DOCKETED	
Docket Number:	00-AFC-01C
Project Title:	Contra Costa Power Plant Project Compliance
TN #:	232517
Document Title:	ACR RY 2019 for GGS_4of4 parts
Description:	N/A
Filer:	Angel B. Espiritu
Organization:	PG&E Gateway Generating Station
Submitter Role:	Applicant Representative
Submission Date:	3/24/2020 11:56:15 AM
Docketed Date:	3/24/2020

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304800
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 2 (11/7/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT	304800-001
TIGER PIT	304800-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 11/08/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**304800**
Client:	**Pacific Gas & Electric**
Location:	**Resample 2 (11/7/18)**
Request Date:	**11/07/18**
Samples Received:	**11/07/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 11/07/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265268; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
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Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 304800

Project No:
Project Name: Resample 2 (11/7/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampl[ing]
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix: Other		# of Container	HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (pretreated with sodium thiosulfate before preserved) by SM 4500 CN-ABCE
	Tiger Pit	11/7/18	08:06	X				1				X		X
	Tiger Pit	11/7/18	08:06	X				1					X	X

Notes: Sample Sent On ice
containers:
500 ml poly
500 ml pol X

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	11/7/18 08:50	[signature]	11/7/18 - 8:50 Am
[signature]	11/7/18 - 9:47	[signature]	11-7 947
[signature]	11-7 1051	[signature]	11/7/18 10:51

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 304800 Client: PGE0

Date Received: 11/7/18 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): 14.6 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 11/7/18 By (print) AL (sign) _____

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?	✓		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 11/7/18 **By (print)** AL **(sign)** _____

Date Labeled 11/7/18 **By (print)** AL **(sign)** _____

Enthalpy Sample Preservation for 304800

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: [signature]
Date: 11/7/18

Page 1 of 1

ENTHALPY ANALYTICAL

Detections Summary for 304800

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 2 (11/7/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	304800	Location:	Resample 2 (11/7/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265268
Field ID:	TIGER PIT	Sampled:	11/07/18
Matrix:	Water	Received:	11/07/18
Units:	mg/L	Prepared:	11/07/18
Diln Fac:	1.000	Analyzed:	11/08/18

Type	Lab ID	Result	RL
SAMPLE	304800-001	ND	0.010
SAMPLE	304800-002	ND	0.010
BLANK	QC954755	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	304800	Location:	Resample 2 (11/7/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265268
Field ID:	ZZZZZZZZZZ	Sampled:	10/29/18
MSS Lab ID:	304646-001	Received:	10/30/18
Matrix:	Water	Prepared:	11/07/18
Units:	mg/L	Analyzed:	11/08/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC954756		0.2000	0.1613	81	76-120		
MS	QC954757	<0.01000	0.2000	0.1277	64 *	66-120		
MSD	QC954758		0.2000	0.1492	75	66-120	16	28

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 5

Analytical Report on Resampling #3

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1811249

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue
Antioch, CA 94509

Project Contact: Angel Espiritu
Project P.O.:
Project: Resample 2 (11/7/18)

Project Received: 11/07/2018

Analytical Report reviewed & approved for release on 11/08/2018 by:

Yen Cao

Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station
Project: Resample 2 (11/7/18)
WorkOrder: 1811249

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1811249
Date Received:	11/7/18 9:45	**Extraction Method:**	SM4500-CN⁻ E
Date Prepared:	11/7/18	**Analytical Method:**	SM4500-CN⁻ CE
Project:	Resample 2 (11/7/18)	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Tiger Pit-Amber	1811249-001A	Water	11/07/2018 08:06	WC_SKALAR 110718A1_21	167990

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	ND	1.0	1	11/07/2018 11:36

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Tiger Pit-Clear	1811249-002A	Water	11/07/2018 08:06	WC_SKALAR 110718A1_24	167990

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	ND	1.0	1	11/07/2018 11:47

Analyst(s): NM

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1811249
Date Prepared:	11/7/18	**BatchID:**	167990
Date Analyzed:	11/7/18	**Extraction Method:**	SM4500-CN⁻ E
Instrument:	WC_SKALAR	**Analytical Method:**	SM4500-CN⁻ CE
Matrix:	Water	**Unit:**	µg/L
Project:	Resample 2 (11/7/18)	**Sample ID:**	MB/LCS/LCSD-167990 1811249-001AMS/MSD

QC Summary Report for SM4500-CN⁻ CE

Analyte	MB Result	RL			
Total Cyanide	ND	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	39	40	40	98	99	90-110	1.36	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Total Cyanide	1	41	42	40	ND	102	106	80-120	4.27	20

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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1811249 **ClientCode: PGEA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com
cc/3rd Party: A1HE@pge.com; J5Ld@pge.com; tlWY@p
PO:
Project: Resample 2 (11/7/18)

Bill to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509

Requested TAT: 1 day;

Date Received: **11/07/2018**
Date Logged: **11/07/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1811249-001	Tiger Pit-Amber	Water	11/7/2018 08:06	☐	A											
1811249-002	Tiger Pit-Clear	Water	11/7/2018 08:06	☐	A											

Test Legend:

1	CN_SM4500CE_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: PG&E GATEWAY GENERATING STATION **Project:** Resample 2 (11/7/18) **Work Order:** 1811249
Client Contact: Angel Espiritu **QC Level:** LEVEL 2
Contact's Email: abe4@pge.com **Comments:** **Date Logged:** 11/7/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1811249-001A	Tiger Pit-Amber	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL aHDPE w/ NaOH + Na2S2O3	☐	11/7/2018 8:06	1 day		☐	
1811249-002A	Tiger Pit-Clear	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL HDPE w/ Na2S2O3	☐	11/7/2018 8:06	1 day	None	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1811249 pg 1 of 1

RUSH

McCAMPBELL ANALYTICAL, INC.

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PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☒ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐
☐ Check if sample is effluent and "J" flag is required

Report To: Angel Espiritu **Bill To:** PG&E Gateway
Company: PG&E Gateway Generating Station
E-Mail: abe4@pge.com, A1HE@pge.com, J5Ld@pge.com, tlWY@pge.com, DJH2@pge.com
Tel: (925) 522-7838, (510) 861-1597 (Cell) **Fax:** ( )
Project Name: Resample 2 (11/7/18)
Project Location: Tiger Pit, Source Water
Sampler Signature: Muskan Environmental Sampling LL

SAMPLE ID	LOCATION / Field Point Name	Sample Type Composite /Grab	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	Matrix: Waste Water	Matrix: Sewer Water	METHOD PRESERVED: None	ICE	H_2SO_4	NaOH	HCL	HNO_3	Other	Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	TTO (USEPA 608 – Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)	Remarks
Tiger Pit		G	11/7/18	08:06	1	250 ml poly Amb	X			X		X				X					
Tiger Pit		G	11/7/18	08:06	1	250 ml poly	X			X						X					
~~Source Water~~		~~G~~	~~11/7/18~~		~~1~~	~~250 ml poly~~	~~X~~			~~X~~		~~X~~				~~X~~					
~~Source Water~~		~~G~~	~~11/7/18~~		~~1~~	~~250 ml poly~~	~~X~~			~~X~~						~~x~~					

Relinquished By:	Date:	Time:	Received By:
[signature]	11/7/18	09:45	[signature]
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.4 WET
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____

COMMENTS:
TTO (EPA 608), TTO (EPA 624), TTO (EPA 625) see ATTACHED Appendix A and analyze only listed compounds

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Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**11/7/2018 09:45**
Project:	**Resample 2 (11/7/18)**	Date Logged:	**11/7/2018**
		Received by:	Jena Alfaro
WorkOrder №:	**1811249** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
	(Ice Type: WET ICE)				
Sample/Temp Blank temperature		Temp: 5.6°C			NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments:

Caltest ANALYTICAL LABORATORY

ENVIRONMENTAL ANALYSES

Friday, November 09, 2018

Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Ave
Antioch, CA 94509

Re Lab Order: T110273 Collected By: MUSKAN ENV.
Project ID: RESAMPLE 2 (11/7/18) PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, November 07, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

SAMPLE SUMMARY

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T110273001	**TIGER PIT (NAOH PRESERVED)**	Water	11/07/2018 08:06	11/07/2018 09:58
T110273002	**TIGER PIT (UNPRESERVED)**	Water	11/07/2018 08:06	11/07/2018 09:58

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NARRATIVE

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

1	Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.
2	The sample was received unpreserved. At the time of the analysis, the measured pH of the sample was 10.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

ANALYTICAL RESULTS

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	**T110273001**	Date Collected	11/7/2018 08:06	Matrix	Water
Sample ID	**TIGER PIT (NAOH PRESERVED)**	Date Received	11/7/2018 09:58		

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11					**Analyzed by:**	BCP	
Cyanide	J2.5	ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1

Lab ID	**T110273002**	Date Collected	11/7/2018 08:06	Matrix	Water
Sample ID	**TIGER PIT (UNPRESERVED)**	Date Received	11/7/2018 09:58		

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11					**Analyzed by:**	BCP	
Cyanide	J1.1	ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1,2

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(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Analysis Description:	Cyanide, Total Analysis	**QC Batch:**	WCO/14067
Analysis Method:	SM 4500-CN C/E-99/11	**QC Batch Method:**	SM 4500-CN C/E-99/11

METHOD BLANK: 851944

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Cyanide	ND	3	0.9	ug/L	

LABORATORY CONTROL SAMPLE: 851945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Cyanide	ug/L	20	20.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851946 851947

Parameter	Units	T110110002 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Cyanide	ug/L	1.6	40	40.9	42.9	98	103	80-120	4.8	20	1

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QUALITY CONTROL DATA QUALIFIERS

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T110273001	**TIGER PIT (NAOH**	SM 4500-CN C/E-99/11	WCO/14067		
T110273002	**TIGER PIT (UNPRESERVED)**	SM 4500-CN C/E-99/11	WCO/14067		

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Caltest ANALYTICAL LABORATORY

885 N. KELLY ROAD NAPA, CA 94558 (707) 258-4000 FAX (707) 226-1001

SAMPLE CHAIN OF CUSTODY

PAGE 1 OF 1

PROJECT NAME / PROJECT NUMBER: Resample 2 (11/7/18)

P.O. NUMBER:

LAB ORDER # T11027.3

CLIENT: PG&E Gateway Generation Station

REPORT ATTN: Angel Espiritu / email: abey@pge.com

MAILING ADDRESS: 3225 Wiber Ave.

STATE: CA

ZIP: 94509

BILLING ADDRESS: (Same)

ATTN:

PHONE NUMBER: (925) 522-7838

FAX PHONE NUMBER:

SAMPLER (PRINT & SIGN NAME): Muskan Environmental Sampling

TURN-AROUND TIME: [ ] STANDARD [X] RUSH

DUE DATE:

CALTEST LAB #	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION / SITE	CLIENT LAB #	COMP. or GRAB	ANALYSES REQUESTED: cyanide(total), pretreated with sodium hydrosulfite before performing SM 4500 CN- AGDE	REMARKS
-1	11/7/18	08:06	AQ waste water	500 ml poly	NaOH	Tiger Pit		Grab	X	samples sent on ICE
-2	11/7/18	08:06	AQ waste water	500 ml poly	None preserved	Tiger Pit		Grab	X	

RUSH

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
	11/7/18 08:47			11/7/18 0958	

FOR LAB USE ONLY

Samples: WC X MICRO ___ BIO ___ AA ___ SV ___ VOA ___ pH? Y/N TEMP: 2.4 SEALED: Y/N INTACT: Y/N

BD: BIO ___ WC ___ AA ___

CC: AA ___ SV ___ VOA ___

SIL: HP ___ PT ___ QT ___ VOA ___

W/HNO_3 ___ H_2SO_4 ___ NaOH ___

PIL: HNO_3 ___ H_2SO_4 ___ NaOH ___ HCL ___

COMMENTS:

*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water; SL = Soil Sludge, Solid ; FP = Free Product

**CONTAINER TYPES: AL = Amber Liter; AHL = 500 ml Amber; PT = Pint (Plastic); QT = Quart (Plastic); HG = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT; BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container

R ___ PR ___ M ___ F ___

10/29/18

WHITE - LABORATORY YELLOW - CLIENT COPY TO ACCOMPANY FINAL REPORT PINK - CLIENT COPY AS RECEIPT

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304800
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 2 (11/7/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT	304800-001
TIGER PIT	304800-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 11/08/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**304800**
Client:	**Pacific Gas & Electric**
Location:	**Resample 2 (11/7/18)**
Request Date:	**11/07/18**
Samples Received:	**11/07/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 11/07/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265268; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 304800

Project No:
Project Name: Resample 2 (11/7/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix: Other	Matrix	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (pre-treated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE
	Tiger Pit	11/7/18	08:06	X				1				X		X
	Tiger Pit	11/7/18	08:06	X				1					X	X

Notes: Sample Sent On ice
containers:
500 ml poly
500 ml pol X

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	11/7/18/08:50	[signature]	11/7/18-8:50 Am
[signature]	11/7/18 - 9:47	[signature]	11-7 947
[signature]	11-7 1051	[signature]	11/7/18 10:51

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 304800 Client: PGE0

Date Received: 11/7/18 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): 14.6 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 11/7/18 By (print) AL (sign) _____

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?	✓		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 11/7/18 **By (print)** AL **(sign)** _____

Date Labeled 11/7/18 **By (print)** AL **(sign)** _____

Enthalpy Sample Preservation for 304800

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: [signature]
Date: 11/7/18

Page 1 of 1

ENTHALPY ANALYTICAL

Detections Summary for 304800

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 2 (11/7/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	304800	Location:	Resample 2 (11/7/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265268
Field ID:	TIGER PIT	Sampled:	11/07/18
Matrix:	Water	Received:	11/07/18
Units:	mg/L	Prepared:	11/07/18
Diln Fac:	1.000	Analyzed:	11/08/18

Type	Lab ID	Result	RL
SAMPLE	304800-001	ND	0.010
SAMPLE	304800-002	ND	0.010
BLANK	QC954755	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	304800	Location:	Resample 2 (11/7/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265268
Field ID:	ZZZZZZZZZZ	Sampled:	10/29/18
MSS Lab ID:	304646-001	Received:	10/30/18
Matrix:	Water	Prepared:	11/07/18
Units:	mg/L	Analyzed:	11/08/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC954756		0.2000	0.1613	81	76-120		
MS	QC954757	<0.01000	0.2000	0.1277	64 *	66-120		
MSD	QC954758		0.2000	0.1492	75	66-120	16	28

