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Organization:	PG&E
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CGS21-L-001

February 26, 2021

Dr. Anwar Ali
Compliance Project Manager
California Energy Commission
1516 Ninth Street, MS 2000
Sacramento, California 95814

Reference: **Colusa Generating Station**

Subject: **Colusa Generating Station (06-AFC-9)**
Condition of Certification COM-7 (BIO-2; HAZ-1; Noise-8; Soil and Water 2, 7, 8, 9; TLSN-3; VIS-1, 3; Waste-5) – Annual Compliance Report

Dear Mr. Ali:

Please find the attached, pursuant to Colusa Generating Station (CGS) Conditions of Certification COM-7. This is the Annual Compliance Report for CGS and represents the operational period of January 1, 2020 through December 31, 2020. Within this report you will find the following information;

1. Attachment A: an updated compliance matrix showing the status of all Conditions of Certification (with exception to fully satisfied conditions as they do not need to be included after they have been reported as completed);

2. Attachment B: a summary of the current project operating status with explanations of any significant changes to facility operations during the reporting year;

3. Attachment C: documents required by specific conditions to be submitted along with the Annual Compliance Report.

4. Attachment D: a cumulative listing of all post-certification changes approved by the California Energy Commission or cleared by the CPM;

5. Attachment E: an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;

6. Attachment F: a listing of filings submitted to, or permits issued by, other governmental agencies during the year;

7. Attachment G: a projection of project compliance activities scheduled during the next year;

8. Attachment H: a listing of the year's additions to the on-site compliance files;

9. Attachment I: an evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to update;

10. Attachment J: a listing of complaints, notices of violations, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters.

Should you have any questions or comments please do not hesitate to contact me.

Sincerely,

TJ Gomez
Sr. Environmental Field Specialist
Colusa Generating Station

Enclosure

cc: Tim Wisdom, PG&E (electronic)
Sam Garcia, PG&E (electronic)

Attachment A
Compliance Matrix

COLUSA GENERATING STATION COMPLIANCE MATRIX BASED ON CEC FINAL DECISION

Color code key:	Construction Item	Commissioning Item	Operations Item	Submitted to CEC or Agency	Approved by CEC/No Longer Applicable

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
AQ-01	COMM	All facility operating staff shall be advised of and familiar with these permit conditions.	Provide CPM and APCO with signed records of facility operating staff indicating review of permit conditions and maintain training and records documenting this training at the site.	30 days prior to first fire	PG&E	**On file in Environmental Managers Office**		**Ongoing with New Hires**	
AQ-02	CONS	Right of entry shall be provided at all times.	Project Owner shall make site available to reps of the District, ARB and CEC for inspection, etc.	As required	PG&E			Ongoing	
AQ-03	OPS	In the case of shutdown or restart of air pollution control equipment for necessary scheduled maintenance, notify CPM and APCO of such shutdown 24 hours prior.	Notify the CPM and APCO 24 hours in advance of planned shutdowns for maintenance.	As required	PG&E			Ongoing	
AQ-04	OPS	If any upset or breakdown occurs with permitted equipment that causes excess emissions of air contaminants, the APCO shall be notified with 24 hours or by 9:00am by the following work day.	In addition to phone call, also submit a written statement of full disclosure to the APCO within 72 hours, including date, time, duration, estimated emissions, cause and remedy.	As required	PG&E			Ongoing	
AQ-05	OPS	Fugitive emissions, including dust and odors, shall be controlled at all times such that a nuisance is not created at any point beyond the facility's property lines.	Project Owner shall document any complaints received from the public in the Quarterly Operation Reports (QORs) required by AQ-22 and make site available to APCO, ARB, and CEC representatives.	Quarterly after COD	PG&E			Ongoing	
AQ-07.2	COMM	A source test protocol will be submitted to the APCD for approval.	Submit source test protocol to the APCD for approval by the APCO.	45 days prior to conducting annual source tests	PG&E			Annual Requirement	
AQ-07.3	COMM	Notify the CPM and District 10 days prior to actual source test.	Notify the CPM and APCD prior to any compliance source test.	10 days prior to conducting any compliance source test	PG&E			Annual Requirement	
AQ-08	COMM	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** Stack gas testing shall be required on an annual basis for NOx, VOC, and CO on the HRSG stacks. The HRSG stacks shall also be tested for SOx and PM10 emissions during the first year and in subsequent years if requested by APCO. The natural gas water bath heater shall be tested for NOx, SOx, VOC, CO, and PM10 during the first year and thereafter only as requested by APCO.	The results and field data colleced during source tests shall be submitted to the CPM and the District within 60 days of testing.	Within 60 days of testing	PG&E			Annual Requirement	
AQ-09	COMM	Annual testing of the HRSG stacks shall include quantification of formaldehyde and NH3 emissions for compliance with permit limits.Verify by continuous recording the ammonia injection rate to the system. The ammonia source test shall be conducted over the expected operating rate of the turbine as set forth in the Condition.	Provide results and field data collected during source tests to CPM and APCD. Submit proposed ammonia injection/emission rate correlation to the APCD and CPM for approval with the ammonia source test report.	Within 60 days of testing	PG&E			Annual Requirement	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
AQ-10	OPS	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** The gas turbines, duct burners, and natural gas water heater shall be fired exclusively on pipeline quality natural gas.	Submit information on the quality and type of fuel used for the gas turbines, duct burners, and natural gas water bath heater to the CPM/APCO in the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-11	OPS	The average annual sulfur content in the natural gas shall be less than or equal to 0.3 grains per 100 SCF. Conduct monthly testing at the site using approved methods to determine sulfur content. Natural gas testing info from Burney will also be reviewed and provided to the APCD.	Compile the required data on the sulfur content of the natural gas and submit to the CPM and APCO in the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-13a	OPS	All applicable federal standards and test procedures of Subpart KKKK shall be met.	Provide copies of all correspondence with EPA regarding compliance with Subpart KKKK to the APCD and CEC.	Quarterly after COD	PG&E			Ongoing	
AQ-14	OPS	CTGs shall meet a VOC limit of 2.0 ppmvd w/ duct burner firing and 1.38 ppmvd w/o duct firing at 15% O2 averaged over 1 hour. Maximum hourly steady state VOC emission limits for each CTG are 7.2 pounds with duct firing and 3.4 pounds w/o duct firing	Submit to the CPM and APCO CTG source test emissions data demonstrating compliance with this condition as required by condition AQ-8 and provide operating data that establishes ongoing compliance as part of AQ-22.	Within 60 days of testing	PG&E			Ongoing	
AQ-15	OPS	The CTGs shall meet a NOx limit of 2.0 ppmvd @15% O2 averaged over one hour except during commissioning. Maximum hourly steady state NOx emission limits for each CTG are 20.7 pounds with duct firing and 15.3 pounds without duct firing.	Submit to the CPM and APCO CTG continuous emissions data demonstrating compliance with this condition as part of the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-16	OPS	The CTGs shall meet a CO limit of 3.0 ppmvd @15% O2 over a three-hour rolling average except during commissioning. Maximum hourly steady state CO emission limits for each CTG are 18.9 pounds with duct firing and 14.0 pounds without duct firing.	Submit to the CPM and APCO CTG continuous emissions data demonstrating compliance with this condition as part of the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-18	OPS	Ammonia slip shall be limited to 5.0 pmvd @15% O2 over one hour. Formaldehyde emissions will be limited to 0.917 lbs per MMscf of natural gas. Maximum hourly steady state NH3 emission limits for each CTG are 19.2 pounds with duct firing and 14.2 pounds without duct firing.	Submit to the CPM and APCO CTG source test emissions data demonstrating compliance with this condition a part of the QOR. Provide to the CPM and APCO for approval a calculation method to determine the ammonia slip emissions, using source test data, based on the NOx concentration and the ammonia injection rate; this calculation shall be revised for approval as necessary after each source test performed under AQ-9.	Within 60 days of testing	PG&E			Annual Requirement	
AQ-19a	OPS	CEMS shall be installed to sample, analyze, and record NOx, CO, and O2 concentration in the exhaust gas of both HRSG stacks.	Make the site available for inspection by the APCD, ARB, and CEC to verify CEMS is properly installed and operational.	As required	PG&E			Ongoing	
AQ-19b	OPS	CEMS will generate reports of emissions data in accordance with permit requirements and will send alarm signals to the plant DCS control room when emissions levels approach or exceed pre-selected limits.	Submit emissions data generated by the CEMS to the CPM and APCO as part of the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-19c	OPS	RATA tests will be conducted annually to verify performance of the CEMS.	Provide RATA test results along with annual source test report as required under AQ-8.	Annually	PG&E			Ongoing	
AQ-22	OPS	Quarterly reports of CEMS and process data, including startup info, shall be submitted to the District within 30 days after the end of each quarter.	Provide information as part of QORs. (Format will be determined by the District and may include both electronic spreadsheet and hard copy files.)	Quarterly after COD	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
AQ-25	OPS	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** The total emissions from the CTGs and HRSGs shall not exceed those established in the Condition for hourly and daily operations (see emission limits set forth in table in condition).	Submit CTG and HRSG emissions data to CEC CPM and APCO demonstrating compliance with the condition as part of QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-26	OPS	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** The total emissions from the Colusa Power Plant shall not exceed the quarterly and annual combustion emission limits established in the Condition [all numbers have been revised from original Final Decision]	Submit to the CPM and APCO the plant emissions data demonstrating compliance with this condition.	Quarterly after COD	PG&E			Ongoing	
AQ-29	OPS	Total facility emissions of Hazardous Air Pollutants shall not exceed 10 tons/year for any single pollutant except ammonia, formaldehyde, and propylene.		Annually	PG&E			Ongoing	
AQ-SC6	OPS	Submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. Project Owner shall submit to the CPM any modification to any permit proposed by the District of EPA and any revised permit issued by the District of EPA.	Submit any proposed air permit modification to the CPM.	Within 5 working days of its submittal	PG&E			Ongoing	
AQ-SC9	OPS	Submit to the CPM Quarterly Operation Reports following the end of each calendar quarter and containing the info required by Condition AQ-19.	Submit QORs to the CPM and APCO no later than 30 days following the end of each calendar quarter.	Quarterly after COD	PG&E			Ongoing	
AQ-SC11	OPS	**NEW CONDITION PER CEC ORDER 7-15-09:** The wet surface air cooler spray water shall be tested for total dissolved solids and that data shall be used to determine and report the particulate matter emissions from the wet surface air cooler. The wet surface air cooler spray water shall be tested at least once annually during the anticipated summer operation peak period (July through September).	The project owner shall provide the water quality test results and the wet surface air cooler particulate (PMI *0/PM2.5)* emissions estimates to the CPM as part of the fourth quarter's quarterly operational report (AQ-SC9).	At least once annually during summer peak period				Ongoing	
BIO-07	OPS	Incorporate biological mitigation measures into the BRMIMP and permanent or unexpected permanent closure plans.	Address all biological resource related issues associated with facility closure and provide final measures in a biological resources element of the final closure plan.	12 months prior to start of closure activities	PG&E			Ongoing	
COM-01	OPS	Unrestricted Access		Ongoing	PG&E			Ongoing access provided during construction	
COM-02	OPS	Compliance Record--The files are to contain copies of all "as-built" drawings, all documents submitted as verification for conditions, and all other project-related documents.		Ongoing	PG&E			Ongoing	
COM-05	OPS	Compliance Matrix	Submit a compliance matrix with each MCR and also in ACR	Include in MCR and in ACR	PG&E			Ongoing	
COM-07	OPS	Annual Compliance Report	Submit to CPM on an annual basis	Annually	PG&E			Ongoing	
COM-09	OPS	Annual Energy Facility Compliance Fee	Submit annual compliance fee to CEC	During life of project	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
COM-10	OPS	Reporting of Complaints, Notices and Citations	Report to the CPM all notices, complaints, and citations within 10 days of receipt.	As required	PG&E			Ongoing	
COM-11	OPS	Planned Facility Closure	Submit a closure plan to the CPM at least 12 months prior to commencement of a planned closure	12 months prior to start of closure activities	PG&E				
COM-13	OPS	Unplanned Permanent Facility Closure	The on-site contingency plan required for unplanned temporary closure shall also cover unplanned permanent facility closure. All of the requirements specified for unplanned temporary closure shall also apply to unplanned permanent closure.	Within 90 days of permanent closure	PG&E	9/29/2010	CGS10-L-0111	Approved via email 10/15/10	
COM-14	CONS	Post-Certification Changes to the Decision		As required	PG&E			Amendments are discussed in MCR	
CUL-04	CONS	Prepare the Cultural Resources Report (CRR) in ARMR format. Include all information specified in Condition.	Submit CRR within 90 days after completion of ground disturbance (including landscaping).	Within 90 days after completion of landscaping	PG&E	7/28/2011	CGS11-L-0026	Approved 4/9/13	
GEN-01c	OPS	Once the certificate of occupancy has been issued, inform the CPM of any construction, addition, alterations, moving, demolition, repair, or maintenance to be performed on any portions of the completed facility for the purpose of complying with the above stated codes.	Submit required info to the CPM.	At least 30 days prior to such work	PG&E				
GEN-08	CONS	Obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The Project Owner shall request the CBO to inspect the completed structure and review the submitted documents. The Project Owner shall retain one set of approved engineering plans, specifications, and calculations at the project site or other accessible location during the operation of the project.	Submit to the CBO a written notice that the completed work is ready for inspection and a signed statement that the work conforms to the final approved plans.	Within 15 days of completion of any work	PG&E/CBO				
HAZ-01	OPS	Do not use any hazardous material in any quantity or strength not listed in Appendix C unless approved in advance by the CEC CPM.	Report to the CPM a list of hazardous materials and storage quantities contained at the facility	Include in Annual Compliance Report	PG&E			Ongoing	
NOISE-02	OPS	Throughout the construction and operation of the project, document, investigate, evaluate, and attempt to resolve all project-related noise complaints. Noise Complaint Resolution process will be used.	File a Noise Complaint Resolution Form with the City and the CPM documenting resolution of the compliant.	Within 5 days of receiving a noise compliant	PG&E				
NOISE-08	OPS	In the event legitimate noise complaints are made by owners or occupants at the two residences locate at ML1, ML2, or RC1 during operation of the CGS, the Project Owner shall offer to pay for the following noise attenuating upgrades (see list in Condition).	Upgrades shall be installed (unless impossible due to circumstances beyond Project Owner's control) within six months of the receipt of the compliance. Provide documentation certifying the items listed in the Condition.	As required	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
PAL-06	OPS	Through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during project construction .	Maintain in compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. Maintain these files for a period of three years after completion and approval of the CPM-approved Paleontological Resources Report.	As required					
SOIL & WATER-04b	OPS	Notify the CEC of any violations of the agreement requirements, limits or amounts.	Provide copies of any NOVs from the GCID. Fully explain corrective actions in next MCR.	Within 10 days of NOV	PG&E			Ongoing	
SOIL & WATER-07b	OPS	Submit any required monitoring information to the CPM in the annual compliance report.	Submit requested information.	Include in ACR	PG&E			Ongoing	
SOIL & WATER-07c	OPS	Submit copies of an NOVs to the CPM.	Submit requested info to CPM.	Within 10 days of receipt of NOV; explain correction actions in ACR	PG&E			Ongoing	
SOIL & WATER-08b	OPS	Prepare an annual water use summary which includes the monthly range and monthly average of daily raw water usage in gpd and total water used by the project on a monthly and annual basis in acre-feet. Potable water use on the site shall be recorded on a monthly basis. (See additional details for annual water use summary in Condition)	Submit requested info to CPM.	Annually	PG&E			Ongoing	
SOIL & WATER-09c	OPS	Monitor the waste water system following the general standards adopted in the SWRCB's onsite wastewater treatment system regs or the procedures outlined in the CPM-approved O&M manual. Provide testing results.	Provide requested into to CPM.	Include in ACR	PG&E			Ongoing	
TLSN-03	OPS	Take reasonable steps to resolve any complaints of interference with radio or TV signals from operation of the proposed lines.	Provide reports of line-related complaints along with related mitigation measures in the annual report for the first five year.	Include in ACR	PG&E			Ongoing	
VIS-01b	OPS	Notify the CPM that the surface treatment of all listed structures and buildings has been completed and is ready for inspection and submit electronic color photographs taken from the same KOPs	Set up an inspection appointment.	Within 90 days of start of commercial ops	PG&E	3/24/2011	CGS11-L-0014	4/11/2011	
VIS-02b	COMM	Notify the CPM that the lighting has been completed and is ready for inspection.	Set up an inspection appointment.	Prior to start of commercial operation	Gemma	9/19/2011	CGS11-L-0036	Approved 9/29/2011	
VIS-02c	OPS	Notify the CPM of any complaints re: lighting.	Submit a complaint resolution form to the CPM record each lighting complaint and document resolution of that complaint.	Within 48 hours after receiving a complaint	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
VIS-03	CONS	Provide landscaping that reduces the visibility of the power plant structures and complies with local policies and ordinances. Trees shall be strategically placed along the southern, eastern, and northern facility boundaries as appropriate and of sufficient density and height to screen the plant structures to the greatest feasible extent within the shortest feasible time.	Prepare and submit a landscaping plan (see Condition for details on info to include in plan) to the CPM for review and approval and to the County for review and comment.Notify the CPM and County within 7 days after completing installation of landscaping. Report on landscape maintenance activities in ACR.	At least 90 days prior to installation of landscaping -	PG&E			Submitted 8/25/2010 Approved 9/14/2010 Ongoing for Annual Report	
WASTE-04	CONS	Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the Project Owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.	Notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the manner in which project-related wastes are managed.	As required	PG&E			Ongoing	
WASTE-05b	OPS	Prepare an Operations Waste Management Plan for all wastes generated during construction of the facility.	Submit plan to the CPM for review and approval. See Final Decision WASTE-5 for plan requirements.	Provide training sign-in sheets in first MCR Report in Annual Report	PG&E	9/23/2010	CGS10-L-0109	Approved on 10/18/10	

Attachment B
Project Operating Status Summary

Per Com-7 Item 2 we are to provide; "A Summary of the current project operating status and an explanation of any significant changes to the facility operations during the year"

Minor changes to the lighting of the ACC (stairs and streets) which was approved by the CEC.

There were not other significant changes to the facility and the plant is operating normally.

Attachment C
Accompanying Documents

CEC 2020 Annual Compliance Report		
Reporting Conditions, per COM-7, Item 3		
Condition of Certification	**Reporting**	**Comments**
BIO-2	Designated Biologist Record Summaries	See attached documentation, Appendix 1
HAZ-1	List of chemicals onsite	See attached documentation, Appendix 2
Noise-8	Noise Complaints	See attached documentation, Appendix 3
SOIL & WATER-2	SWPPP Monitoring and Maintenance Activities	See attached documentation, Appendix 4
SOIL & WATER-7	GCID Monitoring Requirements / Violations	See attached documentation, Appendix 5
SOIL & WATER-8	Annual Water Use Summary	See attached documentation, Appendix 6
SOIL & WATER-9	Septic Tank	See attached documentation, Appendix 7
TLSN-3	Electro Magnetic Interference Complaints	See attached documentation, Appendix 8
VIS-1	Surface Treatment Report	See attached documentation, Appendix 9
VIS-3	Landscape Report	See attached documentation, Appendix 10
WASTE-5	Waste Management Plan	See attached documentation, Appendix 11

Pacific Gas and Electric Company®

Appendix 1, BIO-2

Colusa Generating Station (06-AFC-09C), California Energy Commission Annual Compliance Report, Biology Section, 2020

PREPARED FOR:	PG&E/TJ Gomez/Colusa Generating Station, Compliance Manager
COPY TO:	Jerry Salamy/Jacobs Project Manager
PREPARED BY:	Rick Crowe/Jacobs Colusa Generating Station CEC Designated Biologist
DATE:	February 3, 2021
PROJECT NUMBER:	D31321CC.A.CS.EV.TM.02

Introduction

This Colusa Generating Station (CGS) Biological Resources Annual Compliance Report, 2020 fulfills the California Energy Commission (CEC) requirement in the Verification for Condition of Certification (COC) BIO-2 Sub-section 8. "Designated Biologist Duties, BIO-2, Sub-section 8; The duties of the Designated Biologist are to maintain written records of the tasks specified above and those included in the Biological Resources Mitigation Implementation and Monitoring Plan, (BRMIMP). Summaries of these records shall be submitted in the annual compliance report.

The CGS was designed to avoid biological resources to the greatest extent feasible through development of mitigation and protection measures in consultation with the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), Central Valley Regional Water Quality Control Board (CVRWQCB), and the CEC. The CEC's COC for the project requires Pacific Gas and Electric Company (PG&E) to designate a biologist to supervise compliance of mitigation measures outlined in the CEC-approved BRMIMP during CGS construction and operation. Applicable COCs were successfully complied with during construction and continue to be implemented during CGS's operation, including routine maintenance and outage events.

Project Location

The CGS site is located approximately 4 miles west of Interstate 5, 14 miles north of the farming community of Williams, and 72 miles north of Sacramento, adjacent to PG&E's Delevan Natural Gas Compressor Station on Dirks Road in Colusa County, California. The power plant site is located in the eastern half of Section 35, Township 18 North, Range 4 West, Mount Diablo Base and Meridian.

2020 Monitored Activities and Wildlife Interaction

PG&E has complied with the CEC's COC by directing the Designated Biologist (DB) to perform pre-disturbance surveys when necessary and on numerous occasions called on the Designated Biologist to capture and relocate wildlife that was encountered onsite or that was in harm's way or that could harm facility employees.

All new CGS employees and contract workers received the CEC-approved Worker Environmental Awareness Training (WEAP) via video, an illustrated pamphlet, as well as lecture, and daily tailgate training with Jacobs Designated Biologist Rick Crowe (DB) or the PG&E CGS Compliance Manager TJ Gomez (CGS CM). The DB remained on-call throughout the 2020 year.

