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CGS2022-L-003

February 23, 2022

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, 2021 through December 31, 2021. 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.

11. Attachment K: verification of funding to the Maxwell Fire Department

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: Josh Harris, 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	
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	

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-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	
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	

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-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 (PMl *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	
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	

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-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	
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	

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
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	
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"

There were no significant changes to the facility and the plant is operating normally.

Attachment C
Accompanying Documents

CEC 2021 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, 2021

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, 2022
PROJECT NUMBER:	D31321CU.A.CS.EV.TM.02

Introduction

This Colusa Generating Station (CGS) Biological Resources Annual Compliance Report, 2021 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.

2021 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 2021 year.

2021 Executive Summary

Western diamondback rattlesnakes (*Crotalus atrox*) continued to be an issue during the 2021 compliance monitoring year. A total of 68 rattlesnake observations occurred; 9 of the rattlesnakes were observed and captured inside the CGS, 59 observations occurred outside of or adjacent to the CGS perimeter fencing. All of the observations occurred within the PG&E CGS parcel (+/- 100-acres). The number of rattlesnake observations in 2021 are double the number observed in 2020 (total of 29 with 7 inside the facility and 22 on the outside perimeter). CGS management has requested the DB and CGS CM work closely to monitor un-checked erosion along the switchyard perimeter and detention pond slopes to eliminate potential rattlesnake denning habitat. All rattlesnakes that were captured in 2021 were released approximately 2-miles southwest of the CGS unharmed.

In 2021, bat fatalities were again observed under the air-cooled condenser (ACC) structure and around the CGS site. The bat fatalities that were observed under and within the ACC during the weekly 2021 surveys include: 266 non-special status bats [a majority of which were Myotis sp. and Mexican free-tailed bats (*Tadarida brasiliensis*), and 6 big brown bats (*Eptesicus fuscus*)], 5 red bats (*Lasiurus borealis* - a CDFW Species of Special Concern), and 1 pallid bat (*Antrozous pallidus* - a CDFW Species of Special Concern). A total of 24 other bat carcasses were observed during the weekly surveys in different areas around the CGS. In comparison, the 2020 bat fatalities included 589 non-special-status bats (a majority of which were Myotis sp. and Mexican free-tailed bats, and 11 big brown bats) and 21 red bats (CDFW Species of Special Concern). The bat fatalities are a concern of PG&E, CGS management, the CEC, and CDFW. In 2019, CGS staff installed screening to cover an 11-inch gap between the ACC grating and the bottom of the fan plenum, which eliminated raptors and passerines from entering the ACC. However, it did not exclude bats from entering the ACC. In the fall of 2020, CGS staff installed new light-emitting diode (LED) lighting inside and outside of the ACC. During 2021, CGS operated the lighting inside the ACC and on the walkway 24-hours a day, which may have contributed to less bat mortality in and under the ACC in 2021. In addition to the lighting, CDFW installed a year-round bat acoustic detector to help understand the level of bat activity in the area.The DB regularly sends the SD card to CDFW for download and analysis. The DB will continue to monitor and report on-site bat fatalities during the 2022 survey period.

DB Monitoring and Survey Notes

Monitoring and compliance for 2021 are documented in chronological order below and within Appendix A, Site Photos; 1 through 99.

January 20th, the DB was onsite to check on the ACC cleaning progress and to clear the outside vegetated areas of rattlesnakes prior to fire suppression pre-emergent herbicide application, which is used in conjunction with mowing and disking around the CGS. A CGS contractor was cleaning the ACC cooling fins with high pressure water which may dislodge bat carcasses that were accumulated over time. The DB observed approximately 40 bat carcasses within and under the ACC, which were removed and identified after the ACC maintenance was completed. No rattlesnakes were observed during the perimeter fire suppression work. A single burrowing owl (*Athene cunicularia*) was observed perched on a tumbleweed at the CGS detention pond outlet pipe (Photo 1). Burrowing owls are considered a Species of Special Concern by the CDFW. Burrowing owls have been occasionally observed in the vicinity of the CGS property in the past so burrow inspection for burrowing owl sign prior to mowing, erosion repair or other surface disturbance is a standard survey protocol.

March 3rd, the DB received a message from the CGS Operations Supervisor (CGS OS) Joshua Harris concerning a bird nest observed at one of the pressure relief doors on HRSG 1. The CGS was going into a planned outage so the CGS OS requested the DB be onsite the next day in the event of another nest observation.

March 4th, the DB was onsite to check on the bird nest on one of HRSG 1's pressure relief doors (Photo 2). The DB monitored the bird nest for over an hour and no adult birds were observed, the DB checked the eggs in the nest, and they were cold to the touch and very fragile (one shattered when touched). The DB removed the abandoned nest and informed CGS personnel that the area was clear, work could resume in the area and the protective flagging around the nest site was removed (Photo 3). While onsite the DB received a second report of two nests on the side of the steam turbine. The nests were both pigeon (*Columba livia*); Nest #1 had a dead hatchling and 2 cold eggs. Nest #2 had no nest structure and the 2 eggs that were also cold to the touch. The DB removed the eggs and dead hatchling and informed personnel that they could work in the area.

March 16th, the DB was onsite to conduct routine rattlesnake surveys inside and outside of the CGS. No rattlesnakes were observed.

March 22nd, the DB was onsite to survey inside and outside of the CGS and to complete the collecting of 2020 bat carcasses from inside and under the ACC. No rattlesnakes were observed inside the CGS. A total of 34 bat carcasses were collected: 28 Myotis sp. carcasses (Photo 4), 5 Mexican freetail carcasses and 1 red bat carcass. The DB placed the 34 carcasses in the freezer in the warehouse to hand off to CDFW the following week for further identification. Also, while cleaning out the ACC cells an adult great-horned owl (*Bubo virginianus*) was observed nesting on the western most access way. Great-horned owls have routinely nested in this area for the last couple of years. The CGS staff was made aware of this observation.

March 23rd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to remove the lids from the pit fall traps at the two main entrance gates and place the snake basking boards around the outside of the CGS perimeter fencing. The inside the facility rattlesnake survey was negative. During the outside survey Rattlesnakes #1 and #2 were observed and captured along the switchyard dirt haul road north of the switchyards (Photo 5). The 2 rattlesnakes were observed in a rock pile on the side of the switchyard haul road, they appeared to be mating when they were first observed. Both rattlesnakes were safely captured and released off site. While surveying outside the DB opened up the pit fall traps at the front and back gates and placed 13 snake basking boards around the outside perimeter fencing.

March 25th, the DB received a phone call from CGS personnel concerning the observation of a bird's nest being constructed within the air intake structure on Unit 1. The DB stated that he would be onsite the next day to check on the bird nest.

March 26th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to follow up on the nest that was observed in the air intake structure on Unit 1. The inside the plant rattlesnake survey was negative. During the outside of the plant survey Rattlesnake #3 was observed and captured along the switchyard dirt haul road north of the switchyards (Photo 6). Rattlesnake #3 was safely captured and released off site. The DB observed a pair of Eurasian-collared doves (*Streptopelia decaocto*) building a nest on the air intake structure for Unit 1. There were no eggs in the nest, so the DB removed the stick nest structure from the air intake unit to discourage the doves from nesting there (Photo 7). During the survey, CGS management asked the DB to be onsite 5-days a week throughout the planned outage to address rattlesnakes and bird nests as they are encountered.

March 29th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant rattlesnake survey was negative. During the outside of the plant survey Rattlesnake #4 was observed dead on the main access road to CGS (Photo 8). The DB disposed of the rattlesnake carcass.

March 30th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant rattlesnake survey was negative. During the outside of the plant survey, Rattlesnakes #5 and

#6 were observed/ captured along the switchyard dirt haul road north of the switchyards (Photo 9). Rattlesnake #7 was observed dead along the CGS perimeter fence behind the warehouse (Photo 10). Rattlesnake #7 may have been dropped by a raptor since talon marks were visible on its body.

March 31st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant rattlesnake survey was negative. During the outside of the plant survey Rattlesnake #8 was observed and captured along the switchyard dirt haul road north of the switchyards (Photo 11). Onsite the CGS CM and DB met with Scott Osborn and Amelia Tauber from CDFW to assist them in installing the bat recorder equipment along the southern perimeter of the CGS property (Photo 12).

April 1st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant rattlesnake survey was negative. During the outside of the plant survey Rattlesnake #9 was observed under a placed basking board on the north side of the facility (Photo 13). Rattlesnakes #10 and #11 were observed and captured just north of the switchyard haul road (Photo 14). All 3 rattlesnakes were safely released off site.

April 2nd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside survey was negative. During the outside survey rattlesnake #12 was observed just outside the southern perimeter fence (Photo 15). The rattlesnake was safely released off site.

April 5th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside survey was negative. During the outside survey rattlesnake #13 was observed under a basking board on the east side of the switchyard (Photo 16). Rattlesnake #14 was observed in a pile of rocks just north of the switchyard haul road (Photo 17). Rattlesnake #15 was observed crossing the switchyard haul road (Photo 18). All 3 rattlesnakes were safely captured and released off site. Also, while surveying outside of the facility a gopher snake (*Pituophis catenifer*) was observed dead hanging from the southern perimeter fencing (Photo 19).

April 6th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

April 7th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed. Later in the evening the CGS CM was contacted about 2 rattlesnakes observed inside the fence on the northern portion of the CGS. The CGS CM captured 1 of the rattlesnakes (#16), the second one evaded capture (Photo 20). While capturing the rattlesnake the CGS CM captured a juvenile California kingsnake (*Lampropeltis getula californiae*) that was observed in the same area.

April 8th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to release rattlesnake #16 that the CGS CM captured last night during a rattlesnake call-out inside the facility. During the outside of the plant survey Rattlesnake #17 was observed adjacent to the perimeter fencing in the northwest corner of the facility (Photo 21). During the inside the plant survey Rattlesnake #18 was observed under an orange safety cone behind and outage crew trailer in the water treatment area (Photo 22). All 3 rattlesnakes were safely released off site.

April 9th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative. While surveying for rattlesnakes the DB received a message from the CGS OS concerning the observation of a bird's nest with dead birds in it on a cable tray associated with Unit 1. The DB checked out the bird nest and it was a pigeon nest from last year with 2 pigeon carcasses in it. The DB removed the carcasses and nest and disposed of them (Photo 23).

April 12th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside of the plant rattlesnake survey was negative. During the inside the facility survey the DB observed a pallid bat on the ground next to the western perimeter fence, the bat did not appear injured, (Photo 24). The pallid bat was given a small amount of water and released off site in a walnut orchard. During the outside survey Rattlesnake #19 was captured on the north side of the switchyard (Photo 25), Rattlesnake #20 was captured along the northern perimeter fence across from the ACC (Photo 26), Rattlesnake #21 was captured in the first culvert on the waterline road (Photo 27) and Rattlesnake #22 was captured in the second culvert on the waterline road (Photo 28). All 4 rattlesnakes were safely released off site. Also, during this site visit the DB downloaded the bat recorder data for CDFW and sent the SD card to Scott Osborn/CDFW for analysis.

April 13th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

April 14th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. During the inside of the plant survey Rattlesnake #23 a juvenile was observed on the inside of the western perimeter fence, the rattlesnake appeared to have bitten a California meadow vole (*Microtus californicus*) that was observed a couple of feet from the rattlesnake (Photo 29). The meadow vole died and appeared to have 2 puncture wounds in its back. During the outside survey Rattlesnake #24 (a large female) was captured on the waterline access road near a conduit vault the snake was observed emerging from a ground squirrel burrow (Photo 30). Both rattlesnakes were safely released off site and the meadow vole carcass was disposed of in an adjacent field.

April 15th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. During the outside of the plant survey Rattlesnake #25 an adult was observed in a rock pile along the dirt haul road to the north of the switchyards (Photo 31). During the inside survey Rattlesnake #26 a juvenile was observed by CGS personnel under a condensate tank near a valve under the ACC (Photo 32). Both rattlesnakes were safely released off site.

April 16th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

April 18th, the DB received a phone call concerning rattlesnake #27 that was observed at the back gate when CGS operators were going to the Tehama Canal water intake structure (Photo 33). The snake was captured and placed into the locked snake cabinet by the CGS OS for safe release off site by the CGS DB.

April 19th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to safely release Rattlesnake #27 an adult that was captured by CGS personnel near the back gate on April 18th. The survey inside the plant was negative. During the survey outside the plant the DB captured a juvenile, Rattlesnake #28, under a basking board placed on the northeast side of the Delevan substation (Photo 34). Rattlesnakes #29 (a juvenile) and #30 (an adult) were captured on the outside of the perimeter fence north of the ACC, (Photos 35 and 36). All 4 rattlesnakes were safely released off site. While onsite, a CGS operator reported a dead Myotis sp. bat observed near Unit 1's instrument control building (Photo 37). The DB collected the bat carcass and placed it in the onsite freezer for collection by CDFW staff.

April 20th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

April 21st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant survey was negative for rattlesnakes however, an adult gopher snake was observed near the front gate. It was captured and safely released off site. During the outside survey rattlesnake #31 (a juvenile) was observed and captured from a ground squirrel burrow on a south facing slope of the detention pond (Photo 38). Rattlesnake #32 (an adult) was captured near a culvert on the waterline road (Photo 39). Both rattlesnakes were safely released off site.

April 22nd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant survey was negative for rattlesnakes. During the outside survey Rattlesnake #33 (a juvenile) was captured near a culvert adjacent to the CGS access road (Photo 40). Rattlesnake #34 (a juvenile) was captured from a ground squirrel burrow on the waterline road (Photo 41). Rattlesnakes #35 and #36 (both juveniles) were captured at the culvert near the water intake at the Tehama Colusa Canal (Photos 42 and 43). All 4 rattlesnakes were safely released off site.

April 23rd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant survey was negative for rattlesnakes, during the outside survey rattlesnake #37 (an adult) was captured in rocks by the Glen Colusa Canal bridge (Photo 44). It was safely released off site.

April 26th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside the plant survey was negative for rattlesnakes. During the outside survey rattlesnake #38 (a juvenile) was captured on the north side of the Delevan substation adjacent to a man gate (Photo 45). Rattlesnake #39 (an adult) was captured in some rocks along the haul road to the substation (Photo 46). Both rattlesnakes were safely released off site. A green racer (*Coluber constrictor*) was also observed in the same pile of rocks where rattlesnake #39 was observed in (Photo 47).

April 28th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

April 30th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

May 3rd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. During the inside the plant survey Rattlesnake #40 (a juvenile) was captured inside the perimeter fencing in the northwest corner of the plant (Photo 48). The outside survey was negative; however, a large rattlesnake was observed but evaded capture in the first culvert on the waterline access road.

May 4th, the CGS CM captured Rattlesnake #41 just outside the western perimeter fence (Photo 49). The rattlesnake was placed in a locked cabinet for safe release by the DB. The CGS CM also captured and released a terrestrial garter snake that was observed inside the CGS (Photo 50).

May 5th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to safely release Rattlesnake #41 that was captured by the CGS CM the day before. Rattlesnake #42 (a juvenile) was observed inside the southern perimeter fence (Photo 51). Rattlesnake #43 (a large adult) was observed dead along the outside of the western perimeter fence across from the ACC (Photo 52). Rattlesnake #44 (a juvenile) was observed in the first culvert along the waterline road (Photo 53). Rattlesnake #45 (also a juvenile) was observed in the last culvert on the waterline road (Photo 54). All 4 rattlesnakes were safely released including the one observed by CGS staff on May 4th (a dead rattlesnake that was disposed of in an adjacent field). Also, a big brown bat carcass was observed along the outside perimeter fence (Photo 55). The DB collected the bat carcass and placed it in the onsite freezer for collection by CDFW staff.