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 6

Analytical Report on Resampling #4

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305544
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Tiger Pit
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGERT PIT	305544-001
TIGERT PIT	305544-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 12/06/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305544**
Client:	**Pacific Gas & Electric**
Location:	**Tiger Pit**
Request Date:	**12/04/18**
Samples Received:	**12/04/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/04/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 3055544

Project No:

Project Name: Resample 4 (12/4/18)

Rpt Level: II

Turnaround Time: ~~Standard~~ RUSH

Sampler: Muskan Environmental Sampling

Report To: Angel Espiritu

Company: PG&E Gateway Generating Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE
	Tiger Pit	12/4/18	08:35	X			1				X		X
	Tiger Pit	12/4/18	08:35	X			1					X	X

Notes: Sample Sent on ICE

Container
Poly 250ml
Poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
	12/4/18 09:50		12-4-18 9:50
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305144 Client: PG+E Gateway Generating

Date Received: 12/4/18 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (skip Section 3 below)

If no cooler Sample Temp (°C): 3.1 using IR Gun # ☐ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 12/4/18 By (print) AC (sign) [signature]

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)	—		
Did you check preservatives for all bottles for each sample?		—	
Did you document your preservative check?	—		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot#	_____	added to samples	_____	on/at	_____
☐ HCL lot#	_____	added to samples	_____	on/at	_____
☐ HNO3 lot#	_____	added to samples	_____	on/at	_____
☐ NaOH lot#	_____	added to samples	_____	on/at	_____

Section 6:

Explanations/Comments: _____

Date Logged in 12/4/18 **By (print)** AC **(sign)** [signature]

Date Labeled 12/4/18 **By (print)** AC **(sign)** [signature]

ENTHALPY ANALYTICAL

Detections Summary for 305544

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Tiger Pit

Client Sample ID : TIGERT PIT Laboratory Sample ID : 305544-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.030		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGERT PIT Laboratory Sample ID : 305544-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.032		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305544	Location:	Tiger Pit
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265928
Field ID:	TIGERT PIT	Sampled:	12/04/18
Matrix:	Water	Received:	12/04/18
Units:	mg/L	Analyzed:	12/05/18
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	305544-001	0.030	0.010
SAMPLE	305544-002	0.032	0.010
BLANK	QC957389	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305544	Location:	Tiger Pit
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Diln Fac:	1.000
Field ID:	TIGERT PIT	Batch#:	265928
MSS Lab ID:	305544-001	Sampled:	12/04/18
Matrix:	Water	Received:	12/04/18
Units:	mg/L	Analyzed:	12/05/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC957390		0.2000	0.1831	92	76-120		
MS	QC957391	0.02970	0.2000	0.2115	91	66-120		
MSD	QC957392		0.2000	0.2052	88	66-120	3	28

RPD= Relative Percent Difference

Attachment 7

Analytical Report on Resampling #5

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305713
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 5 (12/11/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT	305713-001
TIGER PIT	305713-002

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Signature: _____ Date: 12/12/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305713**
Client:	**Pacific Gas & Electric**
Location:	**Resample 5 (12/11/18)**
Request Date:	**12/11/18**
Samples Received:	**12/11/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/11/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 305713

Project No:
Project Name: Resample 5 (12/11/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ RUSH

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generation Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide Total (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-A&E
	Tiger Pit	12/11/18	08:36	X			1				X		X
	Tiger Pit	12/11/18	08:36	X			1					X	X

Notes: Sample sent on ICE

Container
Poly 250ml
Poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	12/11/18 10:05	Pat Gonzales	12/11/18 10:05 AM
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305713 Client: PG&E

Date Received: 12-11-18 Project: Resample 5 (12/11/18)

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☒ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): 4.1 using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 12-11-18 By (print) SH (sign) [signature]

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?	✓		
Did you document your preservative check?	✓		

pH strip lot# HC547770, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 12-11-18 **By (print)** SH **(sign)** [signature]

Date Labeled 12-11-18 **By (print)** SH **(sign)** [signature]

Enthalpy Sample Preservation for 305713

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: SLS
Date: 12-10-18

ENTHALPY ANALYTICAL

Detections Summary for 305713

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 5 (12/11/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 305713-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT Laboratory Sample ID : 305713-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.018		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305713	Location:	Resample 5 (12/11/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266103
Field ID:	TIGER PIT	Sampled:	12/11/18
Matrix:	Water	Received:	12/11/18
Units:	mg/L	Analyzed:	12/12/18
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	305713-001	0.013	0.010
SAMPLE	305713-002	0.018	0.010
BLANK	QC958095	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305713	Location:	Resample 5 (12/11/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Diln Fac:	1.000
Field ID:	TIGER PIT	Batch#:	266103
MSS Lab ID:	305713-001	Sampled:	12/11/18
Matrix:	Water	Received:	12/11/18
Units:	mg/L	Analyzed:	12/12/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958096		0.2000	0.1850	93	76-120		
MS	QC958097	0.01250	0.2000	0.1922	90	66-120		
MSD	QC958098		0.2000	0.1538	71	66-120	22	28

RPD= Relative Percent Difference

Attachment 8

Analytical Report on Resampling #6

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305805
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 6 (12/14/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-P	305805-001
TIGER PIT-UP	305805-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 12/17/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305805**
Client:	**Pacific Gas & Electric**
Location:	**Resample 6 (12/14/18)**
Request Date:	**12/14/18**
Samples Received:	**12/14/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/14/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 305805

Project No:
Project Name: Resample 6 (12/14/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ RUSH

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generation Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling: Date	Sampling: Time	Matrix: Water	Matrix: Soil	Matrix: Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide total (pretreat with Sodium thiosulfate before preserving) by SM4500 CN-A&E
	Tiger Pit - P	12/14/18	08:35	X			1				X		X
	Tiger Pit - DUP	12/14/18	0835	X			1					X	X

Notes: Sample sent on ICE

Container
poly 250ml
poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
12/14/18 09:48 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
Pat Mongahy 12/14/18 09:48 DATE/TIME
DATE/TIME
DATE/TIME

AM

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305805 Client: PG&E Gateway

Date Received: 12/14/18 Project: Resample 6 (12/14/18)

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☒ No (skip Section 3 below)

If no cooler Sample Temp (°C): 4.2 using IR Gun # ☒ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened _____ By (print)_____ (sign)_____

Shipping info (if applicable) _____

Are custody seals present? ☐ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe)_____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID:_____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1:_____, #2:_____, #3:_____, #4:_____, #5:_____, #6:_____, #7:_____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	X		
Were Method 5035 sampling containers present?		X	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	X		
Are there any missing / extra samples?		X	
Are samples in the appropriate containers for indicated tests?	X		
Are sample labels present, in good condition and complete?	X		
Does the container count match the COC?	X		
Do the sample labels agree with custody papers?	X		
Was sufficient amount of sample sent for tests requested?	X		
Did you change the hold time in LIMS for unpreserved VOAs?			X
Did you change the hold time in LIMS for preserved terracores?			X
Are bubbles > 6mm absent in VOA samples?			X
Was the client contacted concerning this sample delivery?		X	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)	X		
Did you check preservatives for all bottles for each sample?	X		
Did you document your preservative check?	X		

pH strip lot# HG547700, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 12/14/18 **By (print)** VQ **(sign)** VQ

Date Labeled ↓ **By (print)** ↓ **(sign)** ↓

ENTHALPY ANALYTICAL

Detections Summary for 305805

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 6 (12/14/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305805-001

No Detections

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305805-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.020		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305805	Location:	Resample 6 (12/14/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	12/14/18
Matrix:	Water	Received:	12/14/18
Units:	mg/L	Prepared:	12/14/18
Diln Fac:	1.000	Analyzed:	12/17/18
Batch#:	266229		

Field ID	Type	Lab ID	Result	RL
TIGER PIT-P	SAMPLE	305805-001	ND	0.010
TIGER PIT-UP	SAMPLE	305805-002	0.020	0.010
	BLANK	QC958630	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305805	Location:	Resample 6 (12/14/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266229
Field ID:	TIGER PIT-P	Sampled:	12/14/18
MSS Lab ID:	305805-001	Received:	12/14/18
Matrix:	Water	Prepared:	12/14/18
Units:	mg/L	Analyzed:	12/17/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958631		0.2000	0.1687	84	76-120		
MS	QC958632	<0.01000	0.2000	0.1396	70	66-120		
MSD	QC958633		0.2000	0.1404	70	66-120	1	28

RPD= Relative Percent Difference

Attachment 9

Analytical Report on Resampling #7

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305902
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 7 (1218/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-P	305902-001
TIGER PIT-UP	305902-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 12/19/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305902**
Client:	**Pacific Gas & Electric**
Location:	**Resample 7 (1218/18)**
Request Date:	**12/18/18**
Samples Received:	**12/18/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/18/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of TIGER PIT-P (lab # 305902-001); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 505902

Project No:

Project Name: Resample 7 (12/18/18)

Rpt Level: II

Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling

Report To: Angel Espiritu

Company : PG&E Gateway Generation Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide total (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE
	Tiger Pit-P	12/18/18	07:55	X			1				X		X
	Tiger Pit-UP	12/18/18	07:55	X			1					X	X

Notes: Sample sent on ICE

Container
poly 250ml
poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☒ On Ice ☐ Ambient

RELINQUISHED BY:

12/18/18 09:32 DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY:

Pat Kamph 12/18/18 09:32 DATE/TIME

DATE/TIME

DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 1805402 Client: PGE

Date Received: 12/18/18 Project:

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (skip Section 3 below)

If no cooler Sample Temp (°C): 1.3 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 12/18/18 By (print) AC (sign) [signature]

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?			
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?	✓		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 12/18/18 **By (print)** AC **(sign)** [signature]

Date Labeled 12/18/18 **By (print)** AC **(sign)** [signature]

Enthalpy Sample Preservation for 305902

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: AMC
Date: 12/18/18

ENTHALPY ANALYTICAL

Detections Summary for 305902

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 7 (1218/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305902-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305902-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305902	Location:	Resample 7 (1218/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	12/18/18
Matrix:	Water	Received:	12/18/18
Units:	mg/L	Prepared:	12/18/18
Diln Fac:	1.000	Analyzed:	12/19/18
Batch#:	266298		

Field ID	Type	Lab ID	Result	RL
TIGER PIT-P	SAMPLE	305902-001	0.028	0.010
TIGER PIT-UP	SAMPLE	305902-002	0.028	0.010
	BLANK	QC958894	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305902	Location:	Resample 7 (1218/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266298
Field ID:	TIGER PIT-P	Sampled:	12/18/18
MSS Lab ID:	305902-001	Received:	12/18/18
Matrix:	Water	Prepared:	12/18/18
Units:	mg/L	Analyzed:	12/19/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958895		0.2000	0.1834	92	76-120		
MS	QC958896	0.02790	0.2000	0.1537	63 *	66-120		
MSD	QC958897		0.2000	0.1539	63 *	66-120	0	28

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 10

Analytical Report on Resampling #8

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306316
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 8-DW-01102019
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-UP-DW	306316-001
SOURCE-UP-DW	306316-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/11/2019

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**306316**
Client:	**Pacific Gas & Electric**
Location:	**Resample 8-DW-01102019**
Request Date:	**01/10/19**
Samples Received:	**01/10/19**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 01/10/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 306316

Project No:

Project Name: Resample 8_DW-01102019

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☑ RUSH _____ ☐ Standard

Sampler: Doug Welch

Report To: Angel Espiritu

Company: PG&E Gateway Gen Station

Telephone: (925) 522-7838

Email: ABE4@PGE.COM

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	SM 4500-Cyanide(Total) * CN-ADCE	
	Tiger Pit-UP-DW	01/10/2019	0917	✓				1					✓	✓	
	Source-UP-DW	01/10/2019	0923	✓				1					✓	✓	

Notes:
* All Samples pretreated w/ sodium thiosulfate. Samples sent on ice.

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Doug Welch DATE: 1/10/19 TIME: 0923
DATE: 1-10 TIME: 1162
DATE: TIME:

RECEIVED BY:
DATE: 1-10-19 TIME: 0923
DATE: 1/11/19 TIME: 12:00
DATE: TIME:

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 306316 Client: PG&E

Date Received: 1.10.19 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 1.10.19 By (print) SH (sign) SH

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☒ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☒ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☒ A ☐ B

Cooler Temp (°C): #1: 3.3, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			—
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 1/10/19 **By (print)** AC **(sign)** _____

Date Labeled 1/10/19 **By (print)** AC **(sign)** _____

ENTHALPY ANALYTICAL

Detections Summary for 306316

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 8-DW-01102019

Client Sample ID : TIGER PIT-UP-DW Laboratory Sample ID : 306316-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.055		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : SOURCE-UP-DW Laboratory Sample ID : 306316-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	306316	Location:	Resample 8-DW-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	01/10/19
Matrix:	Water	Received:	01/10/19
Units:	mg/L	Prepared:	01/10/19
Diln Fac:	1.000	Analyzed:	01/11/19
Batch#:	266844		

Field ID	Type	Lab ID	Result	RL
TIGER PIT-UP-DW	SAMPLE	306316-001	0.055	0.010
SOURCE-UP-DW	SAMPLE	306316-002	ND	0.010
	BLANK	QC960973	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	306316	Location:	Resample 8-DW-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	ZZZZZZZZZZ	Sampled:	01/07/19
MSS Lab ID:	306233-001	Received:	01/07/19
Matrix:	Water	Prepared:	01/10/19
Units:	mg/L	Analyzed:	01/11/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25

RPD= Relative Percent Difference

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306317
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 8-ENT-01102019
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-UP	306317-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/11/2019

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**306317**
Client:	**Pacific Gas & Electric**
Location:	**Resample 8-ENT-01102019**
Request Date:	**01/10/19**
Samples Received:	**01/10/19**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 01/10/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 306317

Chain of Custody #

Project No:

Project Name: Resample 8 - ENT-01102019

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☑ RUSH ☐ Standard

Sampler: Jacob Hohn

Report To: Angel Espiritu

Company: PG&E Gateway Gen. Station

Telephone: (925) 522-7838

Email: ABE4@PGE.COM

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	SM 4500 CN-ABE - Cyanide (Total) *
	Tiger Pit-UP	01/10/2019		✓									✓	✓

Notes:
* Sample pretreated w/ sodium thiosulfate. Sample sent on ice.