2020 Executive Summary

Western diamondback rattlesnakes (Crotalus atrox) continued to be an issue during the 2020 compliance monitoring year but to a lesser extent than previous years. A total of 29 rattlesnake observations occurred; 7 of the rattlesnakes were observed and captured inside the CGS facility, 22 observations occurred outside of or adjacent to the CGS perimeter fencing. All of the observations occurred within the PG&E CGS parcel (+/- 100-acres). This is a slight reduction from the 2019 observations (total of 44 with 12 inside the facility and 32 on the outside perimeter). Several activities contributed to this reduction, including a reduction in water erosion around the switchyard that minimized snake denning habitat, and focused rattlesnake surveys conducted more frequently during the peak rattlesnake period. PG&E has requested the DB and the CGS CM to closely monitor un-checked erosion along the switchyard perimeter to eliminate rattlesnake denning habitat. All rattlesnakes that were captured in 2020 were released approximately 2-miles southwest of the CGS unharmed.

In 2020, bat fatalities were again observed under the air-cooled condenser (ACC) structure and around the CGS site. The bat fatalities that were observed under the ACC during the weekly 2020 surveys included; 578 non-special status bats (Myotis sp. and Mexican free-tailed bats), 11 big brown bats, 21 red bats (CDFW Species of Special Concern), 3 pallid bats (CDFW Species of Special Concern), 1 hoary bat and 1 unknown bat carcass. In comparison, in 2019 the bat fatalities that were observed included 181 non-special-status bats (Myotis sp. and Mexican free-tailed bats), 6 big brown bats and 5 red bats (CDFW Species of Special Concern). The bat fatalities are a concern of PG&E, CGS, and the CEC/CDFW. In 2019 CGS addressed an 11-inch gap between the ACC grating and the bottom of the fan plenum by screening the gap. This screening did help keep raptors and passerines out of the ACC in 2020 but did not exclude bats from entering the ACC cells. A meeting was held on October 7, 2020 at the CGS site and in attendance was representatives of the CDFW and PG&E with the purpose of the meeting to determine recommendations to further lessen the bat fatalities. A copy of the CDFW Meeting Notes is included in Appendix B. During the meeting several potential mitigation measures were discussed. In the fall of 2020 new lighting was installed inside and outside of the ACC, the new lighting uses LED technology and can be turned off and on easily. During the spring of 2021, CGS is planning on activating the lights for a week and then deactivating for a week with the CGS DB conducting weekly surveys inside and outside of the ACC. This will be repeated for several weeks to see if the lights affect bat mortality. In addition to the lights, CDFW proposed to install a year-round bat acoustic detector to help understand the level of bat activity in the area. The DB will continue to monitor and report on-site bat fatalities during the 2021 survey period.

DB Monitoring and Survey Notes

The monitoring and compliance efforts for the year 2020 are documented in chronological order below and within Appendix A, Site Photos; 1 through 76.

January 6th, the DB was on site to monitor pre-emergent vegetation spraying and give WEAP tailgate training to employees of Sierra Integrated Service the pre-emergent vegetation spraying CGS sub-contractor. Pre-emergent spray is used in conjunction with mowing and disking around the CGS for fire suppression.

January 7th, the DB requested CGS management to remove the dead bat/avian carcass accumulations in the ACC. The request was made to help quantify the yearly take occurring within and under the ACC unit. The ACC has not been completely cleaned out since it began operation in 2010.

January 22nd, the DB was on site to assist with carcass removal inside the ACC. A total of 391-bat and 30-avian carcasses were removed from the ACC (Photos 1 and 2). The DB also observed bat carcasses lodged in cracks and crevices within each ACC cell, some of these carcasses were not retrievable because of safe concerns. Based on these observations, the DB requested CGS management pressure

wash the ACC cells to dislodge trapped or unrecoverable carcasses. When the pressure washing was completed, the DB intended to survey under the ACC for carcasses for reporting to the CEC.

January 24th, CGS began a cell by cell pressure washing of the ACC.

February 26th, the DB was on site to verify the ACC pressure washing and determined that after cleaning, no observable carcasses were present in the washed ACC cells.

March 4th, the DB was on site to conduct a carcass survey under the ACC after the final cell was washed. The DB observed and collected 112 very old and desiccated carcasses under the ACC, the DB mapped the area where the carcasses were observed and collected the carcasses (Photo 3). No avian carcasses were observed. Due to the age and condition of these carcasses the DB could not identify the carcasses to species. All of the carcasses observed and removed were an accumulation from 2010 when the CGS facility commenced commercial operation.

While on site the DB conducted focused rattlesnake surveys inside and outside of the CGS, no rattlesnakes were observed within the facility. Two adult rattlesnakes were observed at the Glenn-Colusa canal, both snakes were observed basking under k-rails on the canal banks. Rattlesnake #1 for the year was safely captured and relocated from the east bank of the canal (Photo 4). The second rattlesnake evaded capture.

March 9th, the DB notified the CEC by email of the carcasses observed results survey of the CGS ACC cleanout that was conducted on January 22nd. The breakdown is as follows;

Bats;
359 Myotis sp. bat carcasses
11 Big brown bat (Eptesicus fuscus) carcasses
10 Red bat (Lasiurus borealis) carcasses
9 Mexican free-tailed bat (Tadarida brasiliensis) carcasses
1 Pallid bat (Antrozous pallidus) carcass
1 Hoary bat (Lasiurus cinereus) carcass
Birds;
19 Rock dove (Columba livia) carcasses
6 Eurasian collared dove (Streptopelia decaocto) carcasses
2 European starling (Sturnus vulgaris) carcasses
1 Yellow-rumped warbler (Setophaga coronata) carcass
1 Red-breasted nuthatch (Sitta canadensis) carcass
And 1 unidentifiable yellow-bellied avian carcass

March 12th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility, survey under the ACC for bat carcasses and to deploy the snake basking boards around the outside perimeter of CGS (Photo 5). No rattlesnakes were observed within the CGS. Rattlesnake #2 for the year was safely captured and relocated from the east bank of the Glenn-Colusa canal (Photo 6). The bat carcass survey under the ACC was negative.

April 1st, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for bat carcasses. No rattlesnakes or bat carcasses were observed.

April 9th, the DB received an email from the CGS Operations Supervisor (CGS OS) Joshua Harris concerning the observation of a single egg in a small stick nest in Combustion Turbine 1's Evaporative Cooling Water System (Photo 7). The nest was observed by CGS personnel while checking on a water leak in the area. The CGS OS stated that he had the nest area marked off and alerted CGS staff to the nest's location.

April 14th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility, survey under the ACC for carcasses and check on the bird nest that was reported on April 9th. No rattlesnakes or carcasses were observed during the surveys. The DB inspected the reported nest in Combustion Turbine 1's Evaporative Cooling Water System. The DB observed a single Eurasian collared dove egg on a nest under some metal grating. The egg was cold to the touch and no adult doves were observed in the area. The metal grate required removal to repair the leak and would have compromised the nest. The DB removed the nest and egg for disposal so the leak could be repaired.

April 20th, 21st, 22nd, 23rd and 24th, the DB was on site to survey for nesting birds and other wildlife prior to fire suppression mowing/disking around the outer perimeter of the CGS. The DB surveyed all mowed/disked areas. The areas mowed/disked had very low growing vegetation, which is typically not conducive to nesting. The low growing vegetation also aided in covering/surveying 100 percent of the ground prior to disturbance (Photos 8 and 9). On the 20th, a large Ca. kingsnake (Lampropeltis getula californiae) was captured/relocated prior to mowing (Photo 10). No wildlife was observed on the 21st. On the 22nd, a PG&E subcontractor observed Rattlesnake #3 (dead) on the access road to the Delevan sub-station. On the 23rd, Rattlesnakes #4 and #5 and a large gopher snake (Pituophis catenifer) were captured/relocated off site (Photo 11). Also, on the 23rd, Rattlesnake #6 was struck and killed during mowing along the CGS access road shoulder. On the 24th, Rattlesnakes #7 and #8 were captured/relocated. The snakes were observed along the main access road to the CGS (Photos 12 and 13).

April 28th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes or carcasses were observed. While surveying inside the ACC the DB observed a pair of great horned owls (Bubo virginianus) in the northwest corner of the ACC (Photo 14).

May 4th, 5th, 6th, and 8th, the DB was on site to conduct focused rattlesnake surveys in support of the CGS contractors on site for a planned outage. On the 4th, the DB captured/relocated Rattlesnake #9 that was observed under some piping associated with the ZLD equipment (Photo 15). On the 5th and 6th, the DB surveyed for rattlesnakes inside and outside of the CGS the results were negative. On the 8th, the DB observed Rattlesnake #10 along the southern perimeter fence behind the CGS warehouse (Photo 16).

May 11th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS and no carcasses were observed under the ACC. While surveying outside the facility the DB captured/ relocated Rattlesnake #11 along the northern perimeter of the CGS (Photo 17).

May 14th, the DB was onsite to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS and no carcasses were observed inside or under the ACC. While on site to the DB was contacted by a CGS subcontractor concerning the observation of a bird nest in the air intake structure for Unit 1. The nest held 2 broken eggs and appeared to be that of a Eurasian collared dove. The DB removed the nest/eggs for disposal.

May 19th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS and no carcasses were observed inside or under the ACC.

May 26th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS

and no carcasses were observed inside or under the ACC. While on site surveying the DB received a call from CGS personnel concerning the observation of 3 young American kestrels (Falco sparverius) that were observed in a chain hoist bucket on the side of the ACC (Photo 18). The DB and the CGS CM safely captured all 3 of the juvenile kestrels and placed them in a box. Later in the day the DB received another call from a CGS subcontractor concerning the observation of a 4th juvenile American kestrel that was observed perched on the ground near the lube oil rack for Unit 1 (Photo 19). The 4th juvenile kestrel was safely captured and placed in a box for transport to the Wildlife Care Association for rehabilitation (Photo 20). While surveying for rattlesnakes, the DB observed a California meadow vole (Microtus californicus) in one of the pit fall traps at the front gate. The DB placed a board in the pit fall and observed the meadow vole escape the pit trap (Photo 21). Due to the occasional capture of non-target species in the pit fall traps, CGS management agreed to have plant operators check the pit fall traps during their daily rounds in order to release wildlife (other than rattlesnakes) by providing an escape ramp.

May 27th, the DB received a call from the CGS Maintenance Supervisor, Dean Linville (CGS MS) concerning the observation of a single juvenile American kestrel inside one of the ACC cells on Street 3. The CGS MS stated the ACC was down for maintenance and that all of the cells were shut off. The DB instructed the CGS MS to leave the street access door open so that the juvenile kestrel could leave the ACC if it was able. The DB informed the CGS MS that he would be on site the next day and follow up on the observation.

May 28th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility, survey in and under the ACC for carcasses. The DB also checked on the status of the juvenile American kestrel that was observed on the 27th. No rattlesnakes were observed within the CGS. Eight Myotis sp. bat carcasses and 1 Mexican free-tailed bat carcass were observed, mapped, and collected during the survey under the ACC (Photo 22). All 9 carcasses appeared to be very old, desiccated, and could have been carryover from the previous ACC cleanup. The DB checked in on the juvenile American kestrel that had been observed on the 27th, the DB observed the juvenile kestrel in the southern most cell of Street 3 (Photo 23). The street access door was open and the CGS CM and DB tried to encourage (by making noise) the young hawk to leave the ACC, without success. The DB checked on the kestrel several times during the day and later in the afternoon the kestrel was observed perched under the ACC being fed by an adult kestrel.

June 1st, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes or carcasses were observed.

June 8th, the DB received a call from the CGS MS concerning the observation of a juvenile rock dove that appeared injured on the ground near HRSG 1. The DB traveled to the site and safely captured the rock dove and took it to Wildlife Care Association in Sacramento for rehabilitation.

June 9th, the DB received a call from the CGS CM concerning the observation of Rattlesnake #12 that was observed dead on the CGS access road (Photo 24).

June 11th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within or outside of the CGS and no carcasses were observed inside or under the ACC.

June 16th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Two old and desiccated Myotis sp. bat carcasses were collected from under the ACC (Photo 25). During the rattlesnake surveys,

the DB observed a black-tailed hare (Lepus californicus) attempting to dig under the CGS perimeter fencing (Photo 26). The DB chased the hare off and backfilled the hole.

June 26th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Three fresh Myotis sp. bat carcasses were collected from under the ACC. While on site the DB received a call from a CGS Operator concerning the observation of a western terrestrial garter snake (Thamnophis elegans) that was in a pit fall trap at the back gate (Photo 27). The garter snake was safely captured/released off site. Later in the afternoon the DB received a second call concerning another terrestrial garter snake observed under the steam turbine piping (Photo 28). The DB captured the second garter snake and it was safely released off site.

June 30th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS. During the perimeter rattlesnake survey, Rattlesnakes #13 and #14 were observed/relocated from under the CGS detention pond outfall (Photo 29). No carcasses were observed inside or under the ACC during this site visit.

July 7th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS. During the perimeter rattlesnake survey, Rattlesnake #15 was observed/relocated from under the CGS detention pond outfall. No carcasses were observed inside or under the ACC during this site visit. While surveying the outside of the CGS, the DB was approached by a CGS substation subcontractor concerning the observation of a juvenile racoon (Procyon lotor) that was trapped in the Delevan substation switchyard perimeter fencing (Photo 30). The DB and CGS CM safely freed the juvenile racoon and it was observed running off site to the east.

July 8th, the DB received a call from the CGS OS concerning the observation of a green racer (Coluber constrictor) in one of the pit fall traps at the front gate (Photo 31). The CGS OS stated that one of the operators observed the racer during pitfall trap inspections. The operator stated that they observed the racer go through a drainage hole in the bottom of the pit trap bucket to evade capture. Later in the day it was reported that the racer had gotten out of the pit trap by using an escape ramp that was placed in the trap when the snake was first observed.

July 14th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. No rattlesnakes were observed within the CGS. During the perimeter rattlesnake survey, a large rattlesnake was observed at the CGS detention pond outfall, which evaded capture. During the carcass survey under the ACC, the DB observed and collected 7 fresh Myotis sp. bat carcasses (Photo 32). An additional Myotis sp. bat carcass was observed on the ground by HRSG Unit 2 (Photo 33).

July 16th, the DB made screens for placement in the bottom of the pit fall traps so that wildlife does not get trapped under the buckets.

July 19th, the DB received a call and a photo from a CGS Operator concerning the observation of a Eurasian collared dove on the ground near the steam turbine (Photo 34). The operator stated that the dove did not fly off when approached. The DB asked the Operator to put some water out for the dove and to alert other staff to the dove's location. Later in the day the DB received a call from the CGS Operator stating that the dove had been observed dead. The DB asked the Operator to dispose of the dove carcass.

July 21st, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey in and under the ACC for carcasses. While surveying inside the facility, the DB received a call from a CGS subcontractor concerning the observation of a large rattlesnake coiled under some piping associated with the wet surface air cooler. The DB safely captured rattlesnake #16 and released it offsite. No other rattlesnakes were observed inside the CGS. During the rattlesnake survey around the outside perimeter, the DB observed rattlesnake #17 a large gravid female under the CGS detention pond outfall (Photo 35). Also, during the outside perimeter snake survey, the DB observed rattlesnake #18 dead along the southern perimeter fencing. The snake carcass was disposed of (Photo 36). While surveying the outside perimeter, the DB installed wire mesh in the bottom of the pit fall traps at the front and back gates (Photo 37). The DB surveyed under the ACC for carcasses and 3 Myotis sp. bat carcasses were observed and collected (Photo 38). The DB also surveyed the inside of the ACC for carcasses and observed approximately 92 fresh bat carcasses scattered throughout the ACC cells. The ACC was running at the time of this survey so the bat carcasses could not be collected. The ACC was surveyed 2-weeks prior to this survey, and it did not contain any carcasses at that time. The DB inquired about the run time for the ACC during the last 2-weeks and CGS management stated that the ACC had been running nonstop since the last survey. This would indicate that the bats are entering the ACC cells when the ACC fans are running. Other wildlife observations made on this day included a house finch (Haemorhous mexicanus) nest under an awning associated with Unit 1's CEM's outbuilding (Photo 39). A large Ca. kingsnake was observed at the Glenn-Colusa canal during the rattlesnake surveys (Photo 40).

July 22nd, the DB received a call and a photo concerning a live Myotis sp. bat that was observed by a CGS Operator on the floor of the mechanics shop (Photo 41). The bat had spider webs on it and was unable to fly. The Operator removed the spider webs and was heading to the perimeter fencing when the bat flew out of the Operators gloves and headed east towards off site walnut orchards.

July 28th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Seven fresh Myotis sp. bat carcasses and 1 live Myotis sp. bat were observed and collected from under the ACC (Photos 42 and 43). The DB captured the live bat and hydrated it for relocation to the walnut orchard east of the CGS (Photo 44). During the inside CGS snake survey the DB observed a dead Myotis sp. bat on the ground by HRSG 1 Photo (Photo 45).

August 3rd, the DB received a call from the CGS CM concerning the observation of a juvenile American kestrel on the ground near Unit 1. The CGS CM stated that he had observed an adult coming and going from the juvenile kestrel. The DB asked the CGS CM to let the CGS personnel know about the observation and that the DB would be on site on the next day.

August 4th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility, survey under the ACC for carcasses and check on the reported American kestrel. No rattlesnakes were observed. Four fresh Myotis sp. bat carcasses were observed and collected from under the ACC (Photo 46). The DB observed the juvenile American kestrel (reported the previous day) flying approximately 100-yards within CGS and perching on the CGS fin fan unit (Photo 47). An adult kestrel was also observed interacting with the juvenile kestrel.

August 11th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed and three fresh Myotis sp. bat carcasses were observed under the ACC.

August 18th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed the inside the facility. Rattlesnake #19 was observed dead along the outside of the southern perimeter fencing (Photo 48). Rattlesnake #20 was observed and relocated from the northern perimeter of the CGS (Photo 49). The DB observed and collected 11 fresh Myotis sp. bat carcasses during the under the ACC survey (Photo 50). Also, while on site the DB received a call concerning an injured juvenile American kestrel in the aqueous ammonia storage tank containment sump (Photo 51). The DB safely captured the juvenile kestrel, hydrated it and took it to the Wildlife Care Association for rehabilitation.

August 22nd, the DB received a call from a CGS Operator concerning the observation of a live big brown bat under the ACC (Photo 52). The Operator stated that the bat did not appear injured, the DB asked the Operator to place the big brown bat off the ground in the shade and to provide the bat with some water. Later in the day the Operator checked on the bat and it had flown away.

August 25th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Fifty-two fresh Myotis sp. bat carcasses (Photo 53) and 3 fresh red bat carcasses (Photo 54) were observed under the ACC. The DB collected the carcasses and saved them for further identification by CDFW. An injured live red bat and an injured live Myotis sp. bat were also observed during the survey. Both bats were collected and placed in the shade with water (Photo 55). The Myotis sp. bat died from its injuries. The red bat was taken to the Wildlife Care Association for rehabilitation. Also, of note is that under the ACC was surveyed 1-week prior to this survey and at that time 11 Myotis sp. carcasses were collected for further identification. A single Myotis sp. bat carcass was observed on the ground adjacent to HRSG 2 (Photo 56). The DB inquired about the run time for the ACC during the last week and CGS management stated that the ACC and plant had been running nonstop since the last survey. This observed spike in activity while the ACC was continuously running indicates that the bats are attempting to enter the ACC when it is running. This could prove to be valuable in formation while developing a mitigation plan with CDFW and the CEC.

September 2nd, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed during the inside rattlesnake survey. During the outside perimeter snake survey rattlesnake #21 was observed dead along the western perimeter fencing. Rattlesnake #22 (a juvenile) was observed coiled within a snake fence u-turn at the back gate (Photo 57). Rattlesnake #22 was safely released off site. During the carcass survey under the ACC, the DB observed and collected 12 fresh Myotis sp. carcasses and 1 red bat carcass (Photo 58).

September 9th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Thirteen fresh Myotis sp. bat carcasses, 2 Mexican freetail bat carcasses and 1 red bat carcass were collected from under the ACC.

September 12th, the DB was on site to collect and identify bat carcasses that have been observed inside the ACC during the walk-through surveys. The CGS CM also assisted in the collection of 397 Myotis sp. carcasses, 15 red bats, 11 big brown bats, 3 pallid bats and 2 unknown species bat carcasses (Photos 59, 60, 61 and 62). Also, observed during the ACC cleanout was a single American kestrel carcass (Photo 63). All of the carcasses were from the 2020 season since the ACC was completely cleaned out at the end of 2019.

September 14th, the DB received a call from the CGS CM concerning the capture and safe relocation of rattlesnake #23 that was observed inside of the CGS southern perimeter fence (Photo 64).

September 15th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Fourteen fresh Myotis sp. bat carcasses, and 1 red bat carcass were collected from under the ACC.

September 20th, the DB received a call from the CGS CM concerning the capture of rattlesnake #24 that was observed coiled in the snake fence u-turn at the back gate (Photo 65). The snake was placed in a locked cabinet for safe release during the DB's planned site visit on Sept. 21st.

September 21st, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility, survey under the ACC for carcasses and to safely release off site rattlesnake #24 that had been captured the day before. While onsite the DB received a call from the CGS CM concerning the observation of rattlesnake #25 in the man door of the CGS warehouse (Photo 66). Rattlesnakes #24 and #25 were safely released off site. No other rattlesnakes were observed. Eleven fresh Myotis sp. bat carcasses, and 1 Mexican freetail carcass were collected from under the ACC.

September 22nd, the DB received a call from the CGS CM concerning the observation of a large gopher snake in the pit trap at the back gate (Photo 67). An escape ramp was placed in the bucket and the gopher snake exited the pit trap on its own.

September 24th, the DB received a call from a CGS maintenance employee concerning the observation of a feral cat (Felis catus) carcass in the engine compartment of an on-site man lift (Photo 68). The cat carcass was very old and desiccated. The DB asked the maintenance employee to dispose of the carcass.