May 7th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

May 10th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed inside. Rattlesnake #46 (an adult) was found dead along the western outside perimeter fence (Photo 56). It appeared that the rattlesnakes head had been smashed and there were no other signs of distress. The dead snake was disposed of in an adjacent field.

May 11th, the DB received a call concerning the observation of a swarm of honeybees made by the CGS CM just outside the back gate (Photo 57).

May 17th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed inside. Rattlesnake #47 (a large adult) was observed dead along the outside of the western perimeter fencing (Photo 58). Rattlesnake #48 (a juvenile) was observed dead in the same area as #47 (Photo 59). Rattlesnake #49 (a live medium size rattlesnake) was observed along the eastern perimeter fencing under a placed board (Photo 60). The live rattlesnake was safely released off site and the 2 dead rattlesnakes were disposed of safely. Also, while surveying outside the plant a live terrestrial garter snake (*Thamnophis elegans*) was observed exiting the sprinkler valve box (Photo 61). The DB also monitored the line trimming performed by Sierra Integrated Services around the outside of the plant, they did not observe any wildlife while cleaning up the perimeter of the site.

May 18th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed inside CGS. Rattlesnake #50 (a medium sized adult) was observed with a juvenile barn owl (*Tyto alba*) outside of the southern perimeter fencing (Photo 62). The juvenile barn owl appeared to have just fledged from the nest and it may have been bitten by the rattlesnake. The rattlesnake was safely captured and released off-site. The barn owl was safely captured and placed on the ground near the barn owl boxes along the southern site boundary (Photos 63 and 64). The DB also monitored the line trimming performed by Sierra Integrated Services around the outside of the plant, no wildlife was observed while during this work (Photo 65). Additionally, while onsite the DB removed the bat detector/recorder SD card for download to CDFW's FTP site and surveyed under the ACC for bat carcasses. No bat carcasses were observed.

May 20th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed inside. Rattlesnake #51 (a juvenile) was observed alive under an orange cone that was placed along the outside of the eastern perimeter fence (Photo 66). Rattlesnake #52 (an adult) was observed in a hole west of the detention pond (Photo 67). Both rattlesnakes appeared to be females and they were safely captured and relocated off site. A welfare check was conducted by the DB on the barn owl that was observed the previous day with Rattlesnake #50 and there was no sign of an owl carcass or owl feathers in the area around the barn owl boxes.

May 24th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside survey was negative.

May 27th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed inside of CGS. Rattlesnake #53 (an adult female) was observed under a basking board on the north side of the switchyard (Photo 68). Rattlesnake #54 (a juvenile) was observed under the stairs to the water intake pumps at the Tehama-Colusa Canal (Photo 69). Both rattlesnakes were safely captured and released off site. Also, while onsite the DB received a call concerning a juvenile American kestrel (*Falco sparverius*) that was observed on the ground by Unit 1, it appeared that the young kestrel

was in the process of fledging as the parent was observed in the area being very vocal. The DB decided to leave the young kestrel on the ground near a box for shelter, the kestrel was checked on several times throughout the day and it appeared that it had flown back up to the mother (Photo 71). Also, while onsite the DB and the CGS CM surveyed inside the ACC for bat carcasses, observing a single red bat carcass in one of the cells on Street 4. The carcass was left in place due to safety concerns. No other bat carcasses were observed. While surveying inside the ACC the DB observed a great horned owl (*Bubo virginianus*) in the northwest corner of the ACC. This is a resident owl that has been observed numerous times nesting in the same area (Photo 70). The DB also surveyed under the ACC for bat carcasses, and none were observed. The bat carcass surveys were prompted by CGS running partially into the night during the last couple of weeks. This year the ACC has been outfitted with new lights that are kept on 24-hours a day to try and discourage bats from entering the ACC at night.

June 1st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. No rattlesnakes were observed inside the CGS. Rattlesnake #54 (a young adult female) was observed in a culvert at the Tehama-Colusa Canal water intake pumps (Photo 72). The snake was safely captured and released off site.

June 3rd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey under the ACC for bat carcasses. Scott Lindeman, a Jacobs Biologist, accompanied the DB for onsite training since he filled in for the DB during planned time off from June 6th to June 11th and on July 2nd. No rattlesnakes were observed inside the CGS. Rattlesnake #56 (a juvenile) was observed dead along the outside of the western perimeter fence across from the ACC (Photo 73). The dead snake was disposed of safely. Since the CGS had been running in the evenings and at night recently, the biologists surveyed under and inside of the ACC for bat carcasses. No bat carcasses were observed inside the ACC, a single red bat carcass was observed under the ACC (Photo 74). The red bat carcass was probably the same carcass that was observed on May 27th inside the ACC on Street #4, which was left in place due to safety concerns. The red bat carcass was collected and saved in the CGS on-site freezer for CDFW collection. No other bat carcasses were observed inside or under the ACC.

June 7th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes. The inside and outside rattlesnake survey was negative.

June 10th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey under the ACC for bat carcasses. The inside and outside rattlesnake survey was negative and the survey under the ACC was negative as well.

June 16th, Scott Lindeman, Jacobs Biologist, was filling in for the DB. Scott was onsite to survey inside and outside of the CGS and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside the CGS. Rattlesnake #57, an adult, was observed dead along the outside of the western perimeter fence across from the ACC (Photo 75). The snake was disposed of safely. Two Myotis sp. bat carcasses were observed under the ACC. Both carcasses were placed in the CGS on-site freezer for CDFW collection.

June 23rd, Scott Lindeman was onsite to survey inside and outside of the CGS and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside the CGS. Rattlesnake #58 (an adult) was observed and captured northeast of the switchyard (Photo 76). The snake was disposed of safely. No bat carcasses were observed under the ACC.

June 28th, the DB was notified by the CGS CM of a mourning dove (*Zenaida macroura*) nest (containing 4-eggs) that was observed in the steam turbine cover (doghouse). The steam turbine was down for

repairs and the doghouse had been removed and placed on the ground just north of the ACC while work continued on the steam turbine (Photos 77 and 78). The DB discussed the situation with CGS Management and PG&E Biologist and co-CGS Designated Biologist Amy Krisch. Ms. Krisch stated that PG&E holds a Special Purpose Utility Permit (SPUT) issued by USFWS (See SPUT in Appendix B). This permit authorizes PG&E the emergency removal or relocation of active nests that could be affected by construction, reconstruction, modification, or maintenance of PG&E facilities. Based on the language in the permit, the DB developed a plan to build a temporary structure utilizing scaffolding placed adjacent to the doghouse and the plan was to move the nest to the temporary structure so that the doghouse could be slowly moved away from the nest site.

June 30th, the DB was onsite to move a mourning dove nest from inside the steam turbine doghouse to temporary structure. At 0800 hours the DB moved an active mourning dove nest containing the 4-eggs from a perch inside the steam turbine doghouse to a temporary structure adjacent to the original perch (Photo 79). The female dove flushed when the DB moved the nest and was observed on a nearby lamp post watching the nest area. Approximately a half hour after the initial disturbance of moving the nest, the dove returned to the doghouse and looked for her nest. She observed the nest adjacent to where it had originally been and proceeded to the new nest location to sit on the nest (Photo 80). The doghouse area was flagged off with caution tape and the new nest platform was left in place under the steam turbine doghouse (Photo 81). The plan was to let the dove acclimate to the new nest location for several days, allowing the doghouse to be moved back to the steam turbine. The DB coordinated the moving of the doghouse back to the steam turbine. This endeavor was permitted by a PG&E permit from USFWS "MIGRATORY BIRD SPECIAL PURPOSE UTILITY PERMIT – ELECTRIC Permit # MB057942-3 (See SPUT in Appendix B).

Also, on June 30th, Scott Lindeman was onsite to survey inside and outside of the CGS and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside the CGS. Rattlesnake #59 (a small adult) was found outside the fence at the stormwater outfall into the detention pond. Rattlesnake #60 (an adult) was also found outside the fence at the outflow pipe where stormwater samples are taken (Photo 82). Both snakes were released safely off site.

July 3rd, the DB received a call from CGS Maintenance Supervisor Dean Linville (CGS MS) concerning the observation of a nest with 2-eggs on the inlet steam piping to the steam turbine. The DB traveled to the site and observed a pigeon on a nest containing 2-eggs on the steam turbine piping (Photo 83). General Electric, a contractor, was in the process of putting the steam turbine back together and the nest made it impossible for them to complete their task. Since pigeons are not protected by the Migratory Bird Treaty Act or California Fish and Game Code and restoring the steam turbine to operational status was a critical path item, the nest was removed, and the eggs were disposed of. The DB checked on the mourning dove nest that had been moved from the steam turbine doghouse to the temporary structure. The nest was abandoned, and the eggs were cold to the touch. The DB removed the nest and eggs and informed CGS management. The DB also removed the protective barrier tape from the doghouse area.

July 8th, Scott Lindeman was onsite to survey inside and outside of the CGS and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside or outside of the CGS. No bat carcasses were observed under the ACC.

July 12th, the DB received a call from CGS OS concerning the observation of a red bat carcass that was observed on the floor of the maintenance storage area. The CGS OS collected the red bat carcass and placed it in the onsite freezer for further identification. The CGS OS also stated that a second live bat was observed in the same area and that it appeared to be a red bat as well.

July 15th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside. During the survey under the ACC for bat carcasses, 5 fresh bat carcasses were observed: 1 big brown bat carcass and 4 Myotis sp. bat carcasses. These carcasses were collected and saved in the freezer for further identification. The DB was notified by CGS personnel of two more bat carcass at the base of Units 1 and 2 which are east of the ACC, unfortunately when the DB went to collect them the CGS cleanup crew had already disposed of the carcasses.

July 21st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside. The DB surveyed under the ACC for bat carcasses and observed 7 fresh bat carcasses: 5 Myotis sp. bat carcasses, 1 Mexican freetail carcass, and 1 red bat carcass. The 7 carcasses were randomly spread out under the ACC. Also, while onsite the DB was informed of the observation of a dead bat in the CGS warehouse. The DB checked on the dead bat and observed a Myotis sp. bat hanging from a roll of screening material. These carcasses were collected and saved in the freezer for further identification. The DB and the CGS CM also surveyed inside the ACC for bat carcasses. The ACC was running at the time of the survey, so the observed bat carcasses were left in place due to safety concerns. There were approximately 53 bat carcasses observed in the ACC. They were spread out randomly throughout the 6 ACC streets with concentrations observed on streets 4, 5 and 6. The ACC was last surveyed on 6-3-21 and no bat carcasses were observed at that time.

July 29th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside. While surveying the CGS warehouse for rattlesnakes the DB observed a dead house finch (*Carpodacus mexicanus*) on top of a battery charger. The DB disposed of the finch carcass. The DB surveyed under the ACC for bat carcasses and observed 6 fresh bat carcasses: 5 Myotis sp. and 1 red bat. The 6 carcasses were randomly spread out under the ACC. Also, while onsite the DB observed a Myotis sp. bat carcass at the base of HRSG 1. All of the observed carcasses were collected and saved in the freezer for further identification.

August 5th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside. The DB surveyed under the ACC for bat carcasses and observed 14 fresh bat carcasses: 13 Myotis sp., and 1 big brown bat. The 14 carcasses were randomly spread out under the ACC. Also, while onsite the DB observed a Myotis sp. carcass on the ground behind the CGS warehouse. Another Myotis sp. carcass was observed along the northern perimeter fence. All of these carcasses were collected and saved in the freezer for further identification. Also, while surveying under the ACC a live Myotis sp. bat was observed (Photo 84). The live bat was hydrated and released unharmed in the orchard east of the CGS.

August 10th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside of the CGS. While surveying outside of the CGS a large rattlesnake shed was observed going into one of the new switchyard stormwater outfall culverts (Photo 85). Inside of the outfall, a large rattlesnake was observed coiled just out of reach for safe capture. The DB surveyed under the ACC for bat carcasses and observed 23 fresh bat carcasses: 22 Myotis sp. bat, and 1 big brown bat. The 23 carcasses were randomly spread out under the ACC.

August 18th, the DB was onsite on to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside. The DB surveyed under the ACC for bat carcasses and observed 13 fresh bat carcasses: 12 Myotis sp. bat, and 1 Mexican freetail bat. The 13 carcasses were randomly spread out under the ACC. Also, while surveying

the entire CGS 3 Myotis sp. bat carcasses were observed on the floor of the CGS warehouse and 1 Myotis sp. carcass was observed on the floor of the maintenance building warehouse. All of these carcasses were collected and saved in the freezer for further identification.

August 25th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside. While onsite the DB surveyed under the ACC for bat carcasses and observed 7 fresh bat carcasses, all Myotis sp. The 7 carcasses were randomly spread out under the ACC. Also, while surveying the entire CGS 1 Mexican freetail bat carcasses was observed along the northern perimeter fence. All of these carcasses were collected and saved in the freezer for further identification.

August 31st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were initially observed inside of the CGS. Rattlesnake #61 (an adult female) was observed under a placed board along the outside northern perimeter fencing (Photo 86). Rattlesnake #62 (a medium sized adult) was observed within the snake u-turn at the back gate (Photo 87). Later in the evening the CGS CM was called out for a juvenile rattlesnake #63 that was observed between the water treatment building and the maintenance building (Photo 88). That snake was placed in the snake safety locker for release by the DB. While onsite the DB surveyed under the ACC for bat carcasses and observed 9 fresh bat carcasses: 8 Myotis sp. and 1 Mexican freetail. The 9 carcasses were randomly spread out under the ACC. Also, while surveying the entire CGS 1 Myotis sp. carcass was observed on the ground behind the CGS warehouse. All of these carcasses were collected and saved in the freezer for further identification. Additionally, while onsite the DB and the CGS CM surveyed the inside of the ACC, there appeared to be +/- 111 bat carcasses inside the individual ACC cells. The 111 approximate carcasses that were observed were left in place due to safety concerns. The plan is to collect, count and identify the carcasses after the height of bat activity at CGS for the year. The CDFW bat recorder SD card was also removed and replaced. The card was mailed to CDFW for analysis.

September 1st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to release rattlesnake #63 which was captured by the CGS CM on the 31st. The inside and outside rattlesnake survey was negative. Rattlesnake #63 was safely released off site.

September 8th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were initially observed inside of the CGS and no rattlesnakes were observed during the outside survey. The DB observed Rattlesnake #64 squeeze through a small hole in the back gate (Photo 89). Rattlesnake #64 (a medium sized female) was safely captured and released off site. While onsite the DB surveyed under the ACC for bat carcasses and observed 6 Myotis sp. carcasses. The 6 carcasses were randomly spread out under the ACC. Also, while surveying the entire CGS 1 Myotis sp. bat carcass was observed on the ground along the northern perimeter fence. All of these carcasses were collected and saved in the freezer for further identification.

September 15th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. The inside and outside rattlesnake survey was negative. While onsite the DB surveyed under the ACC for bat carcasses and observed 10 fresh Myotis sp. bat carcasses (Photo 90). The 10 carcasses were randomly spread out under the ACC. Also, while surveying the entire CGS 1 Myotis sp. carcass was observed on the ground in front of the maintenance shop door, this carcass had what appeared to be bite marks on its back.

September 21st, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside of the CGS, on the outside

survey Rattlesnake #65 and Rattlesnake #66 (both of which were juveniles) were observed dead on the south side of the CGS warehouse (Photo 91). One of the carcasses was older than the other (more dried out) and they both appeared to have a puncture wound mid-body. Both dead snake carcasses were disposed of. While onsite the DB surveyed under the ACC for bat carcasses and observed 7 fresh Myotis sp. carcasses. All 7 carcasses were on the south side of the ACC, none were observed on the north side. Also, while surveying the entire CGS 3 Myotis sp. carcasses were observed on the ground in different areas within the CGS warehouse. All of these carcasses were collected and saved in the freezer for further identification.