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 1-10 TIME: 1102
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: 1/10/19 TIME: 12:00
DATE: TIME:
DATE: TIME:

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 306317 Client: PG&E

Date Received: 1.10.19 Project: _____

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 1.10.19 By (print) SH (sign) SH

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☒ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☒ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☑ A ☐ B

Cooler Temp (°C): #1: 3.3, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			—
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 1/10/19 By (print) AC (sign) AC

Date Labeled 1/10/19 By (print) AC (sign) AC

ENTHALPY ANALYTICAL

Detections Summary for 306317

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 8-ENT-01102019

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 306317-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.051		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	306317	Location:	Resample 8-ENT-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	TIGER PIT-UP	Sampled:	01/10/19
Matrix:	Water	Received:	01/10/19
Units:	mg/L	Prepared:	01/10/19
Diln Fac:	1.000	Analyzed:	01/11/19

Type	Lab ID	Result	RL
SAMPLE	306317-001	0.051	0.010
BLANK	QC960973	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	306317	Location:	Resample 8-ENT-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	ZZZZZZZZZZ	Sampled:	01/07/19
MSS Lab ID:	306233-001	Received:	01/07/19
Matrix:	Water	Prepared:	01/10/19
Units:	mg/L	Analyzed:	01/11/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25

RPD= Relative Percent Difference

Attachment 11

Analytical Report on Resampling #9

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306446
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 9 (1/16/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP TIGER PIT	306446-001
UP HRSG IP A	306446-002
UP HRSG IP B	306446-003
UP PHOSPHATE	306446-004
UP CC COOLING WATER	306446-005
UP AMINE	306446-006
UP E-006	306446-007
UP HAMMOND TANK	306446-008
UP OWS	306446-009
UP AMMONIA SUMP	306446-010
UP SERVICE WATER	306446-011
UP SOURCE WATER	306446-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 01/17/2019

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**306446**
Client:	**Pacific Gas & Electric**
Location:	**Resample 9 (1/16/19)**
Request Date:	**01/16/19**
Samples Received:	**01/16/19**

This data package contains sample and QC results for twelve water samples, requested for the above referenced project on 01/16/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of UP TIGER PIT (lab # 306446-001); the LCS was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 306446

Project No:
Project Name: Resample 9 (1/16/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush 24 hours

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix: Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (pre-treated with sodium thiosulfate before preservation) by SM 4500 CN-ABCE
	UP Tiger Pit	1/16/19	08:55	X			1					X	X
	UP HRSG IP A	1/16/19	09:11	X			1					X	X
	UP HRSG IP B	1/16/19	09:15	X			1					X	X
	UP Phosphate	1/16/19	09:23	X			1					X	X
	~~UP Cooling Water~~ UP Cooling Water	1/16/19	09:30	X			1					X	X
	UP AMINE	1/16/19	09:35	X			1					X	X
	UP E-006	1/16/19	09:41	X			1					X	X
	UP Hammond Tank	1/16/19	09:50	X			1					X	X
	UP OWS	1/16/19	10:02	X			1					X	X
	UP Ammonia Sump	1/16/19	10:09	X			1					X	X
	UP Service Water	1/16/19	10:20	X			1					X	X
	UP Source Water	1/16/19	10:30	X			1					X	X

Notes:
sample sent on ICE
containers
500 ml poly

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	1/16/19 11:31	Pat [signature]	1/16/19 11:31

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 350446 Client: PG+E

Date Received: 1/16/19 Project: _____

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 1/16/19 By (print) M (sign) [signature]

Shipping Info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☑ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (If other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☑ B

Cooler Temp (°C): #1: 1.6, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			—
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 1/16/19 By (print) AC (sign) [signature]

Date Labeled 1/16/19 By (print) AC (sign) [signature]

ENTHALPY ANALYTICAL

Detections Summary for 306446

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 9 (1/16/19)

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 306446-001

No Detections

Client Sample ID : UP HRSG IP A Laboratory Sample ID : 306446-002

No Detections

Client Sample ID : UP HRSG IP B Laboratory Sample ID : 306446-003

No Detections

Client Sample ID : UP PHOSPHATE Laboratory Sample ID : 306446-004

No Detections

Client Sample ID : UP CC COOLING WATER Laboratory Sample ID : 306446-005

No Detections

Client Sample ID : UP AMINE Laboratory Sample ID : 306446-006

No Detections

Client Sample ID : UP E-006 Laboratory Sample ID : 306446-007

No Detections

Client Sample ID : UP HAMMOND TANK Laboratory Sample ID : 306446-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.026		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP OWS Laboratory Sample ID : 306446-009

No Detections

Client Sample ID : UP AMMONIA SUMP Laboratory Sample ID : 306446-010

No Detections

Client Sample ID : UP SERVICE WATER Laboratory Sample ID : 306446-011

No Detections

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 306446-012

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	306446	Location:	Resample 9 (1/16/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	01/16/19
Matrix:	Water	Received:	01/16/19
Units:	mg/L	Prepared:	01/16/19
Diln Fac:	1.000	Analyzed:	01/17/19
Batch#:	266990		

Field ID	Type	Lab ID	Result	RL
UP TIGER PIT	SAMPLE	306446-001	ND	0.010
UP HRSG IP A	SAMPLE	306446-002	ND	0.010
UP HRSG IP B	SAMPLE	306446-003	ND	0.010
UP PHOSPHATE	SAMPLE	306446-004	ND	0.010
UP CC COOLING WATER	SAMPLE	306446-005	ND	0.010
UP AMINE	SAMPLE	306446-006	ND	0.010
UP E-006	SAMPLE	306446-007	ND	0.010
UP HAMMOND TANK	SAMPLE	306446-008	0.026	0.010
UP OWS	SAMPLE	306446-009	ND	0.010
UP AMMONIA SUMP	SAMPLE	306446-010	ND	0.010
UP SERVICE WATER	SAMPLE	306446-011	ND	0.010
UP SOURCE WATER	SAMPLE	306446-012	ND	0.010
	BLANK	QC961536	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	306446	Location:	Resample 9 (1/16/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266990
Field ID:	UP TIGER PIT	Sampled:	01/16/19
MSS Lab ID:	306446-001	Received:	01/16/19
Matrix:	Water	Prepared:	01/16/19
Units:	mg/L	Analyzed:	01/17/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC961537		0.2000	0.1742	87	75-120		
MS	QC961538	<0.01000	0.2000	<0.01000	0 *	56-120		
MSD	QC961539		0.2000	<0.01000	0 *	56-120	NC	25

*= Value outside of QC limits; see narrative
NC= Not Calculated
RPD= Relative Percent Difference

Attachment 12

Analytical Report on Resampling #10

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307019
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 10 (2/7/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP HAMMOND TANK	307019-001
UP TIGER PIT	307019-002
UP SOURCE WATER	307019-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/08/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307019**
Client:	**Pacific Gas & Electric**
Location:	**Resample 10 (2/7/19)**
Request Date:	**02/07/19**
Samples Received:	**02/07/19**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 02/07/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 307019

Project No:
Project Name: Resample 10 (2/7/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix: Other		# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: cyanide (total) (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE
	UP Hammond Tank	2/7/19	09:20	X				1					X	X
	UP Tiger Pit	2/7/19	09:10	X				1					X	X
	UP Source Water	2/7/19	09:35	X				1					X	X

Notes:
sample sent on ICE
containers
500 ml poly

SAMPLE RECEIPT
☐ Intact ☐ Cold
☑ On Ice ☐ Ambient

RELINQUISHED BY:		RECEIVED BY:	
[signature] 2/7/19	10:32 DATE/TIME	[signature] 2-7-19	10:32 DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 262019 Client: PGE

Date Received: 2/7/19 Project: _____

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☒ No (skip Section 3 below)

If no cooler Sample Temp (°C): 2.3 using IR Gun # ☒ A, or ☐ B

☒ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/7/19 By (print) _____ (sign) _____

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable			
Were Method 5035 sampling containers present?			
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?			
Are there any missing / extra samples?			
Are samples in the appropriate containers for indicated tests?			
Are sample labels present, in good condition and complete?			
Does the container count match the COC?			
Do the sample labels agree with custody papers?			
Was sufficient amount of sample sent for tests requested?			
Did you change the hold time in LIMS for unpreserved VOAs?			
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?			
Was the client contacted concerning this sample delivery?			
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2/7/19 By (print) AC (sign) _____

Date Labeled 2/7/19 By (print) AC (sign) _____

ENTHALPY ANALYTICAL

Detections Summary for 307019

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 10 (2/7/19)

Client Sample ID : UP HAMMOND TANK Laboratory Sample ID : 307019-001

No Detections

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307019-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 307019-003

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307019	Location:	Resample 10 (2/7/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	02/07/19
Matrix:	Water	Received:	02/07/19
Units:	mg/L	Prepared:	02/07/19
Diln Fac:	1.000	Analyzed:	02/08/19
Batch#:	267621		

Field ID	Type	Lab ID	Result	RL
UP HAMMOND TANK	SAMPLE	307019-001	ND	0.010
UP TIGER PIT	SAMPLE	307019-002	0.013	0.010
UP SOURCE WATER	SAMPLE	307019-003	ND	0.010
	BLANK	QC964159	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307019	Location:	Resample 10 (2/7/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	267621
Field ID:	UP SOURCE WATER	Sampled:	02/07/19
MSS Lab ID:	307019-003	Received:	02/07/19
Matrix:	Water	Prepared:	02/07/19
Units:	mg/L	Analyzed:	02/08/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964160		0.2000	0.1579	79	75-120		
MS	QC964161	<0.01000	0.2000	0.1211	61	56-120		
MSD	QC964162		0.2000	0.1513	76	56-120	22	25

RPD= Relative Percent Difference

Attachment 13

Analytical Report on Resampling #11

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1902474

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue
Antioch, CA 94509

Project Contact: Angel Espiritu
Project P.O.:
Project: Resample II (2/11/19)

Project Received: 02/11/2019

Analytical Report reviewed & approved for release on 02/12/2019 by:

Christine Askari
Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station
Project: Resample II (2/11/19)
WorkOrder: 1902474

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1902474
Date Received:	2/11/19 10:05	**Extraction Method:**	SM4500-CN⁻ E
Date Prepared:	2/12/19	**Analytical Method:**	SM4500-CN⁻ CE
Project:	Resample II (2/11/19)	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
UP Tiger Pit	1902474-001A	Water	02/11/2019 08:30	WC_SKALAR 021219A1_29	172888

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**29**	1.0	1	02/12/2019 11:55

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
UP RO	1902474-002A	Water	02/11/2019 09:25	WC_SKALAR 021219A1_32	172888

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**1.7**	1.0	1	02/12/2019 12:03

Analyst(s): NM

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1902474
Date Prepared:	2/12/19	**BatchID:**	172888
Date Analyzed:	2/12/19	**Extraction Method:**	SM4500-CN⁻ E
Instrument:	WC_SKALAR	**Analytical Method:**	SM4500-CN⁻ CE
Matrix:	Water	**Unit:**	µg/L
Project:	Resample II (2/11/19)	**Sample ID:**	MB/LCS/LCSD-172888

QC Summary Report for SM4500-CN⁻ CE

Analyte	MB Result	MDL	RL			
Total Cyanide	ND	0.84	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	41	40	40	102	101	80-120	1.19	20

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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1902474 **ClientCode: PGEA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com
cc/3rd Party:
PO:
Project: Resample II (2/11/19)

Bill to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509

Requested TAT: 1 day;

Date Received: **02/11/2019**
Date Logged: **02/11/2019**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1902474-001	UP Tiger Pit	Water	2/11/2019 08:30	☐	A											
1902474-002	UP RO	Water	2/11/2019 09:25	☐	A											

Test Legend:

1	CN_SM4500CE_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: PG&E GATEWAY GENERATING STATION **Project:** Resample II (2/11/19) **Work Order:** 1902474
Client Contact: Angel Espiritu **QC Level:** LEVEL 2
Contact's Email: abe4@pge.com **Comments:** **Date Logged:** 2/11/2019

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1902474-001A	UP Tiger Pit	Water	SM4500-CN¯CE (Cyanide, Total)	1	500mL aHDPE w/ NaOH + Na2S2O3	☐	2/11/2019 8:30	1 day	None	☐	
1902474-002A	UP RO	Water	SM4500-CN¯CE (Cyanide, Total)	1	500mL HDPE w/ Na2S2O3	☐	2/11/2019 9:25	1 day	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

RUSH

MAI Work Order # 1902477

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CHAIN OF CUSTODY RECORD

Turn Around Time: (1 Day Rush)		2 Day Rush		3 Day Rush		STD		Quote #	
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #	
Delivery Format:	PDF		GeoTracker EDF		EDD		Write On (DW)		EQuIS	

Report To: Angel Espiritu Bill To: PG&E Gateway
Company: PG&E Gateway Generating Station
Email: abe4@pge.com
Alt Email: Tele:
Project Name: Resample 11 (2/11/19) Project #:
Project Location: Tiger Pit, RO PO #
Sampler Signature: Muskan Environmental Sampling LLC

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
✓ UP Tiger Pit	2/11/19	08:30	1	water	—
✓ UP RO	2/11/19	09:25	1	water	—

Analysis Requested

BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Cyanide (Total) preserved with NaOH to pH>12 by SM 4500 CN-A,B,E			
															X			
															X			

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	2/11/19	10:05		2/11/19	10:05

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 4.4 °C Initials

WET

Page ___ of ___

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Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**2/11/2019 10:05**
Project:	**Resample II (2/11/19)**	Date Logged:	**2/11/2019**
		Received by:	Julia Danielsson
WorkOrder №:	**1902474** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 4.4°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307128
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 11 (2/11/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP TIGER PIT	307128-001
UP RO	307128-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/12/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307128**
Client:	**Pacific Gas & Electric**
Location:	**Resample 11 (2/11/19)**
Request Date:	**02/11/19**
Samples Received:	**02/11/19**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 02/11/19. The samples were received on ice and intact, directly from the field.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 307128

Project No:
Project Name: Resample II (2/11/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Cremerating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (preserved with sodium hydroxide to pH>12 before processing by SM 4500 CN-ABCF
	UP Tiger Pit	2/11/19	08:30	X			1					X	X
	UP RB	2/11/19	09:25	X			1					X	X

Notes:
sample sent on ICE
containers:
500ml poly

Do Not preserve Samples

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
2/11/19 10:52 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
Pat Lam 2/11/19 10:52 DATE/TIME
DATE/TIME
DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 307128 Client: MUSKan Environmental

Date Received: 2/11/19 Project: Resample 11

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): 3.5 using IR Gun # ☑ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened _____ By (print)_____ (sign)_____

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe)_____

☐ Bubble Wrap, ☐ Foam blocks, ☑ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID:_____, or IR Gun # ☑ A ☐ B

Cooler Temp (°C): #1: 3.5, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?			
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?		✓	

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2/11/19 By (print) CF (sign) CF

Date Labeled 2/11/19 By (print) CF (sign) CF

ENTHALPY ANALYTICAL

Detections Summary for 307128

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 11 (2/11/19)