September 29th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed within the CGS. Rattlesnake #26 was observed dead along the southern perimeter fencing (Photo 69). Four fresh Myotis sp. bat carcasses, and 1 Mexican free-tailed bat carcass were collected from under the ACC (Photo 70).

October 2nd, the DB received a call from the CGS OS concerning the observation and capture of rattlesnake #27 that was observed coiled near the switchyard expansion project (Photo 71). The snake was safely captured by the CGS OS and placed it in a locked cabinet. The DB traveled to the site and safely relocated the snake off site.

October 5th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Six fresh Myotis sp. bat carcasses were observed, mapped and collected from under the ACC. 1 Myotis sp. bat carcass was observed on the ground in the CGS warehouse.

October 7th, CDFW bat meeting at the CGS, see Appendix B for CDFW meeting notes.

October 16th, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. Rattlesnake #28 was captured in a doorway in the CGS mechanics shop and administration building (Photo 72). The snake was safely captured by the CGS OS and placed in a locked cabinet. No other rattlesnakes observed. Rattlesnake #28 was safely released off site. The bat carcass survey under the ACC was negative. As the DB was leaving the CGS site he observed a terrestrial garter snake in the pit fall trap at the front gate (Photo 73), the garter snake was safely released off site.

October 18th, the DB received a call from the CGS control room concerning the observation of rattlesnake #29 within the facility near HRSG 2 (Photo 74). The DB traveled to the site and safely captured and released the snake off site.

October 23rd, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. No bat carcasses were observed under the ACC.

November 3rd, the DB was on site to conduct focused surveys for rattlesnakes inside and outside of the facility and survey under the ACC for carcasses. No rattlesnakes were observed. Two Myotis sp. bat carcasses were collected from under the CGS ACC (Photo 75). Also, while on site the DB put the lids on the 4-pit fall traps at the front and back CGS gates, this is done every winter when the traps are not checked daily (Photo 76).

December 8th, The DB was on site to check on the status of the 2 barn owl boxes that are along the southern perimeter of the CGS site, both barn owl boxes held a single barn owl (Tyto alba). The DB surveyed under and inside of the ACC for carcasses. Seven Myotis sp. bat carcasses were collected for future identification by CDFW. The DB looked through the running ACC and observed approximately 40 bat carcasses in the ACC. The ACC was running at this time, so the DB was unable to collect the carcasses.

Conclusion

The Colusa Generating Station was in compliance with all biological mitigation and protection measures covered in the BRMIMP that are applicable to this operating facility during the year 2020.

Appendix A
Site Photos

Photo 1, photo of Myotis sp. bat carcasses collected from inside the CGS ACC, 1/22/20.

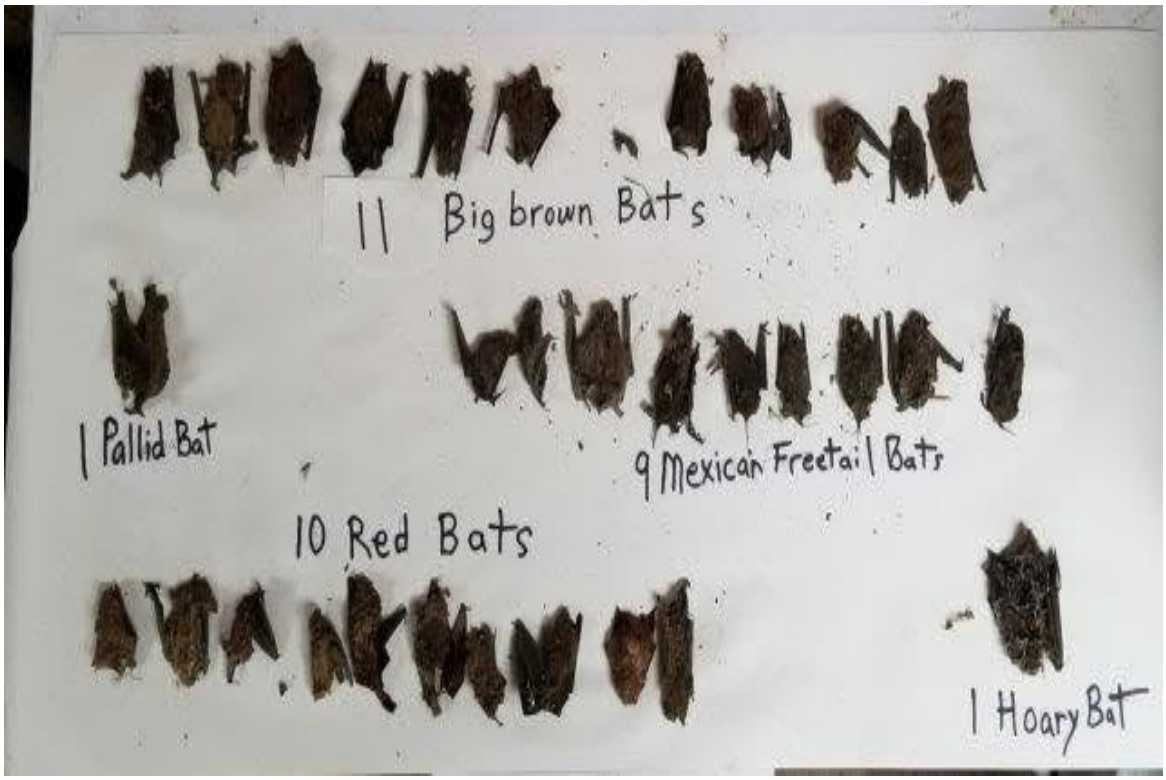

Photo 2, photo of mixed species of bat carcasses collected from inside the CGS ACC, 1/22/20.

Photo 3, of 112 bat carcasses that were observed, mapped and collected from under the ACC, 3/4/20.

Photo 4, of rattlesnake #1 during capture at the Glenn-Colusa Canal, 3/4/20.

Photo 5, of typical snake basking board placed around the outside of the CGS perimeter fencing, 3/12/20.


Photo 6, of Rattlesnake #2 during capture at Glenn-Colusa Canal, 3/12/20.

Photo 7, of single egg as observed in Combustion Turbine 1's Evaporative Cooling Water System**, 4/9/20.**

Photo 8, grasslands east of CGS site prior to mowing and disking for fire suppression, 4/20/20.

Photo 9, of mowing the triangle area southeast of CGS front gate, 4/20/20.

Photo 10, of Ca King snake snake prior to safe release, observed during pre-mowing surveys, 4/20/20.

Photo 11, of Rattlesnakes #4 and #5 captured/relocated prior to mowing for fire suppression, 4/23/20.

Photo 12, large western diamond back rattlesnake #7 observed during mowing pre-disturbance surveys, 4/24/20.

Photo 13, of Rattlesnake #8 observed, captured and relocated prior to mowing, 4/24/20.

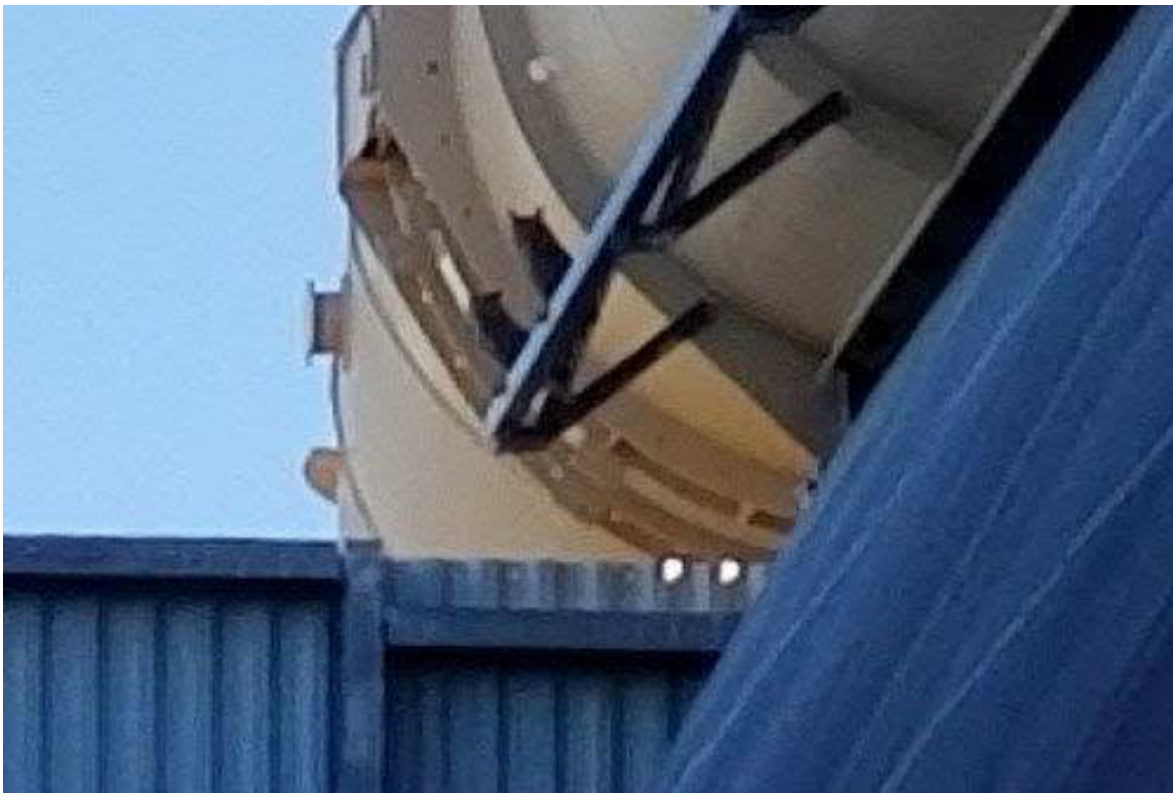

Photo 14, of a pair of great horned owls observed perched in the northwest corner of the ACC, 4/28/20.

Photo 15, Rattlesnake #9 observed by the DB under some piping associated with the ZLD equipment, 5/4/20.

Photo 16, of Rattlesnake #10 observed along the southern CGS perimeter fence, 5/8/20.

Photo 17, Rattlesnake #11 observed and relocated from the northern perimeter of the CGS, 5/11/20.

Photo 18, American kestrel nest observed within a chain hoist bucket on top of the ACC, 5/26/20.

Photo 19, of juvenile American kestrel prior to safe capture, 5/26/20.

Photo 20, of juvenile American kestrel after safe capture and prior to dropping off at Wildlife Care Association, 5/26/20.

Photo 21, of a meadow vole using a placed stick to crawl out of a pit trap at the CGS front gate, 5/26/20.

Photo 22, of 8 Myotis sp. and 1 Mexican freetail bats that were observed dead under the ACC, 5/28/20.

Photo 23, of a juvenile American kestrel observed within a cell in the ACC, 5/28/20.

Photo 24, of Rattlesnake # 12 observed dead along the CGS access road, 6/9/20.

Photo 25, of 2 old Myotis sp. bat carcasses observed under the ACC, 6/16/20.

Photo 26, of a black-tailed hare observed digging under the eastern perimeter fence, 6/16/20.

Photo 27, of terrestrial garter snake as observed in pit fall trap at the CGS back gate, 6/26/20.

Photo 28, of terrestrial garter snake after safe capture from steam turbine piping, 6/26/20.

Photo 29, of Rattlesnakes # 13 and 14 as observed prior to safe capture and relocation, 6/30/20.

Photo 30, of juvenile racoon stuck in Delevan substation perimeter fencing, 7/7/20.

Photo 31, of a green racer observed in snake pit fall trap at CGS front gate, 7/8/20.

Photo 32, 7 fresh Myotis sp. bat carcasses observed under ACC, 7/14/20.

Photo 33, of a single Myotis sp. bat carcass observed on the ground near HRSG Unit 2, 7/14/20.

Photo 34, of a Eurasian collared dove observed on the ground by a CGS Operator, 7/19/20.

Photo 35, rattlesnake #17 safely captured from under the CGS detention pond outfall, 7/21/20.

Photo 36, rattlesnake # 18 observed dead along the southern perimeter of the CGS facility, 7/21/20.

Photo 37, of screen placed in the bottom of the pit traps at the front and back CGS gates, 7/21/20.

Photo 38, 3 Myotis sp. bat carcasses observed under the ACC, 7/21/20.

Photo 39, of juvenile house finches as observed in their nest under an awning associated with the CIM's Unit 1 outbuilding, 7/21/20.

Photo 40, of a large California kingsnake observed at the Glenn-Colusa canal, 7/21/20.

Photo 41, live Myotis sp. bat observed on floor of the CGS mechanics shop, 7/22/20.

Photo 42, of 7 fresh Myotis sp. bats observed under the CGS ACC, 7/28/20.

Photo 43, of live Myotis sp. bat observed under ACC and prior to safe release off site, 7/28/20.

Photo 44, of live Myotis sp. bat after safe release in a walnut orchard east of the CGS, 7/28/20.

Photo 45, of dead Myotis sp. bat observed on the ground by the Unit 1 HRSG, 7/28/20.

Photo 46, 4 fresh Myotis sp. bat carcasses observed under the ACC, 8/4/20.

Photo 47, of juvenile A. kestrel on support structure for the fin fan unit, 8/4/20.

Photo 48, of rattlesnake # 19 as observed dead along the southern perimeter fencing, 8/18/20.

Photo 49, rattlesnake # 20 as observed along northern perimeter of CGS facility, 8/18/20.

Photo 50, of 11 fresh Myotis sp. bat carcasses observed under the ACC, 8/18/20.

Photo 51, of injured juvenile A. kestrel as observed in the aqueous ammonia storage tank confinement sump, 8/18/20.

Photo 52, of a live big brown bat that was observed on the ground under the ACC by a CGS Operator, 8/22/20.

Photo 53, of 52 fresh Myotis sp. bat carcasses observed under the ACC during the bat carcass survey, 8/25/20.

Photo 54, of 3 dead red bat carcasses observed under the ACC during bat carcass surveys, 8/25/20.

Photo 55, of a live red bat and a live Myotis sp. bat drinking water supplied by the CGS DB, 8/25/20.

Photo 56, of a Myotis sp. carcass as observed on the ground next to HRSG 2, 8/25/20.

Photo 57, rattlesnake # 22 as observed coiled within a snake fence u-turn at the back gate, 9/2/20.

Photo 58, 12 Myotis sp. bat carcasses collected under ACC, 9/2/20

Photo 59, of 397 Myotis sp. bat carcasses observed and collected during ACC carcass cleanout, 9/12/20.

Photo 60, of 15 red bat carcasses observed and collected during ACC carcass cleanout, 9/12/20.

Photo 61, of 11 big brown bat carcasses observed and collected during ACC carcass cleanout, 9/12/20.

Photo 62, of 3 pallid bat carcasses observed and collected during ACC carcass cleanout, 9/12/20.

Photo 63, of a dead A. kestrel carcass observed and collected from the ACC, 9/12/20.

Photo 64, of rattlesnake #23 observed on the inside of southern CGS perimeter fence, 9/14/20.

Photo 65, of rattlesnake #24 observed coiled in the pit trap and the snake fence u-turn at the back gate, 9/20/20.

Photo 66, of rattlesnake # 25 coiled by the man door to the CGS warehouse, 9/21/20.

Photo 67, of a gopher snake prior to release in pit fall trap at back gate, 9/22/20.

Photo 68, of a feral cat carcass that was observed in the man lift during routine maintenance, 9/24/20.

Photo 69, of rattlesnake #26 observed dead along the southern perimeter fencing, 9/29/20.

Photo 70, of 4 Myotis sp. bat carcasses observed under the CGS ACC, 9/29/20.

Photo 71, of rattlesnake #27 observed near the switchyard expansion project job trailer, 10/2/20.

Photo 72, of rattlesnake #28 observed at a man door in the CGS mechanics shop, 10/16/20.

Photo 73, of a terrestrial garter snake in the pit trap at the front gate, 10/16/20.

Photo 74, of rattlesnake #29 after safe capture and prior to safe release off site by the CGS DB, 10/18/20.

Photo 75, 2 Myotis sp. bat carcasses observed under the CGS ACC, 11/3/20.

Photo 76, of pit fall traps with covers on them for winter, 11/3/20.

Appendix B

CDFW Meeting Notes on Bats and CGS ACC

October 7, 2020

Bat Mortalities at Colusa Generating Station
Summary of meeting to discuss mitigation measures and information needs
October 7, 2020 – CGS conference room

Notes: Scott Osborn

Attendees:

Tim Wisdom, PGE-Plant Manager
Josh Harris, PGE-Operations Supervisor
Amy Krisch, PGE-Biologist
TJ Gomez, PGE-Compliance Manager
Dean Linville, PGE-Maintenance Supervisor
Jerry Salamy, Jacobs Project Manager
Rick Crowe, Jacobs CEC Designated Biologist
Scott Osborn, CDFW Wildlife Branch

Purpose: This meeting was requested by Scott Osborn to discuss patterns of bat mortality at the ACC unit at the CGS facility over the past year and to identify possibly mitigation measures that could be installed to prevent future high levels of bat mortality that were observed in 2020.

General Discussion:

- Both PGE and CDFW expressed concern about the number of bats killed at the ACC during the 2020 season and agreed to work together to find solutions. Jacobs will continue to be an important part of the process.
- PGE expressed concern that a proposed new mitigation, netting suspended below the ACC fan intake area, would be very expensive, might not be effective in eliminating/reducing bat mortality, and might add substantially to maintenance expenses.
- PGE also indicated that new mitigation costs are not currently budgeted and seeks to understand legal requirements and potential for grant or other funding to assist with mitigation. CDFW did not have any specific answers on legal requirements to reduce mortalities of non-listed species for an approved project, but did note MYLU is among the species USFWS is considering for future listing and is probably among the Myotis species being killed at the facility. CDFW committed to getting better information on the legal circumstances related to this situation.
- Several questions about the mortality pattern were discussed. All parties agreed that additional information should be gathered before settling on a new mitigation strategy. These include:
    - What is the role of external lights on bat mortality? The high mortality in summer 2020 followed the change in early 2020 of generally keeping all the external lights off. Did this trigger higher rates of mortality? To address, starting in spring 2021, the operators will experiment with the lights to look for an effect (lights on for a full week, then off for a full week, and repeat for several weeks).
    - Would general bat activity monitoring help us understand what is going on? CDFW suggested installing a year-round bat acoustic detector to record bat calls at the site. Correlation of the relative levels of bat activity with mortality rates at the ACC could then be assessed. Our expectation is that more bat activity will correspond to higher

mortality, but if the two aren't correlated, then maybe there is something else happening. Also, depending on the timing of peak bat activity it may be possible to adjust operations to reduce mortality events.

- Is the management of surrounding rice fields having an effect? The draw-down period of the rice fields occurs in July-August, corresponding to periods of high bat mortality. Incidental observations at CGS suggest insect abundance also peaks at that time.
- Would netting installed directly on the existing fan intake grate be effective in preventing mortality? Would it inhibit effectiveness of cooling or create a new maintenance problem? Would air speeds at the grate be too high to allow bats to escape capture onto the mesh? To address some of these questions, the air velocity profile on the intake side of fan should be determined. Possible experiment in 2021 would include installation of mesh on one entire street of the ACC and determine effectiveness in reducing bat mortality in that street.

Other potential mitigations discussed:

- Ultrasonic hazing
- Light deterrents or lighting of underside of ACC to help bats avoid flying into the fan intake areas
- Mesh netting wrapped around the entire support structure of the ACC. Would that be less expensive to install, maintain, and allow for better fan operation than suspending a net below the fan intakes on the ACC?
- Installation of insect attractant lights at a distance from the ACC to reduce the number of insects and bat near the ACC

Other considerations:

- Why is CGS having this issue, when apparently the nearly-identical Gateway facility is not? Would a more detailed comparison of the two facilities be useful?
- What about the Sutter Energy Center (Calpine)?
- How did the Dominion Energy retrofit one of their facilities to reduce listed bat species mortalities?
- The spring maintenance shutdown in 2021 (42 days) will be much longer than the 2020 shutdown (29 days). The shutdown will be from March 10 to April 21, 2021.
- Rick gave the recently collected bat carcasses to Scott and will continue to save them for CDFW in the future.

Next Steps:

1. PGE (Josh Harris) will provide a sample output log of fan activity to CDFW (Scott Osborn). Depending on the nature of the data in the activity log, it might be useful to examine past and future activity records to look for correlations between fan activity and bat mortality.
2. PGE will share the air velocity profile at the intake side of the fans with CDFW so that an assessment of air speeds versus bat flight speeds can be made and help with mitigation planning.
3. CDFW (Scott Osborn) will talk with a bat echolocation expert (Joe Szewczak, HSU) in general terms about the current science on ultrasonic hazing of bats and whether such a system could be employed at a large building-type structure to keep bats away.

4. CDFW (Scott Osborn) will return to CGS in early November (if schedule permits) to install a long-term solar powered bat call recording station. If possible, we'd also like to return after dark to determine whether night shot video recorders and IR flood lamps would be useful in recording bat activity under the ACC intakes. The visit could also include an assessment of the existing ultrasonic noise levels in the vicinity of the ACC.
5. CDFW (Scott Osborn) will ask one of the state bat biologists in Texas if they are aware of the Dominion Energy issue and how it was resolved.
6. CDFW (Scott Osborn) will confer with the CEQA review shop at CDFW to gain a better understanding of the environmental review/legal requirements for developing mitigation measures for a new impact not known or foreseen at the time of project approval.
7. CDFW (Scott Osborn) will sort through the bat carcasses received from recent collections and attempt to identify the Myotis carcasses to species.
8. PGE and Jacobs will remove bat carcasses from the ACC during the planned shutdown December 4 – 16, 2020.

