost Estimate in every fifth-year ACR for CPM review and approval. Each updated Provisional Closure Plan and Cost Estimate shall reflect the most current regulatory standards, best management practices, and applicable LORS.	Submit a Provisional Closure Plan and Cost Estimate for CPM review and approval within 60 days after the start of commercial operation.	N	60	after	Commercial Operation	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
COMPLIANCE	**15**	b		B. Final Closure Plan and Cost Estimate At least three years prior to initiating a permanent facility closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any long-term, post-closure site maintenance and monitoring. Final Closure Plan and Cost Estimate contents include, but are not limited to: 1. a statement of specific Final Closure Plan objectives; 2. a statement of qualifications and resumes of the technical experts proposed to conduct the closure activities, with detailed descriptions of previous power plant closure experience; 3. identification of any facility-related installations not part of the Energy Commission certification, designation of who is responsible for these, and an explanation of what will be done with them after closure; 4. a comprehensive scope of work and itemized budget for permanent plant closure and site maintenance activities, with a description and explanation of methods to be used, broken down by phases, including, but not limited to: a) dismantling and demolition; b) recycling and site clean-up; c) impact mitigation and monitoring; d) site remediation and/or restoration and; e) any contingencies. 5. a revised/updated Final Cost Estimate for all closure activities, by phases, including site monitoring and maintenance costs, and long-term equipment replacement;	At least three years prior to initiating a permanent facility closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any long-term, post-closure site maintenance and monitoring.	N	3 Years	prior to	Permanent Closure	Ongoing	
COMPLIANCE	**15**	c		6. a schedule projecting all phases of closure activities for the power plant site and all appurtenances constructed as part of the Energy Commissioncertified project; 7. an electronic submittal package of all relevant plans, drawings, risk assessments, and maintenance schedules and/or reports, including an above- and below-ground infrastructure inventory map and registered engineer's or delegate CBO's assessment of demolishing the facility; additionally, for any facility that permanently ceased operation prior to submitting a Final Closure Plan and Cost Estimate and for which only minimal or no maintenance has been done since, a comprehensive condition report focused on identifying potential hazards; 8. all information additionally required by the facility's conditions of certification applicable to plant closure; 9. an equipment disposition plan, including: a) recycling and disposal methods for equipment and materials; and b) identification and justification for any equipment and materials that will remain on-site after closure; 10. a site disposition plan, including but not limited to: a) proposed rehabilitation, restoration, and/or remediation procedures, as required by the conditions of certification and applicable LORS; and b) site maintenance activities. 11. identification and assessment of all potential direct, indirect, and cumulative impacts and proposal of mitigation measures to reduce significant adverse impacts to a less-than-significant level; potential impacts to be considered shall include, but not be limited to: a) traffic b) noise and vibration c) soil erosion d) air quality degradation e) solid waste f) hazardous materials g) waste water discharges h) contaminated soil		N				Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
COMPLIANCE	**15**	d		12. identification of all current conditions of certification, LORS, federal, state, regional, and local planning efforts applicable to the facility, and proposed strategies for achieving and maintaining compliance during closure; 13. updated mailing list or listserv of all responsible agencies, potentially interested parties, and property owners within one mile of the facility; 14. identification of alternatives to plant closure and assessment of the feasibility and environmental impacts of these; and 15. description of and schedule for security measures and safe shutdown of all non-critical equipment and removal of hazardous materials and waste (see conditions of certification for Public Health, Waste Management, Hazardous Materials Management, and Worker Safety). If implementation of an Energy Commission-approved Final Closure Plan and Cost Estimate is not initiated within one year of its approval date, it shall be updated and re-submitted to the Commission for supplementary review and approval. If a project owner initiates but then suspends closure activities, and the suspension continues for longer than one year, or subsequently abandons the facility, the Final Closure Plan and Cost Estimate shall be resubmitted to the Commission for supplementary review and approval. The project owner remains liable for all costs of contingency planning and closure.					Ongoing	