September 28th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside or outside. While onsite the DB surveyed under the ACC for bat carcasses and observed 6 fresh bat carcasses: 4 Myotis sp., 1 Mexican freetail, and 1 red bat. All of these carcasses were collected and saved in the freezer for further identification.

September 30th, Rattlesnake #67 was observed inside the plant near the boiler feed pump for Unit 1. The CGS OS responded and went to the plant and safely captured a juvenile Rattlesnake #67 (Photo 92). The rattlesnake was placed in the onsite snake locker for safe release by the CGS DB.

October 2nd, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to safely release rattlesnake #67 off site. No rattlesnakes were observed inside or outside. Rattlesnake #67 was safely released off site.

October 5th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside or outside. While onsite the DB surveyed under the ACC for bat carcasses and observed 3 fresh Myotis sp. carcasses. All of these carcasses were collected and saved in the freezer for further identification. The CGS CM and the CGS DB performed a quick bat carcass survey inside the ACC and there appeared to be +/- 127 bat carcasses inside the individual ACC cells, which were left in place due to safety concerns. The plan is to collect, count and identify the carcasses after the height of bat activity at CGS for the year.

October 13th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes and to survey under the ACC for bat carcasses. No rattlesnakes were observed inside of the plant, Rattlesnake #68 (a juvenile) was observed under a placed board just south of the CGS warehouse (Photo 93). While onsite the DB surveyed under the ACC for bat carcasses and observed 5 fresh Myotis sp. carcasses under the ACC. One Myotis sp. carcass was observed along the northern perimeter fence line. All of these carcasses were collected and saved in the freezer for further identification.

October 27th, the DB was onsite to survey inside and outside of the CGS for rattlesnakes, remove the snake basking boards, and cover the snake pit fall traps at the front and back gates and to survey underneath the ACC for bat carcasses. No rattlesnakes were observed inside or outside of the plant and all basking boards and pitfalls were removed or covered for the winter season. While onsite the DB surveyed under the ACC for bat carcasses and observed 5 fresh Myotis sp. bat carcasses under the ACC. All of these carcasses were collected and saved in the freezer for further identification. Also, while onsite the CGS CM and CGS DB met with Amelia Tauber with CDFW and assisted her in changing out the bat recorder and microphone. Additionally, Ms. Tauber was also given the saved bat carcasses from the freezer for further identification.

November 3rd, the DB was onsite to screen the outfalls from the switchyard to exclude rattlesnakes from utilizing them, and to replace the SD card from the bat recorder, survey under the ACC for bat

carcasses and check all buildings inside the plant for rattlesnakes. No rattlesnakes were observed inside the plant buildings or at any of the switchyard outfalls. The CGS CM and the DB installed rattlesnake screening on 5 of the 10 switchyard outfalls (Photo 94). The remaining 5 will require hand excavation because of the way the outfalls terminate. During the survey under the ACC, 2 fresh bat carcasses were observed: 1 Myotis sp. and 1 red bat. The carcasses were collected and placed in the onsite freezer for further identification by CDFW. While onsite the DB changed out the bat recorder SD card for mailing to CDFW.

November 30th, the DB was onsite to survey under the ACC for bat carcasses and observed 6 fresh Myotis sp. bat carcasses. All of these carcasses were collected and saved in the freezer for further identification. The 6 Myotis carcasses were older and decimated. There were no observations of fresh bat carcasses. Additionally, the DB and the CGS CM surveyed the inside of the ACC and observed approximately 102 bat carcasses. None of these carcasses were collected since the plant was operating at full capacity during the survey, all of these carcasses also appeared to be old and dried out.

January 12, 2022, the DB was onsite to clean out all the bat carcasses in the ACC from 2021 and perform a final 2021 survey under the ACC. The DB and the CGS CM collected a total of 129 bat carcasses from inside the ACC. The species breakdown is: 121 Myotis sp. (Photo 95), 4 Mexican freetail (Photo 96), 3 big brown bat (Photo 97) and 1 pallid bat (Photo 98). These carcasses were also placed in the warehouse freezer for further potential identification by CDFW. The DB also surveyed under the ACC and observed 4 Myotis sp. bat carcasses (Photo 99). Also, while onsite the DB removed the SD card in the CDFW bat detector/recorder and sent it to CDFW.

There was a total of 296 bat carcasses observed on the CGS site during 2021 surveys.
Of the 296 carcasses 24 were not observed under the ACC, instead they were observed and collected in different areas around the CGS during 2021 rattlesnake surveys. The species carcass breakdown for the 24 is:

- 20 Myotis sp. bats
- 1 Pallid bat
- 1 Big brown bat
- 1 Red bat and 1 Mexican freetail bat

272 bat carcasses were observed and collected throughout 2021 in and under the ACC. The species carcass breakdown for the 272 is:

- 251 Myotis sp. bats
- 1 Pallid bat
- 6 Big brown bats
- 5 Red bats and 9 Mexican freetail bats

The largest concentration of bat carcasses (39) was observed in Street #6, this street is located at the western end of the ACC. The next largest concentration (27) was observed in Street #4 which is towards the middle of the ACC.

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 2021.

Appendix A
Site Photos

Photo 1, photo of burrowing owl observed perched on a tumbleweed at detention pond outlet, 1/20/21.

Photo 2, photo of bird nest as observed prior to removal, 3/4/21.

Photo 3, of typical CGS flagging to identify a nest area exclusion, 3/4/21.

Photo 4, of 28 Myotis sp. bat carcasses recovered from inside and under the ACC, 3/22/21.

Photo 5, of rattlesnakes #1 and #2 of the year, observed and captured along the switchyard dirt haul road north of the switchyards, 3/23/21.

Photo 6, of rattlesnake #3 prior to safe release off site, 3/26/21.

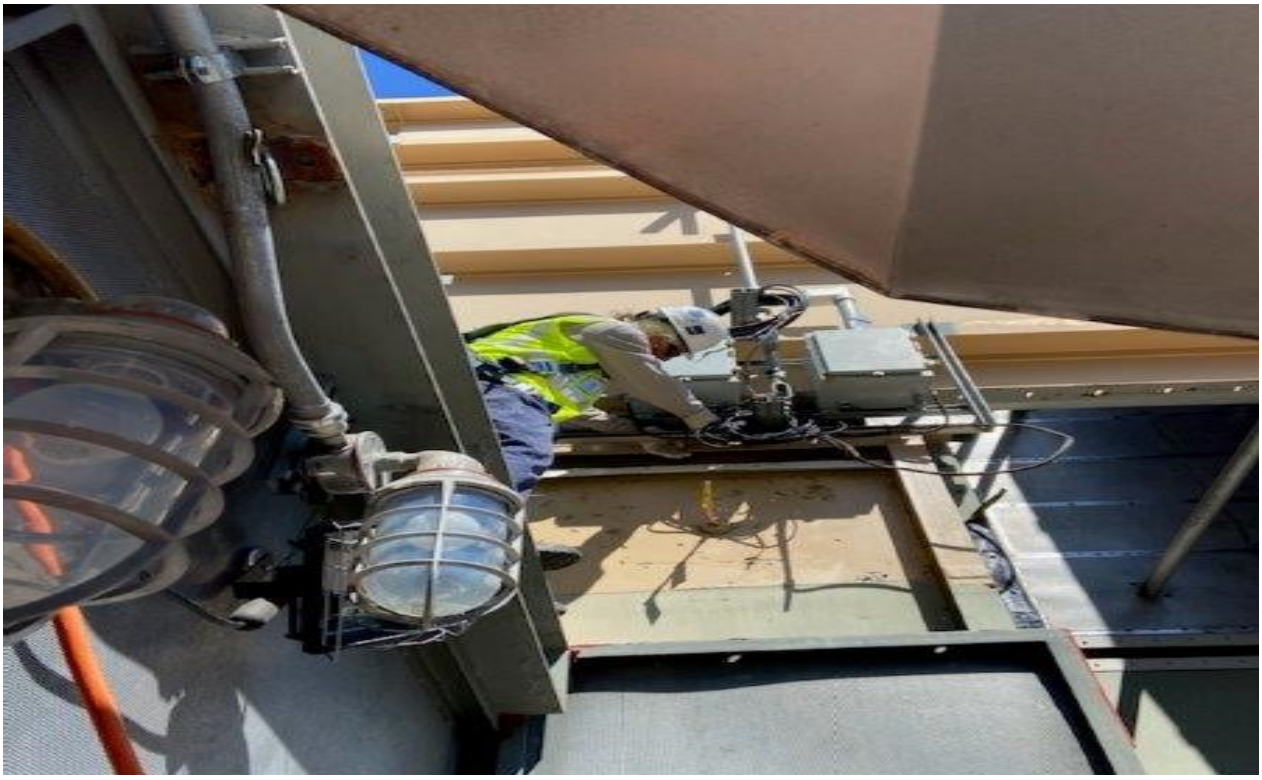


Photo 7, of DB removing a Eurasian-collared dove nest from Unit 1's air intake structure, 3/26/21.

Photo 8, rattlesnake #4 observed dead along CGS main access road, 3/29/21.

Photo 9, of rattlesnakes #5 and #6 during capture on switchyard haul road north of CGS, 3/30/21.

Photo 10, of rattlesnake #7 observed dead south of the CGS warehouse, 3/30/21.

Photo 11, of rattlesnake #8 was observed and captured along the switchyard dirt haul road north of the switchyards, 3/31/21.

Photo 12, of CDFW personnel installing bat detector and recorder, 3/31/21.

Photo 13, of rattlesnake #9 observed under a placed basking board, 4/1/21.

Photo 14, of rattlesnakes #10 and #11 observed and captured from a rock pile next to the switchyard haul road, 4/1/21.

Photo 15, of rattlesnake #12 observed and captured outside of southern perimeter fence, 4/2/21.

Photo 16, of Rattlesnake #13 observed under a placed basking board on the east side of the switchyard, 4/5/21.

Photo 17, of rattlesnake #14 captured from rock pile just north of switchyard, 4/5/21.

Photo 18, of rattlesnake #15 observed and captured from switchyard haul road, 4/5/21.

Photo 19, of dead gopher snake observed on fence line behind CGS warehouse, 4/5/21.

Photo 20, of rattlesnake #16 captured inside of CGS at night by the CGS CM, 4/7/21.

Photo 21, of rattlesnake #17 observed and captured outside of northern perimeter fence, 4/8/21.

Photo 22, of rattlesnake #18 observed under an orange safety cone behind an outage trailer, 4/8/21.

Photo 23, of dead pigeons and nest in a cable tray prior to removal by DB, 4/9/21.

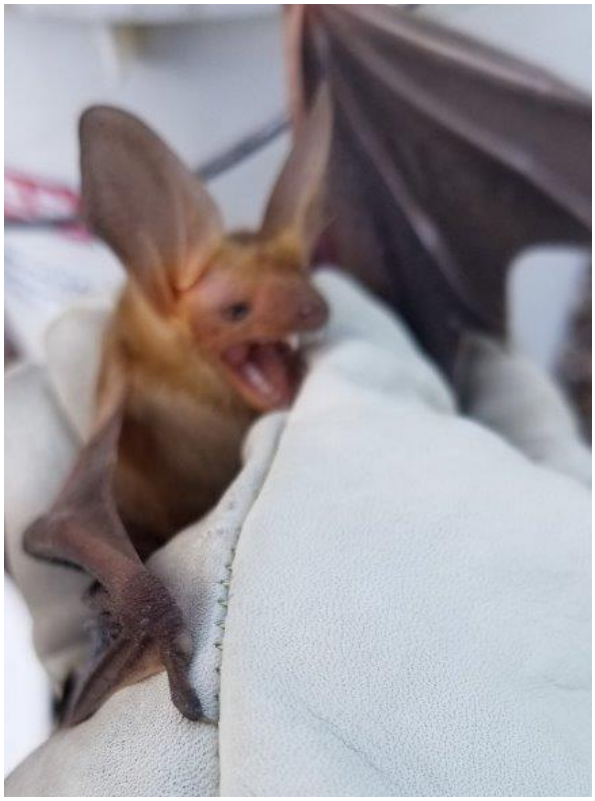


Photo 24, of live pallid bat observed on the ground along the western perimeter fence and prior to safe release in orchard by DB, 5/12/21.

Photo 25, of rattlesnake #19 observed and captured on north side of switchyard, 4/12/21.

Photo 26, of rattlesnake #20 observed and captured north of ACC, 4/12/21.

Photo 27, of rattlesnake #21 observed and captured in first culvert on the waterline road, 4/12/21.

Photo 28, of rattlesnake #22 observed and captured in second culvert on waterline road, 4/12/21.

Photo 29, of Rattlesnake #23 and a Ca. meadow vole observed on the inside western perimeter fence, 4/14/21.


Photo 30, of rattlesnake #24 observed in a Ca. ground squirrel burrow on the waterline road, 4/14/21.

Photo 31, of rattlesnake #25 captured in a rock pile just north of the switchyard haul road, 4/15/21.

Photo 32, of rattlesnake #26 captured inside the CGS facility under a valve associated with the condensate tank, 4/15/21.

Photo 33, of rattlesnake #27 captured just outside the back gate by the CGS OS, 4/18/21.

Photo 34, of rattlesnake #28 a juvenile was captured under a placed board northeast side of the Delevan substation, 4/19/21.

Photo 35, of rattlesnake #29 captured on the outside of the perimeter fence north of the ACC, 4/19/21.

Photo 36, rattlesnake #30 captured on the outside of the perimeter fence north of the ACC, 4/19/21.

Photo 37, of Myotis sp. bat carcass observed on floor of instrument control building for Unit 1, 4/19/21.


Photo 38, of rattlesnake #31 observed in a ground squirrel burrow in the CGS detention pond, 4/21/21.

Photo 39, of rattlesnake #32 observed and captured from a culvert on the waterline road, 4/21/21.

Photo 40, of rattlesnake #33 observed and captured in a culvert on the waterline road, 4/22/21.

Photo 41, of rattlesnake #34 a juvenile that was captured from a ground squirrel burrow on the waterline road, 4/22/21.

Photo 42, of rattlesnake #35 observed and captured from a culvert at the Tehama Colusa canal intake structure, 4/22/21.

Photo 43, of rattlesnake #36 observed and captured from a culvert at the Tehama Colusa canal intake structure, 4/22/21.

Photo 44, of rattlesnake #37 observed and captured at the Glen Colusa bridge, 4/23/21.

Photo 45, of rattlesnake #38 observed and captured at a man gate to switchyard, 4/26/21.

Photo 46, of rattlesnake #39 observed and captured in a rock pile north of the switchyard haul road, 4/26/21.

Photo 47, of a racer observed and captured in a rock pile north of the switchyard haul road, 4/26/21.

Photo 48, of rattlesnake #40 observed and captured inside CGS facility in northwest corner, 5/3/21.

Photo 49, rattlesnake #41 observed and captured by CGS CM along the outside northern perimeter fence, 5/4/21.

Photo 50, of terrestrial garter snake observed and captured by the CGS CM, 5/4/21.

Photo 51, of rattlesnake #42 observed and captured inside CGS along southern fence line, 5/4/21.

Photo 52, of rattlesnake #43 an adult observed dead along the outside western perimeter fence, 5/5/21.

Photo 53, of rattlesnake #44 observed and captured from the first culvert on the waterline road, 5/5/21.