Pacific Gas and Electric Company®

Appendix 2, HAZ-1

Hazardous Materials

Colusa Generating Station Onsite Inventory of Hazardous Materials

Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
Product #001A0382	Shell Omala Oil HD 220	Gear box/ACC oil	Air Cooled Condenser - Gear Box (E13)	ACC Gear Box	12 gal	gallons	42	504 gal	504	504	365	504.0
	Carbon dioxide, Liquid	Carbon dioxide, Liquid	Carbon Dioxide Bottle Storage Rack at Combustion Turbine-A (Site Feature #59)	Tank	12,000 lb	pounds	1	12,000 lb	12,000	9,000	365	9,000 lb onsite daily
	Carbon dioxide, Liquid	Carbon dioxide, Liquid	Carbon Dioxide Bottle Storage Rack at Combustion Turbine-B (Site Feature #59)	Tank	12,000 lb	pounds	1	12,000 lb	12,000	9,000		9,000 lb onsite daily
	Carbon dioxide, Liquid	Carbon dioxide, Liquid	Carbon Dioxide Bottle Storage Rack at Steam Turbine (Site Feature #59)	Tank	12,000 lb	pounds	1	12,000 lb	12,000	9,000		9,000 lb onsite daily
Nalco TRAC107 PLUS	PSO (1.0 - 5.0%)	Closed Cooling Corrosion/Scale Inhibitor	Closed Cooling Chemical Feed Tank (Site Feature #106)	55-gal Metal or Plastic	55 gal	gallons	4	220 gal	220	165	365	1,010
MSDS #778983	Turbine Oil	lube oil	Combustion Turbine-A (E1)	CT-A Lube Oil	6,150 gal	gallons	1	6,150 gal	6,150	4,613	365	33,671 lb onsite daily
	Hydrogen	Hydrogen / Coolant	Combustion Turbine-A HRSG (G2)	Generator	10,617 cu ft	cubic feet	1	10,617 cu ft	10,617	7,963	365	
MSDS #778984	Turbine Oil	lube oil	Combustion Turbine-B (E2)	CT-B Lube Oil	6,150 gal	gallons	1	6,150 gal	6,150	4,613	365	33,671 lb onsite daily
	Hydrogen	Hydrogen / Coolant	Combustion Turbine-B HRSG (G2)	Generator	10,617 cu ft	cubic feet	1	10,617 cu ft	10,617	7,963	365	
	Oxygen Gas	Oxygen Gas	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft	cubic feet	6 (3 per CEMS shelter)	1,200 cu ft	1200	900	365	
	Nitrogen oxide / Nitrogen dioxide (Low Range)	Nitrogen oxide / Nitrogen dioxide (Low Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft / 0.062 lb	cubic feet / pounds	6 (3 per CEMS shelter)	1200 cu ft / 0.374 lb	1200	900 cu ft / 0.281 lb	365	0.281 lb onsite daily
	Nitrogen oxide / Nitrogen dioxide (High Range)	Nitrogen oxide / Nitrogen dioxide (High Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft / 0.062 lb	cubic feet / pounds	6 (3 per CEMS shelter)	1200 cu ft / 0.374 lb	1200	900 cu ft / 0.281 lb	365	0.281 lb onsite daily
	Carbon monoxide (Low Range)	Carbon monoxide (Low Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft	cubic feet	6 (3 per CEMS shelter)	1200 cu ft	1,200	900	365	
	Carbon monoxide (High Range)	Carbon monoxide (High Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft	cubic feet	6 (3 per CEMS shelter)	1200 cubic feet	1,200	900	365	

Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
5711	Aqueous Ammonia with Monoethanolamine (5 - 12%)	BFW pH Adjustment and Corrosion Control (Ammonia / Amine Blend)	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Tote	400 gal / 3,338 lb	gallons / pounds	1	400 gal / 3,338 lb	400 gal / 3,338 lb	300 gal / 2,504 lb	365	6,320
BL-153	Ammonium Hydroxide 10-19%	BFW pH Adjustment and Corrosion Control (Ammonia / Amine Blend)	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Tote	400 gal / 3,338 lb	gallons / pounds	1	400 gal / 3,338 lb	400 gal / 3,338 lb	300 gal / 2,504 lb	365	3,338 lbs on site daily
BL-152	Aqueous Ammonia with Monoethanolamine (5 - 10%)	BFW pH Adjustment and Corrosion Control (Ammonia / Amine Blend)	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Tote	400 gal / 3,338 lb	gallons / pounds	1	400 gal / 3,338 lb	400 gal / 3,338 lb	300 gal / 2,504 lb	365	3,338 lbs on site daily
ELIMINOX	Carbohydrazide (5 - 10%)	Oxygen Scavenger	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Drum	55 gal	gallons	1	55 gal	55	41	365	490
BT-3400	Pre-blended Phosphate/Caustic (1.0 - 5.0%)	pH and Corrosion Control (HP & IP Phosphate Feed)	Cycle Chemical Feed Shelter (HRSG A&B) (B1)	Tote	110 gal	gallons	1	110 gal	110	83	365	979
CROSSTRANS 106 and 207	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-A Excitation Transformer (E9)	Transformer	521 gal	gallons	1	521 gal	521	391	365	3,165 lb onsite daily
CROSSTRANS 106 and 206	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-A GSU Transformer (E4)	Transformer	14,950 gal	gallons	1	14,950 gal	14,950	11,213	365	90,821 lb onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-A Isolation Transformer (E10)	Transformer	977 gal	gallons	1	977 gal	977	733	365	5,935 lb onsite daily
CROSSTRANS 106 and 207	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-B Excitation Transformer (E9)	Transformer	521 gal	gallons	1	521 gal	521	391	365	3,165 lb onsite daily
CROSSTRANS 106 and 207	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-B GSU Transformer (E5)	Transformer	14,950 gal	gallons	1	14,950 gal	14,950	11,213	365	90,821 lb onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-B Isolation Transformer (E10)	Transformer	977 gal	gallons	1	977 gal	977	733	365	5,935 lb onsite daily
CROSSTRANS 106 and 209	mineral oil	mineral oil	Electrical Equipment: Station Service Transformer (E7)	Transformer	6,510 gal	gallons	1	6,510 gal	6,510	4,883	365	39,548 lb onsite daily
CROSSTRANS 106 and 210	mineral oil	mineral oil	Electrical Equipment: Station Service Transformer (E7)	Transformer	6,510 gal	gallons	1	6,510 gal	6,510	4,883	365	39,548 lb onsite daily
CROSSTRANS 106 and 209	mineral oil	mineral oil	Electrical Equipment: Steam Turbine Excitation Transformer (E11)	Transformer	747 gal	gallons	1	747 gal	747	560	365	4,538 lb onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Steam Turbine GSU Transformer (E6)	Transformer	19,015 gal	gallons	1	19,015 gal	19,015	14,261	365	115,516 lb onsite daily

	Helium	Helium, Compressed	Gas Metering Station (G5)	Cylinders	250 cu ft	cubic feet	5	1250 cu ft	1,250	938	365	
	Methane	Methane Compressed	Gas Metering Station (G5)	Cylinders	59 cu ft	cubic feet	1	59 cu ft	59	44	365	
MSDS #778986	Turbine Oil	lube oil	Hazardous Materials Storage Area (M2)	Drum	55 gal	gallons	4	220 gal	220	165	365	1,205 lb onsite daily
Product #001A0383	Shell Omala Oil HD 221	gear box/ACC oil	Hazardous Materials Storage Area (M2)	Barrels	55 gal	gallons	2	110 gal	110	83	365	606 lb onsite daily
Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
	Hydrogen	Hydrogen	Hydrogen Storage Area (G1)	Tube	44,000 cu ft	cubic feet	1	44,000 cu ft	44,000	33,000	365	53,000
AlphaCELL 195GXL- FT3	Lead Acid Battery	Lead Acid Battery	Packaged Electrical Electronic Control Center (PEECC) (M7)	Electrical Equipment : Battery	100 lb	pounds	116	11,600 lb	11,600	11,600	365	11,600
	Acetylene Gas	Acetylene Gas	Plant Maintenance Area (G3)	Cylinders	143 cu ft	cubic feet	4	572 cu ft	572	429	365	
	Argon Gas	Argon Gas	Plant Maintenance Area (G3)	Cylinders	381 cu ft	cubic feet	2	762 cu ft	762	572	365	
	Oxygen Gas	Oxygen Gas	Plant Maintenance Area (G3)	Cylinders	250 cu ft	cubic feet	6	1500 cu ft	1,500	1,125	365	
	Propane Gas	Propane Gas	Plant Maintenance Area (G3)	Cylinders	20 lb	pounds	16	319 lb	320	240	365	
	Nitrogen Gas	Nitrogen Gas	Plant Maintenance Area (G3), Compressed Cylinder Storage Area (C3)	Cylinders	250 cu ft	cubic feet	48	12,000 cu ft	12,000	12,000	365	
CDID: Stationary SPg - IB	Lead-Antimony Battery	Lead-Antimony Battery	Power Distribution Center in center of site (M6)	Electrical Equipment : Battery	110 lb	pounds	60	6,600 lb	6,600	6,600	365	6,600
CDID: Stationary SPg - IB	Lead-Antimony Battery	Lead-Antimony Battery	Power Distribution Center in Water Treatment Building (M6)	Electrical Equipment : Battery	110 lb	pounds	20	2,200 lb	2,200	2,200	365	2,200
MSDS #778985	Turbine Oil	lube oil	Steam Turbine (E3)	Steam Turbine Lube Oil System (E3)	5,250 gal	gallons	1	5,250 gal	5,250	3,938	365	28,744 lb onsite daily
	Hydrogen	Hydrogen / Coolant	Steam Turbine Generator (G2)	Generator	15,439 cu ft	cubic feet	1	15,439 cu ft	15,439	11,579	365	
	Sulfur Hexafluoride	SF6	Sulfur Hexafluoride Breakers (G4)	Electrical Equipment : Breaker	205 lb	pounds	7	1,432 lb	1,432	1,074	365	1,074 lb onsite daily
C & D Technologies 3DJ-200	Flooded Lead-Calcium Battery	Flooded Lead-Calcium Battery	Switchyard Control House (M7)	Electrical Equipment : Battery	100 lb	pounds	60	6,000 lb	6,000	6,000	365	6,000
7469	Anti-foam	Foam Control (ZLD)	Water Treatment Building (High Efficiency RO and ZLD) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	4,200
FO-321	Anti-foam	Foam Control (ZLD)	Water Treatment Building (High Efficiency RO and ZLD) (Site Feature #15)	Tank	360	gallons	1	360	360	270	365	3013 lbs on site daily

Nalco 8131	Coagulant (5 - 20%)	Coagulant (UF and Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (B4)	Abovegro und Tank	2,500 gal / 31,295 lb	gallons / pounds	1	2,500 gal / 31,295 lb	2,500 gal / 31,295 lb	1,875 gal / 23,471 lb	365	23,471 lb onsite daily
P-828L	Ferric Sulfate 30-60%	Coagulant (UF and Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (B4)	Abovegro und Tank	2,500 gal / 31,295 lb	gallons / pounds	1	2,500 gal / 31,295 lb	2,500 gal / 31,295 lb	1,875 gal / 23,471 lb	365	23,471 lb onsite daily
Cat-Floc 8018 Plus	Flocculant (5 - 20%)	Flocculant (Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	480
7744	Flocculant (5 - 20%)	Flocculant (Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	480
P-817E	Flocculant (5 - 20%)	Flocculant (Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	480
Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Day s on Site	Estimated Pounds Per Year of Chemical
PC-7408	Sodium Bisulfite (30 - 60%)	Water Treatment Feedwater Dechlorinization (Sodium Bisulfite Feed)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	2,399
RL-124	Sodium Bisulfite (30 - 60%)	Water Treatment Feedwater Dechlorinization (Sodium Bisulfite Feed)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tank	360 gal	gallons	1	360 gal	360	270	365	3,600
	Sulfuric Acid 98% (66 degree Baume 93%)	pH Adjustment (Sulfuric Acid for pH Adjustment)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	300 gal	gallons	2	600 gal	600	450	365	9,205
8735	Sodium Hydroxide	pH Adjustment (Caustic for pH Adjustment)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	2,399
BL-1304	Sodium Hydroxide 15-40%; Potassium Hydroxide 10-30%	pH Adjustment (Caustic for pH Adjustment)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tank	360 gal	gallons	1	360 gal	360	270	365	4543 lbs on site daily
PC-191T	Antiscalant	RO Scale Inhibition (Raw Water RO Antiscalant)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	1,200
RL-9008	Antiscalant 2-Phosphono-1,2,4 - butane tricarboxylic acid 5-10%	RO Scale Inhibition (Raw Water RO Antiscalant)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tank	360 gal	gallons	1	360 gal	360	270	365	3431 lb on site daily
	Sodium Hypochlorite (10 - 12%)	Bacteria Control for UF (Sodium Hypo-chlorite Feed)	Water Treatment Building (Raw Water Pre-Treatment and RO) (B4)	Abovegro und Tank	1000 gal	gallons	1	1,000 gal	1,000	750	365	6,259 lb onsite daily

PERMA-CARE® PC- 98	Sodium Hydroxide (5 - 15%)	High pH Cleaning (RO Cleaning Chemical)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	55-gal Metal or Plastic Drum .56	55 gal	gallons	4	220 gal	220	165	365	940
PERMA-CARE® PC- 40	Sodium Percarbonate (5 - 15%)	Surfactant for Cleaning (RO Cleaning Chemical)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	5-gal Pail	5 gal	gallons	2	9 gal / 100 lbs	10	8	365	42
8344	Citric Acid (5 - 15%)	Low pH Cleaning (UF Iron Cleaner)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	55-gal Plastic Drum .56	55 gal	gallons	4	220 gal	220	165	365	575
RL-2016	Citric Acid (10-30%)	Low pH Cleaning (UF Iron Cleaner)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	Drum	55 gal	gallons	4	220 gal	220	165	365	2006 lbs on site Daily
	Soda Ash	Ph control	Water Treatment Building (Site Feature #15)	Drum	500 lbs	lbs	2	1000 lbs	1,000	750	365	750
	Sodium Hypochlorite (10 - 12%)		Water Treatment Building (Site Feature #15)	Tote	300 gal	gallons	1	300 gal	300	225	365	600
RL-1500	Ethylene diamine tetraacetic acid, tetrasodium salt (10-30%)	High pH Cleaning (RO Cleaning Chemical)	Water Treatment Building (Site Feature #15)	Dum	55 gal	gallons	2	110 gal	110	83	365	

Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
CL-2156	5-chloro-2methyl-4-isothiazolin-3-one 1.11%; 2-methyl-4-isothiazolin-3-one .39%; Magnesium Nitrate 1.61%; Magnesium Chloride .96%	Evaporative Cooling Water Biocide	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tank	150 gal	gallon	1	150 gal	150	113	365	1286 lbs onsite daily
CL-497	Sodium Chlorosulfamate 7-13% Sodium bromosulfamate 7-13% Sodium Hydroxide 1-5% Sodium Sulfamate 1-6%	Evaporative Cooling Water Biocide	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tank	360 gal	gallon	1	360 gal	360 gallon	200	365	2180 lbs onsite daily
3DTBR06	Bioreporter (1 - 10%)	Tracing Agent (Bioreporter)	Wet Surface Air Cooled Chemical Feed Shelter (B2)	5-gal Pail	5 gal	gallons	2	10 gal	10	8	365	330
Nalco 3DT161	Inhibitor (5 - 10%)	Evaporative Cooling Scale/Corrosion Inhibitor	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tote	110 gal	gallons	1	110 gal	110	83	365	3,359
CL-1432	Potassium phosphate, tribasic 5- 10%; 1-Hydroxyethylidene-1,1- diphosphonic acid, tetrapotassium salt .5-1.0%; Tetrapotassium pyrophosphate 1-5%; Potassium	Evaporative Cooling Scale/Corrosion Inhibitor	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tank	150 gal	gallons	1	150 gallons	150	113	365	1674 lbs onsite daily

CT-709	Tetrapotassium pyrophosphate 40 70%	Wet SAC Passivation	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Drum	55 gal	gallons	1	55 gal	55	41	365	792 lbs onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Alternate Power Transformer (E12)	Transformer	550 gal	gallons	1	550 gal	550	550	365	550 lb onsite daily
MSDS #778984	Turbine Oil	lube oil	Combustion Turbine-A HRSG (G2)	boiler feedwater pump	141 gal	gallons	2	282 gal	282	212	365	2,045 lb onsite daily
MSDS #778984	Turbine Oil	lube oil	Combustion Turbine-B HRSG (G2)	boiler feedwater pump	141 gal	gallons	2	282 gal	282	212	365	2,045 lb onsite daily
	Sulfuric Acid 98% (66 degree Baume 93%)		Zero Liquid Discharge AreaSite Feature #21)	Tote	325 gal	gallons	1	325 gal	325	244	365	4,986
	Aqueous Ammonia (19%)		Aqueous Ammonia Storage Tank (M5)	Tank	20,000 gal	gallons	1	20,000 gal	20,000	15,000	365	154,971
Shell Turbo Fluid DR 46	Trixyly Phosphate (60-100%)	Steam Turbine Hydraulic Oil	Steam Turbine (E14)	Tank	500 gal	gallons	1	500 gal	500	400	365	
DOWFROST* 30 Heat Transfer Fluid	Propylene Gycol (30%)	propylene gycol in the water bath heater	Water Bath Heater (Site Feature #85)	In water bath heater	16,662 gal	gallons	1	16,662 gal	16,662	12,497	365	
Carbon Dioxide	Carbon Dioxide, Gas (99%)		Near STG	compressed gas cylinder	436 cu ft	cu ft	72	31392 cu ft	31,392	23,544	365	
Gasoline	Gasoline	Gasoline	Hazardous Materials Storage Area (M2)	Drum	55 Gal	gallons	2	110 gallons	110	55	365	3000 gallons
Diesel	Diesel	Diesel	Hazardous Materials Storage Area (M2)	Drum	55 Gal	gallons	2	110 gallons	110	55	365	2200 gallons

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Appendix 3, Noise-8

Per Noise-8, the following is required: "In the first annual compliance report after the receipt of a complaint, the project owner shall include documentation certifying that:

1) the noise-attenuating upgrades were installed on the specified residence at the project owner's expense;

2) the noise attenuating upgrades were already a feature of the residence;

3) installation was offered but refused by the owner; or 4) residential use by the complainant was ceased.

There were no Noise Complaints made by the owners or occupants of any of the existing residences located at ML1, ML2, or RC1 during operation of the CGS in 2020. There have been no noise complaints to date from anyone.

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Appendix 4, SOIL & WATER-2

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Per Soil and Water 8, the following is required after operation "the project owner shall provide in the annual compliance report information on the results of monitoring and maintenance activities.

2019-2020

ANNUAL REPORT

FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2019 through June 30, 2020

Retain a copy of the completed Annual Report for your records.

Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers, and e-mail addresses of the Regional Board contacts, as well was the Regional Board office addresses, can be found at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/contact.shtml

General Information

A. Facility Information

WDID: 5S06I022929

Business Name: Colusa Generating Station

Physical Address: 4780 Dirks Rd

City: Maxwell

State: CA

Zip: 95955

Contact Person: Steve Rovall

Phone: 530-934-9061

Email: sgr8@pge.com

Standard Industrial Classification (SIC) Codes: 4911-Electric Services

B. Facility Owner Information

Business Name: Pacific Gas Electric Co

Mailing Address: PO Box 398

City: Maxwell

State: CA

Zip: 95955

Contact Person: steve royall

Phone: 530-934-9061

Email: sgr8@pge.com

C. Facility Billing Information

Business Name: Pacific Gas Electric Co

Mailing Address: PO Box 398

City: Maxwell

State: CA

Zip: 95955

Contact Person: Tim Wisdon

Phone: 530-934-9061

Email: T1WY@pge.com

Question Information

1. Has the Discharger conducted monthly visual observations (including authorized and unauthorized Non-Storm Water Discharges and Best Management Practices) in accordance with Section XI.A.1?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

2. Has the Discharger conducted sampling event visual observations at each discharge location where a sample was obtained in accordance with Section XI.A.2?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

3. Did you sample the required number of Qualifying Storm Events during the reporting year for all discharge locations, in accordance with Section XI.B?

☐ Yes ☒ No

If No, see Attachment 1, Summary of Explanation.

4. How many storm water discharge locations are at your facility?

1

5. Has the Discharger chosen to select Alternative Discharge Locations in accordance with Section XI.C.3?

☐ Yes ☒ No

6. Has the Discharger reduced the number of sampling locations within a drainage area in accordance with the Representative Sampling Reduction in Section XI.C.4?

☐ Yes ☒ No

6.1. Has the Discharger reduced the frequency of sampling at the facility area in accordance with the Sample Frequency Reduction in Section XI.C.7?

☐ Yes ☒ No

7. Permitted facilities located within an impaired watershed must assess for potential pollutants that may be present in the facility's industrial storm water discharge. Using the table below, populated based on the facility's location, indicate the presence of the potential pollutant at the facility.

The facility is not located within an impaired HUC 10 watershed. You are not required to select any Industrial Pollutants. Skip Questions 8 and 9.

8. Has the Discharger included the above pollutants in the SWPPP pollutant source assessment and assessed the need for analytical monitoring for the pollutants?

☒ Yes ☐ No

If No, what date will the parameter(s) will be added to the SWPPP and Monitoring Implementation Plan?

9. Were all samples collected in accordance with Section XI.B.5?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

10. Has any contained storm water been discharged from the facility this reporting year?

☐ Yes ☒ No

If Yes, see Attachment 1, Summary of Explanation.

11. Has the Discharger conducted one (1) annual evaluation during the reporting year as required in Section XV?

☒ Yes ☐ No

If Yes, what date was the annual evaluation conducted? 06/25/2020

If No, see Attachment 1, Summary of Explanation.

12. Has the Discharger maintained records on-site for the reporting year in accordance with XXI.J.3?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

13. Did additional NAL exceedances occur in the same drainage area for the facility's Level 2 parameter(s) (if no Level 2 parameters, select No)?

☐ Yes ☐ No

14. Was the Level 2 ERA Technical Report updated (if no Level 2 parameters, select No)?

☐ Yes ☐ No

If No, explain:

If your facility is subject to Effluent Limitation Guidelines in Attachment F of the Industrial General Permit, include your specific requirements as an attachment to the Annual Report (attach as file type: Supporting Documentation).