GEN	**1**	c	N		At least 30 days prior to the demolition of the EPS, the project owner shall contact the CBO to obtain the CBO's approval of the work.	N	30	prior to	Demolition of the EPS		
HAZ	**1**	b	Y		and in the Annual Compliance Report.	N	N/A	Annual	Annual Compliance Report	Ongoing	
HAZ	**8**	c	Y		In the annual compliance report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.	N	N/A	Annual	Annual Compliance Report	Ongoing	
SOIL&WATER	**4**	b	Y		The project owner shall submit to the CPM the annual water quality monitoring report required by the SDRWQCB in the annual compliance report. The project owner shall notify the CPM of all WDR Order violations, the actions taken or planned to bring the project back into compliance with the WDR Order, and the date compliance was reestablished.	N	N/A	Annual	Annual Compliance Report	Ongoing	
SOIL&WATER	**5**	b	Y		The project owner shall submit to the CPM any water quality monitoring reports required by the City in the annual compliance report. The project owner shall notify the CPM of any violations of the permit(s) and conditions, the actions taken or planned to bring the project back into compliance with the permit(s), and the date compliance was reestablished.	N	N/A	Annual	Annual Compliance Report	Ongoing	
SOIL&WATER	**6**	b	Y		The project owner shall provide a report on the servicing, testing, and calibration of the metering devices in the annual compliance report. The project owner shall submit a water use summary report to the CPM in the annual compliance report for the life of the project. The annual summary report shall be based on and distinguish recorded daily use and emergency uses of potable and recycled water. The report shall include calculated monthly range, monthly average, and annual use by the project in both gallons per minute and acre-feet. After the first year and for subsequent years, this information shall also include the yearly range and yearly average potable and recycled water used by the project.	N	N/A	Annual	Annual Compliance Report	Ongoing	
SOIL&WATER	**6**	c			The project owner shall submit a petition to amend within 3 months of exceeding the maximum allowable 300 acre-feet of potable water for operational uses.	N	90	after	Exceeding Maximum Allowable 300 acre-Feet of Potable Water for Operational Uses	Ongoing	
SOIL&WATER	**7**	b	Y		During operations, the project owner shall submit to the CPM any wastewater quality monitoring reports required by the City in the annual compliance report.	N	N/A	Annual	Annual Compliance Report	Ongoing	

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SOIL&WATER	**7**	c	Y		The project owner shall submit any notices of violation from the City to the CPM within ten days of receipt and fully explain the corrective actions taken in the annual compliance report.	N	10	after	NOV	Ongoing	
SOIL&WATER	**9**	a	Y	Prior to transport and disposal of any facility construction or demolition-related wastewaters offsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project owner shall provide evidence that wastewater is disposed of at an appropriately licensed facility. The project owner shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements). Where discharge of wastewater must comply with the San Diego Regional Water Quality Control Board (SDRWQCB) and State Water Resources Control Board regulatory requirements, the project owner shall submit a Report of Waste Discharge (ROWD) to the compliance project manager (CPM) and SDRWQCB for determination of which regulatory waiver or permit applies to the proposed discharges. The project owner shall pay all necessary fees for filing and review of the ROWD and all other related fees. Checks for such fees shall be submitted to the SDRWQCB and shall be payable to the State Water Resources Control Board. The project owner shall ensure compliance with the provisions of the waiver or permit applicable to the discharge. Where the regulatory requirements are not applied pursuant to a National Pollutant Discharge Elimination System permit, it is the Commission's intent that the requirements of the applicable waiver or permit be enforceable by both the Commission and the SDRWQCB. In furtherance of that objective, the Commission hereby delegates the enforcement of the waiver or permit requirements, and associated monitoring, inspection, and annual fee collection authority, to the SDRWQCB. The CPM and SDRWQCB shall confer with each other and coordinate, as needed, in the enforcement of the requirements.	The project owner shall submit to the CPM copies of all relevant correspondence between the project owner and the SWRCB or SDRWQCB about the EPS demolition wastewater discharge requirements within ten days of its receipt or submittal. This information shall include copies of the Notice of Intent and Notice of Termination for the project. A letter from the SWRCB or SDRWQCB indicating that there is no requirement for the discharge of EPS demolition wastewater would satisfy this condition.	N	10	after	receipt or submittal of correspondence between project owner and SWRCB or SDRWQCB about the EPS demolition wastewater discharge requirements	Ongoing	