Photo 54, of rattlesnake #45 observed and captured from the last culvert on the waterline road, 5/5/21.

Photo 55, of a dead big brown bat carcass observed along the southern perimeter fence, 5/5/21.

Photo 56, of rattlesnake #46 observed dead along the outside western perimeter fence, 5/10/21.

Photo 57, of honeybee swarm as reported by the CGS CM, 5/11/21.

Photo 58, of rattlesnake #47 observed dead along the outside western perimeter fence, 5/17/21.

Photo 59, of rattlesnake #48 observed dead along the outside perimeter fence, 5/17/21.

Photo 60, of rattlesnake #49 observed under a placed board east side of switchyard, 5/17/21.

Photo 61, of a terrestrial garter snake observed exiting CGS sprinkler valve box, 5/17/21.

Photo 62, of rattlesnake #50 a medium size adult observed next to a juvenile barn owl just outside of southern perimeter fence, 5/18/21.

Photo 63, of DB safely capturing juvenile barn owl prior to safe release, 5/18/21.


Photo 64, of juvenile barn owl after being released by barn owl boxes along southern portion of CGS, 5/18/21.

Photo 65, of line trimming vegetation for fire suppression at Tehama Colusa canal intake structure, 5/18/21.

Photo 66, of rattlesnake #51 observed under a placed orange cone on the outside of the eastern perimeter fencing, 5/20/21.

Photo 67, of rattlesnake #52 observed in a hole on the west side of the CGS detention pond, 5/20/21.

Photo 68, of rattlesnake #53 observed under a placed board on north side of switchyard, 5/27/21.

Photo 69, of rattlesnake #54 observed under a step at the Tehama Colusa canal intake structure, 5/27/21.

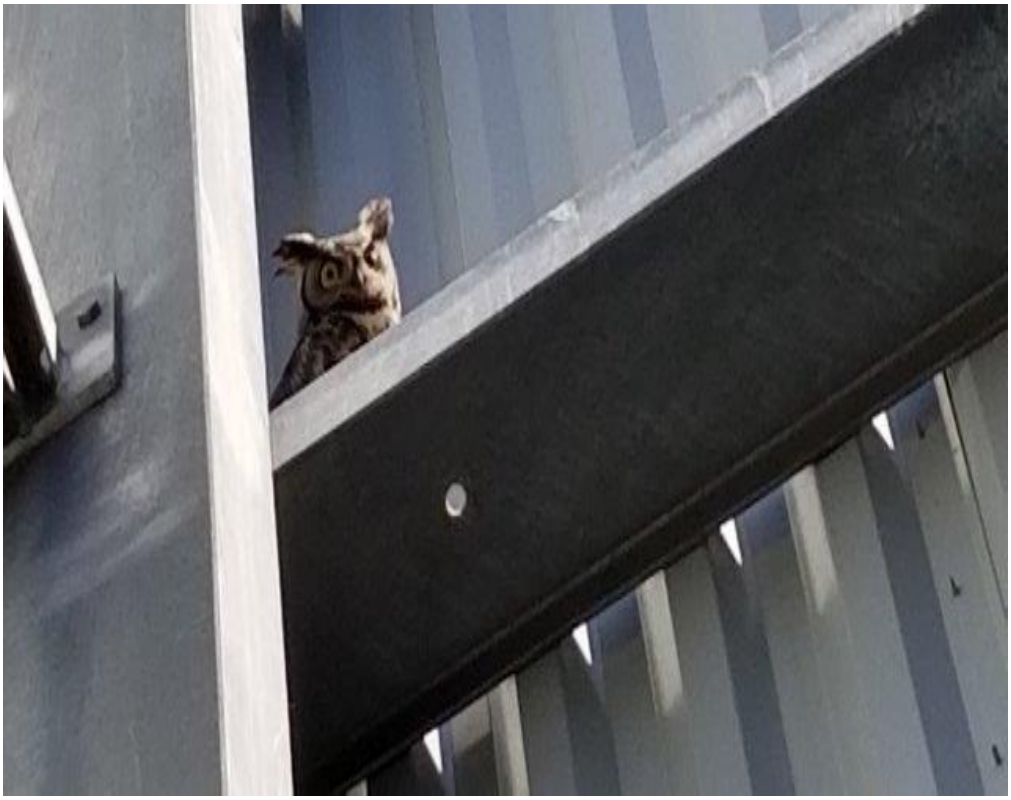


Photo 70, of great horned owl observed on the western side of the ACC, 5/27/21.

Photo 71, of juvenile American kestrel after safe capture on the ground by Unit 1, 5/27/21.

Photo 72, of rattlesnake #55 observed and captured from a culvert on the waterline road, 6/1/21.

Photo 73, of rattlesnake #56 observed dead along the outside western perimeter fence, 6/3/21.

Photo 74, of red bat carcass observed under the ACC during bat carcass surveys, 6/3/21.

Photo 75, of rattlesnake #57 observed dead along the outside of the western perimeter fence across from the ACC, 6/16/21.

Photo 76, of rattlesnake #58 observed and captured northeast of switchyard, 6/23/21.

Photo 77, of mourning dove nest observed in steam turbine housing cover, 6/28/21.

Photo 78, close-up of dove nest in steam turbine housing cover with 4 eggs, 6/28/21.

Photo 79, photo of mourning dove just after nest moved to scaffold nest box, 6/30/21.

Photo 80, of mourning dove on nest 2 hours after nest moved to scaffold, 6/30/21.

Photo 81, of mourning dove nest with protective barrier tape in place, 6/30/21.

Photo 82, of rattlesnakes #59 and #60 prior to safe release off site, 6/30/21.

Photo 83, of pigeon nest with 2 eggs observed in steam turbine piping prior to nest removal, 7/4/21.

Photo 84, of live Myotis sp. bat prior to safe release off site by DB, 8/5/21.

Photo 85, of large rattlesnake shed observed in a new culvert associated with the switchyard expansion, 8/10/21.

Photo 86, of rattlesnake #61 observed and captured from under a placed board along the northern perimeter fencing, 8/31/21.

Photo 87, of rattlesnake #62 observed and captured from snake u-turn at back gate, /8/31/21.

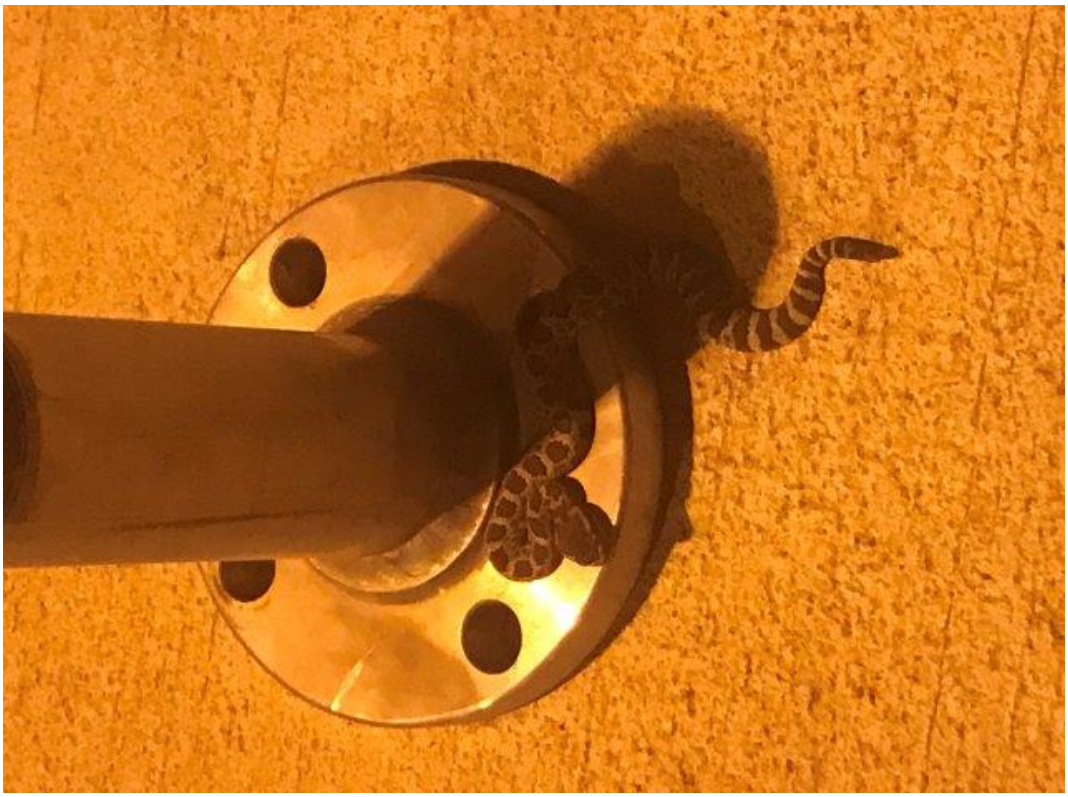


Photo 88, of rattlesnake #63 observed and captured inside of CGS facility near water treatment building, 8/31/21.

Photo 89, of rattlesnake #64 observed by DB coming through a small gap in the CGS back gate, 9/8/31.

Photo 90, of 10 Myotis sp. bat carcasses observed and collected from under the ACC and 1 Myotis sp. carcass observed on the ground in front of the maintenance building, 9/15/21.

Photo 91, of rattlesnakes #65 and #66 observed dead on south side of CGS warehouse outside of perimeter fencing, 9/21/21.

Photo 92, of rattlesnake #67 was observed inside the plant near the boiler feed pump for Unit 1, 9/30/21.

Photo 93, Rattlesnake #68 a juvenile was observed under a placed board just south of the CGS warehouse, 10/13/21.

Photo 94, of snake screening applied to 1 of 9 stormwater outfalls from switchyard, 11/3/21.

Photo 95, 121 Myotis sp. bat carcasses collected from inside of ACC, 1/12/22

Photo 96, of 4 Mexican freetail bat carcasses collected from inside of ACC, 1/12/22.

Photo 97, of 3 big brown bat carcasses collected from inside of ACC, 1/12/22.

Photo 98, of pallid bat carcass collected from inside of ACC, 1/12/22.

Photo 99, of 4 Myotis sp. bat carcasses collected from under the ACC, 1/12/22.

Appendix B

USFWS “MIGRATORY BIRD SPECIAL PURPOSE UTILITY PERMIT – ELECTRIC Permit # **MB057942-3**

MIGRATORY BIRD SPECIAL PURPOSE UTILITY PERMIT - ELECTRIC

Permit Number: MB057942-3

Effective: 05/30/2019 Expires: 03/31/2021

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Migratory Bird Permit Office
2800 Cottage Way - Room W-2606
Sacramento, CA 95825
Tel: 916-978-6183 Fax: 916-978-6183
Email: permitsR8MB@fws.gov

WILDLIFE BIOLOGIST, REGION 8

Permittee:

PACIFIC GAS & ELECTRIC CO.
ELECTRIC ASSSET LIFE CYCLE PLANNING
ATTN: MIKE BEST
9575 VICTOR ROAD
VICTOR, CA 95204
U.S.A.

Name and Title of Principal Officer:
MIKE BEST - AVIAN PROTECTION PLAN PROGRAM MANAGER

Authority: Statutes and Regulations: 16 USC 703-712; 50 CFR Part 13, 50 CFR 21.27.

Location where authorized activity may be conducted:

Collection Location: Company property, rights-of-way and easements in California; Records Location: 9575 Victor Road Victor, CA 95204

Reporting requirements:

Annual reports due by January 31 following each calendar year; see permit conditions for additions details. See this website for the reporting system and a quick start guide: https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/decision-support-tools/imr.php

Authorizations and Conditions:

A. General conditions set out in subpart D of 50 CFR 13, and specific conditions contained in federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal, of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of the is permit is also conditions upon strict observance of all applicable foreign, state, local, tribal, or other federal laws.

C. Valid for use by permittee named above.

D. You are authorized to possess and transport as specified below for human health and safety purposes or activities conducted during the course of duties for utility purposes:

(1) Bald and Golden Eagles (Eagles) and bird species federally listed Threatened or Endangered (T/E Species): You must call a U.S. Fish and Wildlife Service (Service), Office of Law Enforcement (OLE) special agent for instructions and approval PRIOR to collecting or moving the carcass(es) or parts, unless you are working under a specific alternative protocol established by you and OLE. It may be necessary to preserve the carcass

(es) or parts onsite until an agent or other Service or State representative arrives to collect. Your OLE point-of-contact Dan Crum, <dan_crum@fws.gov>, (916) 414-6660.

A list of Threatened and Endangered species by State may be found in the Service's Threatened and Endangered Species System (TESS) database at: <https://www.fws.gov/endangered/>.

(2) All dead eagles in CA and not of interest to Fish and Wildlife Service law enforcement should go to the California Department of Fish & Wildlife (CDFW) Wildlife Investigations Laboratory Carcasses sent to the CDFW Wildlife Investigations Lab should be dead less than 48 hours and have no signs of scavenging or insect infestation. Carcasses should be labeled with the date and location where they were found and collected into a plastic bag (use care not to break or bend feathers). Under most conditions, carcasses can be frozen until submission. You will receive more detailed instructions, as well as information regarding packaging and shipping, when you notify the CDFW Wildlife Investigations Lab about the recovered carcass you plan to send.

(3) Before sending any eagle to CDFW, notify Krysta Rogers:
Krysta Rogers
Senior Environmental Scientist
Avian Specialist
Wildlife Investigations Laboratory
California Department of Fish & Wildlife (CDFW)
1701 Nimbus Road, Suite D
Rancho Cordova, CA 95670
(916) 358-1662
Krysta.Rogers@wildlife.ca.gov

(4) All dead eagles in CA, not wanted by both U.S. Fish and Wildlife law enforcement and CDFW must be shipped to the National Eagle Repository, per instructions elsewhere in your permit conditions.

(5) For all Migratory Birds: You and subpermittees are authorized to collect, transport and temporarily possess carcasses and partial remains of migratory birds found at the location/property specified on page one of the permit for human health and safety purposes or activities conducted during the course of duties for utility purposes.

(6) You are authorized to dispose of carcasses and partial remains per Condition H. Storage of carcasses and partial remains for other purposes is **not** authorized.

All data required by Condition F must be collected (such as via field data sheet or phone call to office staff) PRIOR to transporting, burying, or disposing of carcasses or parts.

E. Migratory Bird Nest Take:
(1) Eagles or T/E Species: Nest take authorization does not apply. Additional federal permit(s) are required.

(2) Active Nests: In emergency situations you are authorized to take active migratory bird nests, including eggs or nestlings, found on the utility structures when (i) the safety of the migratory birds, nests or eggs is at risk, or (ii) the migratory birds, nests, or eggs pose a threat of serious bodily injury or a risk to human life, including a threat of fire hazard, mechanical failure or power outage. You may not use this authority for

situations in which migratory birds are merely causing a nuisance or inconvenience, such as in the way of performing routine maintenance.

a. *Active Nest Relocation*: Relocation of nests is preferred, if circumstances or conditions warrant. Nests must be relocated to a site and structure (natural or artificial) appropriate to the species' requirements. You must monitor relocated nests to determine if parents have returned or if the nest is abandoned. If parents have abandoned the nest, eggs/chicks may be transported to a federally permitted rehabilitator.