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307128-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.014		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP RO Laboratory Sample ID : 307128-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307128	Location:	Resample 11 (2/11/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	02/11/19
Matrix:	Water	Received:	02/11/19
Units:	mg/L	Prepared:	02/11/19
Diln Fac:	1.000	Analyzed:	02/12/19
Batch#:	267700		

Field ID	Type	Lab ID	Result	RL
UP TIGER PIT	SAMPLE	307128-001	0.014	0.010
UP RO	SAMPLE	307128-002	ND	0.010
	BLANK	QC964476	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307128	Location:	Resample 11 (2/11/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	267700
Field ID:	UP TIGER PIT	Sampled:	02/11/19
MSS Lab ID:	307128-001	Received:	02/11/19
Matrix:	Water	Prepared:	02/11/19
Units:	mg/L	Analyzed:	02/12/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964477		0.2000	0.1665	83	75-120		
MS	QC964478	0.01390	0.2000	0.1986	92	56-120		
MSD	QC964479		0.2000	0.1985	92	56-120	0	25

RPD= Relative Percent Difference

Attachment 14

Analytical Report on Resampling #12

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307577
ANALYTICAL REPORT

Pacific Gas & Electric
4801 Oakport Street
Oakland, CA 94601

Project : STANDARD

Level : II

Sample ID	Lab ID
UP HAMMOND TAND	307577-001
UP RO REJECT	307577-002
UP TIGER PIT	307577-003
UP SOURCE WATER	307577-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/26/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307577**
Client:	**Pacific Gas & Electric**
Request Date:	**02/25/19**
Samples Received:	**02/25/19**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 02/25/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF COSTODY

Chain of Custody # :

C&T LOGIN # 307577

Project No:
Project Name: Resample 12 (2/25/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush 24hr

Sampler: Muckan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925)522-7838
Email: abc4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix: Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: cyanide (total) (pretreated with sodium thiosulfate before preserving) by SM4500 CN-ABCE
	UP Hammond Tand	2/25/19	08:55	X			1					X	X X
	UP RO Reject	2/25/19	08:35	X			1					X	X X
	UP Tiger Pit	2/25/19	08:10	X			1					X	X X
	UP Source Water	2/25/19	08:45	X			1					X	X X

Notes:
Samples Sent on ICE:
containers: 500ml poly
Do Not perserve Sample

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	2/25/19 / 10:00	[signature]	2/25/19 10:00

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 307577 Client: PG+E

Date Received: 2-25-19 Project: _____

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): 3.0 C using IR Gun # ☑ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2-25-19 By (print) AJ (sign) AJ

Shipping info (if applicable) _____

Are custody seals present? ☐ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			✓
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2-25-19 By (print) AJ (sign) AJ

Date Labeled 2-25-19 By (print) AJ (sign) AJ

ENTHALPY ANALYTICAL

Detections Summary for 307577

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location :

Client Sample ID : UP HAMMOND TAND Laboratory Sample ID : 307577-001

No Detections

Client Sample ID : UP RO REJECT Laboratory Sample ID : 307577-002

No Detections

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307577-003

No Detections

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 307577-004

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307577	Prep:	METHOD
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E
Project#:	STANDARD		
Analyte:	Cyanide	Sampled:	02/25/19
Matrix:	Water	Received:	02/25/19
Units:	mg/L	Prepared:	02/25/19
Diln Fac:	1.000	Analyzed:	02/26/19
Batch#:	268093		

Field ID	Type	Lab ID	Result	RL
UP HAMMOND TAND	SAMPLE	307577-001	ND	0.010
UP RO REJECT	SAMPLE	307577-002	ND	0.010
UP TIGER PIT	SAMPLE	307577-003	ND	0.010
UP SOURCE WATER	SAMPLE	307577-004	ND	0.010
	BLANK	QC966128	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307577	Prep:	METHOD
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E
Project#:	STANDARD		
Analyte:	Cyanide	Batch#:	268093
Field ID:	ZZZZZZZZZZ	Sampled:	02/14/19
MSS Lab ID:	307279-002	Received:	02/15/19
Matrix:	Water	Prepared:	02/25/19
Units:	mg/L	Analyzed:	02/26/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966129		0.2000	0.1828	91	75-120		
MS	QC966130	<0.01000	0.2000	0.1470	74	56-120		
MSD	QC966131		0.2000	0.1472	74	56-120	0	25

RPD= Relative Percent Difference

Attachment 15

Analytical Report on Resampling #13

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307679
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample Compliance-2/27/19
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP-I-001	307679-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 03/01/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307679**
Client:	**Pacific Gas & Electric**
Location:	**Resample Compliance-2/27/19**
Request Date:	**02/27/19**
Samples Received:	**02/27/19**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/27/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 207479

Chain of Custody # _____

Project No:

Project Name: Resample Compliance - 2/27/19

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☑ RUSH 24 Hr. ☐ Standard

Sampler: Doug Welch

Report To: Angel Espiritu, Tim Wisdom

Company: PG&E Gateway Generating Station

Telephone: 925-522-7838

Email: ABE4@pge.com, TLW1@pge.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Cyanide (Total) (preserved w/ $Na_2S_2O_3$) by SM 4500 CN-ABCE
	UP I-001	2/27/19	0944	✓				1					✓	✓

Notes:
Samples set on ICE

Do NOT preserve Sample

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:		RECEIVED BY:	
Doug Welch	DATE: 2/27/19 TIME: 0951		DATE: 2-27 TIME: 951
	DATE: 2-27 TIME: 1055		DATE: 2/27/19 TIME: 10:05
	DATE: TIME:		DATE: TIME:

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305679 Client: PGEO

Date Received: 2/27/19 Project: _____

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/27/19 By (print) AC (sign) _____

Shipping Info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☑ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☑ B

Cooler Temp (°C): #1: 5.7, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			✓
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged In 2/27/19 By (print) AC (sign) _____

Date Labeled 2/27/19 By (print) AC (sign) _____

ENTHALPY ANALYTICAL

Detections Summary for 307679

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample Compliance-2/27/19

Client Sample ID : UP-I-001 Laboratory Sample ID : 307679-001

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307679	Location:	Resample Compliance-2/27/19
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	UP-I-001	Sampled:	02/27/19
Matrix:	Water	Received:	02/27/19
Units:	mg/L	Prepared:	02/27/19
Diln Fac:	1.000	Analyzed:	02/28/19

Type	Lab ID	Result	RL
SAMPLE	307679-001	ND	0.010
BLANK	QC966472	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307679	Location:	Resample Compliance-2/27/19
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	ZZZZZZZZZZ	Sampled:	02/27/19
MSS Lab ID:	307710-001	Received:	02/27/19
Matrix:	Water	Prepared:	02/27/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 16

Analytical Report on Resampling #14

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307726
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample Compliance (2/28/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP I-001	307726-001

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Signature: _____ Date: 03/01/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307726**
Client:	**Pacific Gas & Electric**
Location:	**Resample Compliance (2/28/19)**
Request Date:	**02/28/19**
Samples Received:	**02/28/19**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/28/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

C&T LOGIN # 307726

Chain of Custody # :

Project No:

Project Name: Resample Compliance (2/28/19)

Rpt Level: II

Turnaround Time: [redacted] Rush 24hrs

Sampler: Muskan Environmental (Sampling)

Report To: Angel Espiritu

Company : PG&E Gateway Generating Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	Sampling		Matrix			# of Container	Chemical Preservative					Analytical Request: Cyanide (total) (preserved with sodium hydroxide) by SM4500 CN-B&C
		Date	Time	Water	Soil	Other		HCl	H_2SO_4	HNO_3	NaOH	None	
	UP I-001	2/28/19	08:05	X			1					X	X

Notes:
Samples sent on ICE:
containers: 500 ml poly
DO NOT PERSERVE Sample

SAMPLE RECEIPT
☐ Intact ☐ Cold
☒ On Ice ☐ Ambient

RELINQUISHED BY:	RECEIVED BY:
2/28/19 09:25 DATE/TIME	2/28/19 09:25 DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 307726 Client: DTSC

Date Received: 2/28/19 Project:

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (skip Section 3 below)

If no cooler Sample Temp (°C): 4.0 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/28/19 By (print) AL (sign)

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (If other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			✓
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____	added to samples _____	on/at	_____
☐ HCL lot# _____	added to samples _____	on/at	_____
☐ HNO3 lot# _____	added to samples _____	on/at	_____
☐ NaOH lot# _____	added to samples _____	on/at	_____

Section 6:

Explanations/Comments: _____

Date Logged in 2/28/19 By (print) AL (sign)

Date Labeled 2/28/19 By (print) AL (sign)

ENTHALPY ANALYTICAL

Detections Summary for 307726

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample Compliance (2/28/19)

Client Sample ID : UP I-001 Laboratory Sample ID : 307726-001

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307726	Location:	Resample Compliance (2/28/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	UP I-001	Sampled:	02/28/19
Matrix:	Water	Received:	02/28/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	Result	RL	Prepared
SAMPLE	307726-001	ND	0.010	02/28/19
BLANK	QC966472	ND	0.010	02/27/19

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307726	Location:	Resample Compliance (2/28/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	ZZZZZZZZZZ	Sampled:	02/27/19
MSS Lab ID:	307710-001	Received:	02/27/19
Matrix:	Water	Prepared:	02/27/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

From:	Auer, Michael
To:	Espiritu, Angel
Cc:	Wisdom, Tim
Subject:	Re: GGS Permit # 0208841-C: Request for Exemption from 126 Priority Pollutant Applicability
Date:	Thursday, March 28, 2019 9:53:23 AM
Attachments:	image001.jpg image001.jpg

Hi Angel,

As we discussed yesterday. No sampling should be preformed from I-001 industrial tank.

Thanks,
Mike

Sent from my iPhone

On Mar 28, 2019, at 9:09 AM, Espiritu, Angel <ABE4@pge.com> wrote:

> Hi Mike,
>
> Based on our phone conversation yesterday afternoon, we will not sample the I-001 Categorical waste stream for all parameters indicated in page 5 of the permit. As today is our last opportunity date to collect quarterlies for metals, please advise earliest if this is not so. Thank you.
>
> Angel B. Espiritu
> *Pacific Gas & Electric – Gateway Generating Station*
> *Sr. Environmental Consultant-Environmental Compliance Manager*
> *3225 Wilbur Avenue, Antioch, CA 94509*
> *925-522-7838, 510-861-1597 (Cell)*
> *ABE4@pge.com*
>
> ---
>
> **From:** Espiritu, Angel
> **Sent:** Wednesday, March 27, 2019 10:43 AM
> **To:** 'Auer, Michael' <mikea@deltadiablo.org>
> **Cc:** Wisdom, Tim <T1WY@pge.com>; Cain, Darrell <darrellc@deltadiablo.org>; Price, Charles <CRPF@pge.com>; Yun, Jason <jasony@deltadiablo.org>
> **Subject:** RE: GGS Permit # 0208841-C: Request for Exemption from 126 Priority Pollutant Applicability
>
> Hi Mike,
>
> Thank you very much. We understand that with this waiver, we are no longer required to conduct self-monitoring of the Categorical Waste-stream for all parameters as (previously) indicated in Sections E.1.e. and E.1.f. (page 5) of the Discharge Permit. Please let us know if our understanding is accurate. Are you also sending us a revised copy page 5 of the permit for our file/reference?

Thank you again. We appreciate your help.

Angel B. Espiritu
Pacific Gas & Electric – Gateway Generating Station
Sr. Environmental Consultant-Environmental Compliance Manager
3225 Wilbur Avenue, Antioch, CA 94509
925-522-7838, 510-861-1597 (Cell)
ABE4@pge.com

From: Auer, Michael <mikea@deltadiablo.org>
Sent: Wednesday, March 27, 2019 10:23 AM
To: Espiritu, Angel <ABE4@pge.com>
Cc: Wisdom, Tim <T1WY@pge.com>; Cain, Darrell <darrellc@deltadiablo.org>; Price, Charles <CRPF@pge.com>; Yun, Jason <jasony@deltadiablo.org>
Subject: RE: GGS Permit # 0208841-C: Request for Exemption from 126 Priority Pollutant Applicability

Hello Angel,

We have approved your Request for exemption from sampling 126 Priority pollutants from the categorical sample point (I-001) industrial tank for Non-detect levels. This waiver is accepted and will be kept in your file. If chemicals change in your system you will need to resubmit with new calculation before using to stay in compliance. You still are required to sample for Local limits on a quarterly basis from combined sample point that we set up out by Wilbur Ave. Please contact me if you have any questions.

Michael Auer
Environmental Compliance Specialist II | Delta Diablo
2500 Pittsburg-Antioch Hwy, Antioch, CA 94509
p 925.756.1929 **f** 925.756.1961
www.deltadiablo.org | mikea@deltadiablo.org

TRANSFORMING WASTEWATER TO RESOURCES

From: Espiritu, Angel <ABE4@pge.com>
Sent: Wednesday, March 27, 2019 8:46 AM
To: Auer, Michael <mikea@deltadiablo.org>
Cc: Wisdom, Tim <T1WY@pge.com>; Cain, Darrell <darrellc@deltadiablo.org>; Price, Charles <CRPF@pge.com>; Espiritu, Angel <ABE4@pge.com>
Subject: GGS Permit # 0208841-C: Request for Exemption from 126 Priority Pollutant Applicability
Importance: High

Hi Mike,

Attached is advanced electronic copy of the revised GGS request for exemption from 126 Priority Pollutants applicability. As per your request, the engineering calculation/certification by our product vendor (NALCO) was revised to follow your guidance. I am dropping off at your office this morning the wet signed copy of the same. We hope that this revision will satisfy your requirement. Thank you.

Angel B. Espiritu
Pacific Gas & Electric – Gateway Generating Station
Sr. Environmental Consultant-Environmental Compliance Manager
3225 Wilbur Avenue, Antioch, CA 94509
925-522-7838, 510-861-1597 (Cell)
ABE4@pge.com

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

ANNUAL PERMIT FEE	$4,600	PERMIT NUMBER	0208841-C
NAICS/SIC CODE(S)	221112/4911	EXPIRATION DATE	February 28, 2023

The undersigned Industrial User Applicant, in agreement with Delta Diablo, hereinafter known as the District, is granted this Permit to discharge wastewater into the District's Collection and Treatment Facility, a discharge which is in compliance with all applicable provisions of the Federal General Pretreatment Regulations, **40 CFR 403, 423.17** as amended, pursuant to the Clean Water Act of 1977, all state and local ordinances, rules, regulations as amended, and applicable provisions of the District Code, Title 2 Sewer Service System, Chapter 2.28 Pretreatment Regulations, hereafter known as District Code, and all other conditions as set forth herein.