TLSN	**3**			The project owner shall ensure that the rights-of-way of the proposed transmission lines are kept free of combustible material, as required under the provisions of section 4292 of the Public Resources Code and section 1250 of Title 14 of the California Code of Regulations.	During the first five years of plant operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the right-of-way of each line and provide such summaries in the Annual Compliance Report.	N	N/A	Annual	During the first five years of plant operation	Ongoing	
VIS	**1**	c	Y		The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify: a) the condition of the surfaces of all structures and buildings at the end of the reporting year; b) maintenance activities that occurred during the reporting year; and c) the schedule of maintenance activities for the next year.	N	N/A	Annual	Annual Compliance Report	Ongoing	
VIS	**2**	b	N		3. The planting must occur during the first optimal planting season following site mobilization. The project owner shall simultaneously notify the CPM and the City of Carlsbad within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.	N	7	after	Landscaping	Ongoing	
VIS	**2**	c	Y		4. The project owner shall report landscape maintenance activities, including replacement of dead or dying vegetation, for the previous year of operation in each Annual Compliance Report. The City of Carlsbad, with the concurrence of the CPM, shall have authority to require replacement planting of dead or dying vegetation through the life of the project	N	N/A	Annual	Annual Compliance Report	Ongoing	

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
VIS	**3**	B		If necessary to provide visual screening of staging activities, equipment and materials in the short term, the project owner shall provide temporary dark-colored, opaque fencing to provide visual screening until landscape screening described above has achieved sufficient maturity to provide visual screening. Existing opaque fencing shall be maintained along the Carlsbad Boulevard frontage of the EPS for the duration of construction and demolition. The project owner shall submit to the CPM for review and approval, and simultaneously to the city of Carlsbad for review and comment, a landscaping plan whose proper implementation will satisfy these requirements. The plan shall include: a) A detailed landscape, grading, and irrigation plan, at a reasonable scale. The plan shall demonstrate how the requirements stated above shall be met. The plan shall provide a detailed installation schedule demonstrating installation of as much of the landscaping as early in the construction process as is feasible in coordination with project construction. The intent of the plan shall be to minimize loss of existing perimeter tree and shrub screening, particularly at the northeast laydown site; and to provide supplemental and replacement plantings as needed to screen staging sites.		N			As Needed	Ongoing	
VIS	**3**	b	N	b) A list (prepared by a qualified professional arborist familiar with local growing conditions) of proposed species, specifying installation sizes, growth rates, expected time to maturity, expected size at five years and at maturity, spacing, number, availability, and a discussion of the suitability of the plants for the site conditions and mitigation objectives, with the objective of providing the widest possible range of species from which to choose; c) Maintenance procedures, including any needed irrigation and a plan for routine annual or semi-annual debris removal for the life of the project; d) A procedure for monitoring for and replacement of unsuccessful plantings for the life of the project; and e) One set of 11"x17" color photo-simulations of the proposed landscaping landscape condition at start of construction and at five years and twenty years after planting, as viewed from Key Observation Point 1 6 (location shown on Visual Resources Figure 3 of the Staff Assessment). The plan shall not be implemented until the project owner receives final approval from the CPM.	3. The planting must occur during the first optimal planting season following site mobilization. The project owner shall simultaneously notify the CPM and the City of Carlsbad within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.	N	7	after	Landscaping	Ongoing	
VIS	**3**	c	Y		4. The project owner shall report landscape maintenance activities, including replacement of dead or dying vegetation, for the previous year of operation in each Annual Compliance Report.	N	N/A	Annual	Annual Compliance Report	Ongoing	
VIS	**4**	e	Y		Within 48 hours of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation.	N	48 hrs	within receipt	Lighting Complaint	Ongoing	
VIS	**4**	f	N		The project owner shall notify the CPM within 48 hours after completing implementation of the proposal.	N	48 hrs	within receipt	Lighting Complaint	Ongoing	