Special authorization for PG&E's rapid efforts to address wildfire safety issues, *Woodpecker nests*: You are authorized to disrupt nesting woodpeckers when an active nest is found within a cavity of a wooden transmission pole while pole replacement work is conducted (wooden poles are easily damaged when being replaced by metal poles). Damaged poles must be closely examined. If nesting woodpeckers (chicks) are found inside cavities, the entrance must be taped shut to prevent eggs/chicks from falling out prior to pole removal; pole is to be cut three feet above and below the nest, and the old pole is to be strapped on to the new replacement pole. You must remove the tape from the nest cavity once it is attached to a new pole, and old pole is to remain attached to allow nesting to continue. You are authorized to relocate up to 60 active migratory bird (woodpeckers) nest.

b. *Active Nest Destruction*: If it is unsafe for birds or humans, or if circumstances or conditions do not warrant relocation, you may destroy the nest. Nest contents may be destroyed or transported to a federally permitted rehabilitator.

c. *Reporting*: Nest relocation or destruction must be reported to your Migratory Bird Permit Office at Heather Beeler, <heather_beeler@fws.gov>, 916-414-6651, describing the emergency situation, circumstances, and action proposed/taken. When practicable, notification should be prior to taking action, but must be no later than 72 hours after relocation/destruction. See Condition J(3)(b) for annual report requirements.

(3) Special authorization for PG&E's rapid efforts to address wildfire safety issues, Migratory Bird Nest Take - vegetation management: Interim authorization is provided to include vegetation management and hazard tree removal within PG&E's property, rights-of-way and easements in California. All provisions described in this Section E are to be implemented.

(4) Inactive Nests: You are authorized to relocate inactive nests for avoidance and minimization purposes. Inactive nests are nests without eggs or chicks.

a. *Inactive Nest Relocation*: For avoidance and minimization purposes, inactive migratory bird nests may be relocated to a site and structure (natural or artificial) appropriate to the species' requirements.

b. *Inactive Nest Destruction*: Inactive migratory bird nests may be destroyed without a federal permit under the Migratory Bird Permit Memorandum for Nest Destruction (MBPM-2; April 15, 2003). For additional guidance see: <https://www.fws.gov/policy/m0208.pdf>.

Note: No notification is required for species that are covered under Depredation Order 21.43 which do not require permits (but reporting is required (50 CFR 21.43(i)) using the appropriate form) to take: crows, magpies, blackbirds (excluding Tri-colored and Brewer's Blackbirds which require permits), and cowbirds. Because Yellow-billed Magpie is a U.S. Fish and Wildlife Service migratory bird species of Bird of Conservation Concern, nest removals and relocations are to be avoided. If necessary for safety reasons, please report Yellow-billed Magpie nest removals, relocations, and fate of such nests in your annual report submissions. You may contact us for technical assistance regarding this species.

F. **Data Collection**.

(1) All relevant data associated with each carcass/part(s)/injured bird discovered or collected, must be recorded, including the information below prior to transporting, burying, or disposing of carcasses or parts.

REQUIRED:

(a) discovery date and, if different, collection date
(b) species common name, or if unknown, either the type of bird (e.g., gull, raptor), or "unknown"
(c) condition (i.e. injured, dead, carcass, parts, or bone pile)
(d) Either (i) the GPS coordinates in decimal degrees using a clearly identified datum (the reference coordinate system such as WGS 84) for the location where found OR (ii) nearest pole/structure ID number
(e) city or county AND state
(f) disposition (e.g. left in place, buried, incinerated, rehabilitator, OLE, other)
(g) disposition date (if different than discovery date)

REQUESTED if known:

(h) how carcass was located (e.g. line patrol, public call, standardized survey)
(i) sex and age (nestling, juvenile, adult)
(j) description of bird or carcass (If alive, indicate if sick or injured. If dead, indicate if intact; freshly killed (eyes moist); semi-fresh (stiff, eyes desiccated); partially decomposed feathers and/or bones; other)
(k) suspected cause of mortality/injury (e.g. collision with wire, collision with other structure, electrocution, other)
(l) any special notes or additional information (e.g., mortality events involving unusually high numbers of birds or species groups; weather conditions at likely time of death).

(2) Prior to transporting for OLE or to the National Eagle Repository, migratory bird or eagle carcasses and partial remains possessed must be bagged and labeled with your permit number, a unique specimen identification number, and the collector's name, unless you are working under a specific alternative protocol established by you and OLE. The data sheet with the information listed above must be attached to or included in the bag. This condition does NOT apply to carcasses and partial remains temporarily possessed for disposal purposes.

G. **Injured/orphaned birds.** In the event migratory birds, including **Eagles and T/E Species,** are injured or orphaned, you must immediately contact a federally permitted migratory bird rehabilitator or a licensed veterinarian for instructions. Permittees are asked to offset costs for rehabilitation and/or veterinary care of birds that have been injured or orphaned by utility operations or infrastructure (for example paying expenses, making donations, and/or providing in-kind assistance to the federally permitted rehabilitator of your choice).

H. **Disposition of Carcasses and Parts.**

(1) **Eagles and birds federally listed Threatened or Endangered Species,** in accordance with Condition D above, the OLE will advise you on disposition of carcasses and parts. If you are working under a specific alternative protocol established by you and OLE, you may ship directly to the U.S. Fish and Wildlife Service, National Eagle and Wildlife Property Repository (NER). Contact (303) 287-2110 for shipping instructions. Written authorization from OLE must accompany any shipment to the NER. Disposition must be reported in your annual report to your migratory bird permit issuing office.

(2) For all other migratory bird species, carcasses and parts may be may be left in place or disposed of by:
(a) Burning or burial;
(b) Turned over to state or federal wildlife agency for official purposes;

(c) Donated to an entity authorized to possess by federal permit or regulation. You may contact your MBPO for verification of a federal permit or regulation prior to donation;
(d) Dispose of birds in the trash in a bag.

I. Except as authorized by Condition E, **take and collection of live, non-injured migratory birds, eggs, or nests is not authorized by this permit.** In addition, this permit does not authorize the take, capture, harassment or disturbance of **Eagles and T/E Species**.

J. Reporting. You must report bird injuries and deaths in accordance with (1) - (5) below. We request that you voluntarily report bat injury and mortality information.

(1) Important Contacts:

Office of Law Enforcement (OLE):
General LE phone number in Sacramento, CA. (916) 569-8444;

OLE Point of Contact:
Dan Crum, <dan_crum@fws.gov>, (916) 414-6660;

Migratory Bird Program (MBP):
Heather Beeler <heather_beeler@fws.gov>, phone: 916-414-6651;

California Department of Fish and Wildlife (CDFW):
Armand Gonzales, <Armand.Gonzales@wildlife.ca.gov>, and
Magdalena Rodriguez, <Magdalena.Rodriguez@wildlife.ca.gov>.

Do not submit photos with reports unless requested to by one of the people listed above.

(2) (Optional) Establish an account for reporting in the Injury and Mortality Reporting (IMR) system.
Visit the following website. Scroll down until you find a line to the "IMR Quick Start Guide." This guide will give you instructions on setting up the account.

https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/decision-support-tools/imr.php

(3) Immediate reports.
(a) Eagles and T&E Species. You must report any eagles and federally listed Threatened or Endangered Species found dead or injured to your Office of Law (OLE) Enforcement Point of Contact (see above) and your Ecological Services Field Office (ES). Report the bird immediately if possible, but no later than 48 hours from discovery of the bird, or at the beginning of the next business day. Your report must include as much of the information from Condition F as possible.

A written injury/mortality report, including any information not available at the time of your initial report, must be submitted to your migratory bird permit issuing office to include the data in Condition E and/or as directed by your OLE special agent no later than 7 days from the date of discovery and collection of the carcass or bird.

A list of Threatened and Endangered species by State may be found in the Service's Threatened and Endangered Species System (TESS) database at: http://www.fws.gov/endangered.

(b) Significant mortality events. You must report events of Six (6) or More Migratory Birds found dead or injured in close proximity to a turbine or power pole or fence or other structure you must report the event to OLE and the MBP contacts listed above immediately if possible but no later than two business day. The report must include as much of the data as possible in Condition E above. Any additional information must be submitted no later than 30 days from the date of discovery and collection of the carcasses.

(4) *Eagles and T/E Species*:

a. OLE Reporting: You must report any **Eagles and T/E Species** found dead or injured **to OLE** Dan Crum, <dan_crum@fws.gov>, (916) 414-6660, **immediately** if possible, but no later than 48 hours from discovery of the bird, unless you are working under a specific alternative protocol established by you and OLE. Your report must include as much of the information from Condition F(1) as possible.

b. Permit Office Reporting: A written injury/mortality report, including information not available at the time of your initial report, must be submitted electronically to your Migratory Bird Permit Office to **Heather Beeler, <heather_beeler@fws.gov>** including the data in Condition F(1) and/or as directed by OLE no later than **7 days** from the date of discovery and collection of the carcass.

c. Eagle Incident Tracking Number and Tag

A unique incident identification number to include the year taken and location identifier (i.e. PG&E-2019-XX) must be assigned to each eagle take incident (mortality or injured eagle).

(i) The incident tracking number must be maintained in association with the data collected in Condition F.

(ii) A waterproof tag with the unique take incident tracking number must be attached to each eagle carcass submitted to the National Eagle Repository.

(5) Annual Report. You must submit a cumulative annual report of all activities authorized under this permit to your migratory bird permit issuing office by **January 31** following each calendar year in which the permit is in effect, including:

a. All dead and injured birds, including **Eagles and T/E Species**, discovered or collected, your report must include at a minimum the information required in Condition F.

b. Any active nests relocated or destroyed, including the date, location, species, and number of eggs/chicks. For relocated nests, report if the parents returned to or abandoned the nest. If the parents abandoned the nest or if the nest was destroyed, report the number of eggs/chicks and any disposition.

(6) *Submitting Reports (if (2) above is not used)*: This permit has an electronic annual report. The report (Excel workbook) form 3-202-17 is available at: *<https://www.fws.gov/forms/3-202-17.xlsm>*. Instructions are available on Tab 1 of the spreadsheet. Complete Tab 2, and if appropriate Tab 3, and email your report by January 31 to **Heather Beeler (<heather_beeler@fws.gov>, phone: 916-414-6651) AND <MigBirdReports@fws.gov>** with the subject line "[Permit Number];[Type of report]; [Permittee Name]". You may submit an Excel spreadsheet from your own database, provided all of the "required" information is included in exact format. We ask that annual reports also be sent to Armand Gonzales, <**Armand.Gonzales@wildlife.ca.gov <mailto:Armand.Gonzales@wildlife.ca.gov>**>, and Magdalena Rodriguez, <**Magdalena.Rodriguez@wildlife.ca.gov <mailto:Magdalena.Rodriguez@wildlife.ca.gov>**>.

K. **Renewal.** A renewal request must be submitted at least 30 days prior to expiration. Also include the information below in your renewal request. Please clearly label any information you consider confidential business information.

(1) *Avoidance and Minimization*: Include detailed information on any modifications made to your operations or infrastructure to avoid or minimize migratory bird mortalities.

(2) *Standardized Surveys*: Include detailed information on any standardized surveys you have conducted, such as a brief overview of survey location, methods, and results. We may request additional information.

L. **Subpermittees.** Any person who is employed by the permittee for the activities specified in this permit, or any person who the principal officer provides a written letter designating them as a subpermittee may exercise the authority of this permit. The letter should identify any restrictions on the date(s), location(s), and/or activities a subpermittee may conduct.

M. **Standard Conditions.** You and any subpermittees must comply with the attached Standard Conditions for Migratory Bird Special Purpose Utility Permits. **These standard conditions are a continuation of your permit conditions and must remain with your permit.**

For suspected illegal activity immediately contact the USFWS Law Enforcement at: Dan Crum, <dan_crum@fws.gov>, (916) 414-6660;

This permit does not, nor shall it be construed to, authorize lethal take (except as authorized by Condition E) or injury of migratory birds or limit or preclude the U.S. Fish and Wildlife Service from exercising its authority under any law, statute, or regulation, or from taking enforcement action against any individual, company, or agency. This permit is not intended to relieve any individual, company, or agency of its obligations to comply with any applicable Federal, State, Tribal, or local law, statute, or regulation. We strongly encourage you to develop/update and implement a proactive Avian Protection Plan (APP) per current U.S. Fish and Wildlife Service/Avian Power Line Interaction Committee (APLIC) guidelines found at: www.aplic.org.

This permit may be amended at any time in response to changes in national guidance or take reported.

Standard Conditions
Migratory Bird Special Purpose Utility Permits
50 CFR 21.27

All of the provisions and conditions of the governing regulations at 50 CFR part 13 and 50 CFR 21.27 are conditions of your permit. Failure to comply with the conditions of your permit could be cause for suspension of the permit. The standard conditions below are a continuation of your permit conditions and must remain with your permit. If you have any questions regarding these conditions, refer to the regulations or, if necessary, contact your migratory bird permit issuing office. For copies of the regulations and forms, or to obtain contact information for your issuing office, visit: *http://www.fws.gov/migratorybirds/mbpermits.html.*

1. **Personal use.** This permit does not authorize personal use of any migratory birds, parts, nests or eggs salvaged, transported, or temporarily possessed under the authority of this permit.

2. **Banded Birds** (carcasses collected and injured birds) must be reported to the U.S. Geological Survey Bird Banding Laboratory at 1-800-327-2263 or *http://www.reportband.gov*. Information provided must include, as accurately as possible, species of bird, band number, date recovered, recovery location, and name and contact information of the person who recovered the carcass or bird.

3. **Subpermittees.** A subpermittee is an individual to whom you have provided written authorization to conduct some or all of the permitted activities in your absence. Subpermittees must be at least 18 years of age. As the permittee, you are legally responsible for ensuring that anyone conducting activities under your permit is adequately trained and adheres to the terms of your permit. You are responsible for maintaining current records of who you have designated as a subpermittee, including copies of designation letters you have provided.

4. **Carrying your permit.** You and any subpermittees must carry a legible copy of this permit and display it upon request of any duly authorized federal, state or tribal officer whenever exercising its authority. Subpermittees must also carry your written subpermittee designation letter.

5. **Records.** You must maintain complete and accurate records of the activities conducted and the data collected under this permit. You must keep all required records and collected wildlife parts relating to permitted activities at the location you identified in writing to the migratory bird permit issuing office. (50 CFR 13.46 and 21.27)

6. **Site inspections.** Acceptance of this permit authorizes the Director's agent to enter the utility property at any reasonable hour as necessary to inspect the wildlife, records, facilities, property, and associated infrastructure for wildlife impacted by the utility, and for compliance with the terms of this permit and governing regulations. (50 CFR 13.47)

7. **Applicable laws.** You may not conduct the activities authorized by this permit if doing so would violate the laws of the applicable State, county, municipal or tribal government or any other applicable law.

8. **Other permissions.** This permit does not authorize salvage of specimens on Federal, State, tribal, or other public or private property without additional prior written permits or permission from the agency/landowner/custodian.

Pacific Gas and Electric Company®

Appendix 2, HAZ-1

Hazardous Materials Appendix C

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 System (E1)	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 System (E2)	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)	Aboveground 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)	Aboveground 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	Days 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)	Aboveground 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

Hazardous Materials Appendix C
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

Pacific Gas and Electric Company®

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 2021. There have been no noise complaints to date from anyone.

Pacific Gas and Electric Company®

Appendix 4, SOIL & WATER-2

2020-2021

ANNUAL REPORT

FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2020 through June 30, 2021

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? 06/09/2021

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.

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: Tim Wisdom

Title: Senior Plant Manager Date: 07/14/2021

2020-2021

Annual Report for WDID 5S06I022929

Summary of Explanations

Explanation Question	Explanation Text
Question 3	During the 2020-2021 reporting year, only one rain event produced a discharge from the site; therefore, only QSE could be sampled during the reporting period.