ANNUAL REPORT CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel propoerly gether 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.

Printed Name: stephen royall

Title: director Date: 07/08/2020

2019-2020

Annual Report for WDID 5S06I022929

Summary of Explanations

Explanation Question	Explanation Text
Question 3	Although there were two Qualifying Storm Events (QSEs) that resulted in discharge of storm water from the site during the first half of the reporting year (July 1, 2019 through December 31, 2019), no storm events resulted in discharges during the second half of the reporting year (January 1, 2020 through June 30, 2020); therefore it was only possible to collect and analyze samples from two QSEs during the 2019-2020 reporting year.

Summary of Attachments

Attachment Type	Attachment Title	Description	Date Uploaded	Part Number	Attachment Hash
Supporting Documentation	ELG_AnnualReport_Discussion_2019-2020.pdf	Memo regarding applicability of Steam Electric Power Generating facilities ELGs	07/06/2020	null/null	a7b87311bd42766e15a96b7490f635590be94e5334323f74bda2ccc7adf2b

EXCEEDANCE RESPONSE ACTION LEVEL 2 TECHNICAL REPORT UPDATE

July 8, 2020

Prepared for
Pacific Gas and Electric Company – Colusa Generating Station
4780 Dirks Road
Maxwell, California 95955

Waste Discharge Identification
5S06I022929

Prepared by
Terraphase Engineering Inc.
1404 Franklin Street, Suite 600
Oakland, California

QISP
Hans Kramer, QISP # 00153

Project Number 0234.002.001

terraphase engineering

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TABLES

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2 Industrial Pollutant Sources Potentially Contributing to NAL Exceedance
3 Outfall Monitoring Results

FIGURE

1 Storm Water Flow and BMPs

CERTIFICATION

Approval and Certification of the Level 2 ERA Technical Report:

Facility Name: Pacific Gas and Electric Company

Waste Discharge Identification (WDID): 5S06I022929

"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 that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, 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."

Tim Wisdom

Tim Wisdom, Duly Authorized Representative

1.0 INTRODUCTION AND OVERVIEW

1.1 Introduction and Demonstration Selection

This Exceedance Response Action (ERA) Level 2 Technical Report Update (Report) has been prepared to discuss responses to Numeric Action Level (NAL) exceedances at the Pacific Gas and Electric Company (PG&E) Colusa Generating Station (Facility) in Maxwell, California. This Plan addresses all parameters entering or continuing Level 2 ERA exceedance status for the 2018-2019 reporting year at the Facility. Due to the Report being due in July of 2020, it also addresses monitoring results and Best Management Practice (BMP) implementation from the 2019-2020 reporting year.

This Report includes an Industrial Activity BMP Demonstration addressing implementation of certain BMPs discussed in the preceding ERA Level 2 Technical Report (2018 Level 2 Technical Report) dated December 30, 2018. This Report has been prepared in accordance with the 2015 California General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit) by a registered Qualified Industrial Stormwater Practitioner (QISP).

1.2 Facility Information

The Facility is located at 4780 Dirks Road, Maxwell, California and is owned and operated by PG&E. The Facility produces electricity through the use of two natural-gas-fired combustion turbines and a steam powered generator. The operating portion of the site is approximately 19 acres and is located within a 100-acre parcel leased from Holthouse Ranch. The Facility consists of 27% impervious surfaces (buildings/equipment and pavement/concrete), while the remaining area is gravel and a stormwater detention basin.

A Site Plan provided as Figure 1 shows the Facility layout, drainage areas, and storm water controls.

1.3 Summary of Response Actions

BMP enhancements were implemented at the detention basin in early 2019 to further reduce sediment discharge from the basin. This consisted of geotextile fabric placement between the outflow check dam and discharge riser to reduce entrainment of sediment from the basin floor. Additionally, the Filtrexx Siltsoxx wattles with Metaloxx, which comprise the check dam and ionically adsorb iron particulates as storm water passes through the BMP, were refreshed. Finally, similar wattles were placed in the discharge pipe itself, oriented perpendicular to its flow, prior to the discharge location.

2.0 NAL EXCEEDANCES AND POLLUTANT SOURCES

2.1 NAL Exceedances

This Report addresses responses to the exceedances listed in Table 1.

Table 1: NAL Exceedances

Constituent	Reporting Year(s) and ERA Level
Iron	2016-2017: Level 1 2017-2018: Level 2 2018-2019: Level 2 2019-2020: Level 2

The average annual NAL for iron was exceeded during the 2015-2016, 2016-2017, and 2018-2019 reporting years. Following implementation of BMPs described in ERA compliance deliverables (the Level 1 Assessment and Report, and the Level 2 Action Plan and Technical Report), iron results have been reduced below the NAL for some samples, but the Facility is not yet eligible to return to Baseline status. It should be noted that iron concentrations were below 1.0 mg/L in the samples collected during both of the two Qualifying Storm Events (QSEs) that occurred during the 2019-2020 reporting year.

No other constituents have entered ERA Level 1 or 2 at the Facility at any time.

2.2 Industrial Pollutants and Sources

The industrial operations and pollutant sources listed in Table 2 have been identified as likely contributors to iron NAL exceedances.

Table 2: Industrial Pollutant Sources Potentially Contributing to NAL Exceedance

Constituent	Location	Industrial Activity	Industrial Pollutant
Iron	Combustion Turbines (Main power plant area)	Power Plant Operations	Iron Particulates
Iron	Material storage area located at the south side of the facility west of the warehouse	Material storage, specifically pipe and other steel products	Iron Particulates/oxidation
Iron	Air Cooled Condenser (west of combustion turbines)	Steam Cooling	Iron/oxidation (Large exposed metal surfaces)

Soils at the site are iron-rich, and sediment that enters the detention basin as a result of soil erosion (inside and outside the industrial area) has also been identified as a likely non-industrial source that increases iron concentrations detected in QSE samples.

Outfall CGS-01 is located at the southwest corner of the Facility and is the only discharge location for runoff from the Facility. A stormwater detention basin and outflow weir are located in the southwest corner prior to Outfall CGS-01.

3.0 LEVEL 2 ERA ACTIONS – BMP IMPLEMENTATION

3.1 Previous BMP and ERA Analysis

Minimum mandatory BMPs required by the General Permit were previously implemented at the Facility have not consistently resulted in iron levels at Outfall CGS-01 that are below the annual NAL concentrations contained in the Permit. BMPs implemented prior to the ERA Level 1 Evaluation included drain inlet filters, storm-resistant shelters, vegetated swale, oil/water separators, gravel caps, the detention basin, regular sweeping, secondary containment, and spill kits, among others.

The ERA Level 1 Evaluation for the Facility determined additional sweeping, coating steel material racks, and removing accumulated sediments within the basin was warranted. These improvements reduced the total iron load but were not successful at reducing total iron levels below the NAL.

The Level 2 Action Plan suggested Filtrexx Siltsoxx with Metalloxx wattles be installed at the detention basin discharge, which did control iron levels and maintain them below the NAL, until the 2018-2019 reporting year.

3.2 ERA Level 2 BMP Implementation

BMP improvements proposed in the 2018 Level 2 Technical Report included the installation of geotextile fabric between the Filtrexx SiltSoxx with Metallox wattles and the discharge of the detention basin.

3.2.1 Outfall CGS-01 BMP Installation

PG&E completed installation of the geotextile, refreshing of check dam wattles, and installation of wattles in the discharge pipe at Outfall CGS-01 in early 2019. Geotextile fabric was placed on the basin floor to minimize entrainment of sediment in basin discharge. Check dam wattles were refreshed and additional wattles installed in the discharge pipe to support further metals removal.

3.2.2 Outfall CGS-01 BMP Evaluation

Following installation of additional BMPs in 2019, iron was not reduced to below the NAL in site discharges. More recent results have shown improvement. The iron results for the 2018-2019 reporting year and 2019-2020 reporting year are presented in the table below.

Table 3: Outfall Monitoring Results

Reporting Year	Date	Iron (mg/l)
2018-2019	11/29/2018	2.20
	1/15/2019	2.40
	2/2/2019	2.05
	2/13/2019	1.26

	2/26/2019	4.41
2019-2020	12/2/2019	0.39
	12/7/2019	0.586

Internal investigative sampling was conducted in December 2019 to better determine the industrial source(s) of iron. The sample, taken downgradient of an area of concrete immediately southeast of Combustion Turbine 1 that exhibited staining, had iron concentrations significantly lower than those detected in QSE samples; therefore, implementation of additional BMPs in this portion of the facility was not prioritized.

Low-altitude aerial photos of the shop building roof were taken and examined in early 2020 but evidence of deterioration (which could contribute to iron levels) was not apparent.

Additional BMPs being considered for implementation in 2020 include the following:

- Attach a lateral pipe to the discharge riser low-flow orifice, extending into the annular space between the existing Filtrexx wattles and discharge riser, with slits cut in the pipe wall and additional Filtrexx wattles and/or fabric coating the slits and pipe entrance.
- Check warranty on new building roof, gutters, and downspouts and potentially have them inspected/cleaned or painted/coated.
- Add downspout filters after any roof maintenance is completed.
- Place gravel bag check dams in northern perimeter swale prior to flow entering catch basin at facility's northwest corner. Potentially place rock, install blanketing, or establish vegetation on perimeter swale surface to minimize erosion.
- Maintain southern rock swale such that flow direction to catch basin (rather than directly to detention basin) is confirmed.
- Hydro-jet cleaning of site piping.
- Painting of oxidized surfaces (dumpsters, large piping/connections near Power Distribution Center, etc.).
- Install catch basin inserts with metal removing media.
- Implement erosion control BMPs on exposed soils in non-industrial areas (outside the facility perimeter fence, including the side slopes of the detention basin) to reduce iron-rich sediment loads to the detention basin.
- Install additional rip-rap energy dissipation at locations where site storm drain piping discharges to detention basin.
- Install a silt curtain in the basin.

These options will be evaluated and the chosen BMP(s) will be implemented during the 2020-2021 reporting year.

January 6, 2020

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 1990428
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	12/04/2019	12/04/2019	CH 1990428-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	12/18/2019:219620 All analysis quality controls are within established criteria
3010	12/16/2019:214345 All preparation quality controls are within established criteria

Inorganic - Wet Chemistry QC

1664A	12/23/2019:214597 All preparation quality controls are within established criteria
2540D	12/06/2019:213983 All preparation quality controls are within established criteria

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Santa Paula, CA 93060
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FAX: (559)734-8435
CA ELAP Certification No. 2810

January 6, 2020 Lab ID : CH 1990428
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2020-01-06

January 6, 2020

Lab ID : CH 1990428-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 4, 2019-08:42
Sampled By : TJ
Received On : December 4, 2019-12:26
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID#1 5S06I022929

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	0.390	0.05	0.0014	mg/L	1		3010	214345	12/16/19 08:46	200.7	219620-IT204	12/18/19-20:40AC
Wet Chemistry												
Oil and Grease	2.10	3	1.9	mg/L	1.1364	J	1664A	214597	12/23/19 15:09	1664A	219836-WT215	12/24/19-12:00AMM
Solids, Total Suspended (TSS)	5.00	1.1	0.49	mg/L	1.0526		2540D	213983	12/06/19 10:30	2540D	219073-WT215	12/09/19-14:10jba

DQF Flags Definition:
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 6, 2020

Lab ID : CH 1990428-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 4, 2019-08:42
Sampled By : TJ
Received On : December 4, 2019-12:26
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID#1 5S06I022929

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method ID Time	Sample Analysis Method ID Time
Field Test								
pH (Field)	7.14			units	1		12/04/19 08:42	4500-H B 12/04/19 08:42

ND=Non-Detected. PQL=Practical Quantitation Limit.

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FAX: (559)734-8435
CA ELAP Certification No. 2810

January 6, 2020 Lab ID : CH 1990428
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	12/18/19:219620AC	CCV	ppm	5.000	99.6 %	90-110	
			CCB	ppm		-0.0163	0.03	
			CCV	ppm	5.000	100 %	90-110	
			CCB	ppm		-0.0149	0.03	
	3010	12/16/19:214345JZA	Blank	mg/L		-0.0060	<0.05	
			LCS	mg/L	4.000	97.2 %	85-115	
			MS	mg/L	4.000	94.5 %	75-125	
		(CC 1984242-001)	MSD	mg/L	4.000	91.2 %	75-125	
			MSRPD	mg/L	4.000	3.4%	≤20.0	
			PDS	mg/L	4.000	91.7 %	75-125	
Wet Chem								
Oil and Grease	1664A	12/23/19:214597AMM	Blank	mg/L		0.35	<3	
			LCS	mg/L	44.89	98.0 %	78-114	
			BS	mg/L	44.89	83.9 %	78-114	
			BSD	mg/L	44.89	86.2 %	78-114	
			BSRPD	mg/L	44.89	2.7%	≤18	
Solids, Suspended	2540D	12/06/19:213983jba	Blank	mg/L		0.00	<1	
			LCS	mg/L	50.09	89.8 %	61-112	
			LCS	mg/L	50.09	81.9 %	61-112	
		(CH 1990141-002)	Dup	mg/L		5.8%	20	
		(CH 1990331-001)	Dup	mg/L		4.7%	20	

Definition

PDS	: PDS failed, matrix - Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

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January 16, 2020

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 1990428
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	12/02/2019	12/04/2019	CH 1990428-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	12/18/2019:219620 All analysis quality controls are within established criteria
3010	12/16/2019:214345 All preparation quality controls are within established criteria

Inorganic - Wet Chemistry QC

1664A	12/23/2019:214597 All preparation quality controls are within established criteria
2540D	12/06/2019:213983 All preparation quality controls are within established criteria

Discussion of Analytical Results: -

Amended Report - 01/16/2020 - Amended to correct date sampled.

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January 16, 2020 Lab ID : CH 1990428
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2020-01-16

January 16, 2020

Lab ID : CH 1990428-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 2, 2019-08:42
Sampled By : TJ
Received On : December 4, 2019-12:26
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID#1 5S06I022929

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	0.390	0.05	0.0014	mg/L	1		3010	214345	12/16/19 08:46	200.7	219620-IT204	12/18/19-20:40AC
Wet Chemistry												
Oil and Grease	2.10	3	1.9	mg/L	1.1364	J	1664A	214597	12/23/19 15:09	1664A	219836-WT215	12/24/19-12:00AMM
Solids, Total Suspended (TSS)	5.00	1.1	0.49	mg/L	1.0526		2540D	213983	12/06/19 10:30	2540D	219073-WT215	12/09/19-14:10jba

DQF Flags Definition:
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 16, 2020

Lab ID : CH 1990428-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 2, 2019-08:42
Sampled By : TJ
Received On : December 4, 2019-12:26
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID#1 5S06I022929

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Field Test												
pH (Field)	7.14			units	1				12/02/19 08:42	4500-H B		12/02/19 08:42

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 16, 2020 Lab ID : CH 1990428
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	12/18/19:219620AC	CCV	ppm	5.000	99.6 %	90-110	
			CCB	ppm		-0.0163	0.03	
			CCV	ppm	5.000	100 %	90-110	
			CCB	ppm		-0.0149	0.03	
	3010	12/16/19:214345JZA	Blank	mg/L		-0.0060	<0.05	
			LCS	mg/L	4.000	97.2 %	85-115	
			MS	mg/L	4.000	94.5 %	75-125	
		(CC 1984242-001)	MSD	mg/L	4.000	91.2 %	75-125	
			MSRPD	mg/L	4.000	3.4%	≤20.0	
			PDS	mg/L	4.000	91.7 %	75-125	
Wet Chem								
Oil and Grease	1664A	12/23/19:214597AMM	Blank	mg/L		0.35	<3	
			LCS	mg/L	44.89	98.0 %	78-114	
			BS	mg/L	44.89	83.9 %	78-114	
			BSD	mg/L	44.89	86.2 %	78-114	
			BSRPD	mg/L	44.89	2.7%	≤18	
Solids, Suspended	2540D	12/06/19:213983jba	Blank	mg/L		0.00	<1	
			LCS	mg/L	50.09	89.8 %	61-112	
			LCS	mg/L	50.09	81.9 %	61-112	
		(CH 1990141-002)	Dup	mg/L		5.8%	20	
		(CH 1990331-001)	Dup	mg/L		4.7%	20	

Definition

PDS	: PDS failed, matrix - Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
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Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
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www.fglinc.com

Laboratory Copy (1 of 3)

Client: Pacific Gas & Electric-Colusa Generating
Address: P.O. Box 398
Maxwell, CA 95955

Phone: (530)934-9007 Fax: (530)934-9024
Contact Person: ~~Charles Price~~ TJ GOMEZ
Project Name: **CPGS - Storm Event # 1**
Purchase Order Number:
Quote Number:

Sampler(s) BRUCE ROBERTS

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number: **CH** 1904120 **7-10931**

74907:11/01/2019

TEST DESCRIPTION See Reverse side for Container, Preservative and Sampling information

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Metals, Total-Fe 250ml(P)-HNO3	Wet Chemistry-Oil&Grease-1664 32oz(AGJ)-H2SO4	Wet Chemistry-TSS 32oz(P)					
									0835	12/02/2019	0842 - PH 7.14 Condo 121								
1	Stormwater Discharge Point	12/2/19	0842	G	STM							1	1	1					

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
TJ Gomez	12/4/19	~~1100~~ 1226	SMH	12/4/19	1700	GSO	12/5/19	1000
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
SMH	1	1	GSO	1	1	CJK	12/5/19	1000

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1990428

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC **CH** VI

1. Number of ice chests/packages received: OTC Shipping tracking # ______
2. Were samples received in a chilled condition? Temps: R01 / 6°C / ___ / ___ / ___
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

3. Do the number of bottles received agree with the COC? **Yes** No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) **Yes** No
5. VOAs checked for Headspace? Yes No **N/A**
6. Were sample custody seals intact? Yes No **N/A**
7. If required, was sample split for pH analysis? Yes No **N/A**
8. Were all analyses within holding times at time of receipt? **Yes** No
9. Verify sample date, time and sampler name **Yes** No

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): Smn

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 4 / 5 / 3 / 3
   Acceptable is above freezing to 6E C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers: 54711609183, 54711609182, 54711609194
3. Do the number of bottles received agree with the COC? **Yes** No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) **Yes** No
5. Were sample custody seals intact? Yes No **N/A**

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? **Yes** No
2. Did bottle labels correspond with the client's ID's? **Yes** No
3. Were all bottles requiring sample preservation properly preserved? **Yes** No N/A FGL
   [Exception: Oil & Grease, VOA and CrVI verified in lab]
4. VOAs checked for Headspace? Yes No **N/A**
5. Have rush or project due dates been checked and accepted? Yes No **N/A**
6. Were all analyses within holding times at time of receipt? **Yes** No

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): ll

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: ______ Phone Number: ______
   Initiated By: ______ Date: ______
   Problem:
   Resolution:

(7-10931)
Pacific Gas & Electric-Colusa Generatin
CH 1990428
CTC-12/04/2019-17:08:55

2. Person Contacted: ______
   Initiated By: ______
   Problem:
   Resolution:

(Please use the back of this sheet for additional comme... re
contacts)

Calibration of Hydrogen Ion Activity (pH)

Instrument

Make/Model HACH PHC 281

Serial # 110800059482

Standards: Specify the types of standards used for calibration, the origin of the standards, the value and expiration of the standards, and the date the standards were opened.

	pH	Brand	Expiration Date	Type	Date Opened
Standard A	4.00	HACH	5-23	PROBE	
Standard B	7.00	HACH	10-20	PROBE	
Standard C	10.00	HACH	12-19	PROBE	

Date	Time	Standard (A,B,C)	Standard Value	Instrument Response	Calibrated (Yes / No)	Temp of Standard (F)	Sampler Initials	Comments
12-2-19	0835	A	10	10.03	YES	72.2	BR	SLOPE 98%
12-2-19	0835	B	7	7.03	YES	72.2	BR	
12-2-19	0835	C	4	4.02	YES	72.3	BR	

Field Measurement of Hydrogen Ion Activity (pH)

Instrument

Make/Model # HACH PHC281

Serial # 110800059482

Calibration: *Ensure the instrument has been calibrated before sample analysis proceeds.*

Sample ID	Sample Date	Sample Time (hr:min)	Analysis Date	Analysis within 15 min of sample? Yes, No	Instrument Response	Temp ~~(°C)~~ F	Sampler Initials	Comments
CGS-01	12/2/19	0835	12/2/19	YES	7.14	72.3	BR	

January 13, 2020

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 1990529
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	12/09/2019	12/09/2019	CH 1990529-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	01/09/2020:200496 All analysis quality controls are within established criteria.
3010	12/19/2019:214527 All preparation quality controls are within established criteria, except: The following note applies to Iron: 430 Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.

Inorganic - Wet Chemistry QC

1664A	01/02/2020:200004 All preparation quality controls are within established criteria.
2540D	12/13/2019:214276 All preparation quality controls are within established criteria.

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January 13, 2020 Lab ID : CH 1990529
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2020-01-14

January 13, 2020

Lab ID : CH 1990529-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 9, 2019-07:58
Sampled By : Rick Duenas
Received On : December 9, 2019-12:55
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	0.586	0.05	0.0014	mg/L	1	P	3010	214527	12/19/19 13:35	200.7	200496-IT204	01/09/20-13:42AC
Wet Chemistry												
Oil and Grease	ND	3	1.9	mg/L	1.1364	U	1664A	200004	01/02/20 11:44	1664A	200172-WT215	01/04/20-15:59AMM
Solids, Total Suspended (TSS)	7.85	1.2	0.49	mg/L	1.1628		2540D	214276	12/13/19 14:45	2540D	219567-WT215	12/18/19-12:20jba

DQF Flags Definition:

U Constituent results were non-detect.

P Post Digestion Spike (PDS) not within Acceptance Range (AR).

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 13, 2020

Lab ID : CH 1990529-001
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Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 9, 2019-07:58
Sampled By : Rick Duenas
Received On : December 9, 2019-12:55
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Field Test												
pH (Field)	7.19			units	1				12/09/19 07:58	4500-H B		12/09/19 07:58

ND=Non-Detected. PQL=Practical Quantitation Limit.