VIS	**4**	g	Y		A copy of the complaint resolution form report shall be submitted to the CPM within 30 days	N	30	after	Lighting Complaint	Ongoing	
VIS	**5**	a	Y	In order to address potential cumulative visual impacts resulting from I-5 widening, the project owner shall maintain a permanent buffer zone, including the existing vegetative visual screening, on the eastern portion of the CECP site, between the existing NRG fence line and storage tank perimeter road. This measure shall be coordinated with Conditions of Certification LAND-1 and HAZ-8, requiring construction of a tall wall/safety barrier at the future right-of-way. The existing landscape screening within the buffer zone shall be maintained and enhanced per Condition of Certification VIS-2 after start of project construction. The buffer zone shall be kept available to maintain existing visual screening, accommodate future possible I-5 widening to the extent necessary, and to accommodate both future hazard protection features and visual screening. In addition, the **project owner** shall work with Caltrans to develop a Cumulative Impact Mitigation Plan for accommodating the widening project while maintaining visual screening of the CECP to acceptable levels **over the long term following I-5 widening**. This plan could include complete or partial avoidance of the CECP site, complete or partial berm retention or replacement, complete or partial retention of existing landscape screening, and replacement screening as needed. The objective of the plan shall be to accommodate the I-5 widening within the designated buffer zone to the extent that encroachment is unavoidable, while providing needed hazard protection and acceptable levels of visual screening of the power plant.	At the earliest feasible time, the project owner shall coordinate with Caltrans to discuss specific hazard and visual mitigation strategies. The project owner shall work with Caltrans to devise a specific Cumulative Impact Mitigation Plan for accommodating hazard protection and visual screening, to be implemented at the time of I-5 widening.	N	N/A	earliest feasible time	I-5 Widening DEIS	Ongoing	

Carlsbad Energy Center Project
Pre-Construction Compliance Matrix: July 2014

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Compliance Status	Comments
VIS	**5**	b	Y	The Cumulative Impact Mitigation Plan shall include a landscape planting buffer zone along the entire CECP/I-5 boundary, to accommodate replacement tree canopy of sufficient height and density as to provide substantial visual screening of the tall amended CECP features, including exhaust stacks and transmission poles; and to substantially replace any existing tree canopy on the eastern CECP boundary lost to highway expansion. The landscape buffer may occupy portions of the CECP site, the Caltrans right-of-way, or both. Wherever feasible, the landscape buffer shall maintain a minimum 20 foot width. Where infeasible, exceptions shall be approved by the CPM. The solution developed under Condition of Certification VIS-5 shall not preclude relocation or undergrounding of transmission poles or other features, if necessary to provide the stipulated visual buffer or achieve adequate long-term project screening. Landscaping of the buffer zone shall include installation of large-container (24-inch box or larger, as needed), fast-growing evergreen trees in sufficient density to provide comparable or better visual screening of the CECP site than currently exists, within the shortest feasible period. Trees shall be selected and located so as to achieve substantial screening within a period of five years from the time of planting. The plan shall, at a minimum, include the following components: a. a record of discussions, meetings and planning activities conducted with Caltrans; b. the conclusions of these coordination activities; c. detailed plans, elevations, cross-sections or other details, including a detailed list of plants and container size, sufficient to fully convey how the objectives of effective visual screening of the CECP are to be achieved. To the extent possible, the plans shall comply with the city of Carlsbad Landscape Manual as applicable. The plan shall specifically address visual design of security barriers required under Condition of Certification HAZ-8 to ensure their aesthetic quality and compatibility. To the extent feasible, the plans shall conform with the intent of the Caltrans Design Guidelines for the I-5 NCC Project, Coastal Mesa Theme Unit (Caltrans 2013). ; and d. a proposed construction schedule	At the earliest feasible time, the project owner shall coordinate with Caltrans to discuss specific hazard and visual mitigation strategies. The project owner shall work with Caltrans to devise a specific Cumulative Impact Mitigation Plan for accommodating hazard protection and visual screening, to be implemented at the time of I-5 widening. Following coordination and plan development with Caltrans, the project owner shall submit a draft of the Cumulative Impact Mitigation Plan to the city of Carlsbad for review and comment, and to the CPM for review and approval, at least 180 days prior to completion by Caltrans of I-5 widening in the area of the CECP boundary.	N	180	prior to	I-5 Widening DEIS	Ongoing	