Summary of Attachments

Attachment Type	Attachment Title	Description	Date Uploaded	Part Number	Attachment Hash
Supporting Documentation	ELG_Discussion_IGP_Annual_Report_2020-2021	Memo regarding applicability of Steam Electric Power Generating facilities ELGs	07/13/2021	null/null	a7b87311bd42766e15a96b7490f635590be94e5334323f74bda2ccc7adf2b

2020-2021

Annual Report for WDID 5S06I022929

List of Identified Pollutants within the Impaired Watershed

Parameter	Pollutant	Present at Facility?

*** Does your facility storm water flow to one or more TMDL water bodies or watersheds listed in Attachment E? Not Selected**

EXCEEDANCE RESPONSE ACTION LEVEL 2 TECHNICAL REPORT UPDATE

December 2021

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

CONTENTS

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, Duly Authorized Representative

Date

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 at the close of the 2020-2021 reporting year at the Facility.

This Report includes an Industrial Activity BMP Demonstration addressing implementation of certain BMPs discussed in the preceding 2018 ERA Level 2 Technical Report and 2020 Level 2 Technical Report Update . This Report has been prepared in accordance with the 2015 California General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial 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

As the soils on and around the site are believed to be a significant contributor to iron concentrations detected in discharges from the facility, BMP enhancements were implemented in late 2020 to further reduce sediment load in the basin discharge. These enhancements included replacement of several drain inlet filters, installation of a gravel bag check dam in the northern perimeter swale (non-industrial area which contributes sediment to the basin), and installation of additional riprap as energy dissipation at both basin inlet points to entrap sediment from runoff entering the basin and reduce mobilization of sediment that has previously settled out in the basin. Additionally, the Filtrexx Siltsoxx wattles with Metaloxx, which comprise the check dam and ionically adsorb iron as stormwater passes through the BMP, were refreshed in 2021.

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 2020-2021: Level 2

The average annual NAL for iron was exceeded during the 2015-2016, 2016-2017, 2018-2019, and 2020-2021 reporting years. Following implementation of BMPs described in ERA compliance deliverables, iron results have been reduced below the NAL in some samples, but the Facility is not yet eligible to return to Baseline status.

No other constituents have exceeded annual or instantaneous NALs 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 (both inside and outside the industrial area) has also been identified as a likely non-industrial source that increases iron concentrations detected in Qualifying Storm Event (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 Industrial General Permit, which have consistently been 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 Industrial General 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 2017 Level 2 Action Plan suggested Filtrexx Siltsoxx with Metalloxx wattles be installed at the detention basin discharge, which did control and maintain iron levels below the NAL, until the 2018-2019 reporting year. The wattles are refreshed annually, at a minimum.

In early 2019, per a recommendation in the 2018 Level 2 Technical Report, geotextile filter fabric was also installed on the basin floor immediately following the filter media socks, to minimize entrainment of sediment or erosion of basin floor soils, and additional filter media socks were placed in the discharge pipe immediately upstream of the discharge sampling location.

Internal investigative sampling was also 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.

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

In late 2020, per a recommendation in the 2020 Level 2 Technical Report Update, gravel bags were implemented at the northwest corner of the site during late 2020 to minimize the sediment load from the adjacent north perimeter swale (which is located outside the industrial area). Also, additional riprap was installed as energy dissipation at both basin inlet points to facilitate sediment dropout and to reduce mobilization of basin sediments.

In 2021, several drain inlet filters were replaced.

3.2 ERA Level 2 BMP Implementation

3.2.1 Outfall CGS-01 BMP Installation

BMP improvements proposed in the 2020 Level 2 Technical Report Update, as well as additional BMP improvements, were implemented as described in Section 3.1, above.

3.2.2 Outfall CGS-01 BMP Evaluation

Following installation of additional BMPs in 2019, iron was reduced to below the NAL in site discharges from the two QSEs that occurred during the first half of the 2019-2020 reporting year. Due to low rainfall, no QSEs occurred during 2020 (including the second half of the 2019-2020 reporting year and the first half of the 2020-2021 reporting year Only one QSE occurred during the second half of the 2020-2021 reporting year (which, exceeded the Annual NAL concentration and therefore constitute an NAL exceedance since it was the only QSE during the 2020-2021 reporting year.

The iron results for recent reporting years 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	0.59
2020-2021	1/28/2021	1.66

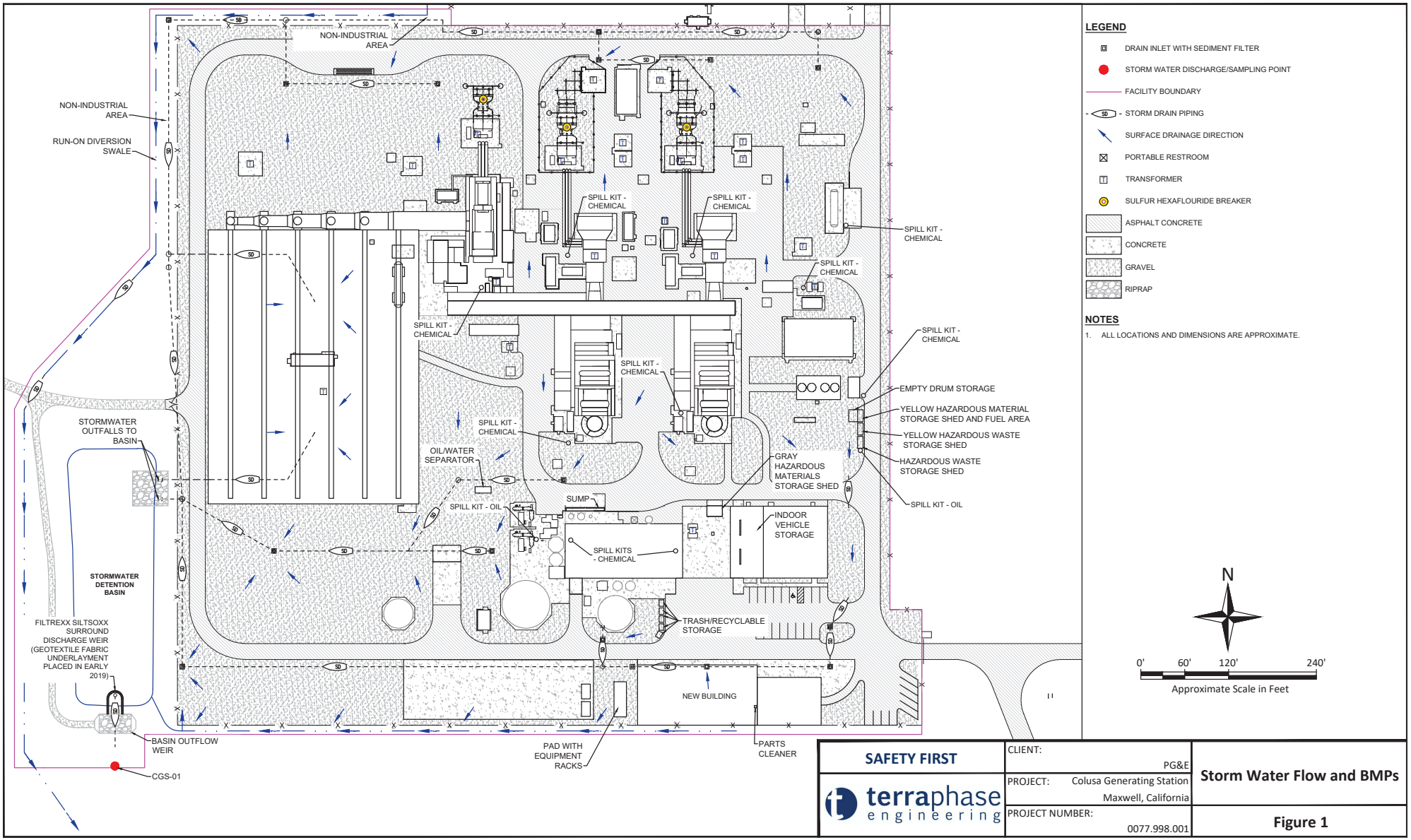
Additional BMPs being considered for implementation in the 2021-2022 reporting year include the following:

- Engaging a contractor to conduct vacuum sweeping of accessible impervious areas.
- Install an additional ring of Filtrexx Siltsoxx with Metalloxx wattles to improve sediment control and increase iron adsorption.
- Install additional gravel bag check dams in the north 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.
- Modify the basin side slopes to discourage animals from burrowing and/or to minimize erosion.
- Improve the method of installation of Filtrexx wattles to provide additional filtration/adsorption at the pipe exit and better prevent dislodging of the BMP.
- 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.

- Hydro-jet clean the internal site storm drain piping.
- Paint oxidized surfaces (dumpsters, large piping/connections near Power Distribution Center, etc.).
- Install a silt curtain or baffles in the basin.

These options are being evaluated and the chosen BMP enhancement(s) will be implemented during the 2021-2022 reporting year.

FIGURE



SAFETY FIRST	CLIENT: PG&E	Storm Water Flow and BMPs
terraphase engineering	PROJECT: Colusa Generating Station, Maxwell, California	
	PROJECT NUMBER: 0077.998.001	Figure 1

March 4, 2021

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

Lab ID : CH 2170787
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	01/28/2021	01/29/2021	CH 2170787-001	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 at 5.0 °C. 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	02/02/2021:201566 All analysis quality controls are within established criteria.
	02/02/2021:201107 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573).

Inorganic - Wet Chemistry QC

1664A	02/11/2021:201513 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573), except: The following note applies to Oil and Grease: 410 Relative Percent Difference (RPD) not within Maximum Allowable Value (MAV). Data was accepted based on the LCS or CCV recovery.
2540G	02/03/2021:201184 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573).

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CA ELAP Certification No. 2810

March 4, 2021 Lab ID : CH 2170787
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Discussion of Analytical Results: -

Amended Report - 03/04/2021 - Amended, per client request, to change the date sampled to 01/28/2021.

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: 2021-03-04

March 4, 2021

Lab ID : CH 2170787-001
Customer ID : 7-10931

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

Sampled On : January 28, 2021-10:06
Sampled By : BR
Received On : January 29, 2021-14:40
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : CPGS - Sorm Event #1 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	1.66	0.05	0.0079	mg/L	1		200.7	201107	02/02/21 06:15	200.7	201566-IT204	02/02/21-15:10AC
Wet Chemistry												
Oil and Grease	ND	3	1.9	mg/L	1.087	U	1664A	201513	02/11/21 10:34	1664A	202096-WT215	02/11/21-16:22AMM
Solids, Total Suspended (TSS)	30.2	3.3	0.49	mg/L	3.3333		2540G	201184	02/03/21 14:41	2540D	201726-WT215	02/05/21-12:03jba

DQF Flags Definition:
U Constituent results were non-detect.

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

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March 4, 2021

Lab ID : CH 2170787-001
Customer ID : 7-10931

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

Sampled On : January 28, 2021-10:06
Sampled By : BR
Received On : January 29, 2021-14:40
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : CPGS - Sorm Event #1 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)	7.64			units	1				01/28/21 10:06	4500HB		01/28/21 10:06

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

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March 4, 2021 Lab ID : CH 2170787
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	02/02/21:201107AC	Blank	mg/L		0.0034	<0.03	
			LCS	mg/L	4.000	104 %	85-115	
			MS	mg/L	4.000	107 %	75-125	
			MS	mg/L	4.000	101 %	75-125	
		(STK2131332-001)	MSD	mg/L	4.000	110 %	75-125	
			MSRPD	mg/L	4.000	2.1%	≤20	
		(VI 2140692-001)	MSD	mg/L	4.000	104 %	75-125	
			MSRPD	mg/L	4.000	3.0%	≤20	
	200.7	02/02/21:201566AC	CCV	ppm	5.000	94.0 %	90-110	
			CCB	ppm		0.0055	0.03	
			CCV	ppm	5.000	92.9 %	90-110	
			CCB	ppm		0.0070	0.03	
Wet Chem								
Oil and Grease	1664A	02/11/21:201513AMM	Blank	mg/L		0.70	<3	
			LCS	mg/L	44.89	95.8 %	78-114	
			BS	mg/L	44.89	77.5 %	78-114	
			BSD	mg/L	44.89	95.8 %	78-114	
			BSRPD	mg/L	44.89	20.8%	≤18	410
Solids, Suspended	2540G	02/03/21:201184JBA	Blank	mg/L		0.00	<1	
			LCS	mg/L	50.01	106 %	61-112	
			LCS	mg/L	50.01	106 %	61-112	
		(SP 2101204-003)	Dup	mg/L		15.4%	20	
		(SP 2101210-002)	Dup	mg/L		6.5%	20	

Definition

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

410	: Relative Percent Difference (RPD) not within Maximum Allowable Value (MAV). Data was accepted based on the LCS or CCV recovery.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
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Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
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Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Annual

CHAIN OF CUSTODY
www.fglinc.com

Laboratory Copy (1 of 3)

4907:11/01/2019 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
Project Name: **CPGS - Storm Event #** 1
Purchase Order Number:
Quote Number:

Sampler(s) BE

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

Lab Number: CH 2170787 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)	Pickup Fee $70.00			
1	Stormwater Discharge Point	1/28/21	1006	G	STM				7.64	1/28	1000	1	1	1	1			

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Randy	1/29/21	1155		1/29/21	1440		1/29/21	1700
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
PKK						GLS		

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Fax: (530) 343-3807

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Fax: (805) 783-2912

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Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

2170787

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC (CH) VI

1. Number of ice chests/packages received: 1 Shipping tracking # _____

2. Were samples received in a chilled condition? Temps: 5.0 / ____ / ____ / ____ / ____
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): PLX

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 2 / ____ / ____ / ____ / ____
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:
5570823 10

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): CLL

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:_____ Phone Number:_____
Initiated By:_____
Problem:
Resolution:

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

(7010931)
Pacific Gas & Electric - Colusa Generating
CH 2170787
ctc 01/29/2021 17:12:08

ere

Pacific Gas and Electric Company®

Appendix 5, SOIL & WATER-7

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 2021 year.

Pacific Gas and Electric Company®

Appendix 6, SOIL & WATER-8

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

CEC-1304 SCHEDULE 1 Part A: Power Plant Identification

CEC-1304 (Revised 07/2014)

Reporting Period	Year:	2021
	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	

STATE OF CALIFORNIA
CEC-1304 SCHEDULE 3 Part A (page 1):
Water Supply and Use, and Wastewater Discharge Report
CEC-1304 (Revised 07/2014)

CALIFORNIA ENERGY COMMISSION

Year	2021
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)	*Check the boxes below if the categorized water use is not metered and cannot reasonably be estimated or is not applicable.*						
	Sanitation	Landscaping	Solar Mirror Washing	Dust Suppression	Other Water Use	Daily Maximum	
January		0			810,744		
February		0			136,024		
March		0			42,736		
April		0			511,904		
May		2450			1,810,256		
June		4595			1,615,172		
July		8250			3,765,312		
August		14280			5,018,616		
September		6850			4,547,960		
October		0			1,442,032		
November		0			447,744		
December		0			274,992		

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	2021
CEC Plant ID	06-AFC-9
EIA Plant ID	
Generator (Unit) ID	

Section 4. Generator Water Use

4a	Cooling Technology	Wet Surface 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	2021
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	2021
	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: 2021

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 2, 2022
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 6, SOIL & WATER-8

All water used during 2021 was supplied by the Tehama Colusa Canal Authority. The total amount of water used during 2021 was 20,632,624 gallons.