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CA ELAP Certification No. 2810

January 13, 2020 Lab ID : CH 1990529
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	01/09/20:200496AC	CCV	ppm	5.000	100 %	90-110	
			CCB	ppm		0.0145	0.03	
			CCV	ppm	5.000	90.4 %	90-110	
			CCB	ppm		-0.0006	0.03	
	3010	12/19/19:214527JZA	Blank	mg/L		-0.0241	<0.05	
			LCS	mg/L	4.000	94.0 %	85-115	
			MS	mg/L	4.000	108 %	75-125	
		(SP 1916712-001)	MSD	mg/L	4.000	118 %	75-125	
			MSRPD	mg/L	4.000	3.9%	≤20.0	
			PDS	mg/L	4.000	128 %	75-125	430
Wet Chem								
Oil and Grease	1664A	01/02/20:200004AMM	Blank	mg/L		0.45	<3	
			LCS	mg/L	44.89	90.2 %	78-114	
			BS	mg/L	44.89	81.2 %	78-114	
			BSD	mg/L	44.89	86.9 %	78-114	
			BSRPD	mg/L	44.89	6.7%	≤18	
Solids, Suspended	2540D	12/13/19:214276jba	Blank	mg/L		0.00	<1	
			LCS	mg/L	50.09	83.8 %	61-112	
			LCS	mg/L	50.09	99.8 %	61-112	
		(SP 1916677-002)	Dup	mg/L		3.3%	20	

Definition

PDS	: PDS failed, matrix - Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

430	: Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.

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January 16, 2020

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 1990529
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	12/07/2019	12/09/2019	CH 1990529-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	01/09/2020:200496 All analysis quality controls are within established criteria.
3010	12/19/2019:214527 All preparation quality controls are within established criteria, except: The following note applies to Iron: 430 Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.

Inorganic - Wet Chemistry QC

1664A	01/02/2020:200004 All preparation quality controls are within established criteria.
2540D	12/13/2019:214276 All preparation quality controls are within established criteria.

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January 16, 2020 Lab ID : CH 1990529
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Discussion of Analytical Results: -

Amended Report - 01/16/2020 - Amended to correct date sampled.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2020-01-16

January 16, 2020

Lab ID : CH 1990529-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 7, 2019-07:58
Sampled By : Rick Duenas
Received On : December 9, 2019-12:55
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	0.586	0.05	0.0014	mg/L	1	P	3010	214527	12/19/19 13:35	200.7	200496-IT204	01/09/20-13:42AC
Wet Chemistry												
Oil and Grease	ND	3	1.9	mg/L	1.1364	U	1664A	200004	01/02/20 11:44	1664A	200172-WT215	01/04/20-15:59AMM
Solids, Total Suspended (TSS)	7.85	1.2	0.49	mg/L	1.1628		2540D	214276	12/13/19 14:45	2540D	219567-WT215	12/18/19-12:20jba

DQF Flags Definition:

U Constituent results were non-detect.

P Post Digestion Spike (PDS) not within Acceptance Range (AR).

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 16, 2020

Lab ID : CH 1990529-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 7, 2019-07:58
Sampled By : Rick Duenas
Received On : December 9, 2019-12:55
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Support

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pH (Field)	7.19			units	1				12/07/19 07:58	4500-H B		12/07/19 07:58

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January 16, 2020 Lab ID : CH 1990529
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

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ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Annual

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Laboratory Copy (1 of 3)

74907:11/01/2019

TEST DESCRIPTION – See Reverse side for Container, Preservative and Sampling information

Client: Pacific Gas & Electric-Colusa Generating
Address: P.O. Box 398
Maxwell, CA 95955

Phone: (530)934-9007 Fax: (530)934-9024
Contact Person: ~~Charles Price~~ TJ Gomez
Project Name: **CPGS - Storm Event # 2**
Purchase Order Number:
Quote Number:

Sampler(s) Rick Duenas

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: __/__/__ Time: __/__

Lab Number: **CH** 1990529 7-10931

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Metals, Total-Fe 250ml(P)-HNO3	Wet Chemistry-Oil&Grease-1664 32oz(AGJ)-H2SO4	Wet Chemistry-TSS 32oz(P)					
1	Stormwater Discharge Point	12/7	0758	G	STM	NP			0803 7.19	12/7	0803	1	1	1					

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
TJ Gomez	12/9	1255	SM	12/4	1700			
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
SM	/	/	GSW	/	/		12/10/19	1105

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1990529

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC OTC **CH** VI

1. Number of ice chests/packages received: OTC Shipping tracking # _____
2. Were samples received in a chilled condition? Temps: 6.0 / 6.2°C / ____ / ____ / ____
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

3.	Do the number of bottles received agree with the COC?	Yes	No	N/A
4.	Were samples received intact? (i.e. no broken bottles, leaks etc.)	Yes	No	
5.	VOAs checked for Headspace?	Yes	No	N/A
6.	Were sample custody seals intact?	Yes	No	N/A
7.	If required, was sample split for pH analysis?	Yes	No	N/A
8.	Were all analyses within holding times at time of receipt?	Yes	No	
9.	Verify sample date, time and sampler name	Yes	No	

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): SMR

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 0 / ____ / ____ / ____ / ____
   Acceptable is above freezing to 6E C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers:
   547 2220468

3.	Do the number of bottles received agree with the COC?	Yes	No	N/A
4.	Were samples received intact? (i.e. no broken bottles, leaks etc.)	Yes	No	
5.	Were sample custody seals intact?	Yes	No	N/A

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1.	Were all requested analyses understood and acceptable?	Yes	No		
2.	Did bottle labels correspond with the client's ID's?	Yes	No		
3.	Were all bottles requiring sample preservation properly preserved? [Exception: Oil & Grease, VOA and CrVI verified in lab]	Yes	No	N/A	FGL
4.	VOAs checked for Headspace?	Yes	No	N/A	
5.	Have rush or project due dates been checked and accepted?	Yes	No	N/A	
6.	Were all analyses within holding times at time of receipt?	Yes	No		

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): _____

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:
   Resolution:

2. Person Contacted: _____
   Initiated By: _____
   Problem:
   Resolution:

(7-10931)
Pacific Gas & Electric-Colusa Generatin
CH 1990529
CTC-12/09/2019-16:49:34

nber here

(Please use the back of this sheet for additiona
contacts)

Calibration of Hydrogen Ion Activity (pH)

Instrument

Make/Model HACH 40d

Serial # 160472587013

Standards: Specify the types of standards used for calibration, the origin of the standards, the value and expiration of the standards, and the date the standards were opened.

	pH	Brand	Expiration Date	Type	Date Opened
Standard A	4.00	HACH	5/23		5/20/19
Standard B	7.00	HACH	5/20		12/~~7~~/19
Standard C	10.00	HACH	10/20		5/20/19

Date	Time	Standard (A,B,C)	Standard Value	Instrument Response	Calibrated (Yes / No)	Temp of Standard (F)	Sampler Initials	Comments
12/7/19	07:50	A	4	4.0	yes	71.4	RD	
12/7/19	07:50	B	7	7.01	yes	69.3	RD	
12/7/19	07:50	C	10	10.05	yes	70.5	RD	

Field Measurement of Hydrogen Ion Activity (pH)

Instrument

Make/Model # HACH 40d

Serial # 160472587013

Calibration: *Ensure the instrument has been calibrated before sample analysis proceeds.*

Time 08:04

Sample ID	Sample Date (mm/dd/yy)	Sample Time (hr:min)	Analysis Date (mm/dd/yy)	Analysis within 15 min of sample? Yes, No	Instrument Response	Temp (°C) F	Sampler Initials	Comments
CGS-01	12-7-19	07:58	08:03	yes	7.19	57.8	RD	

Pacific Gas and Electric Company®

Appendix 5, SOIL & WATER-7

Pacific Gas and Electric Company®

Per Soil & Water 7 the following is required:" the project owner shall submit any related monitoring required by the agreement to the CPM in the annual compliance report. The project owner shall submit any notice if violations from the Glenn Colusa Irrigation District to the CPM within 10 days of receipt and fully explain the corrective actions taken in the next annual compliance report."

There is no reporting or monitoring requirement in the water agreement with the Glenn Colusa Irrigation District.

No notice of violations issued by GCID in the 2020 year.

Pacific Gas and Electric Company®

Appendix 6, SOIL & WATER-8

Pacific Gas and Electric Company®

Appendix 6, SOIL & WATER-8

All water used during 2020 was supplied by the Tehama Colusa Canal Authority. The total amount of water used during 2020 was 22,733,244 gallons.

Year	2020
CEC Plant ID	06-AFC-9
EIA Plant ID	

Section 1. Power Plant Water Supply

1a	Primary Water Supply Source	Agricultural Canal	1e	Backup Water Supply Source	NA
1b	Name of Primary Water Purveyor, Wastewater Supplier, or Well ID(s)	Tehema Colusa Canal Authority/Glenn Colusa Irrigation District	1f	Name of Backup Water Purveyor, Wastewater Supplier, or Well ID(s)	NA
1c	Primary Water Supply Average Total Dissolved Solids (mg/l)	90	1g	Backup Water Supply Average Total Dissolved Solids (mg/l)	NA
1d	Regional Water Quality Control Board	Central Valley Region Water Quality Control Board			

Section 2. Power Plant Water Use

2a *Check this box if water use at the power plant is not metered and cannot reasonably estimated.*

2b

Volume of Water Required (in gallons)	Sanitation	Landscaping	Solar Mirror Washing	Dust Suppression	Other Water Use	Daily Maximum	
	Check the boxes below if the categorized water use is not metered and cannot reasonably be estimated or is not applicable.						
January		0			383,720		
February		0			584,168		
March		0			606,228		
April		5370			1,177,164		
May		10610			622,768		
June		16300			2,281,740		
July		13180			3,410,784		
August		18030			4,639,896		
September		7280			3,608,468		
October		10410			4,508,056		
November		9710			367,928		
December		8420			542,384		

2c	Metering Frequency	Recorded Daily	Metering Technology	Inline Analog Meter

Section 3. Power Plant Wastewater Disposal

3a	*Check box if wastewater is not metered and cannot reasonably estimated.*	
3b	Wastewater Disposal Method	Zero Liquid Discharge/Septic Tank
3c	Average Total Dissolved Solids (mg/l)	NA
3d	Equipment Manufacturer	Aquatech
3e	Year of Installation	2010
3f	Waste Reduction Equipment or Measures Taken	Zero Liquid Discharges
3g	Name of the Facility or Water Body Receiving the Wastewater	NA
3h	Notes: Process water is run through a crystallizer to remove solids and vaporize liquid	

3i

Volume of Discharged Waste (in gallons)	Daily Maximum	Monthly Total
January	NA	
February	NA	
March	NA	
April	NA	
May	NA	
June	NA	
July	NA	
August	NA	
September	NA	
October	NA	
November	NA	
December	NA	

		Colusa Generating Station To
Date	Totalized Value	Gallons/Day	Gallons Cumulative Total
01-Jan-20 00:00:00	60568396	0	0
02-Jan-20 00:00:00	60576256	7860	7860
03-Jan-20 00:00:00	60610620	34364	42224
04-Jan-20 00:00:00	60632988	22368	64592
05-Jan-20 00:00:00	60639768	6780	71372
06-Jan-20 00:00:00	60659236	19468	90840
07-Jan-20 00:00:00	60680808	21572	112412
08-Jan-20 00:00:00	60724012	43204	155616
09-Jan-20 00:00:00	60732824	8812	164428
10-Jan-20 00:00:00	60740520	7696	172124
11-Jan-20 00:00:00	60748656	8136	180260
12-Jan-20 00:00:00	60756664	8008	188268
13-Jan-20 00:00:00	60764408	7744	196012
14-Jan-20 00:00:00	60772036	7628	203640
15-Jan-20 00:00:00	60814088	42052	245692
16-Jan-20 00:00:00	60821972	7884	253576
17-Jan-20 00:00:00	60830280	8308	261884
18-Jan-20 00:00:00	60838180	7900	269784
19-Jan-20 00:00:00	60845828	7648	277432
20-Jan-20 00:00:00	60854396	8568	286000
21-Jan-20 00:00:00	60862632	8236	294236
22-Jan-20 00:00:00	60877380	14748	308984
23-Jan-20 00:00:00	60885660	8280	317264
24-Jan-20 00:00:00	60894420	8760	326024
25-Jan-20 00:00:00	60903116	8696	334720
26-Jan-20 00:00:00	60911672	8556	343276
27-Jan-20 00:00:00	60919960	8288	351564
28-Jan-20 00:00:00	60928168	8208	359772
29-Jan-20 00:00:00	60936284	8116	367888
30-Jan-20 00:00:00	60944292	8008	375896
31-Jan-20 00:00:00	60952116	7824	383720
01-Feb-20 00:00:00	61000596	48480	432200
02-Feb-20 00:00:00	61007524	6928	439128
03-Feb-20 00:00:00	61014372	6848	445976
04-Feb-20 00:00:00	61021152	6780	452756
05-Feb-20 00:00:00	61028660	7508	460264
06-Feb-20 00:00:00	61036004	7344	467608
07-Feb-20 00:00:00	61043416	7412	475020
08-Feb-20 00:00:00	61078200	34784	509804
09-Feb-20 00:00:00	61106504	28304	538108
10-Feb-20 00:00:00	61113240	6736	544844
11-Feb-20 00:00:00	61120204	6964	551808
12-Feb-20 00:00:00	61127112	6908	558716

13-Feb-20 00:00:00	61133992	6880	565596
14-Feb-20 00:00:00	61141220	7228	572824
15-Feb-20 00:00:00	61148504	7284	580108
16-Feb-20 00:00:00	61200148	51644	631752
17-Feb-20 00:00:00	61231424	31276	663028
18-Feb-20 00:00:00	61237708	6284	669312
19-Feb-20 00:00:00	61244068	6360	675672
20-Feb-20 00:00:00	61294896	50828	726500
21-Feb-20 00:00:00	61326040	31144	757644
22-Feb-20 00:00:00	61347376	21336	778980
23-Feb-20 00:00:00	61355064	7688	786668
24-Feb-20 00:00:00	61397136	42072	828740
25-Feb-20 00:00:00	61404460	7324	836064
26-Feb-20 00:00:00	61464064	59604	895668
27-Feb-20 00:00:00	61502408	38344	934012
28-Feb-20 00:00:00	61530004	27596	961608
29-Feb-20 00:00:00	61536284	6280	967888
01-Mar-20 00:00:00	61542544	6260	974148
02-Mar-20 00:00:00	61548284	5740	979888
03-Mar-20 00:00:00	61574900	26616	1006504
04-Mar-20 00:00:00	61610764	35864	1042368
05-Mar-20 00:00:00	61653268	42504	1084872
06-Mar-20 00:00:00	61695348	42080	1126952
07-Mar-20 00:00:00	61701960	6612	1133564
08-Mar-20 00:00:00	61708640	6680	1140244
09-Mar-20 01:00:00	61715152	6512	1146756
10-Mar-20 01:00:00	61771104	55952	1202708
11-Mar-20 01:00:00	61777484	6380	1209088
12-Mar-20 01:00:00	61829092	51608	1260696
13-Mar-20 01:00:00	61857512	28420	1289116
14-Mar-20 01:00:00	61968068	110556	1399672
15-Mar-20 01:00:00	61968728	660	1400332
16-Mar-20 01:00:00	61972244	3516	1403848
17-Mar-20 01:00:00	61975296	3052	1406900
18-Mar-20 01:00:00	61980836	5540	1412440
19-Mar-20 01:00:00	62038252	57416	1469856
20-Mar-20 01:00:00	62045544	7292	1477148
21-Mar-20 01:00:00	62052676	7132	1484280
22-Mar-20 01:00:00	62059364	6688	1490968
23-Mar-20 01:00:00	62066152	6788	1497756
24-Mar-20 01:00:00	62073988	7836	1505592
25-Mar-20 01:00:00	62080892	6904	1512496
26-Mar-20 01:00:00	62087676	6784	1519280
27-Mar-20 01:00:00	62094376	6700	1525980
28-Mar-20 01:00:00	62120456	26080	1552060
29-Mar-20 01:00:00	62126888	6432	1558492
30-Mar-20 01:00:00	62136656	9768	1568260

31-Mar-20 01:00:00	62142512	5856	1574116
01-Apr-20 00:00:00	62148152	5640	1579756
02-Apr-20 00:00:00	62153932	5780	1585536
03-Apr-20 00:00:00	62180520	26588	1612124
04-Apr-20 00:00:00	62220628	40108	1652232
05-Apr-20 00:00:00	62258572	37944	1690176
06-Apr-20 00:00:00	62264732	6160	1696336
07-Apr-20 00:00:00	62275812	11080	1707416
08-Apr-20 00:00:00	62295872	20060	1727476
09-Apr-20 00:00:00	62302052	6180	1733656
10-Apr-20 00:00:00	62308568	6516	1740172
11-Apr-20 00:00:00	62336092	27524	1767696
12-Apr-20 00:00:00	62341340	5248	1772944
13-Apr-20 00:00:00	62345596	4256	1777200
14-Apr-20 00:00:00	62349352	3756	1780956
15-Apr-20 00:00:00	62453004	103652	1884608
16-Apr-20 00:00:00	62533212	80208	1964816
17-Apr-20 00:00:00	62655052	121840	2086656
18-Apr-20 00:00:00	62694432	39380	2126036
19-Apr-20 00:00:00	62733232	38800	2164836
20-Apr-20 00:00:00	62751536	18304	2183140
21-Apr-20 00:00:00	62844808	93272	2276412
22-Apr-20 00:00:00	62921144	76336	2352748
23-Apr-20 00:00:00	62958644	37500	2390248
24-Apr-20 00:00:00	62969840	11196	2401444
25-Apr-20 00:00:00	63028600	58760	2460204
26-Apr-20 00:00:00	63063972	35372	2495576
27-Apr-20 00:00:00	63120312	56340	2551916
28-Apr-20 00:00:00	63120312	0	2551916
29-Apr-20 00:00:00	63260480	140168	2692084
30-Apr-20 00:00:00	63319676	59196	2751280
01-May-20 00:00:00	63350868	31192	2782472
02-May-20 00:00:00	63351428	560	2783032
03-May-20 00:00:00	63351428	0	2783032
04-May-20 00:00:00	63354660	3232	2786264
05-May-20 00:00:00	63354660	0	2786264
06-May-20 00:00:00	63354660	0	2786264
07-May-20 00:00:00	63357388	2728	2788992
08-May-20 00:00:00	63360744	3356	2792348
09-May-20 00:00:00	63360744	0	2792348
10-May-20 00:00:00	63360744	0	2792348
11-May-20 00:00:00	63365868	5124	2797472
12-May-20 00:00:00	63365868	0	2797472
13-May-20 00:00:00	63365900	32	2797504
14-May-20 00:00:00	63367804	1904	2799408
15-May-20 00:00:00	63367804	0	2799408
16-May-20 00:00:00	63369700	1896	2801304

17-May-20 00:00:00	63369824	124	2801428
18-May-20 00:00:00	63371584	1760	2803188
19-May-20 00:00:00	63372372	788	2803976
20-May-20 00:00:00	63372468	96	2804072
21-May-20 00:00:00	63374076	1608	2805680
22-May-20 00:00:00	63374076	0	2805680
23-May-20 00:00:00	63377484	3408	2809088
24-May-20 00:00:00	63377492	8	2809096
25-May-20 00:00:00	63379856	2364	2811460
26-May-20 00:00:00	63520260	140404	2951864
27-May-20 00:00:00	63549368	29108	2980972
28-May-20 00:00:00	63657532	108164	3089136
29-May-20 00:00:00	63752196	94664	3183800
30-May-20 00:00:00	63821312	69116	3252916
31-May-20 00:00:00	63942444	121132	3374048
01-Jun-20 00:00:00	63990420	47976	3422024
02-Jun-20 00:00:00	64064340	73920	3495944
03-Jun-20 00:00:00	64206092	141752	3637696
04-Jun-20 00:00:00	64339620	133528	3771224
05-Jun-20 00:00:00	64420068	80448	3851672
06-Jun-20 00:00:00	64541940	121872	3973544
07-Jun-20 00:00:00	64541940	0	3973544
08-Jun-20 00:00:00	64543236	1296	3974840
09-Jun-20 00:00:00	64612892	69656	4044496
10-Jun-20 00:00:00	64723288	110396	4154892
11-Jun-20 00:00:00	64821092	97804	4252696
12-Jun-20 00:00:00	65014512	193420	4446116
13-Jun-20 00:00:00	65062864	48352	4494468
14-Jun-20 00:00:00	65062864	0	4494468
15-Jun-20 00:00:00	65079524	16660	4511128
16-Jun-20 00:00:00	65110876	31352	4542480
17-Jun-20 00:00:00	65157828	46952	4589432
18-Jun-20 00:00:00	65249568	91740	4681172
19-Jun-20 00:00:00	65370604	121036	4802208
20-Jun-20 00:00:00	65434084	63480	4865688
21-Jun-20 00:00:00	65463348	29264	4894952
22-Jun-20 00:00:00	65558648	95300	4990252
23-Jun-20 00:00:00	65653948	95300	5085552
24-Jun-20 00:00:00	65767868	113920	5199472
25-Jun-20 00:00:00	65914156	146288	5345760
26-Jun-20 00:00:00	65979560	65404	5411164
27-Jun-20 00:00:00	66111900	132340	5543504
28-Jun-20 00:00:00	66164872	52972	5596476
29-Jun-20 00:00:00	66224184	59312	5655788
30-Jun-20 00:00:00	66224184	0	5655788
01-Jul-20 00:00:00	66271748	47564	5703352
02-Jul-20 00:00:00	66340740	68992	5772344