This Permit is granted in accordance with the Industrial User Applicant's Baseline Monitoring Report (BMR) Application date listed below, and submitted to the office of the Manager, Delta Diablo, Antioch, California, and in conformance with data submitted to the District in support of the BMR application.

DATE OF BMR APPLICATION	September 30, 2014
EFFECTIVE DATE OF PERMIT	February 28, 2019

THIS PERMIT IS ISSUED TO THE INDUSTRIAL USER APPLICANT - DISCHARGING FACILITY

Industrial User Applicant Facility Name	**Pacific Gas and Electric (PG&E) Gateway Generating Station**
Industrial User Applicant Facility Address	**3225 Wilbur Ave**
City, State, Zip Code	**Antioch, CA 94509**
Authorized Representative Signature	Tim Wisdom
Authorized Representative Name	**Tim Wisdom**
Authorized Representative Title	**Senior Plant Manager**
Date	Feb. 27, 2019

AUTHORIZATION:

The above-named Industrial User Applicant, **PG&E Gateway Generating Station**, is hereby authorized to discharge wastewater to the District treatment facility, subject to said Applicant's compliance with District Code, Title 2 Sewer Service System, Chapter 2.28 Pretreatment Regulations, as amended, a code establishing sewage rules and regulations for all parts of wastewater discharged into the District's collection system.

Darrell Cain, Laboratory Manager	Darrell Cain	Date Approved	Feb 28, 2019

A. CERTIFICATION STATEMENT

The statement above has been signed by an authorized representative of the Industrial User Applicant (Discharger) as specified in the District Code Title 2 Sewer Service System Chapter 2.28

Authorized (or Duly Authorized) Representative of an Industrial User:

1. If the User is a corporation:

    a. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    b. The local manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Industrial Wastewater or Special Discharge Permit requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. If the User is a partnership or sole proprietorship: A general partner or proprietor, respectively.

3. If the User is a federal, state, or local governmental facility: A director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.

4. The individuals described in paragraphs 1 through 3 above may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company and the written authorization is submitted to the District.

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

B. CONTACT PERSON(S)

The contact persons listed below are to be individuals who are completely familiar with all phases of the operations of processes which contribute to the wastewater discharge from the above-named Discharger. The District shall be notified of any changes in the contact person(s).

DISCHARGER		**DISTRICT**	
NAME	**TELEPHONE**	**NAME**	**TELEPHONE**
Angel Espiritu	(925) 522-7838	Jason Yun	(925)756-1913
	Cell# (510) 861-1597	Mike Auer	(925) 756-1929
Tim Wisdom	(925) 522-7812	Darrell Cain (Alternate)	(925) 756-1915
		Emergency (24 Hours)	**(925) 382-6960**

C. OPERATIONAL INDUSTRIAL WASTEWATER DISCHARGE PERMIT

This Operational Industrial Wastewater Discharge Permit is issued to the Industrial User Applicant (Discharger) Name and Type with the following North American Industry Classification System (NAICS) and/or Standard Industrial Classification (SIC) number(s):

DISCHARGER NAME	DISCHARGER ADDRESS LOCATION	DISCHARGE PERMIT #	NAICS / SIC #
PG&E Gateway Generating Station	**3225 Wilbur Ave.**	**0208841-C**	**221112**

DISCHARGER BUSINESS TYPE	**Steam Electrical Power Generator**

D. WASTEWATER DISCHARGE LIMITATIONS

1. The Discharger is limited by this Permit, as established by District Code, Chapter 2.28.050, as amended, and shall not discharge wastewater containing toxicants having concentrations in excess of the maximum allowable strength, as shown in the following table. (All metals are reported as totals.)

DAILY MAXIMUM LOCAL DISCHARGE LIMITATIONS

Regulated Parameters	Maximum Concentration Allowable (mg/l)
Arsenic	0.15
Cadmium	0.1
Chromium, total	0.5
Copper	0.5
Lead	0.5
Mercury	0.003
Nickel	0.5
Selenium	0.25
Silver	0.2
Zinc	1.0
Cyanide	0.2
Phenols [(1)]	1.0
Ammonia as N	200
Oil and Grease - Animal/Vegetable	300
Oil and Grease- Petroleum/Mineral [(2)]	100
Total Toxic Organics TTO [(3)]	2.0
pH	6-10 s.u.

Footnote: [(1)]Total Recoverable Phenolics, by EPA Method 420.4.
[(2)]Oil and Grease – Petroleum/Mineral by EPA Method 1664 (SGT-HEM).
[(3)]TTO – Total Toxic Organics, by EPA Method 608, 624, and 625. TTO is defined as the summation of all concentrations greater than the minimum limit /reporting limit as listed in Appendix A, Total Toxic Organics (TTO) listing for the District.

2. Effluent limitations, promulgated by the federal General Pretreatment Regulations, 40 CFR 403, shall apply in any instance where those limits are more stringent than those in Chapter 2.28, as amended, of the District Code.

3. The District has the right, in its sole discretion, to modify or change these limitations. The District shall endeavor (but is not required) to notify the Discharger a minimum of thirty (30) days prior to any changes to these limitations, or any other parts of this Permit which would affect the Discharger. The Discharger shall achieve compliance with the changed or modified Permit in the manner and the timeframe specified by the District in its sole discretion.

   If compliance is not expected by the Discharger within thirty (30) calendar days, the Discharger shall request prior approval, in writing, of a longer compliance time schedule from the District. District may specify a longer compliance time schedule in its sole discretion.

4. The District reserves the right to establish, by resolution, ordinance or Discharge permits, more stringent Standards or Requirements on discharges to the District's treatment facility, to protect the facility's operations or processes, contractual obligations, or the ability of the District to meet the requirements of state and federal laws and regulations applicable to operation of the treatment facility, to the maximum extent allowed by law.

5. If the Discharger monitors any pollutant more frequently than required by the District, using 40 CFR Part 136 analytical methods, the results of this monitoring must be submitted to the District (40 CFR 403.12).

6. Indemnification: The Discharger shall indemnify, defend, protect and hold harmless the District, its elected and appointed officials, officers, employees, volunteers, agents, assigns and any successor or successors to the District's interest from and against all claims, actual damages (including but not limited to special and consequential damages), natural resources damages, punitive damages, injuries, costs, response, remediation and removal costs, losses, demands, debts, liens, liabilities, causes of action, suits, legal or administrative proceedings, interest, fines, charges, penalties and expenses (including but not limited to attorneys' and expert witness fees and costs incurred in connection with defending against any of the foregoing or in enforcing this indemnity) of any kind whatsoever paid, incurred or suffered by, or asserted against, the District or its elected officials, officers, employees, volunteers or agents arising from or attributable to the District's issuance of this Permit, or with respect to any action by the Discharger, including without limitation any discharge pursuant to the authority of this Permit, or its activities pursuant to this Permit which result in a release of hazardous substances or hazardous wastes into the environment.

7. The Discharger, in accepting this Permit, and with full knowledge and awareness of its legal rights and obligations, does hereby knowingly waive and forever relinquish any claim or cause of action or any challenge that the Permit or any term or condition of the Permit is invalid, unenforceable, or otherwise contrary to law or regulation. In the event the Discharger should make any filing in any judicial, administrative or other proceeding of whatever kind whatsoever contending in any way that the Permit and/or its terms and conditions are not valid or enforceable, the Discharger and District agree that the District shall have the right to plead this knowing waiver and relinquishment as a complete bar to the Discharger maintaining any such challenge or contention in any judicial, administrative or other proceeding, and the District shall have the immediate right to revoke the Permit in its sole discretion.

E. SELF-MONITORING COMPLIANCE REPORTING REQUIREMENTS

1. The Discharger is required to obtain representative samples of their wastewater discharge. Sampling shall be performed according to the frequency and methods shown below. The samples shall be collected from the designated locations on a representative operating day during the period indicated below. If the operating/discharging period is less than twenty-four (24) hours, the "operating day" is the discharge period. The Discharger shall submit a Laboratory Analysis Report.

   a. **SPECIFIC SAMPLING CONDITIONS:** To obtain an adequate representative sample, all processes contributing to the wastewater stream shall be in normal operation during the sampling period.

   b. **SAMPLING METHODS:** Each composite sample is to consist of individual grab samples, mixed in proportions varying not more than plus or minus five percent (+/-5%) from the instantaneous rate (or highest concentration) of waste flow corresponding to each grab sample collected at regular intervals not greater than one hour, or collected by the use of a continuous automatic sampling device capable of attaining the proportional accuracy stipulated above, throughout the period of discharge.

      A grab sample is defined as an individual volume, collected in a period of less than fifteen (15) minutes, from a particular place which represents the waste-stream characteristics at that place and time. All samples are to be collected, refrigerated and preserved in accordance with current regulation cited in 40 CFR Part 136.

      Grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds as per 40 CFR 403.12.

c. SAMPLING WASTE-STREAM COMPLIANCE MONITORING DESCRIPTION-LOCATION(S)

Name of Sampling Waste-stream	Sampling Waste-stream Compliance Monitoring Location Description
Combined Site Flow	FAC- Control Manhole Local Limits (E-001)

d. SELF-MONITORING COMPLIANCE SAMPLING PARAMETERS

PARAMETER	UNITS	SAMPLE TYPE	SAMPLE FREQUENCY	CONTINUOUS
Flow	gals/day	------	--------	M[(a)]
Flow	gals/month	------	--------	M[(a)]
pH	S.U.	Grab	Q	
BOD	mg/L	Composite	Q	
COD	mg/L	Composite	Q	
TDS	mg/L	Composite	Q	
TSS	mg/L	Composite	Q	
Arsenic	mg/L	Composite	Q	
Cadmium	mg/L	Composite	Q	
Chromium	mg/L	Composite	Q	
Copper	mg/L	Composite	Q	
Iron	mg/L	Composite	Q	
Lead	mg/L	Composite	Q	
Mercury	mg/L	Composite	Q	
Molybdenum	mg/L	Composite	Q	
Nickel	mg/L	Composite	Q	
Selenium (EPA 200.8) reaction mode	mg/L	Composite	Q	
Silver	mg/L	Composite	Q	
Zinc	mg/L	Composite	Q	
Cyanide	mg/L	Grab	Q	
Total Phenolics (EPA 420.4)	mg/L	Grab	Q	
Ammonia as N	mg/L	Grab	Q	
Oil & Grease Animal/Vegetable (EPA 1664)	mg/L	Grab	Q	
Oil & Grease Petroleum/Mineral (EPA 1664) (SGT-HEM)	mg/L	Grab	Q	
TTO (EPA 608)	mg/L	Grab	SA	
TTO (EPA 624)	mg/L	Grab	SA	
TTO (EPA 625)	mg/L	Grab	SA	
Sulfide	mg/L	Grab	A	
Sulfate	mg/L	Grab	A	

Key: Sample Frequency: (D) – Daily, (W) – Weekly, (M) – Monthly, (Q) – Quarterly, (SA) – Semiannual, (A) – Annual

Footnotes: (a) Indicate how flows are measured, i.e., by a primary measurement device or by an estimate using source water meter readings. Include this data on all reports to the District.

(c) EOO1 (Sanitary) - TTO is defined as the summation of all quantifiable values as listed in Appendix A, Total Toxic Organics (TTO) listing for the District.

(d) Grab samples shall be collected during peak flows during normal business hours, if possible.

e. **SAMPLING WASTE-STREAM COMPLIANCE MONITORING DESCRIPTION-LOCATION(S)**

Name of Sampling Waste-stream	Sampling Waste-stream Compliance Monitoring Location Description
Categorical Waste-stream	40 CFR 423 Steam Electric Power Generator (I-001)

f. **SELF-MONITORING COMPLIANCE SAMPLING PARAMETERS**

PARAMETER	UNITS	SAMPLE TYPE	SAMPLE FREQUENCY	CONTINUOUS
126 Priority Pollutants [c]	mg/L	Grab/Comp	SA	
Arsenic	mg/L	Composite	Q	
Cadmium	mg/L	Composite	Q	
Chromium	mg/L	Composite	Q	
Copper	mg/L	Composite	Q	
Lead	mg/L	Composite	Q	
Mercury	mg/L	Composite	Q	
Nickel	mg/L	Composite	Q	
Selenium (EPA 200.8) reaction mode	mg/L	Composite	Q	
Silver	mg/L	Composite	Q	
Zinc	mg/L	Composite	Q	
Cyanide (Total)	mg/L	Grab	SA	
EPA 608	mg/L	Grab	SA	
EPA 624	mg/L	Grab	SA	
EPA 625	mg/L	Grab	SA	

Key: Sample Frequency: (D) – Daily, (W) – Weekly, (M) – Monthly, (Q) – Quarterly, (SA) – Semiannual, (A) – Annual

Footnotes:

(c) IOO1 (Industrial) -Priority pollutants as defined in Appendix B.

(d) Grab samples shall be collected during peak flows during normal business hours, if possible.

(e) One of the IOO1 Semi-annual (SA) samples shall be collected during the WSAC operating process to comply with the 40 CFR 423.17 regulations.

g. **FLOW MEASUREMENT DEVICE CALIBRATION.** The SIU shall calibrate the flow measuring device in accordance with the manufacturer's specification, **ANNUALLY** (IOO1 and EOO1) and **shall submit documentation to the District, in July, with the Semi-annual self-monitoring report.**

h. **FLOW DISCHARGE LIMITATIONS.** The Discharger shall not exceed the designated flow rate listed below.

Maximum Daily Flow	**51,120** gal/day
Instantaneous Flow Maximum	**35.5** gal/min

Footnote: The instantaneous flow shall not exceed the designated flow rate in gallons per minute. A violation shall exist when the instantaneous flow maximum exceeds the designated flow rate in GPM + 10% for 15 minutes continuously, or when the instantaneous flow maximum exceeds flow rate GPM + 10% for a total of 30 minutes within a 24-hour period.

F. COMPLIANCE REPORTING CONDITIONS AND REQUIREMENTS

1. **SPILL OR SLUG DISCHARGE NOTIFICATION:** The Discharger is required to notify the District at (925) 382-6960, immediately upon discovery of any accidental spill or slug discharge of hazardous or toxic waste, discharged to the sanitary sewer. Formal written notification describing the circumstances, including the cause, remedies and preventative action taken, must be submitted to the District within five (5) calendar days of the occurrence.

2. **WASTE OFF-HAUL RECORDS:** All hazardous waste haul manifests shall be available to the District upon request.

3. **SELF-MONITORING COMPLIANCE REPORT:** The Discharger shall submit Self-Monitoring Compliance Reports (SMCRs) to the District, due as shown below. These reports shall include any changes in operation which would materially affect the characteristic of the wastewater discharge, all information pertaining to the average daily flows, Laboratory Analysis Report, any violations which may have occurred since the last report filing date, an explanation of the cause, source, corrective and preventative action taken to prevent reoccurrence, and a time to attain compliance. All reports must be signed by a Corporate Officer or duly authorized representative.