Date	Totalized Value	Gallons/Day	Gallons Cumulative Total
01-Jan-21 00:00:00	83301640	0	0
02-Jan-21 00:00:00	83302896	1256	1256
03-Jan-21 00:00:00	83302896	0	1256
04-Jan-21 00:00:00	83303792	896	2152
05-Jan-21 00:00:00	83328048	24256	26408
06-Jan-21 00:00:00	83335216	7168	33576
07-Jan-21 00:00:00	83342392	7176	40752
08-Jan-21 00:00:00	83377912	35520	76272
09-Jan-21 00:00:00	83406776	28864	105136
10-Jan-21 00:00:00	83406776	0	105136
11-Jan-21 00:00:00	83428744	21968	127104
12-Jan-21 00:00:00	83509976	81232	208336
13-Jan-21 00:00:00	83529352	19376	227712
14-Jan-21 00:00:00	83582440	53088	280800
15-Jan-21 00:00:00	83656776	74336	355136
16-Jan-21 00:00:00	83663920	7144	362280
17-Jan-21 00:00:00	83674664	10744	373024
18-Jan-21 00:00:00	83719224	44560	417584
19-Jan-21 00:00:00	83725320	6096	423680
20-Jan-21 00:00:00	83758256	32936	456616
21-Jan-21 00:00:00	83822688	64432	521048
22-Jan-21 00:00:00	83845760	23072	544120
23-Jan-21 00:00:00	83952088	106328	650448
24-Jan-21 00:00:00	83952504	416	650864
25-Jan-21 00:00:00	83953280	776	651640
26-Jan-21 00:00:00	84025328	72048	723688
27-Jan-21 00:00:00	84079632	54304	777992
28-Jan-21 00:00:00	84087352	7720	785712
29-Jan-21 00:00:00	84097008	9656	795368
30-Jan-21 00:00:00	84104760	7752	803120
31-Jan-21 00:00:00	84112384	7624	810744
01-Feb-21 00:00:00	84130368	17984	828728
02-Feb-21 00:00:00	84142112	11744	840472
03-Feb-21 00:00:00	84149344	7232	847704
04-Feb-21 00:00:00	84155944	6600	854304
05-Feb-21 00:00:00	84162376	6432	860736
06-Feb-21 00:00:00	84169064	6688	867424
07-Feb-21 00:00:00	84176072	7008	874432
08-Feb-21 00:00:00	84182384	6312	880744
09-Feb-21 00:00:00	84188712	6328	887072
10-Feb-21 00:00:00	84190536	1824	888896
11-Feb-21 00:00:00	84193608	3072	891968
12-Feb-21 00:00:00	84198912	5304	897272

13-Feb-21 00:00:00	84204240	5328	902600
14-Feb-21 00:00:00	84208456	4216	906816
15-Feb-21 00:00:00	84212904	4448	911264
16-Feb-21 00:00:00	84218200	5296	916560
17-Feb-21 00:00:00	84222360	4160	920720
18-Feb-21 00:00:00	84226064	3704	924424
19-Feb-21 00:00:00	84231272	5208	929632
20-Feb-21 00:00:00	84235920	4648	934280
21-Feb-21 00:00:00	84239096	3176	937456
22-Feb-21 00:00:00	84242224	3128	940584
23-Feb-21 00:00:00	84243912	1688	942272
24-Feb-21 00:00:00	84244496	584	942856
25-Feb-21 00:00:00	84246672	2176	945032
26-Feb-21 00:00:00	84247008	336	945368
27-Feb-21 00:00:00	84248408	1400	946768
28-Feb-21 00:00:00	84248408	0	946768
01-Mar-21 00:00:00	84249464	1056	947824
02-Mar-21 00:00:00	84249464	0	947824
03-Mar-21 00:00:00	84249464	0	947824
04-Mar-21 00:00:00	84249464	0	947824
05-Mar-21 00:00:00	84251200	1736	949560
06-Mar-21 00:00:00	84253000	1800	951360
07-Mar-21 00:00:00	84253000	0	951360
08-Mar-21 00:00:00	84256032	3032	954392
09-Mar-21 00:00:00	84256520	488	954880
10-Mar-21 00:00:00	84259584	3064	957944
11-Mar-21 00:00:00	84267136	7552	965496
12-Mar-21 00:00:00	84270648	3512	969008
13-Mar-21 00:00:00	84273056	2408	971416
14-Mar-21 00:00:00	84274608	1552	972968
15-Mar-21 01:00:00	84274608	0	972968
16-Mar-21 01:00:00	84276048	1440	974408
17-Mar-21 01:00:00	84277352	1304	975712
18-Mar-21 01:00:00	84277352	0	975712
19-Mar-21 01:00:00	84279272	1920	977632
20-Mar-21 01:00:00	84279272	0	977632
21-Mar-21 01:00:00	84281544	2272	979904
22-Mar-21 01:00:00	84281544	0	979904
23-Mar-21 01:00:00	84282656	1112	981016
24-Mar-21 01:00:00	84283216	560	981576
25-Mar-21 01:00:00	84283216	0	981576
26-Mar-21 01:00:00	84285976	2760	984336
27-Mar-21 01:00:00	84285976	0	984336
28-Mar-21 01:00:00	84287456	1480	985816
29-Mar-21 01:00:00	84287528	72	985888
30-Mar-21 01:00:00	84288184	656	986544
31-Mar-21 01:00:00	84291144	2960	989504

01-Apr-21 00:00:00	84291144	0	989504
02-Apr-21 00:00:00	84292872	1728	991232
03-Apr-21 00:00:00	84292872	0	991232
04-Apr-21 00:00:00	84294128	1256	992488
05-Apr-21 00:00:00	84295696	1568	994056
06-Apr-21 00:00:00	84295696	0	994056
07-Apr-21 00:00:00	84297408	1712	995768
08-Apr-21 00:00:00	84297408	0	995768
09-Apr-21 00:00:00	84298456	1048	996816
10-Apr-21 00:00:00	84300464	2008	998824
11-Apr-21 00:00:00	84300464	0	998824
12-Apr-21 00:00:00	84301816	1352	1000176
13-Apr-21 00:00:00	84301816	0	1000176
14-Apr-21 00:00:00	84303096	1280	1001456
15-Apr-21 00:00:00	84304352	1256	1002712
16-Apr-21 00:00:00	84306088	1736	1004448
17-Apr-21 00:00:00	84310712	4624	1009072
18-Apr-21 00:00:00	84311632	920	1009992
19-Apr-21 00:00:00	84311632	0	1009992
20-Apr-21 00:00:00	84313960	2328	1012320
21-Apr-21 00:00:00	84393528	79568	1091888
22-Apr-21 00:00:00	84436528	43000	1134888
23-Apr-21 00:00:00	84584952	148424	1283312
24-Apr-21 00:00:00	84666504	81552	1364864
25-Apr-21 00:00:00	84668352	1848	1366712
26-Apr-21 00:00:00	84669728	1376	1368088
27-Apr-21 00:00:00	84670912	1184	1369272
28-Apr-21 00:00:00	84711896	40984	1410256
29-Apr-21 00:00:00	84799448	87552	1497808
30-Apr-21 00:00:00	84803048	3600	1501408
01-May-21 00:00:00	84930832	127784	1629192
01-May-21 00:00:00	84930832	0	1629192
02-May-21 00:00:00	85036096	105264	1734456
03-May-21 00:00:00	85080728	44632	1779088
04-May-21 00:00:00	85081360	632	1779720
05-May-21 00:00:00	85193976	112616	1892336
06-May-21 00:00:00	85303880	109904	2002240
07-May-21 00:00:00	85378456	74576	2076816
08-May-21 00:00:00	85378456	0	2076816
09-May-21 00:00:00	85399568	21112	2097928
10-May-21 00:00:00	85400560	992	2098920
11-May-21 00:00:00	85410848	10288	2109208
12-May-21 00:00:00	85494384	83536	2192744
13-May-21 00:00:00	85622704	128320	2321064
14-May-21 00:00:00	85724936	102232	2423296
15-May-21 00:00:00	85797424	72488	2495784
16-May-21 00:00:00	85891672	94248	2590032

17-May-21 00:00:00	85939384	47712	2637744
18-May-21 00:00:00	85939720	336	2638080
19-May-21 00:00:00	86079368	139648	2777728
20-May-21 00:00:00	86132904	53536	2831264
21-May-21 00:00:00	86195256	62352	2893616
22-May-21 00:00:00	86196800	1544	2895160
23-May-21 00:00:00	86197328	528	2895688
24-May-21 00:00:00	86263552	66224	2961912
25-May-21 00:00:00	86289384	25832	2987744
26-May-21 00:00:00	86366952	77568	3065312
27-May-21 00:00:00	86446024	79072	3144384
28-May-21 00:00:00	86539448	93424	3237808
29-May-21 00:00:00	86575440	35992	3273800
30-May-21 00:00:00	86590704	15264	3289064
31-May-21 00:00:00	86613304	22600	3311664
01-Jun-21 00:00:00	86686104	72800	3384464
02-Jun-21 00:00:00	86778824	92720	3477184
03-Jun-21 00:00:00	86903024	124200	3601384
04-Jun-21 00:00:00	86918696	15672	3617056
05-Jun-21 00:00:00	86982872	64176	3681232
06-Jun-21 00:00:00	87016880	34008	3715240
07-Jun-21 00:00:00	87018960	2080	3717320
08-Jun-21 00:00:00	87022488	3528	3720848
09-Jun-21 00:00:00	87033264	10776	3731624
10-Jun-21 00:00:00	87045848	12584	3744208
11-Jun-21 00:00:00	87068584	22736	3766944
12-Jun-21 00:00:00	87104944	36360	3803304
13-Jun-21 00:00:00	87106592	1648	3804952
14-Jun-21 00:00:00	87139136	32544	3837496
15-Jun-21 00:00:00	87224536	85400	3922896
16-Jun-21 00:00:00	87295760	71224	3994120
17-Jun-21 00:00:00	87410528	114768	4108888
18-Jun-21 00:00:00	87632400	221872	4330760
19-Jun-21 00:00:00	87765440	133040	4463800
20-Jun-21 00:00:00	87791136	25696	4489496
21-Jun-21 00:00:00	87832384	41248	4530744
22-Jun-21 00:00:00	87929008	96624	4627368
23-Jun-21 00:00:00	87955072	26064	4653432
24-Jun-21 00:00:00	87986624	31552	4684984
25-Jun-21 00:00:00	87995952	9328	4694312
26-Jun-21 00:00:00	87996896	944	4695256
27-Jun-21 00:00:00	88041288	44392	4739648
28-Jun-21 00:00:00	88146528	105240	4844888
29-Jun-21 00:00:00	88189224	42696	4887584
30-Jun-21 00:00:00	88229056	39832	4927416
01-Jul-21 00:00:00	88314496	85440	5012856
01-Jul-21 00:00:00	88314496	0	5012856

02-Jul-21 00:00:00		88343568	29072	5041928
03-Jul-21 00:00:00		88343568	0	5041928
04-Jul-21 00:00:00		88346760	3192	5045120
05-Jul-21 00:00:00		88348472	1712	5046832
06-Jul-21 00:00:00		88464664	116192	5163024
07-Jul-21 00:00:00		88464664	0	5163024
08-Jul-21 00:00:00		88484376	19712	5182736
09-Jul-21 00:00:00		88501776	17400	5200136
10-Jul-21 00:00:00		88525240	23464	5223600
11-Jul-21 00:00:00		88559568	34328	5257928
12-Jul-21 00:00:00		88737216	177648	5435576
13-Jul-21 00:00:00		88920904	183688	5619264
14-Jul-21 00:00:00		89101888	180984	5800248
15-Jul-21 00:00:00		89272552	170664	5970912
16-Jul-21 00:00:00		89355080	82528	6053440
17-Jul-21 00:00:00		89517352	162272	6215712
18-Jul-21 00:00:00		89760448	243096	6458808
19-Jul-21 00:00:00		89957592	197144	6655952
20-Jul-21 00:00:00		90097120	139528	6795480
21-Jul-21 00:00:00		90237296	140176	6935656
22-Jul-21 00:00:00		90409344	172048	7107704
23-Jul-21 00:00:00		90543392	134048	7241752
24-Jul-21 00:00:00		90776272	232880	7474632
25-Jul-21 00:00:00		90947176	170904	7645536
26-Jul-21 00:00:00		91136128	188952	7834488
27-Jul-21 00:00:00	Bad Input		#VALUE!	#VALUE!
28-Jul-21 00:00:00	Bad Input		#VALUE!	#VALUE!
29-Jul-21 00:00:00	Bad Input		#VALUE!	#VALUE!
30-Jul-21 00:00:00	Bad Input		#VALUE!	#VALUE!
31-Jul-21 00:00:00	Bad Input		#VALUE!	#VALUE!
01-Aug-21 00:00:00	Bad Input		#VALUE!	#VALUE!
02-Aug-21 00:00:00	Bad Input		#VALUE!	
03-Aug-21 00:00:00		92548416	#VALUE!	9485208
04-Aug-21 00:00:00		92735896	187480	9672688
05-Aug-21 00:00:00		93016928	281032	9953720
06-Aug-21 00:00:00		93107728	90800	10044520
07-Aug-21 00:00:00		93239376	131648	10176168
08-Aug-21 00:00:00		93363048	123672	10299840
09-Aug-21 00:00:00		93493992	130944	10430784
10-Aug-21 00:00:00		93657168	163176	10593960
11-Aug-21 00:00:00		93832632	175464	10769424
12-Aug-21 00:00:00		94043512	210880	10980304
13-Aug-21 00:00:00		94231952	188440	11168744
14-Aug-21 00:00:00		94398664	166712	11335456
15-Aug-21 00:00:00		94571632	172968	11508424
16-Aug-21 00:00:00		94724776	153144	11661568
17-Aug-21 00:00:00		94887480	162704	11824272

18-Aug-21 00:00:00	95013288	125808	11950080
19-Aug-21 00:00:00	95181832	168544	12118624
20-Aug-21 00:00:00	95417744	235912	12354536
21-Aug-21 00:00:00	95544352	126608	12481144
22-Aug-21 00:00:00	95605232	60880	12542024
23-Aug-21 00:00:00	95648504	43272	12585296
24-Aug-21 00:00:00	95691216	42712	12628008
25-Aug-21 00:00:00	95832224	141008	12769016
26-Aug-21 00:00:00	95982032	149808	12918824
27-Aug-21 00:00:00	96111040	129008	13047832
28-Aug-21 00:00:00	96333792	222752	13270584
29-Aug-21 00:00:00	96541168	207376	13477960
30-Aug-21 00:00:00	96774736	233568	13711528
31-Aug-21 00:00:00	96971672	196936	13908464
01-Sep-21 00:00:00	97122072	150400	14058864
02-Sep-21 00:00:00	97265320	143248	14202112
03-Sep-21 00:00:00	97361408	96088	14298200
04-Sep-21 00:00:00	97502432	141024	14439224
05-Sep-21 00:00:00	97635568	133136	14572360
06-Sep-21 00:00:00	97855592	220024	14792384
07-Sep-21 00:00:00	98026600	171008	14963392
08-Sep-21 00:00:00	98214168	187568	15150960
09-Sep-21 00:00:00	98388096	173928	15324888
10-Sep-21 00:00:00	98606848	218752	15543640
11-Sep-21 00:00:00	98918632	311784	15855424
12-Sep-21 00:00:00	99035520	116888	15972312
13-Sep-21 00:00:00	99212200	176680	16148992
14-Sep-21 00:00:00	99416520	204320	16353312
15-Sep-21 00:00:00	99684176	267656	16620968
16-Sep-21 00:00:00	99765424	81248	16702216
17-Sep-21 00:00:00	99897408	131984	16834200
18-Sep-21 00:00:00	99977800	80392	16914592
19-Sep-21 00:00:00	100036984	59184	16973776
20-Sep-21 00:00:00	100081816	44832	17018608
21-Sep-21 00:00:00	100239184	157368	17175976
22-Sep-21 00:00:00	100443384	204200	17380176
23-Sep-21 00:00:00	100657672	214288	17594464
24-Sep-21 00:00:00	100843096	185424	17779888
25-Sep-21 00:00:00	101017768	174672	17954560
26-Sep-21 00:00:00	101161232	143464	18098024
27-Sep-21 00:00:00	101241600	80368	18178392
28-Sep-21 00:00:00	101266624	25024	18203416
29-Sep-21 00:00:00	101380704	114080	18317496
30-Sep-21 00:00:00	101519632	138928	18456424
01-Oct-21 00:00:00	101627208	107576	18564000
02-Oct-21 00:00:00	101756000	128792	18692792
03-Oct-21 00:00:00	101859024	103024	18795816