03-Jul-20 00:00:00	66381264	40524	5812868
04-Jul-20 00:00:00	66452060	70796	5883664
05-Jul-20 00:00:00	66472716	20656	5904320
06-Jul-20 00:00:00	66584712	111996	6016316
07-Jul-20 00:00:00	66721384	136672	6152988
08-Jul-20 00:00:00	66851168	129784	6282772
09-Jul-20 00:00:00	67006612	155444	6438216
10-Jul-20 00:00:00	67126416	119804	6558020
11-Jul-20 00:00:00	67285392	158976	6716996
12-Jul-20 00:00:00	67375336	89944	6806940
13-Jul-20 00:00:00	67505376	130040	6936980
14-Jul-20 00:00:00	67667704	162328	7099308
15-Jul-20 00:00:00	67790064	122360	7221668
16-Jul-20 00:00:00	67898440	108376	7330044
17-Jul-20 00:00:00	67968448	70008	7400052
18-Jul-20 00:00:00	68103104	134656	7534708
19-Jul-20 00:00:00	68195656	92552	7627260
20-Jul-20 00:00:00	68344672	149016	7776276
21-Jul-20 00:00:00	68435096	90424	7866700
22-Jul-20 00:00:00	68523872	88776	7955476
23-Jul-20 00:00:00	68668664	144792	8100268
24-Jul-20 00:00:00	68760392	91728	8191996
25-Jul-20 00:00:00	68855488	95096	8287092
26-Jul-20 00:00:00	68938576	83088	8370180
27-Jul-20 00:00:00	69057528	118952	8489132
28-Jul-20 00:00:00	69182896	125368	8614500
29-Jul-20 00:00:00	69326504	143608	8758108
30-Jul-20 00:00:00	69501488	174984	8933092
31-Jul-20 00:00:00	69634968	133480	9066572
01-Aug-20 00:00:00	69769688	134720	9201292
02-Aug-20 00:00:00	69937376	167688	9368980
03-Aug-20 00:00:00	70088024	150648	9519628
04-Aug-20 00:00:00	70247864	159840	9679468
05-Aug-20 00:00:00	70368792	120928	9800396
06-Aug-20 00:00:00	70429616	60824	9861220
07-Aug-20 00:00:00	70491528	61912	9923132
08-Aug-20 00:00:00	70580936	89408	10012540
09-Aug-20 00:00:00	70666424	85488	10098028
10-Aug-20 00:00:00	70795656	129232	10227260
11-Aug-20 00:00:00	70935816	140160	10367420
12-Aug-20 00:00:00	71032784	96968	10464388
13-Aug-20 00:00:00	71160880	128096	10592484
14-Aug-20 00:00:00	71336976	176096	10768580
15-Aug-20 00:00:00	71538816	201840	10970420
16-Aug-20 00:00:00	71745728	206912	11177332
17-Aug-20 00:00:00	71954416	208688	11386020
18-Aug-20 00:00:00	72180864	226448	11612468

19-Aug-20 00:00:00	72331552	150688	11763156
20-Aug-20 00:00:00	72554328	222776	11985932
21-Aug-20 00:00:00	72733192	178864	12164796
22-Aug-20 00:00:00	72885248	152056	12316852
23-Aug-20 00:00:00	73078368	193120	12509972
24-Aug-20 00:00:00	73232384	154016	12663988
25-Aug-20 00:00:00	73406728	174344	12838332
26-Aug-20 00:00:00	73572160	165432	13003764
27-Aug-20 00:00:00	73711032	138872	13142636
28-Aug-20 00:00:00	73852648	141616	13284252
29-Aug-20 00:00:00	73947632	94984	13379236
30-Aug-20 00:00:00	74071872	124240	13503476
31-Aug-20 00:00:00	74274864	202992	13706468
31-Aug-20 00:00:00	74274864	0	13706468
01-Sep-20 00:00:00	74399544	124680	13831148
02-Sep-20 00:00:00	74587440	187896	14019044
03-Sep-20 00:00:00	74652040	64600	14083644
04-Sep-20 00:00:00	74787696	135656	14219300
05-Sep-20 00:00:00	74891472	103776	14323076
06-Sep-20 00:00:00	75004808	113336	14436412
07-Sep-20 00:00:00	75180760	175952	14612364
08-Sep-20 00:00:00	75452392	271632	14883996
09-Sep-20 00:00:00	75662208	209816	15093812
10-Sep-20 00:00:00	75821672	159464	15253276
11-Sep-20 00:00:00	76024944	203272	15456548
12-Sep-20 00:00:00	76093128	68184	15524732
13-Sep-20 00:00:00	76154920	61792	15586524
14-Sep-20 00:00:00	76233560	78640	15665164
15-Sep-20 00:00:00	76352152	118592	15783756
16-Sep-20 00:00:00	76468368	116216	15899972
17-Sep-20 00:00:00	76575256	106888	16006860
18-Sep-20 00:00:00	76716512	141256	16148116
19-Sep-20 00:00:00	76804288	87776	16235892
20-Sep-20 00:00:00	76901856	97568	16333460
21-Sep-20 00:00:00	77054032	152176	16485636
22-Sep-20 00:00:00	77132216	78184	16563820
23-Sep-20 00:00:00	77221152	88936	16652756
24-Sep-20 00:00:00	77313816	92664	16745420
25-Sep-20 00:00:00	77379616	65800	16811220
26-Sep-20 00:00:00	77406320	26704	16837924
27-Sep-20 00:00:00	77407688	1368	16839292
28-Sep-20 00:00:00	77554696	147008	16986300
29-Sep-20 00:00:00	77715664	160968	17147268
30-Sep-20 00:00:00	77883272	167608	17314876
01-Oct-20 00:00:00	78065184	181912	17496788
02-Oct-20 00:00:00	78283856	218672	17715460
03-Oct-20 00:00:00	78509568	225712	17941172

04-Oct-20 00:00:00	78613304	103736	18044908
05-Oct-20 00:00:00	78686992	73688	18118596
06-Oct-20 00:00:00	78883720	196728	18315324
07-Oct-20 00:00:00	79025824	142104	18457428
08-Oct-20 00:00:00	79230680	204856	18662284
09-Oct-20 00:00:00	79230680	0	18662284
10-Oct-20 00:00:00	79285272	54592	18716876
11-Oct-20 00:00:00	79285272	0	18716876
12-Oct-20 00:00:00	79391656	106384	18823260
13-Oct-20 00:00:00	79453296	61640	18884900
14-Oct-20 00:00:00	79676720	223424	19108324
15-Oct-20 00:00:00	79902808	226088	19334412
16-Oct-20 00:00:00	80123136	220328	19554740
17-Oct-20 00:00:00	80333152	210016	19764756
18-Oct-20 00:00:00	80586360	253208	20017964
19-Oct-20 00:00:00	80754608	168248	20186212
20-Oct-20 00:00:00	80904160	149552	20335764
21-Oct-20 00:00:00	80998304	94144	20429908
22-Oct-20 00:00:00	81197832	199528	20629436
23-Oct-20 00:00:00	81419664	221832	20851268
24-Oct-20 00:00:00	81642616	222952	21074220
25-Oct-20 00:00:00	81771504	128888	21203108
26-Oct-20 00:00:00	81834840	63336	21266444
27-Oct-20 00:00:00	81931368	96528	21362972
28-Oct-20 00:00:00	82123624	192256	21555228
29-Oct-20 00:00:00	82205296	81672	21636900
30-Oct-20 00:00:00	82299128	93832	21730732
31-Oct-20 00:00:00	82391328	92200	21822932
01-Nov-20 00:00:00	82393168	1840	21824772
02-Nov-20 00:00:00	82393192	24	21824796
03-Nov-20 00:00:00	82449912	56720	21881516
04-Nov-20 00:00:00	82474616	24704	21906220
05-Nov-20 00:00:00	82505192	30576	21936796
06-Nov-20 00:00:00	82505296	104	21936900
07-Nov-20 00:00:00	82525448	20152	21957052
08-Nov-20 00:00:00	82545128	19680	21976732
09-Nov-20 00:00:00	82546408	1280	21978012
10-Nov-20 00:00:00	82547576	1168	21979180
11-Nov-20 00:00:00	82547576	0	21979180
12-Nov-20 00:00:00	82547616	40	21979220
13-Nov-20 00:00:00	82550000	2384	21981604
14-Nov-20 00:00:00	82556192	6192	21987796
15-Nov-20 00:00:00	82572864	16672	22004468
16-Nov-20 00:00:00	82573888	1024	22005492
17-Nov-20 00:00:00	82573888	0	22005492
18-Nov-20 00:00:00	82575824	1936	22007428
19-Nov-20 00:00:00	82575864	40	22007468

20-Nov-20 00:00:00	82601544	25680	22033148
21-Nov-20 00:00:00	82676848	75304	22108452
22-Nov-20 00:00:00	82678144	1296	22109748
23-Nov-20 00:00:00	82678216	72	22109820
24-Nov-20 00:00:00	82679904	1688	22111508
25-Nov-20 00:00:00	82681232	1328	22112836
26-Nov-20 00:00:00	82698040	16808	22129644
27-Nov-20 00:00:00	82714448	16408	22146052
28-Nov-20 00:00:00	82730872	16424	22162476
29-Nov-20 00:00:00	82733312	2440	22164916
30-Nov-20 00:00:00	82759256	25944	22190860
01-Dec-20 00:00:00	82761200	1944	22192804
02-Dec-20 00:00:00	82788296	27096	22219900
03-Dec-20 00:00:00	82823728	35432	22255332
04-Dec-20 00:00:00	82829464	5736	22261068
05-Dec-20 00:00:00	82848024	18560	22279628
06-Dec-20 00:00:00	82855864	7840	22287468
07-Dec-20 00:00:00	82885472	29608	22317076
08-Dec-20 00:00:00	82929216	43744	22360820
09-Dec-20 00:00:00	82989288	60072	22420892
10-Dec-20 00:00:00	82995712	6424	22427316
11-Dec-20 00:00:00	83057864	62152	22489468
12-Dec-20 00:00:00	83064264	6400	22495868
13-Dec-20 00:00:00	83086032	21768	22517636
14-Dec-20 00:00:00	83086040	8	22517644
15-Dec-20 00:00:00	83086040	0	22517644
16-Dec-20 00:00:00	83119976	33936	22551580
17-Dec-20 00:00:00	83126384	6408	22557988
18-Dec-20 00:00:00	83131184	4800	22562788
19-Dec-20 00:00:00	83135272	4088	22566876
20-Dec-20 00:00:00	83155456	20184	22587060
21-Dec-20 00:00:00	83200928	45472	22632532
22-Dec-20 00:00:00	83204792	3864	22636396
23-Dec-20 00:00:00	83208920	4128	22640524
24-Dec-20 00:00:00	83247648	38728	22679252
25-Dec-20 00:00:00	83247648	0	22679252
26-Dec-20 00:00:00	83247648	0	22679252
27-Dec-20 00:00:00	83248072	424	22679676
28-Dec-20 00:00:00	83248672	600	22680276
29-Dec-20 00:00:00	83301616	52944	22733220
30-Dec-20 00:00:00	83301640	24	22733244
31-Dec-20 00:00:00	83301640	0	22733244
01-Jan-21 00:00:00	83301640	0	22733244

talized Canal Usage

Point Name
PG.CGS.511-FIT-9002-3-TV

CALTROL INC.
1385 PAMA LANE #111
LAS VEGAS, NV. 89119
PHONE: (877) 827-8131

Instrument Calibration Report

Attn: PG&E Colusa Generating Station

Magnetic Flow Meter

Tag/Instrument ID	**FT-9002-2**	Calibrated Range	**0 TO 250 Gal/M**
Description	**Mag-Meter**	Serial Number	**0395651**
Manufacturer	**Rosemount**	Model Number	**8732E**
Plant / Unit	**MAIN**	Calibration Type	**SCHEDULED**
System	**WATER**	Calibrated	**07-May-20**
Location	**WESTSIDE CANAL**	Scheduled	**07-May-21**

MagMeter Calibration

Stated Accuracy: % of Analog Output Required Accuracy(1): 0.50%

In Val	In Units	Out Val	Out Units	As Found	Error %	As Left	Error %
0.00	Gal/M	4.00	mA	4.00	0.00%	4.00	0.00%
3.00	Gal/M	5.60	mA	5.60	0.01%	5.60	0.01%
10.00	Gal/M	9.33	mA	9.33	0.00%	9.33	0.00%
30.00	Gal/M	20.00	mA	20.00	0.00%	20.00	0.00%
10.00	Gal/M	9.33	mA	9.33	0.00%	9.33	0.00%
3.00	Gal/M	5.60	mA	5.60	0.01%	5.60	0.01%
0.00	Gal/M	4.00	mA	4.00	0.00%	4.00	0.00%

Calibration Parameter Changes

	Customer Settings	Calibration Settings
Meter Tube Cal #:	*0897505908834005	1000015010000000
Units of Measure:	Gal/M	Ft/S
Lower Range Value:	0	0
Upper Range Value:	250	30
Coil Pulse Mode:	5 Hz	5 Hz

[X] All Settings returned to customer's Configuration

Totalizer Readings:	As Found	As Left
Gross:		
Net:		

Test Instruments Used During Calibration

Description	Manufacturer	Model Number	Serial Number	NIST Cert. Number
Hart Communicator	Emerson	475		N/A
Process Meter	Fluke	789	26020038	26020038
Flow Simulator	Rosemount	8714D	14611770	14611770 (Trace#)

Notes about this calibration

METER FOUND WITHIN TOLERANCE

QC Checklist:

N/A	Isolation valves
N/A	Filled legs
X	All wires relanded (If removed)
X	Verify data (model, tag, serial, mfg)

Calibration Result: **PASS**

Calibrated by: *JAMES HIRACHETA*

Checkout By: *JAKE SANDERS*

CALTROL INC.
1385 PAMA LANE #111
LAS VEGAS, NV. 89119
PHONE: (877) 827-8131

Instrument Calibration Report

Attn: PG&E Colusa Generating Station

Magnetic Flow Meter

Tag/Instrument ID	**FT-9002-3**	Calibrated Range	**0 TO 250 Gal/M**
Description	**Mag-Meter**	Serial Number	**0395652**
Manufacturer	**Rosemount**	Model Number	**8732E**
Plant / Unit	**MAIN**	Calibration Type	**SCHEDULED**
System	**WATER**	Calibrated	**07-May-20**
Location	**SOUTHSIDE WATER PLANT**	Scheduled	**07-May-21**

MagMeter Calibration

Stated Accuracy: % of Analog Output Required Accuracy(1): 0.50%

In Val	In Units	Out Val	Out Units	As Found	Error %	As Left	Error %
0.00	Gal/M	4.00	mA	4.00	0.00%	4.00	0.00%
3.00	Gal/M	5.60	mA	5.60	0.01%	5.60	0.01%
10.00	Gal/M	9.33	mA	9.33	0.00%	9.33	0.00%
30.00	Gal/M	20.00	mA	20.00	0.00%	20.00	0.00%
10.00	Gal/M	9.33	mA	9.33	0.00%	9.33	0.00%
3.00	Gal/M	5.60	mA	5.60	0.01%	5.60	0.01%
0.00	Gal/M	4.00	mA	4.00	0.00%	4.00	0.00%

Calibration Parameter Changes

	Customer Settings	Calibration Settings
Meter Tube Cal #:	*0875705508616005	1000015010000000
Units of Measure:	Gal/M	Ft/S
Lower Range Value:	0	0
Upper Range Value:	250	30
Coil Pulse Mode:	5 Hz	5 Hz

[X] All Settings returned to customer's Configuration

Totalizer Readings:	As Found	As Left
Gross:		
Net:		

Test Instruments Used During Calibration

Description	Manufacturer	Model Number	Serial Number	NIST Cert. Number
Hart Communicator	Emerson	475		N/A
Process Meter	Fluke	789	26020038	26020038
Flow Simulator	Rosemount	8714D	14611770	14611770 (Trace#)

Notes about this calibration

METER FOUND WITHIN TOLERANCE

QC Checklist:

N/A	Isolation valves
N/A	Filled legs
X	All wires relanded (If removed)
X	Verify data (model, tag, serial, mfg)

Calibration Result: **PASS**

Calibrated by: *JAMES HIRACHETA*

Checkout By: *JAKE SANDERS*

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

CEC-1304 SCHEDULE 1 Part A: Power Plant Identification

CEC-1304 (Revised 07/2014)

Reporting Period	Year:	2020
	Quarter:	

Line No.		
1	**Plant Name**	Pacific Gas and Electric Colusa Generating Station
2	**CEC Plant ID**	06-AFC-9
3	**EIA Plant ID**	
4	**Qualifying Facility ID (if applicable)**	
5	**Plant Location**	
a	Street Address	4780 Driks Road
b	City	Maxwell
c	County	Colusa
d	State	California
e	Zip Code	95955
f	Latitude (optional)	
g	Longitude (optional)	
h	Operating Mode (specify) (1)	
j	Interconnection Agreement Type (2)	
6	**Plant Owner**	
a	Full Legal Name	Pacific Gas and Electric
b	PO Box	
c	Street Address	4780 Dirks Road
d	City	Maxwell
e	State	California
f	Zip Code	95955
7	**Plant Operator**	
a	Full Legal Name	
b	PO Box	
c	Street Address	
d	City	
e	State	
f	Zip Code	
8	**Nameplate Capacity (MW)**	660.00
9	**Number of Generators**	3
10	NAICS Code of Thermal Host if Cogeneration	
11	NAICS Code of Direct Onsite User of Electricity	
12	Date of Sale (during Reporting Period)	
13	Purchaser of Plant (during Reporting Period)	
a	Full Legal Name	
b	PO Box	
c	Street Address	
d	City	
e	State	
f	Zip Code	
g	Contact Person	
h	Telephone Number	
Notes	(1) Operating Mode: For example, independent power producer, cogeneration, dispatched as part of a demand	
	(2) Interconnection Agreement Type. For example, interconnection agreements required by interconnection	

Year	2020
CEC Plant ID	06-AFC-9
EIA Plant ID	

Section 1. Power Plant Water Supply

1a	Primary Water Supply Source	Agricultural Canal	1e	Backup Water Supply Source	NA
1b	Name of Primary Water Purveyor, Wastewater Supplier, or Well ID(s)	Tehema Colusa Canal Authority/Glenn Colusa Irrigation District	1f	Name of Backup Water Purveyor, Wastewater Supplier, or Well ID(s)	NA
1c	Primary Water Supply Average Total Dissolved Solids (mg/l)	90	1g	Backup Water Supply Average Total Dissolved Solids (mg/l)	
1d	Regional Water Quality Control Board	Central Valley Region Water Quality Control Board			NA

Section 2. Power Plant Water Use

2a *Check this box if water use at the power plant is not metered and cannot reasonably estimated.*

2b

Volume of Water Required (in gallons)	Sanitation	Landscaping	Solar Mirror Washing	Dust Suppression	Other Water Use	Daily Maximum	
	Check the boxes below if the categorized water use is not metered and cannot reasonably be estimated or is not applicable.						
January		0			383,720		
February		0			584,168		
March		0			606,228		
April		5370			1,177,164		
May		10610			622,768		
June		16300			2,281,740		
July		13180			3,410,784		
August		18030			4,639,896		
September		7280			3,608,468		
October		10410			4,508,056		
November		9710			367,928		
December		8420			542,384		

2c	Metering Frequency	Recorded Daily	Metering Technology	Inline Analog Meter

Section 3. Power Plant Wastewater Disposal

3a	*Check box if wastewater is not metered and cannot reasonably estimated.*	
3b	Wastewater Disposal Method	Zero Liquid Discharge/Septic Tank
3c	Average Total Dissolved Solids (mg/l)	NA
3d	Equipment Manufacturer	Aquatech
3e	Year of Installation	2010
3f	Waste Reduction Equipment or Measures Taken	Zero Liquid Discharges
3g	Name of the Facility or Water Body Receiving the Wastewater	NA
3h	Notes: Process water is run through a crystallizer to remove solids and vaporize liquid	

3i

Volume of Discharged Waste (in gallons)	Daily Maximum	Monthly Total
January	NA	
February	NA	
March	NA	
April	NA	
May	NA	
June	NA	
July	NA	
August	NA	
September	NA	
October	NA	
November	NA	
December	NA	

Reporting Period Year	2019
CEC Plant ID	06-AFC-9
EIA Plant ID	
Generator (Unit) ID	

Section 4. Generator Water Use

4a	Cooling Technology	Wet Surfac Air Cooler (WetSAC) and/or Closed Cooling Water Fin Fan
4b	If "other" cooling technology, please describe	

4c ☐ *Check this box if the generator is air-cooled. If this generator does use water for cooling, please proceed to 4d. If this generator does not use any water for cooling, the for this generator this form is complete.*

4d ☑ *Check this box if water use by this generator is not metered and cannot reasonably estimated. If this box is checked, then for this generator, this form is complete.*

4e

Volume of Water Required (in Gallons)	*Check the boxes below if the categorized water use is not metered and cannot reasonably be estimated or is not applicable.*						
	☐ Inlet-Air Cooling	☐ Intercooling	☐ Steam-Cycle Cooling	☐ Generator Bearings	☐ Other Cooling	☐ Daily Maximum	☐ Other
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							

4f	Metering Frequency	Metering Technology	

Notes:

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

CEC-1304 SCHEDULE 3 Part B:
Biological Resource Report of "Takes" and Biomass Killed by Impingement

CEC-1304 (Revised 07/2014)

Reporting Period Year	2020
CEC Plant ID	06-AFC-9
EIA Plant ID	

One Schedule 3B for each power plant.

Check here if there have been no "takes" or biomass killed by impingement. ☑

Owners of power plants with a generating capacity of 1-MW or more shall submit copies of reports or filings required by regulations, permits, or contract conditions that identify any of the following information for the previous calendar year:

1. Documentation of the "take" of terrestrial, avian and aquatic wildlife subject to legal protection under California Fish & G. Code § 2050 et seq., 16 U.S.C.A. § 1371 et seq., 16 U.S.C.A. § 1531 et seq., and 16 U.S.C. A. § 668 et seq. that occurred as a result of operation of the power plant.