4. **WSAC REPORTING REQUIREMENT**: When the WSAC unit is in operation, the entire month shall be regulated under the 40 CFR 423.17 classification, along with District limits not identified in the federal regulation. The WSAC operating months shall be reported in the SIU Self-Monitoring Reports.

5. **These reports are due as follows:**

	Compliance Monitoring Period	**Compliance Report Due Dates**
1st Quarter	January 1 - March 31	April 15
2nd Quarter	April 1 - June 30	July 15
3rd Quarter	July 1 - September 30	October 15
4th Quarter	October 1 - December 31	January 15
Monthly	----------	15th day of the month following the previous month report period.
1st Semi-annual*	January 1 - June 30	July 15
2nd Semi-annual	July 1 - December 31	January 15

If the 15th day of the reporting month falls on a Saturday or Sunday, the report is due into the District's Office on the Monday following the reporting week-end.
* Semi-annual monitoring requirements can be collected and analyzed at any point within the 6-month monitoring period and submitted with any quarterly report, but no later than the July 15th or January 15th report due dates.
Annual monitoring requirements can be collected and analyzed any time during the calendar year monitoring period and submitted with any quarterly report, but no later than January 15th of the following year.

6. **LABORATORY ANALYSIS METHOD:** Samples are to be analyzed by a State of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory. All liquids samples collected for reporting must be analyzed using analytical methods listed in 40 CFR Part 136 and amendments thereto (40 CFR 403.12).

7. **LABORATORY ANALYSIS REPORT:** A laboratory report by a State of California certified laboratory is to be submitted to the District with all information pertinent to monitoring the wastewater discharge. This report is to include the following:
   a. Date, time and type of sample collection.
   b. Name and telephone number of collector, transporter, analyst and laboratory.
   c. Methods of handling, preservation and storage container type.
   d. Results of the analysis including the chain of custody.

8. **VIOLATION REPORT:** In the event that any parameter is in excess of the Permit discharge limits, the Discharger shall notify the District within twenty-four (24) hours of becoming aware of the violation (40 CFR 403.8). The Discharger shall collect a representative sample, analyze for all parameters in violation and submit the results of the repeat sampling within thirty (30) days of becoming aware of the violations.

   The laboratory results shall be certified as indicated in the Self-Monitoring Compliance Report and immediately reported to the District as described in the Laboratory Analysis Report section.

G. SPECIAL CONDITIONS FOR INDUSTRIAL WASTEWATER DISCHARGE PERMIT No. 0209941-C .

1. **NON-TRANSFERABLE:** This Wastewater Discharge Permit is issued to **PG&E Gateway Station Generating Station**, Discharger, Permit No. **0209941-C**, for a specific operation at a specific location and shall not be assigned or transferred to another User, nor shall this Permit be transferable to any other location.

   No sale, gift, or transfer of stock or other interest of the Permit holder, including but not limited to any reorganization, consolidation, merger recapitalization, stock issuance or re-issuance, voting trust, pooling agreement, escrow arrangement, liquidation or other transaction to which permit holder or any of its shareholders is a party, which would result in a change of control of permit holder, shall be made without prior written consent of the District, in its sole discretion. Violation of this provision shall be a breach of the Permit and constitute grounds for immediate revocation of the Permit by the District.

   Any sale or other proposed transfer of ownership of the above-named business shall obligate the new Industrial User Applicant (Discharger) to seek prior written approval from the District by the submission of a new application and Baseline Monitoring Report (BMR) (District Code, Section 2.28.170 and Section 2.28.250). The previous business owner shall give a copy of the existing permit to the new owner or operator (40 CFR 403.8).

2. **TERM OF PERMIT AND FEES:** Subject to all of the terms and conditions of this Permit, this Permit is valid until **February 28, 2023**, further providing that all fees, as established by the District, are paid, unless otherwise determined or allowed by the District in writing.

3. **MODIFICATION/SUSPENSION/REVOCATION:**

   a. **Modifications:** The District may modify this Permit for good cause, including, but not limited to, the following reasons:

   1. To incorporate any new or revised Federal, State, or local Pretreatment Standards or Requirements.

   2. To address alterations or additions to the Discharger's operation, processes, or wastewater volume or character since the time of the Permit issuance;

   3. To accommodate a change in the District's facility that requires either a temporary or permanent reduction or elimination of the authorized discharge.

   4. In response to information indicating that the permitted discharge poses a threat to the District's facility, District personnel, beneficial sludge use, wastewater reclamation, or the receiving waters.

   5. To address a violation(s) of any terms or conditions of the Permit.

   6. To address misrepresentations or failure to fully disclose all relevant facts in the Permit application or in any required reporting.

   7. To revise or grant a variance from categorical Pretreatment Standards pursuant to 40 CFR 403.13.

   8. To correct typographical or other errors in the Permit.

   9. In the event the District determines it necessary to modify a Permit and impose more stringent limitations or standards on the Discharger's discharge to the District's facility than are stated in the existing Permit (excepting adoption of a new or revised National Pretreatment Standard), the San Francisco Bay Regional Water Quality Control Board General Order 96-01, or the State Water Control Board's General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water (General Permit) the District shall have the right to incorporate more stringent limitations or standards in the Permit.

Except in the case of a modification to administer and enforce a new or revised National Pretreatment Standard, the Industrial User shall be provided with a reasonable period of time in the form of a compliance time schedule to make such modifications to its processes to meet the more stringent limitations or standards.

The District shall determine in its sole discretion, a compliance time schedule taking into account technological feasibility, availability of technology and equipment, costs, and other relevant factors not to exceed twenty-four (24) months, or the expiration date of the Permit, whichever first occurs. The District may establish one or more increments of progress which shall be achieved by the Discharger in order for the Discharger to be considered in compliance with the schedule and the Permit. This period may be extended for a period not to exceed an additional twelve (12) months upon a determination in the sole discretion of the District that additional time is necessary based upon a request for good cause shown by the Discharger.

10. **Suspension/Revocation**: Violations of any terms or conditions of this Permit may result in revocation of this Permit, termination of sewer services, surcharge for excessive loading, civil fines, or penalties, and/or criminal fines, penalties and charges to the maximum extent allowed by law.

11. **Conflicts:** In the event of any actual or potential conflict between the provisions of this Permit and the Provisions of any applicable Code or other referenced authority, the more stringent standard in the Permit or the Code or other authority shall apply, as the case may be, as determined by the District in its sole discretion.

4. **PUBLIC INFORMATION:** All information related to the Discharger's wastewater effluent discharge is public information, as per 40 CFR 403.14, and violators shall be reported in the local newspaper, 40 CFR 403.8. Non-wastewater information may be treated 'Confidential' upon written request (District Code, Section 2.28.400).

5. **RECORD RETENTION:** The Discharger shall retain for no less than three (3) years all monitoring reports and other documents pertinent to this Permit.

6. SLUG DISCHARGE CONTROL PLAN: A slug discharge is any discharge of a non-routine, episodic nature, including, but not limited to, an accidental spill or a non-customary batch discharge. The results of such activities shall be available to the Approval Authority upon request. If the District decides that a slug control plan is needed, the plan shall contain at a minimum the following elements:

a. Description of discharge practices, including non-routine batch discharges;
b. Description of stored chemical;
c. Procedures for immediately notifying the POTW of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5, with procedures for follow-up written notification within five (5) days;
d. If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures of equipment, measures for containing toxic organic pollutants (including solvents) and/or measures and equipment for emergency response (40 CFR 403.8).

7. TOTAL DISSOLVED SOLIDS (TDS) FUTURE DISCHARGES TO THE DISTRICT:

The District is in the process of a technical review regarding Total Dissolved Solids (TDS) contributions to the District's wastewater treatment plant. Pending the outcome of this study, the District may implement TDS regulations and/or polices to manage this constituent within the District's service area for existing and future Users (In accordance with District Code, Section 2.28.210 – Permit Modification).

If new TDS limits are established, progress reports shall be submitted in accordance with District Code, Section 2.28.255 – Compliance Schedule Progress Reports. The District shall develop the specific reporting schedule requirements once these limits become effective and shall convey this information to the Discharger.

8. HAZARDOUS WASTE / SOLID WASTE MANAGEMENT REQUIREMENTS:

The General Pretreatment Regulation – 40 CFR 403.8; requires notification of the Resource Conservation and Recovery Act (RCRA) requirements. The Discharger may be subject to solid or hazardous waste management requirements pursuant to the Federal RCRA and State Hazardous Waste Management Regulations.

In order to ensure that your facility complies with all respective regulatory agencies' waste management regulations, please consult the agencies listed below:

AGENCY NAME	PHONE NUMBER
California Department of Toxic Substances Control (DTSC)	(510) 540-3739
U.S. EPA RCRA Hotline (Federal Hazardous Waste Regulations)	(800) 424-9346

9. FEDERAL INDUSTRIAL CATEGORY CLASSIFICATION:

Power Generation facility by 40 CFR 423.17 Pretreatment Standards for New Sources (PSNS). The steam electrical power generating point source category includes the generation of electricity for distribution and sale which results primarily from a process utilizing fossil-type fuel (coal, oil, or gas) (40 CFR 423.10).

(a) There shall be no discharge of polychlorinated biphenyl compounds such as those used for transformer fluid.

(b) The pollutants discharged in chemical metal cleaning wastes shall not exceed 1.0 mg/l (Maximum for one (1) day) for copper.

(c) Reserved-Nonchemical Metal Cleaning Wastes.

(d) There shall be no discharge of wastewater pollutants from fly ash transport water.

(e) Cooling Tower blowdown pollutant concentrations.

10.IMPLEMENTATION CONDITIONS FOR FEDERAL CATEGORICAL REGUALTION:

Cooling Tower Blowdown system is NOT in operation: The District Local limitation regulations are in effect when the cooling tower blowdown process is not operating.

Cooling Tower Blowdown system is in operation: The Federal Categorical Regulation (40 CFR 423.17 PSNS) and the District Local limitation shall be in effect when the cooling tower system is operational. The federal regulation shall be in effect for the entire time the cooling tower system process is operating. The most stringent limit is applied if there are established limits between a categorical and a local limit.

WSAC system is NOT in operation: The District Local limitation regulations are in effect when the WSAC process is not operating.

WSAC system is in operation: The Categorical Federal Regulation (40 CFR 423.17) and the District Local limitation shall be in effect when the WSAC system is operational. The regulation shall be in effect for the entire month the WSAC process is operating.

CATEGORICAL LIMITS (INDUSTRIAL PROCESS WASTEWATER BLOWDOWN DISCHARGE)

Federal Category **Applicable: PG&E Gateway Generating Station**		**Categorical Limits mg/L unless otherwise stated**	**Categorical Limits mg/L unless otherwise stated**	**Local Limits mg/L unless otherwise stated**
STEAM ELECTRICAL POWER GENERATION 40 CFR 423.17 (PSNS)	Pollutant or Pollutant Property	Maximum for 1 day mg/L	Maximum for any time mg/L	Maximum daily average mg/L
The pollutants discharged in the cooling system blow-down shall not exceed the concentrations listed	Chromium, total	--------	0.2*	0.5
	Zinc, total	--------	1.0	1.0
	126 Priority Pollutants	Non-Detect**	Non-Detect**	2.0
These categorical and/or local limits shall apply to the blow-down waste-stream. These categorical limits shall apply to the industrial process waste-stream only when the cooling system is operating. District local limits are in effect at all times. *The most stringent limit is applied if there are established limits for a categorical and a local limit. **The 126 Priority Pollutants (Appendix B) contained in chemicals added for cooling tower maintenance.				

CATEGORICAL LIMITS (INDUSTRIAL PROCESS WASTEWATER DISCHARGE)

Federal Category **Applicable: PG&E Gateway Generating Station**		**Categorical Limits mg/L unless otherwise stated**	**Categorical Limits mg/L unless otherwise stated**	**Local Limits mg/L unless otherwise stated**
STEAM ELECTRICAL POWER GENERATION 40 CFR 423.17 (PSNS)	Pollutant or Pollutant Property	Maximum for 1 day mg/L	Maximum for any time mg/L	Maximum daily average mg/L
The pollutants discharged in chemical metal cleaning wastes shall not exceed the copper concentration listed	Copper, total	1.0	----------	0.5*
*The most stringent limit is applied if there are established limits for a categorical and a local limit.				

11. BACKGROUND & DATA REQUIREMENT ON INCOMING SOURCE WATER

a. The Discharger shall submit a certification statement, from the water chemistry vendor indicating that no chemicals listed in Appendix B are used in the cooling tower system process water treatment.

b. The blowdown from the cooling tower system shall be a representative sample of the process wastes discharged from the cooling tower system.

c. The Discharger shall report the average daily blowdown cycles during each month while the system is in operation. This shall be included in the monthly Self-Monitoring Reports.

H. PROHIBITED DISCHARGES

1. General Prohibitions: No User shall introduce or cause to be introduced into the Publicly Owned Treatment Work (POTW), any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all Users of the POTW whether or not they are subject to categorical Pretreatment Standards or any other national, state, or local Pretreatment Standards or Requirements.

2. Specific Prohibitions: No User shall introduce or cause to be introduced into the POTW sewer system any pollutants, substances, or wastewater which cause, threaten to cause, or are capable of causing, either alone or by interaction with other substances:

   a. Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees F (60 degrees C) using the test methods specified in 40 CFR 261.21.

   b. Wastewater having a pH less than 6.0 or more than 10.0, or otherwise causing corrosive structural damage to the POTW equipment.

   c. Solids or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference.

   d. Pollutants, including oxygen demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with the POTW.

   e. Wastewater having a temperature which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees F (40 degrees C).

   f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause acute worker health and safety problems.