04-Oct-21 00:00:00	102020872	161848	18957664
05-Oct-21 00:00:00	102190680	169808	19127472
06-Oct-21 00:00:00	102291928	101248	19228720
07-Oct-21 00:00:00	102420744	128816	19357536
08-Oct-21 00:00:00	102540000	119256	19476792
09-Oct-21 00:00:00	102634072	94072	19570864
10-Oct-21 00:00:00	102673008	38936	19609800
11-Oct-21 00:00:00	102673576	568	19610368
12-Oct-21 00:00:00	102675552	1976	19612344
13-Oct-21 00:00:00	102677752	2200	19614544
14-Oct-21 00:00:00	102677752	0	19614544
15-Oct-21 00:00:00	102677752	0	19614544
16-Oct-21 00:00:00	102680288	2536	19617080
17-Oct-21 00:00:00	102680288	0	19617080
18-Oct-21 00:00:00	102706040	25752	19642832
19-Oct-21 00:00:00	102706984	944	19643776
20-Oct-21 00:00:00	102706984	0	19643776
21-Oct-21 00:00:00	102714984	8000	19651776
22-Oct-21 00:00:00	102786720	71736	19723512
23-Oct-21 00:00:00	102831160	44440	19767952
24-Oct-21 00:00:00	102845216	14056	19782008
25-Oct-21 00:00:00	102845984	768	19782776
26-Oct-21 00:00:00	102869480	23496	19806272
27-Oct-21 00:00:00	102869480	0	19806272
28-Oct-21 00:00:00	102871160	1680	19807952
29-Oct-21 00:00:00	102943512	72352	19880304
30-Oct-21 00:00:00	102960464	16952	19897256
31-Oct-21 00:00:00	102961664	1200	19898456
01-Nov-21 00:00:00	102963312	1648	19900104
02-Nov-21 00:00:00	102963312	0	19900104
03-Nov-21 00:00:00	102993160	29848	19929952
04-Nov-21 00:00:00	102995016	1856	19931808
05-Nov-21 00:00:00	102996032	1016	19932824
06-Nov-21 00:00:00	103070056	74024	20006848
07-Nov-21 00:00:00	103070056	0	20006848
07-Nov-21 23:00:00	103072736	2680	20009528
08-Nov-21 23:00:00	103103320	30584	20040112
09-Nov-21 23:00:00	103105000	1680	20041792
10-Nov-21 23:00:00	103105000	0	20041792
11-Nov-21 23:00:00	103107592	2592	20044384
12-Nov-21 23:00:00	103131640	24048	20068432
13-Nov-21 23:00:00	103135336	3696	20072128
14-Nov-21 23:00:00	103137088	1752	20073880
15-Nov-21 23:00:00	103149688	12600	20086480
16-Nov-21 23:00:00	103168088	18400	20104880
17-Nov-21 23:00:00	103198120	30032	20134912
18-Nov-21 23:00:00	103242424	44304	20179216

19-Nov-21 23:00:00	103244784	2360	20181576
20-Nov-21 23:00:00	103266096	21312	20202888
21-Nov-21 23:00:00	103272952	6856	20209744
22-Nov-21 23:00:00	103296736	23784	20233528
23-Nov-21 23:00:00	103300232	3496	20237024
24-Nov-21 23:00:00	103302848	2616	20239640
25-Nov-21 23:00:00	103302848	0	20239640
26-Nov-21 23:00:00	103321640	18792	20258432
27-Nov-21 23:00:00	103321656	16	20258448
28-Nov-21 23:00:00	103324784	3128	20261576
29-Nov-21 23:00:00	103340960	16176	20277752
30-Nov-21 23:00:00	103409408	68448	20346200
01-Dec-21 00:00:00	103417176	7768	20353968
02-Dec-21 00:00:00	103433032	15856	20369824
03-Dec-21 00:00:00	103434992	1960	20371784
04-Dec-21 00:00:00	103434992	0	20371784
05-Dec-21 00:00:00	103434992	0	20371784
06-Dec-21 00:00:00	103434992	0	20371784
07-Dec-21 00:00:00	103434992	0	20371784
08-Dec-21 00:00:00	103434992	0	20371784
09-Dec-21 00:00:00	103434992	0	20371784
10-Dec-21 00:00:00	103434992	0	20371784
11-Dec-21 00:00:00	103526928	91936	20463720
12-Dec-21 00:00:00	103534056	7128	20470848
13-Dec-21 00:00:00	103540008	5952	20476800
14-Dec-21 00:00:00	103546480	6472	20483272
15-Dec-21 00:00:00	103550976	4496	20487768
16-Dec-21 00:00:00	103558384	7408	20495176
17-Dec-21 00:00:00	103564528	6144	20501320
18-Dec-21 00:00:00	103569728	5200	20506520
19-Dec-21 00:00:00	103577424	7696	20514216
20-Dec-21 00:00:00	103583896	6472	20520688
21-Dec-21 00:00:00	103591576	7680	20528368
22-Dec-21 00:00:00	103600496	8920	20537288
23-Dec-21 00:00:00	103609208	8712	20546000
24-Dec-21 00:00:00	103615288	6080	20552080
25-Dec-21 00:00:00	103621160	5872	20557952
26-Dec-21 00:00:00	103629864	8704	20566656
27-Dec-21 00:00:00	103652136	22272	20588928
28-Dec-21 00:00:00	103662120	9984	20598912
29-Dec-21 00:00:00	103678952	16832	20615744
30-Dec-21 00:00:00	103681472	2520	20618264
31-Dec-21 00:00:00	103684400	2928	20621192
01-Jan-22 00:00:00	103695832	11432	20632624

Colusa Generating Station Totalized Canal Usage

Point Name

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

PG.CGS.511-FIT-9002-2-TV

	Totalized Value	Gallons/Da
26-Jul-21 00:00:00	141407920	
27-Jul-21 00:00:00	141554496	146576
28-Jul-21 00:00:00	141751616	197120
29-Jul-21 00:00:00	141977424	225808
30-Jul-21 00:00:00	142180656	203232
31-Jul-21 00:00:00	142266160	85504
01-Aug-21 00:00:00	142558960	292800
01-Aug-21 00:00:00	142558960	0
02-Aug-21 00:00:00	142706144	147184
02-Aug-21 00:00:00	142706144	0
03-Aug-21 00:00:00	142861520	155376

Total of two xmtrs 7/26 to 8/3

This is a different transmitter but correct daily usage. We are working on the transmitter with bad input.

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	**16-Mar-21**
Location	**WESTSIDE CANAL**	Scheduled	**16-Mar-22**

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*

Pacific Gas and Electric Company®

Appendix 7, SOIL & WATER-9

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 2021 report.

PGE Colusa Generating Station

2ND QTR., 2021

COMPLETED: **6/15/21**

PGE Colusa Generating Station

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

2021 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/15/20	90	2476	221	2.46	942	442	5
1st	3/10/21	85	2705	229	2.69	1400	458	5
2nd	6/10/21	92	3094	389	4.23	2178	778	8
3rd								
4th								

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

*The panel noes not give the ETM reading anymore.

PGE Colusa Generating Station

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

PIEZOMETER MEASUREMENTS

3/10/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

6/10/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.36'**	**DRY**
Piez #2	**2.53'**	**DRY**
Piez #3	**2.86'**	**2.38'**

PGE Colusa Generating Station

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

SCUM & SLUDGE MEASUREMENTS

3/10/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	3"	0"	0"	0"
SLUDGE	7"	5"	4"	4"

6/10/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	11"	10"	3"	3"

PGE Colusa Generating Station

1ST QTR., 2021

COMPLETED: **3/17/21**

PGE Colusa Generating Station

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

2021 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/15/20	90	2476	221	2.46	942	442	5
1st	3/10/21	85	2705	229	2.69	1400	458	5
2nd								
3rd								
4th								

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

*The panel noes not give the ETM reading anymore.

PGE Colusa Generating Station

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

PIEZOMETER MEASUREMENTS

3/10/21	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

3/10/21	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	3"	0"	0"	0"
SLUDGE	7"	5"	4"	4"

PGE Colusa Generating Station

3RD QTR., 2021

COMPLETED: **10/11/21**

PGE Colusa Generating Station

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

2021 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/15/20	90	2476	221	2.46	942	442	5
1st	3/10/21	85	2705	229	2.69	1400	458	5
2nd	6/10/21	92	3094	389	4.23	2178	778	8
3rd	9/22/21	104	3292	198	1.90	2574	396	4
4th								

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

*The panel does not give the ETM reading anymore.

PGE Colusa Generating Station

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

PIEZOMETER MEASUREMENTS

3/10/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

6/10/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	2.38'

9/22/21	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

3/10/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	3"	0"	0"	0"
SLUDGE	7"	5"	4"	4"

6/10/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	11"	10"	3"	3"

9/22/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	2"	0"	0"	0"
SLUDGE	5"	3"	3"	3"

PGE Colusa Generating Station

4TH QTR., 2021

COMPLETED: **12/22/21**

PGE Colusa Generating Station

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

2021 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/15/20	90	2476	221	2.46	942	442	5
1st	3/10/21	85	2705	229	2.69	1400	458	5
2nd	6/10/21	92	3094	389	4.23	2178	778	8
3rd	9/22/21	104	3292	198	1.90	2574	396	4
4th	12/16/21	85	3451	159	1.87	2998	424	5

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

*The panel does not give the ETM reading anymore.

PGE Colusa Generating Station

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

PIEZOMETER MEASUREMENTS

3/10/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

6/10/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	2.38'

9/22/21	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

12/16/21	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

3/10/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	3"	0"	0"	0"
SLUDGE	7"	5"	4"	4"

6/10/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	11"	10"	3"	3"

9/22/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	2"	0"	0"	0"
SLUDGE	5"	3"	3"	3"

12/16/21

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	**6"**	**0"**	**0"**	**0"**
SLUDGE	**8"**	**6"**	**4"**	**4"**

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Appendix 8, TLSN-3

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 2021.


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Appendix 9, VIS-1

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 2021.

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Appendix 10, VIS-3

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 2021 maintenance was completed by Sierra Integrated Services Inc. All vegetation is healthy and there is no dying vegetation.
.

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

SIERRA
INTEGRATED SERVICES INC.

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

April 6, 2021

Second 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 small Eucalyptus in the line of trees to the right of the main gate 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. There is also a small Eucalyptus located to the left of the gate that is exhibiting some top die back.

Recommendations

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 especially with the minimal natural rainfall that has occurred this rainfall season.

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

SIERRA
INTEGRATED SERVICES INC.

326 RIVERSIDE AVENUE • ROSEVILLE, CA 95678 • www.sierraweeds.com • (916) 235-8115

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

September 9, 2021

Third 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 small Eucalyptus that has increasing dieback towards the top, however, the tree is pushing new growth. Some leaves continue to have discoloration and spotting possibly indicating a nutrient deficency. There are also some eucalyptus leaves that show some insect damage. There are now a couple of additional small Eucalyptus showing dieback and leaf discoloration in the same row. 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. The other pines adjacent to the one in decline continue to show signs of needle discoloration and drop. One pine now has a significant lean at the base of the tree. The small Eucalyptus to the left of the gate has shown signs of improvement with new growth at the top of the tree.

<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
President
Pest Control Advisor/QAL
Sierra Integrated Services, Inc.
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TJ Gomez
Pacific Gas & Electric Company
Colusa Generating Station
4780 Dirks Road
Colusa, CA 94509

December 20, 2021

Fourth Quarter 2022 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 increasing dieback towards the top, however, the tree is pushing new growth. Some leaves continue to have discoloration and spotting possibly indicating a nutrient deficiency. There are also some eucalyptus leaves that show some insect damage. There are now a couple of additional small Eucalyptus showing dieback and leaf discoloration in the same row. 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. The other pines adjacent to the one in decline continue to show signs of needle discoloration and drop. One pine now has a significant lean at the base of the tree. The small Eucalyptus to the left of the gate has shown signs of improvement with new growth at the top of the tree.

<u>Recommendations</u>

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. Current conditions indicate this is the appropriate action.

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. Vegetation management work is scheduled for Q1 2022.

A well-balanced fertilizer in the spring may be considered as some of the discoloration in the pines and mottling in the eucalyptus 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
Pest Control Advisor/QAL
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916-717-9631

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Appendix 11, Waste-5

The Waste Management Plan was followed during 2021. 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.

_

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

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 2021.

Pacific Gas and Electric Company®

Attachment E

Summary of Missed Deadlines

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 2021.

Pacific Gas and Electric Company®

Attachment F

Governmental Agency Submittals and Issuances

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

CGS Agency Submittals; January 1, 2021 – December 31, 2021

Colusa County Air Pollution Control District

Quarterly Operating Report (Permit Condition 17) – January 26, 2021; April 26, 2021; July 31, 2017; October 25, 2021

Annual RATA/Source Test – January 2021

Title V Annual Certification of Compliance January 2021

EPA

Semi Annual CEMs Report (X.G.5) – January 2021; July 31, 2021

CUPA

Revised Hazardous Materials Business Plan via CERS – January 26, 2021

State Water Resources Control Board

Annual Stormwater Report – July 2021
Exceedance Response Action Level 2 Action Plan – December 2021

Pacific Gas and Electric Company®

Attachment G

Projected Compliance Activities 2022

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

In 2022 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.

Pacific Gas and Electric Company®

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 2021, CGS did not receive any complaints, notice of violations, warnings, or citations.

Pacific Gas and Electric Company®

Attachment K

Worker Safety-6, Maxwell Fire Department Payment

Per Worker Safety-6 The owner shall provide the CEC CPM with verification of funding to the Maxwell Fire Department for required fire protection services mitigation pursuant to the agreement with the Department or the CEC CPM approved independent consultant study.

WARNING - THIS DOCUMENT CONTAINS A VOID PANTOGRAPH, COLORED BACKGROUND AND WATERMARK ON THE BACK

Pacific Gas and Electric Company 77 Beale Street, San Francisco, CA

THE BANK OF NEW YORK MELLON CORPORATION 53-202 113

Date: 04/21/2021 Check No. 4853057 Pay $*******305,432.00*

*THREE HUNDRED FIVE THOUSAND FOUR HUNDRED THIRTY-TWO********** AND 00/100 DOLLARS

8172298

To The Order Of

MAXWELL FIRE DISTRICT
COUNTY OF COLUSA
PO Box 651
MAXWELL CA 95955

ACCOUNTS PAYABLE

David Thomason
VP, CONTROLLER, and CFO

Nicholas Bijur
VP and TREASURER

⑈0004853057⑈ ⑆061302920⑆ 059978⑈

For Deposit Only
U.S. Bank ACCOUNT NUMBER

PAY TO THE ORDER OF
U.S. BANK
FOR DEPOSIT ONLY
COUNTY OF COLUSA
AUDITOR - CONTROLLER
157506724861

SIGNATURE

Credited to Acct
157506724861 0000000078
Return Acct 157506724861