2. Documentation and identification of the biomass (by weight) and species composition of fishes and marine mammals killed by impingement on the intake screens of each once-through cooling system.

Notes:

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

CEC-1304 SCHEDULE 3 Part C:
Public Health and Environmental Quality Violations Report

CEC-1304 (Revised 07/2014)

Reporting Period Year	2020
CEC Plant ID	06-AFC-9
EIA Plant ID	

One Schedule 3C for each power plant.

Check here if there have been no public health or environmental quality violations. ☑

Owners of power plants with a generating capacity of 1-MW or more shall submit copies of any written notification provided by any state or federal regulatory agency for the following:

1. A violation of an applicable statute, regulation, or permit condition related to public health or environmental quality during the previous calendar year, or for which there is an ongoing investigation regarding a potential violation.

Notes:

Declaration

Person submitting the Report:

TJ Gomez
Sr. Environmental Field Specialist
Pacific Gas & Electric Co
4780 Dirks Rd

Maxwell, CA, 95955
530-934-9007
530-934-9024
ajgu@pge.com

Company responsible for submitting the Report:

Pacific Gas & Electric Co
4780 Dirks Rd

Maxwell, CA, 95955
530-934-9007
530-934-9024
ajgu@pge.com

Reporting Period: 2020

I certify under the penalty of perjury of the laws of the State of California that I am authorized by Pacific Gas & Electric Co to submit the enclosed report. This report fulfills the requirement for CCR, Title 20, Division 2, Section 1304. The matters contained in this report are, to the best of my knowledge and belief and based on diligent investigation, true, accurate, complete and in compliance with these regulations.

TJ Gomez, Sr. Environmental Field Specialist

February 9, 2021
Date

Signed declaration to be submitted to: California Energy Commission

1. via email to QFERGEN@energy.state.ca.us as a PDF attachment or;
2. via fascimile to (916) 654-4559 or;
3. via US postal mail to 1516 Ninth Street, MS-20, Sacramento CA 95814

Pacific Gas and Electric Company®

Appendix 7, SOIL & WATER-9

Pacific Gas and Electric Company®

Per Soil &Water 9, in regards to the Septic System, the following is required: "Any testing results or correspondence exchanged between the project owner and the California Department of Health Services or the Colusa County Environmental Health Division."

There is no testing required for the Septic System at the Colusa Generating Station and there was no formal correspondence with the Colusa County Department of Environmental Health. In 2012 we signed a maintenance contract with Hydrotec Solutions Inc., to provide quarterly maintenance of our septic system in accordance with our O&M manual. This company was recommended to us by the Colusa County Department of Environmental Health. They began their quarterly maintenance in the third quarter of 2012 and have continued thought the present.

Attached is their 2020 report.

PGE Colusa Generating Station

IST QTR., 2020

COMPLETED: **3/31/20**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2020 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (dose ct.)	Net Cycles	ADC	STEP Tank ETM (hrs/min)	Net Run Time	ADRT
4th	12/20/19	98	1526	308	3.14	82:48:38	16:41:00	0:10:13
1st	3/11/20	82	1777	251	3.06	96:24:23	13:35:45	0:09:57
2nd								
3rd								
4th								

KEY:	
ADC	Ave. Daily Cycle
ADRT	Ave. Daily Run Time
EC	Event Counter
ETM	Elapsed Time Meter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/11/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.36'**	**DRY**
Piez #2	**2.53'**	**DRY**
Piez #3	**2.86'**	**DRY**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/11/20	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	2"	0"	0"
SLUDGE	20"	24"	3"	3"

PGE Colusa Generating Station

2ND QTR., 2020

COMPLETED: **6/18/20**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2020 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (dose ct.)	Net Cycles	ADC	STEP Tank ETM (hrs/min)	Net Run Time	ADRT
4th	12/20/19	98	1526	308	3.14	82:48:38	16:41:00	0:10:13
1st	3/11/20	82	1777	251	3.06	96:24:23	13:35:45	0:09:57
2nd	6/10/20	91	2060	283	3.11	111:44:08	15:19:45	0:10:06
3rd								
4th								

KEY:	
ADC	Ave. Daily Cycle
ADRT	Ave. Daily Run Time
EC	Event Counter
ETM	Elapsed Time Meter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/11/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

6/10/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.36'**	**DRY**
Piez #2	**2.53'**	**DRY**
Piez #3	**2.86'**	**DRY**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/11/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	2"	0"	0"
SLUDGE	20"	24"	3"	3"

6/10/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	3"	0"	0"
SLUDGE	20"	26"	6"	4"

PGE Colusa Generating Station

3RD QTR., 2020

COMPLETED: **10/5/20**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2020 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (dose ct.)	Net Cycles	ADC	STEP Tank ETM (hrs/min)	Net Run Time	ADRT
4th	12/20/19	98	1526	308	3.14	82:48:38	16:41:00	0:10:13
1st	3/11/20	82	1777	251	3.06	96:24:23	13:35:45	0:09:57
2nd	6/10/20	91	2060	283	3.11	111:44:08	15:19:45	0:10:06
3rd	9/16/20	98	2255	195	1.99	123:36:19	11:52:11	0:07:16
4th								

KEY:	
ADC	Ave. Daily Cycle
ADRT	Ave. Daily Run Time
EC	Event Counter
ETM	Elapsed Time Meter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/11/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

6/10/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

9/16/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.36'**	**DRY**
Piez #2	**2.53'**	**DRY**
Piez #3	**2.86'**	**DRY**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/11/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	2"	0"	0"
SLUDGE	20"	24"	3"	3"

6/10/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	3"	0"	0"
SLUDGE	20"	26"	6"	4"

	SEPTIC		DOSING	
9/16/20	INLET	OUTLET	INLET	OUTLET
SCUM	3"	0"	0"	0"
SLUDGE	6"	4"	4"	3"

PGE Colusa Generating Station

4TH QTR., 2020

COMPLETED: **12/16/20**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2020 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (dose ct.)	Net Cycles	ADC	STEP Tank ETM (hrs/min)	Net Run Time	ADRT
4th	12/20/19	98	1526	308	3.14	82:48:38	16:41:00	0:10:13
1st	3/11/20	82	1777	251	3.06	96:24:23	13:35:45	0:09:57
2nd	6/10/20	91	2060	283	3.11	111:44:08	15:19:45	0:10:06
3rd	9/16/20	98	2255	195	1.99	123:36:19	11:52:11	0:07:16
4th	12/15/20	90	2476	221	2.46	134:26:41	10:50:22	0:07:14

KEY:	
ADC	Ave. Daily Cycle
ADRT	Ave. Daily Run Time
EC	Event Counter
ETM	Elapsed Time Meter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/11/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

6/10/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

9/16/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

12/15/20	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.36'**	**DRY**
Piez #2	**2.53'**	**DRY**
Piez #3	**2.86'**	**DRY**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/11/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	2"	0"	0"
SLUDGE	20"	24"	3"	3"

6/10/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	20"	3"	0"	0"
SLUDGE	20"	26"	6"	4"

9/16/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	3"	0"	0"	0"
SLUDGE	6"	4"	4"	3"

12/15/20

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	**4"**	**0"**	**0"**	**0"**
SLUDGE	**7"**	**4"**	**3"**	**3"**

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Appendix 8, TLSN-3

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Per TLSN-3, the following is required: "Any reports of line-related complaints shall be summarized along with related mitigation measures for the first five years and provided in an annual report to the CPM."

There were no line related complaints in 2020.

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Appendix 9, VIS-1

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Per VIS-1, the following is required: "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) major maintenance activities that occurred during the reporting year; and
c) the schedule of major maintenance activities for the next year.

Surface coating applications for the most part remain in excellent condition after their completion in March 2011, as a result no maintenance activities occurred in 2020.

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Appendix 10, VIS-3

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Per VIS-3, the following is required: The project owner shall report landscaping maintenance activities, including of dead or dying vegetation, for the previous year of operation in each annual compliance report."

During 2020, maintenance was completed by Sierra Integrated Services Inc. All vegetation is healthy and there is no dying vegetation.

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SIERRA
INTEGRATED SERVICES INC.

TJ Gomez
Pacific Gas & Electric Company
Colusa Generating Station
4780 Dirks Road
Colusa, CA 94509

January 21, 2021

First Quarter 2021 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be a couple small Eucalyptus that have some dieback and crown reduction. The dieback does show some progression and the canopy appears thinned throughout. There are still some leaves that continue to have a slight discoloration and spotting. There are also some eucalyptus leaves that show some insect damage. The pine located to the left of the main gate continues to show signs of overall needle discoloration and disfiguring and now browning and drop. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues. No significant changes from Q4 2020 inspection.

Recommendations

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. With significant enough winter rains, irrigation may be able to be turned off until conditions change.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark. Most trees/shrubs appear to be free of weedy vegetation. Weed control is being conducted currently during Q1 2021 and a follow up will be done in Q2.

A well-balanced fertilizer may be considered as some of the discoloration in the pines could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
Pest Control Advisor/QAL
Sierra Integrated Services, Inc.
916-717-9631

TJ Gomez
Pacific Gas & Electric Company
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Colusa, CA 94509

April 22, 2020

Second Quarter 2020 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be small Eucalyptus that has some dieback towards the top. The dieback does not appear to have progressed since the Q1 inspection and there is new growth. There are still no obvious signs of stress, however, some leaves continue to have a slight discoloration and spotting. There are also some eucalyptus leaves that show some insect damage. The pine located to the left of the main gate continues to show signs of overall needle discoloration. There is new green growth starting from some of the branches that will be monitored. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues.

<u>Recommendations</u>

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. Warm weather is upon us and consistent watering will be important.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark.

A well-balanced fertilizer may be considered as some of the discoloration in the pines could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
President
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INTEGRATED SERVICES INC.

TJ Gomez
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Colusa, CA 94509

September 29, 2020

Third Quarter 2020 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be small Eucalyptus that has some dieback towards the top. The dieback does not appear to have progressed since the Q1 inspection and there is new growth. There are still no obvious signs of stress, however, some leaves continue to have a slight discoloration and spotting. There are also some eucalyptus leaves that show some insect damage. The pine located to the left of the main gate continues to show signs of overall needle discoloration and disfiguring and now browning and drop. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues.

<u>Recommendations</u>

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. Warm weather continues and consistent watering is important.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark. Most trees/shrubs appear to be free of weedy vegetation

A well-balanced fertilizer may be considered as some of the discoloration in the pines could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
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TJ Gomez
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Colusa, CA 94509

December 28, 2020

Fourth Quarter 2020 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be a couple small Eucalyptus that have some dieback towards the top. The dieback does show some progression and the canopy appears thinned. There are still some leaves that continue to have a slight discoloration and spotting. There are also some eucalyptus leaves that show some insect damage. The pine located to the left of the main gate continues to show signs of overall needle discoloration and disfiguring and now browning and drop. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues.

Recommendations

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. With significant enough winter rains, irrigation may be able to be turned off until conditions change.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark. Most trees/shrubs appear to be free of weedy vegetation. Vegetation control is planned for Q1 2021.

A well-balanced fertilizer may be considered as some of the discoloration in the pines could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
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Appendix 11, Waste-5

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The Waste Management Plan was followed during 2020. The following pages reflect the practices that were utilized throughout the year.

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
General Wastes				
Non-recyclable non-hazardous office and lunchroom waste	Waste paper, metal, plastic, cardboard, wood	Non-hazardous solid waste, based on waste management practices and staff training.	Commercial waste bins	Not required
Recyclable office materials	Waste paper, metal, plastic, cardboard	Not a waste, based on waste management practices and staff training.	Commercial recycling bins	Not required
Janitorial products and waste from their use	Janitorial products (e.g., window cleaner, floor stripper, wax, drain cleaners, etc.) may contain chemicals that are hazardous. These chemicals are consumed during normal use.	Use according to instructions on product labels does not constitute disposal. Discarded full-strength products may exhibit characteristics of ignitability, corrosivity, reactivity, or toxicity.	Empty containers of 5 gallons or less (meeting the definition of an empty container) can be disposed of in commercial waste bins. Discarded unused products will be characterized based on review of product labels and MSDSs and disposed of appropriately.	Not required
Used consumer electronic products and components	Cell phones, personal computers, computer perhipherals (e.g., printers), pagers, personal digital assistants, process control system components	Universal hazardous waste	Universal waste destination facility to be identified	Not required
Light tubes	Includes fluorescent light tubes, high-pressure sodium lamps, and other lamps that exhibit a characteristic of a hazardous waste.	Universal hazardous waste	Universal waste destination facility to be identified	Not required
Batteries	Rechargeable nickel-cadmium batteries, lithium batteries, alkaline batteries,	Universal hazardous waste	Universal waste destination facility to be identified	Not required

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
	silver button batteries, mercury batteries, small sealed lead-acid batteries, carbon-zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste			
Lead acid batteries – automotive or large industrial	Contain lead and sulfuric acid	Recyclable hazardous waste	Destination facility to be identified	Not required
Off-specification chemicals	Unusable new products, materials that cannot be returned to the vendor, and expired materials (shelf-life exceeded)	Chemical products may be non-hazardous, listed hazardous wastes, or characteristic waste.	Non-hazardous waste will be discarded in commercial waste bins. Hazardous waste will be disposed appropriately following characterization based on product labels and MSDSs.	Not required; management to be determined based on product label and MSDS.
Spent sorbent	Varies with wastes absorbed. May contain oil, solvents, coolant, or diesel fuel. Listed solvents are not expected to be used at the facility.	Non-hazardous waste if used to absorb a non-hazardous liquid; non-RCRA hazardous waste if used to absorb oil; RCRA hazardous waste if used to absorb a listed solvent or material that causes the sorbent to become a characteristic or listed hazardous waste	Non-hazardous waste will be discarded in commercial waste bins. Oil-contaminated sorbent will be disposed as a non-RCRA hazardous waste based on generator knowledge. Other hazardous waste sorbent will be disposed based on either generator knowledge if the material absorbed in known or analysis if it is not known.	Not required except when the material being absorbed is not known.
Aerosol cans	Aerosol cleaners and lubricants may contain listed chemicals. In addition, aerosol propellants and materials may be ignitable. Materials may also be	Universal hazardous waste	Empty, expired unused, or partially used aerosol cans	Not required; management can to be determined based on product label and MSDS.

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
	corrosive or reactive.			
Used oil	Used oil includes lubricating oil, gearbox oil, compressor oil, bearing oil, transformer oil, metal working oil, and hydraulic oil that is not mixed with solvents.	Non-RCRA hazardous waste	Evergreen Oil or similar used oil recycler	Testing to confirm total halogen concentration is less than 1,000 parts per million. Testing is typically provided as a service by the oil recycler.
Painting wastes	Large-scale work is contracted out. Paint wastes include cans of unused or partially used paint, empty paint cans, and paint contaminated materials (brushes, rollers, tarps, and wipes).	It is assumed that waist paints are hazardous wastes. Paint-contaminated material is typically non-hazardous unless disposed when the paint is still wet.	Discarded unused or partially used paint will be characterized based on review of product labels and MSDSs and will be disposed of appropriately.	None required
Biohazard wastes	Biohazard waste may result from first air operations.	Biohazard	Transport to a local hospital for disposal by incineration	None required
Sanitary wastewater	Wastewater from toilets, sinks, showers, and janitorial closets.	Non-hazardous. Waste management provisions include posting signs at sinks and training employees regarding materials prohibited from draining at sinks.	Delta Diablo Sanitation District treatment plant	Monitoring per Industrial Waste Permit
Used oil filters	Used oil filters are hazardous based on oil content and may exhibit hazardous characteristics for lead and other heavy metals.	Used oil filters are classified as recyclable hazardous wastes provided that they are managed per requirements including draining of free-flowing oil	Drained oil filters may be transported to an approved destination such as Evergreen Oil under a bill of lading, provided that requirements for used oil filter management have been met.	None required

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
Reusable soiled textiles (shop towels)	Varies with material absorbed. May contain oil, solvents, or other chemicals.	May be managed as a recyclable material excluded from classification as a waste if managed in accordance with requirements for reusable soiled textiles.	Recycle at facility that is compliant with requirements for reusable soiled textiles.	None required
Empty product containers	Empty containers may contain residues that have hazardous characteristics. Care should be taken in handling empty containers previously holding ignitable materials as they may contain ignitable vapors.	Empty containers meeting the regulatory definition of empty (e.g. all contents have been poured out) may be disposed of as non-hazardous waste provided they also meet empty container management requirements.	Empty containers of 5 gallons or less may be disposed with commercial waste. Empty containers of greater than 5 gallons need to be labeled with the word “empty” and the date they were emptied and either sent for reconditioning or for scrap within one year of becoming empty.	None required
Scrap metal	Used metal parts	Recyclable materials (22 CCR 66261.6(a)(3)	Place in scrap metal bins for transportation to a scrap metal recycler.	None
Compressed gas cylinders	Cylinders containing pressurized oxygen, acetylene, argon, nitrogen, and calibration gas blends; may contain residual pressure.	Non-hazardous solid waste when empty	Return refillable cylinders to vendors. Dispose of non-refillable cylinders as non-hazardous waste.	None
Spent solvent, sludge, and filters from parts washers.	Water-based and hydrocarbon based spent solvent, sludge, and filters.	Hydrocarbon-based solvent is typically hazardous and is collected and recycled.	Contract a parts washer service to recycle parts washer spent solvent in accordance with regulation.	None required unless operations change or solvent changes.
Used blasting grit	Used blasting grit may contain metal from the parts processed as well as coating	The material will be collected for characterization prior to	Manage as a hazardous waste. The material will be disposed at an approved	The analysis to be performed will be based on the waste profiling requirements of the

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
	residue.	disposal.	disposal facility in accordance with federal, state, and local regulations.	disposal facility.
Oil/water separator sludge	Material collecting on the bottom of the oil/water separator may include oil-contaminated metals and other solids.	The material will be managed has a hazardous waste based on waste analysis.	Manage as a hazardous waste. The material will be disposed at an approved disposal facility in accordance with federal, state, and local regulations.	The analysis to be performed will be based on the waste profiling requirements of the disposal facility.
Used engine coolant	Used engine coolants are mixtures of water and organic compounds such as ethylene glycol.	Spent coolants are typically non-RCRA hazardous wastes.	Recycle at Evergreen Oil or similar facility.	None required
Wet Surface Air Cooler (WSAC) Sludge	WSAC sludge is a mixture of ambient particulate matter and water.	Dependent on samples—likely non-hazardous. Class II/III landfill if nonhazardous; Class I if hazardous.	Store in bins. Bins are to be covered if rain is predicted. Storage is allowed until container is full. Waste will be transported off-site weekly.	Perform total analysis (i.e. TCLP, TTLP, WET, etc.) to characterize the waste. If process remains consistent through year, perform characterization 1x/year
Salt Cake	Residual concentrated brine solution	Dependent on samples—likely non-hazardous. Class II/III landfill if nonhazardous; Class I if hazardous.	Store in bins. Bins are to be covered if rain is predicted. Storage is allowed until container is full. Waste will be transported off-site weekly.	Perform total analysis (i.e. TCLP, TTLP, WET, etc.) to characterize the waste. If process remains consistent through year, perform characterization 1x/year.

MSDS = Material Safety Data Sheet.

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Table 2-1

Characterization of Waste Streams at the Colusa Generating

Station Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
Soil & Rock	Excavated soil/rock From Oil spills	Depends on sample likely non-hazardous Class II/III if nonhazardous Class I if hazardous	Manage as a hazardous Waste. The material will disposed at an approved facility. In accordance with federal,state and local regulation	Preform total analysis (i.e., TPH,CAM17) to characterize the waste.

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Attachment D

Post-Certification Changes

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Per Com-7 Item 4 we are to provide; "A Summary of the current project operating status and an explanation of any significant changes to the facility operations during the year."

No significant changes were made at CGS in 2020.

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Attachment E

Summary of Missed Deadlines

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Per Com-7 Item 5 we are to provide: "An explanation for any submittal deadlines that have been missed, accompanied by an estimate of when the information will be provided"

No submittal deadlines have been missed for 2020.

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Attachment F

Governmental Agency Submittals and Issuances

Pacific Gas and Electric Company®

The following is a listing of filings submitted to, or permits issued by, other governmental agencies during the year;

CGS Agency Submittals; January 1, 2020 – December 31, 2020

Colusa County Air Pollution Control District

Quarterly Operating Report (Permit Condition 17) – January 30, 2020; April 23, 2020; July 13, 2020; October 25, 2020

Annual RATA/Source Test – December 22, 2020

Title V Annual Certification of Compliance – January 30, 2020

EPA

Semi Annual CEMS Report (X.G.5) – January 2020; July 2020

CUPA

Revised Hazardous Materials Business Plan via CERS – January 30, 2020

State Water Resources Control Board

Annual Stormwater Report – July 10, 2020

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Attachment G

Projected Compliance Activities 2021

Per Com-7 Item 7 we are to provide; "A projection of project compliance activities scheduled during the next year."

In 2021 PG&E intends to continue reporting on the standard required compliance items. These include but are not limited to:

- Quarterly CEMS Reports/Operations Reports
- Annual Compliance Reports
- Notifications of Source Testing and Associated Source Test Reports
- Annual Storm Water Report

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Attachment H

Additions to On-Site Compliance Files

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Per Com-7 Item 8 we are to provide; "A listing of this year's additions to the on-site compliance files."

All of the above noted items in Attachment F which were submitted to agencies other than the CEC, as well as those items submitted to the CEC have been added to the site compliance files.

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Attachment I

Contingency Plan Evaluation

Pacific Gas and Electric Company®

Per Com-7 Item 9 we are to provide; "An Evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions for bringing the plan up to date."

Upon Review of the Site Contingency Plan there have been no changes in operations or company business practices to warrant changing of the on-site contingency plan for unplanned facility closure.

Pacific Gas and Electric Company®

Attachment J

Complaints / NOVs / Citations

Per Com-7 Item 10 we are to provide: "A listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters"

In 2020, the CGS did not receive any complaints, notice of violations, official warnings or citations.