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause interference or pass through.

   h. Trucked or hauled pollutants, except at discharge points designated by the Manager in accordance with Section 2.28.115.

   i. Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair.

   j. Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently impart color to the treatment plant's effluent, thereby violating the District's NPDES permit or the receiving water quality standards.

   k. Wastewater containing any radioactive wastes or isotopes, except in compliance with applicable state or federal regulations.

   l. Any storm water, ground water, rain water, street drainage, yard drainage, surface water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, and unpolluted wastewater, unless specifically authorized by the Manager.

m. Sludge, screenings, or other residues from the pretreatment of industrial wastes.
n. Medical Wastes, except as specifically authorized by the Manager in an Industrial Wastewater or Special Discharge Permit.

o. Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail toxicity test.
p. Detergents, surface active agents, or other substances which might cause excessive foaming in the POTW.

q. Fats, oils, or greases (FOG) of animal or vegetable origin in concentrations greater than 300 mg/L, or total petroleum hydrocarbon concentrations of more than 100 mg/L.

r. Any interference with the treatment plant or disposal processes, including any recycling or reclamation processes.

s. All prescription and non-prescription (over the counter) pharmaceutical drugs or mediations.

t. Any unpolluted water including but not limited to cooling water, process water or blow-down from cooling towers or evaporative coolers, or any other unpolluted water unless a permit for such has been obtained from the District prior to the discharge. The District may approve the discharge of such water only when no reasonable alternative method of disposal is available or such alternative, in the determination of the District, is unacceptable.

u. Any septic tank waste, holding tank waste, portable toilet water, grease interceptor waste or oil and sand interceptor waste, unless a permit is issued by the District, or unless such sludge or waste is transported to the District by a permitted waste hauler.

3. Pollutants, substances, or wastewater prohibited by this Section shall not be processed or stored in such a manner that they could be discharged to the POTW.

4. The Discharger shall not cause, create or allow a 'bypass,' described as "the intentional diversion of wastestreams from any portion of the Discharger's discharging facility," and shall be subject to enforcement action(s) against the Discharger unless (per 40 CFR 403.17):
   a. Bypass was unavoidable to prevent loss of life, personal injury or severe property damage and;

   b. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.

   c. If an industrial User knows in advance of the need to bypass, it shall submit prior notice to the District, if possible:

      (i) The Discharger shall submit an, oral notice of an unanticipated bypass that exceeds applicable pretreatment standards, to the District within twenty-four (24) hours from the time the Discharger becomes aware of the bypass. A written submission shall be provided within five (5) days from the time the discharger becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and time, and if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

      (ii) The District may waive the written report on a case by case basis if the oral report has been received within twenty-four (24) hours.
   d. The District may approve an anticipated bypass, after considering its adverse affects, if the District determines that it will meet the conditions specified in this section.

5. The Discharger shall notify the District immediately for slug discharges that could potentially cause interference, damage or operational harm to the District treatment facility, as further may be defined in Section F.

6. Whenever deemed necessary by the Manager, the Discharger shall, at their own expense, provide such treatment, or take such other measures as shall be required in order to reduce or eliminate objectionable waste characteristics, or to reduce the rate of discharge of wastewater being deposited in the facility so that the same may be received therein:

   a. Without causing any damage to, or any undue interference with, the operation of the sewerage system.

   b. Without causing violation of the District's NPDES Permit or State Water Resources Control Board's General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water (General Permit).

   c. Without causing hazard of any kind to humans or animals.

7. In the event pretreatment or special facilities are required to make the industrial wastes acceptable, as provided under District Code, Chapter 2.28.100, the Industrial Applicant shall furnish plans, approved prior to construction, showing the method of collection and pretreatment proposed to be used, and a permit shall not be issued until said plans or required modifications thereof have been checked and approved by the Manager. All such facilities shall then be installed in conformity with the approved plans.

I. STANDARD CONDITIONS AND TERMS OF OPERATIONAL WASTEWATER DISCHARGE PERMIT

1. The Discharger, in consideration of issuance of this Permit, agrees to be bound by all term and conditions as set forth herein in the Permit, including, without limitation, that the Discharger shall:

a. Accept and abide by all provisions of District Code, Title 2 Sewer Service System, Chapter 2.28 Pretreatment Regulations, as amended, and all other applicable local, state and federal regulations, including the General Pretreatment Regulations (40 CFR 403), Resources Conservation and Recovery Act (RCRA), and all conditions set forth in this Permit.
b. Shall install, operate and maintain, in an efficient manner and at no expense to the District, any waste pretreatment facilities necessary as a condition of acceptance for wastewaters into the District's sewer collection system.
c. Cooperate at all times with the District and its representatives in their inspection, sampling and monitoring of all wastewaters, pretreatment facilities, and allow inspection and/or copying of all records pertinent to any discharge.
d. Immediately notify the District of any accidental, negligent or other occurrence that results in a discharge to the District sewer of any wastes or processed water not covered under this Permit.
e. Notify the District of any significant changes in raw materials, operation or production that will affect the characteristics or volume of wastewater discharged.
f. Notify the District as agreed upon by both parties in advance of any planned slug or batch discharge of any waste, the volume or characteristic of which would materially alter the character of the permitted discharge.
g. Promptly pay all fees and charges for permits, monitoring and testing User charges, and any fees or penalties arising from violations of the conditions of this Permit or any other rule or regulations of the District's discharge standards.
h. Apply to the District for Permit renewal, if Discharger determines to so request, no less than ninety (90) days prior to the expiration date.

9. No discharge permit shall exceed five (5) years.

10. This permit continues in force and effect until a new permit is issued or the District rescinds the permit. Only dischargers authorized to discharge under the expiring permit are covered by the continued permit.

11. Throughout this Permit, there are references to the Act, and the regulations promulgated pursuant to 40 CFR Part 403 implementing the Act. As used or cited throughout in this Permit, any reference to "the Act" or 40 CFR Part 403 and its various subdivisions, shall mean and refer to The Clean Water Act and 40 CFR Part 403 as they may be amended from time to time.

J. VIOLATIONS OF DISCHARGE LIMITS

For any parameter found to be in excess of the limits herein by analysis of representative sample by the Discharger's Self-Monitoring Program, the Discharger shall notify the District in accordance to the Violation Report section.

The Discharger may be subject to penalties, fines, or additional capacity charges for exceeding established limits, including but not limited to exceeding daily or instantaneous flow limits.

K. ENFORCEMENT

Enforcement Path: Administrative noncompliance issues such as failure to provide within forty-five (45) days after the due date required reports, such as self-monitoring report, ninety (90) day compliance report, reports submitted to the District without being signed by the authorized representative of the discharger, COC missing permit compliance information (for example does not include the required pH results) for the most recent six (6) months will typically follow the enforcement path below:

a. First administrative noncompliance – written Warning Notice;

b. Second administrative noncompliance of the same condition – NOV with a Compliance Schedule;

c. Third administrative noncompliance of the same condition or lack of good faith effort to comply with compliance schedule – NOV with a two hundred fifty dollar ($250) administrative civil penalty;

d. Further administrative noncompliance of the same condition – possible revocation, administrative civil penalty of one thousand five hundred dollars ($1,500); compliance time schedule under threat of revocation; possible civil or criminal action in Superior Court to enforce all applicable remedies at law and equity.

Discharge noncompliance for permit exceedances for the most recent six (6) months will typically follow the enforcement path below:

a. First exceedance – written Warning Notice unless in SNC or TRC – then NOV;

b. Second exceedance of the same parameter/constituent – NOV with a Compliance Schedule;

c. Third exceedance of the same parameter or lack of good faith effort to comply with Compliance Schedule – NOV with a five hundred dollar ($500) administrative civil penalty;

d. Further exceedances of the same parameter – possible revocation; administrative civil penalty of three thousand dollars ($3,000); compliance time schedule under threat of revocation; possible civil or criminal action in Superior Court to enforce all applicable remedies at law and equity.

L. PENALTIES

Any person or discharger who violates or fails to comply with any provisions of this Permit, the District Code-Chapter 2.28, or applicable laws and regulations, shall be subject to actions, fines and penalties, including without limitation, in accordance with the authorities set forth below.

1. **Administrative Action:** Pursuant to the authority of California Government Code Sections 54739 to 54740.6, the District or District staff may issue administrative complaints, conduct administrative hearings, and/or impose civil penalties in accordance with the procedures set forth in these sections for violation of the District's requirements

relating to pretreatment of industrial waste or the prevention of the entry of industrial waste into the District's collection system or treatment works.

These penalties shall be as follows:

a. In an amount which shall not exceed two thousand dollars ($2,000) for each day for failing or refusing to furnish technical or monitoring reports.

b. In an amount which shall not exceed three thousand dollars ($3,000) for each day for failing or refusing to timely comply with any compliance schedule established by the District;

c. In an amount which shall not exceed five thousand dollars ($5,000) per violation for each day for discharges in violation of any waste discharge limitation, permit condition, or requirement issued, reissued, or adopted by the District;

d. In an amount which does not exceed ten dollars ($10) per gallon for discharges in violation of any suspension, cease and desist order, or other orders, or prohibition issued, reissued, or adopted by the District. Unless appealed, orders setting administrative civil penalties shall become effective and final upon issuance thereof, and payment shall be made within thirty days. Penalty amounts may be adjusted from time to time as authorized by applicable statutes or regulations. As to court actions authorized by the above-referenced sections, counsel designated by the Board, shall institute appropriate actions to affect statutorily authorized remedies, upon order of the District Board. Issuance of an administrative fine shall not be a bar against, or a prerequisite for, taking any other action against the Discharger.

2. Civil Actions for Penalties: Any Discharger who violates any provision of this Permit or permit contract condition, or who violates any cease and desist order, prohibition, or effluent limitation or other District requirement, shall be liable civilly for a penalty not to exceed twenty-five thousand dollars ($25,000) for each day in which such violation occurs pursuant to California Government Code Section 54740. Pursuant to the authority of the Clean Water Act, 33 U.S.C.A. Section 1251, et seq. any Discharger committing a violation of any provision of the District Code, which is also a violation of a pretreatment standard, effluent standard, or limitation or other applicable provision of the Clean Water Act shall be liable civilly for a sum not to exceed twenty-five thousand dollars ($25,000) per violation for each day in which such violation occurs. District Counsel, or other special counsel designated by the Board, upon order of the Board, shall institute such actions as may be appropriate in the appropriate court to impose, assess, and recover such sums. In determining the amount of civil liability, the Court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the Discharger's violation, corrective actions by the Discharger, the compliance history of the Discharger, and any other factor as justice requires.

3. Other Civil Actions: The District may require compliance with permit conditions or limitations by issuing administrative orders, including cease and desist orders and compliance schedules. Said orders are enforceable in a California court of general jurisdiction. The District, however, may directly undertake any court action available at law or equity, including but not limited to a civil action for penalties without first seeking an administrative order or making use of a compliance schedule, and it may concurrently undertake such administrative and court actions as deemed appropriate.

4. In addition, any User or person who is found to have violated an order of the District Board of Directors, or to have failed to comply with any provision of this chapter, or the orders, rules, regulations, or permits issued hereunder, shall be subject to the civil penalties set forth in the State Pretreatment Program (Water Code Section 13370 et. seq.) up to twenty-five thousand dollars ($25,000) per day, plus twenty-five dollars ($25) times the number of gallons exceeding one thousand (1,000) gallons discharged, but not cleaned up.

5. In addition, any person who intentionally or negligently violates any Cease and Desist Order or Clean-up and Abatement Order or discharges waste, or cause or permits waste to be deposited where it is discharged into the water of the state, in violation of any waste discharge requirement or other order or prohibition issued by the regional Water Quality Control Board, and creates a condition of pollution or nuisance, shall be subject to the civil penalties set forth in the Porter-Cologne Act (Water Code Section 13351 et seq.), up to fifteen thousand dollars ($15,000) per day.

6. In addition to the penalties provided herein, the District may recover reasonable attorney's fees, court costs, court reporter's fees, and other expenses of litigation from the Discharger or person found to have violated this chapter or the orders, rules, regulations, and permits issued hereunder (Ord. 41 § 36; Ord. 15 § 7.13, 1980).

7. General Criminal Penalties: Any person who violates any provision of this Section, permit or permit contract, or who violates any administrative order, prohibition, or effluent limitation, is guilty of a misdemeanor, and upon conviction is punishable by a fine not to exceed one thousand dollars ($1,000) or imprisonment for not more than thirty (30) days in the county jail, or both. Each day a violation occurs may constitute a new and separate offense and may subject the violator to an additional full measure of penalties as set forth herein. Nothing in this section is intended to exclude the potential for prosecution under any other provision of law as a result of any conduct in violation of this Code.

8. **Falsifying Information:** Any person who knowingly makes any false statements, representations, or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to this Industrial Wastewater or Special Discharge Permit, wastewater discharge permit contract, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this Section, shall upon conviction be punished by a fine of not more than one thousand dollars ($1000) or imprisonment for not more than thirty (30) days, or both. Each separate act of falsification, tampering, or knowingly rendering inaccurate any device or method, shall constitute a new and separate offense and shall be subject to the penalties contained herein. Nothing in this section is intended to exclude the potential for prosecution under the applicable perjury statutes of the state of California to the extent such falsification was incorporated in a document signed under the penalty of perjury.

M. FEES AND WASTEWATER CHARGES

This Permit may be amended to include changes to rates and charges, which may be established by the District during the term of this Permit. Payment is required within thirty (30) days of billing by the District.

N. PRETREATMENT CHARGES AND FEES

The District may adopt reasonable fees for reimbursement of costs of setting up and operating the District's Pretreatment Program, which may include:

1. Fees for Industrial Wastewater or Special Discharge Permit applications including the cost of processing such applications;

2. Fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing a User's discharge, and reviewing monitoring reports and certification statements submitted by Users;

3. Fees for reviewing and responding to accidental discharge procedures and construction;

4. Fees for filing appeals;

5. Fees to recover administrative and legal costs associated with the enforcement activity taken by the District to address IU noncompliance; and

6. Other fees as the District may deem necessary to carry out the requirements contained herein. These fees relate solely to the matters covered by this Chapter and are separate from all other fees, fines, and penalties chargeable by the District.