VIS	**5**	c		To the extent that it is necessary to plant or maintain vegetative screening on project lands transferred to Caltrans in furtherance of the widening project, the project owner shall be responsible for the costs of doing so, whether by reimbursement to Caltrans, performing the work itself under agreement with Caltrans or a third party (such as the City of Carlsbad) contracting with Caltrans, or some other means.	The project owner shall submit any required revisions within 30 days of notification by the CPM. The project owner shall not implement the plan until receiving approval from the CPM.	N	30	after	Revisions to Cumulative Impact Mitigation Plan	Ongoing	
VIS	**5**	d	N		After receiving approval, the project owner shall complete implementation of the mitigation plan at the earliest feasible opportunity, but not later than 180 days after plan approval.	N	180	after	I-5 Widening DEIS	Ongoing	
VIS	**5**	e	N		The project owner shall notify the CPM within seven days after implementing the approved plan that the plan is ready for inspection.	N	7	after	Implementation of plan	Ongoing	
WASTE	**9**	b	Y		The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.	N	20	after	Commercial Operation	Ongoing	
WASTE	**9**	c	Y		The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.	N	N/A	Annual	Annual Compliance Report	Ongoing	
WASTE	**11**		Y	The project owner shall ensure that all spills or releases of hazardous substances, materials, or waste are reported, cleaned up, and remediated as necessary, in accordance with all applicable federal, state, and local requirements.	The project owner shall document all unauthorized releases and spills of hazardous substances, materials, or wastes that occur on the project property or related pipeline and transmission corridors. The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release; volume released; amount of contaminated soil/material generated; how release was managed and material cleaned up; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements placed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release. Copies of the unauthorized spill documentation shall be provided to the CPM within 30 days of the date the release was discovered.	N	30	after	Release/Spill of Haz Mat	Ongoing	

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WORKER SAFETY	**7**		Y	The project owner shall place a barrier of sufficient strength and height at the eastern fence line of the project at the widened I-5 Right-of-Way so as to prevent a runaway car or semi-trailer truck from piercing the barrier and going over the edge and down into the power plant site. This barrier shall also serve to prevent line-of-sight viewing of the power plant site from the shoulder of I-5. In designing this barrier, the project owner shall consult with Caltrans and then submit a final plan to the CPM for review and approval. The project owner may also negotiate cost-sharing of this barrier with Caltrans and if the project owner chooses to do so, the cost-sharing contract with Caltrans shall be submitted to the CPM for review and approval.	At least 60 days prior to the start of I-5 widening activities that encroach onto the project site, the project owner shall submit a copy of the final plans for the barrier and any cost-sharing contract to the CPM for review and approval.	N	60	prior to	I-5 Widening	Ongoing	Dependent on CalTrans Progress

Attachment M Additions to Compliance File

2019 Additions to Compliance File
1Q2019 Cylinder Gas Audit
2Q2019 Cylinder Gas Audit
3Q2019 Cylinder Gas Audit
4Q2019 Cylinder Gas Audit
1Q2019 Air Pollution Control District Rule 19.2 Report
2Q2019 Air Pollution Control District Rule 19.2 Report
3Q2019 Air Pollution Control District Rule 19.2 Report
4Q2019 Air Pollution Control District Rule 19.2 Report
1Q2019 EPA Electronic Data Report Feedback Report
2Q2019 EPA Electronic Data Report Feedback Report
3Q2019 EPA Electronic Data Report Feedback Report
4Q2019 EPA Electronic Data Report Feedback Report
1SA2019 EPA Part 60.7 Reports
2SA2019 EPA Part 60.7 Reports
2SA2019 Encina Wastewater Authority Semiannual
SMARTS Ad Hoc Report - 4 Storm Events
2019 Annual SMARTS Report
1Q2019 California Energy Commission Quarterly Report
2Q2019 California Energy Commission Quarterly Report
3Q2019 California Energy Commission Quarterly Report
4Q2019 California Energy Commission Quarterly Report
Unit 6 Source Test and RATA Report
Unit 7 Source Test and RATA Report
Unit 8 Source Test and RATA Report
Unit 9 Source Test and RATA Report
Unit 10 Source Test and RATA Report
Annual Greenhouse Gas Submittal - EPA
Annual Greenhouse Gas Submittal - CARB
2019 Hazardous Materials Business Plan
Department of Environmental Health Permit DEH2018-HUPFP-004698
Encina Wastewater Permit 2405