APPENDIX A

District Local Discharge Limits include a parameter called Total Toxic Organics (TTO). The required analytical methods for TTO analysis are listed in 40 CFR Part 136 and include the following EPA methods: 624,625, 608, and 1613, respectively. Unless specifically required, EPA method 1613 for dioxins is not mandatory for routine TTO analysis. The constituents with concentrations greater than the minimum limit/reporting limit must be added together to determine compliance with the District's Local Discharge Limit for TTO of 2.0 mg/L. The following is a list of the constituents of TTO:

EPA Method 624 Compounds

Acrolein
Acrylonitrile
Benzene
Bromodichloromethane (Dichlorobromomethane)
Bromform
Bromomethane (Methyl Bromide)
Carbon tetrachloride (Tetrachloromethane)
Chlorobenzene
Chloroethane (Ethyl Chloride)
2-Chloroethyl vinyl ether
Chloroform (trichloromethane)
Chloromethane (Methyl Chloride)
Dibromochloromethane (Chlorodibromomethane)
1, 2-Dichlorobenzene
1, 3-Dichlorobenzene
1, 4-Dichlorobenzene
1, 1-Dichloroethane
1, 2-Dichloroethane
1, 1-Dichloroethene (1, 1-dichloroethylene)
trans-1, 2-Dichloroethene
1, 2-Dichloropropane
cis-1, 3-Dichloropropene
trans-1, 3-Dichloropropene
Ethylbenzene
Methylene Chloride (Dichloromethane)
1, 1, 2, 2,-Tetrachloroethane
Tetrachloroethene (PCE)
Toluene
1, 1, 1-Trichloreothane
1, 1, 2-Trichloroethane
Trichloroethene (TCE)
Trichlorofluoromethane
Vinyl chloride (Chloroethylene)

EPA Method 625 Compounds

Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo (a) anthracene
Benzo (a) pyrene
Benzo (b) fluoranthene
Benzo (g, h, i) perylene
Benzo (k) fluoranthene
Benzyl butyl phthalate
bis (2-Chloroethoxy) methane
bis (2-Chloroethyl) ether
bis (2-Chloroisopropyl) ether
bis (2-Ethylhexyl) phthalate
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
2-Chloronaphthalene
2-Chlorophenyl
4-Chlorophenyl phenyl ether
Chrysene
Dibenzo (a, h) anthracene
1, 2-Dichlorobenzene
1, 3-Dichlorobenzene
1, 4-Dichlorobenzene
3, 3'-Dichlorobenzidine
2, 4-Dichlorophenol
Diethyl phthalate
2,4-Dimethylphenol
Dimethylphthalate
Di-n-butylphthalate
2, 4-Dinitrophenol
2, 4-Dinitrotoluene
2, 6-Dinitrotoluene
Di-n-octylphthalate
1,2-Diphenylhydrazine/Azo
Fluoranthene
Fluorene
Hexachlorobenzene
Hexchlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1, 2, 3-cd) pyrene
Isophorone
2-Methyl-4, 6-dinitrophenol
Naphthalene
Nitrobenzene
2-Nitrophenol
4-Nitrophenol
N-Nitrosodimethylamine
N-Nitroso-di-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
1, 2, 4-Trichlorobenzene
2, 4, 6-Trichlorophenol

EPA Method 608 Compounds

Aldrin
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
Chlordane
4, 4'-DDD
4, 4'-DDE
4,4'DDT
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
PCB 1016
PCB 1221
PCB 1232
PCB 1242
PCB 1248
PCB 1254
PCB 1260
Toxaphene

APPENDIX B

(for 40 CFR part 423 - 126 Priority Pollutants)

001 Acenaphthene
002 Acrolein
003 Acrylonitrile
004 Benzene
005 Benzidine
006 Carbon tetrachloride (tetrachloromethane)
007 Chlorobenzene
008 1, 2, 4-trichlorobenzene
009 Hexachlorobenzene
010 1, 2-dichloroethane
011 1, 1, 1-trichloreothane
012 Hexachloroethane
013 1, 1-dichloroethane
014 1, 1, 2-trichloroethane
015 1, 1, 2, 2-tetrachloroethane
016 Chloroethane
017 Bis (2-chloroethyl) ether
018 2-chloroethyl vinyl ether (mixed)
019 2-chloronaphthalene
020 2, 4, 6-trichlorophenol
021 Parachlorometa cresol
022 Chloroform (trichloromethane)
023 2-chlorophenol
024 1,2-dichlorobenzene (benzo(b)fluoranthene)
025 1,3-dichlorobenzene (benzo(b)fluoranthene)
026 1, 4-dichlorobenzene
027 3, 3-dichlorobenzidine
028 1, 1-dichloroethylene
029 1, 2-trans-dichloroethylene
030 2, 4-dichlorophenol
031 1, 2-dichloropropane
032 1, 2-dichloropropylene (1, 3-dichloropropene)
033 2, 4-dimethylphenol
034 2, 4-dinitrotoluene
035 2, 6-dinitrotoluene
036 1, 2-diphenylhydrazine
037 Ethylbenzene
038 Fluoranthene
039 4-chlorophenyl phenyl ether
040 4-bromophenyl phenyl ether
041 Bis(2-chloroisopropyl) ether
042 Bis(2-chloroethoxy) methane
043 Methylene chloride (dichloromethane)
044 Methyl chloride (dichloromethane)
045 Methyl bromide (bromomethane)
046 Bromoform (tribromomethane)
047 Dichlorobromomethane
048 Chlorodibromomethane
049 Hexachlorobutadiene
050 Hexachloromyclopentadiene
051 Isophorone
052 Naphthalene
053 Nitrobenzene
054 2-Nitrophenol
055 4-nitrophenol
056 2, 4-dinitrophenol
057 4, 6-dinitro-o-cresol
058 N-nitrosodimethylamine
059 N-nitrosodiphenylamine
060 N-nitrosodi-n-propylamine
061 Pentachlorophenol
062 Phenol
063 Bis(2-ethylhexyl) phthalate
064 Butyl benzyl phthalate
065 Di-N-Butyl Phthalate
066 Di-n-octyl Phthalate
067 Diethyl Phthalate
068 Dimethyl phthalate
069 1, 2-benzanthracene (benzo(a)anthracene)
070 Benzo(a)pyrene (3, 4-benzo-pyrene)
071 3,4-Benzofluoranthene (benzo(b) fluoranthene)
072 11,12-benzofluoranthene (benzo(b) fluoranthene
073 Chrysene
074 Acenaphthylene
075 Anthracene
076 1, 12-benzoperylene (benzo(ghi) perylene
077 Fluorene
078 Phenanthrene
079 1, 2, 5, 6-dibenzanthracene (dibenzo(a,h)anthracene)
080 Indeno (1, 2, 3-cd) pyrene (2, 3-o-pheynylene pyrene)
081 Pyrene
082 Tetrachloroethylene
083 Toluene
084 Trichloroethylene
085 Vinyl chloride (chloroethylene)
086 Aldrin
087 Dieldrin
088 Chlordane (technical mixture and metabolites)
089 4, 4-DDT
090 4, 4-DDE (p, p-DDX)
091 4, 4-DDD (p, p-TDE)
092 Alpha-endosulfan
093 Beta-endosulfan
094 Endosulfan sulfate
095 Endrin
096 Endrin aldehyde
097 Heptachlor
098 Heptachlor epoxide (BHC-hexachlorocyclohexane)
099 Alpha-BHC
100 Beta-BHC
101 Gamma-BHC (lindane)
102 Delta-BHC (PCB-polychlorinated bi-phenyls)
103 PCB-1242 (Arochlor 1242)
104 PCB-1254 (Arochlor 1254)
105 PCB-1221 (Arochlor 1221)
106 PCB-1232 (Arochlor 1232)
107 PCB-1248 (Arochlor 1248)
108 PCB-1260 (Arochlor 1260)
109 PCB-1016 (Arochlor 1016)
110 Toxaphene
111 Antimony
112 Arsenic
113 Asbestos
114 Beryllium
115 Cadmium
116 Chromium
117 Copper
118 Cyanide, (Total)
119 Lead
120 Mercury
121 Nickel
122 Selenium
123 Silver
124 Thallium
125 Zinc
126 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)

PRIORITY POLLUTANT SAMPLING EXEMPTION FORM

BUSINESS NAME: PG&E Gateway Generating Station

MAILING ADDRESS: 3225 Wilbur Ave
Antioch, CA 94509

DISCHARGE ADDRESS: 3225 Wilbur Ave
Antioch, CA 94509

PHONE NUMBER:

PERIOD COVERED: July 23, 2019 - December 31, 2019

This priority pollutant sampling exemption form is valid until the aforementioned expiration date **OR** until such time that the facility's cooling tower chemical inventory is changed. Changes in cooling tower chemical inventory will invalidate this exemption and require priority pollutant sampling to resume.

PRIORITY POLLUTANT CERTIFICATION STATEMENT

I hereby certify that:

☑ This facility **does not** discharge to the sanitary sewer system any Priority Pollutants listed in 40 CFR 423, Appendix A-126 Priority Pollutants in concentrations greater than 10 ppb.

☑ There have been **no changes** to the chemical inventory for cooling tower maintenance at this facility since the engineering calculations demonstrating that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR part 136 was submitted.

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

AUTHORIZED REPRESENTATIVE NAME:

PRINT NAME AND TITLE Tim Wisdom - Sr. Plant Manager

SIGNATURE Tim Wisdom DATE 7-23-19

PRIORITY POLLUTANT SAMPLING EXEMPTION FORM

BUSINESS NAME: PG&E Gateway Generating Station

MAILING ADDRESS: 3225 Wilbur Ave
Antioch, CA 94509

DISCHARGE ADDRESS: 3225 Wilbur Ave
Antioch, CA 94509

PHONE NUMBER: (925) 522-7812

PERIOD COVERED: January 1, 2020 - December 31, 2020

This priority pollutant sampling exemption form is valid until the aforementioned expiration date **OR** until such time that the facility's cooling tower chemical inventory is changed. Changes in cooling tower chemical inventory will invalidate this exemption and require priority pollutant sampling to resume.

PRIORITY POLLUTANT CERTIFICATION STATEMENT

I hereby certify that:

☑ This facility **does not** discharge to the sanitary sewer system any Priority Pollutants listed in 40 CFR 423, Appendix A-126 Priority Pollutants in concentrations greater than 10 ppb.

☑ There have been **no changes** to the chemical inventory for cooling tower maintenance at this facility since the engineering calculations demonstrating that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR part 136 was submitted.

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

AUTHORIZED REPRESENTATIVE NAME:

PRINT NAME AND TITLE Tim Wisdom - Sr. Plant Manager

SIGNATURE Tim Wisdom DATE Dec. 5, 2019

Gateway Generating Station
(00-AFC-1C)

Annual Compliance Report No. 11

Exhibit 4c
Notice of Violation/Corrective Action
(Condition of Certification SOIL&WATER-4)

There was no NOV issued to PG&E GGS during RY 2019.

Gateway Generating Station
(00-AFC-1C)

Annual Compliance Report No. 11

Exhibit 5
HAZ-1 Appendix C: Table 8.12-4 (Condition of Certification HAZ-1), and Hazardous Materials Inventory as submitted to CUPA through CERS

HAZ-1 Appendix C

Table 8.12-4

Hazardous Materials to be Added at Gateway Generating Station During the Operational Phase

Material	CAS Number	Purpose	Location	Container	Hazardous Characteristics	Maximum Quantity On-Site	Unit	Regulatory Thresholds (lbs.)			
								Cal-ARP	Federal RQ	Federal TPQ	Federal TQ
Aqueous Ammonia (29%)	7664-41-7	SCR	Ammonia Storage Facility	Storage Tank (20,000 gal)	Corrosive	285,000	lbs.	500	100	500	20,000
Trisodium Phosphate (or Pre-blended Phosphate/Caustic)	7601-54-9 1310-73-2	pH/Corrosion Control	Northeast Corner of Admin Building	Bulk Returnable Container (Tote) with Hose Connections	Corrosive/Toxic	1,000	lbs.				
Carbohydrazide	487-18-7	Oxygen Scavenger (Oxygen removal/metal passiavtion)	Between ST and ACC	Bulk Returnable Container (Tote) with Hose Connections	Toxic	500	gals.				
Aqueous Ammonia (19.4%) (or ammonia monoethanolamine blend) *	7664-41-7 141-43-5	Boiler Feed pH adjustment/corrosion control	Between ST and ACC (Northwest corner of ACC)	Bulk Returnable Container (Tote) with Hose Connections	Corrosive	330	gals.	500			
Sodium Bisulfite	7631-90-5	Water treatment feedwater dechlorinization	Fire Water Pump Enclosure	Bulk Returnable Container (Tote) with Hose Connections	Toxic	500	gals.				
Stabilized Bromine/Sodium Hydroxide	1310-73-2	Bacteria control for feedwater tank/WSAC cooling water biocide	Fire Water Pump Enclosure	Bulk Returnable Container (Tote) with Hose Connections	Corrosive/Toxic	400	gals.				
Sulfuric Acid *	7664-93-9	WSAC water pH adjustment	Between ACC and WSAC and Warehouse (Storage)	Bulk Returnable Container (Tote) with Hose Connections	Corrosive	50	gals.	1,000			
Corrosion/Scale Inhibitor/Sodium Hydroxide	1310-73-2	Scale and corrosion inhibitor for closed loop cooling	Fire Water Pump Enclosure	Drum	Toxic	55	gals.				
Scale Inhibitor/Sulfuric Acid	7664-93-9	Scale and corrosion inhibitor evaporative cooling system (WSAC)	Between ACC and WSAC	Bulk Returnable Container (Tote) with Hose Connections	Toxic	500	gals.				
Sodium Hypochlorite	7681-52-9	Evaporative Cooling (WSAC) biocide	Between ACC and WSAC	Bulk Returnable Container (Tote) with Hose Connections	Corrosive/Toxic	500	gals.				
Hydrogen Gas	1333-74-0	Heat transfer medium for generators	Storage (South of ACC), In Process (CT1, CT2, ST)	Bulk Returnable Container (Tube Trailer) & In Process	Flammable	1,029	lbs.				10,000
Propylene Glycol	00057-55-6	Heat transfer fluid (Anti-freeze)	Power Block	Bulk Returnable Container (Tube Trailer) & In Process	Flammable (HMIS Flam-1)	3,326	gals.				
Monoethanolamine (30%-60%) *	141-43-5	Corrosion Inhibitor	Between ST and ACC (Northwest corner of ACC)	Bulk Returnable Container (SS Metal Tote) with Hose Connections	Corrosive/Toxic/ Combustable	400	gals.				
Ammonium Hydroxide (15%) & Monoethanolamine (8%)	1336-21-6 141-43-5	Corrosion Inhibitor	Between ST and ACC (Northwest corner of ACC)	Bulk Returnable Container (SS Metal Tote) with Hose Connections	Corrosive, Toxic	400	gals.				
Aluminum chloride hydroxide sulfate (10-30%)	39290-78-3	Flocculant	Storm Water Treatment System and Warehouse (Storage)	Bulk Returnable Container (Tote) with Hose Connections	Corrosive	550	gals.				
Sodium Hydroxide (10-50%)	1310-73-2	Precipitate Transition (for Iron)	Storm Water Treatment System	Bulk Returnable Container with Hose Connections	Corrosive	80	gals.				

* The aqueous ammonia (or ammonia monoethanolamine blend) and sulfuric acid are stored in catchments sized to meet all applicable codes.

Updated 3/21/2018

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Air Cooled Condenser Gear Boxes**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Lubricating Oil	**Gallons**	**432**	**12**	432			1-DECENE, HOMOPOLYMER, HYDROGENATED	95 %		68037-01-4
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C3	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Alternate Feed Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**656**	**656**	656			Dielectric Oil (Highly Refined Petro Oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: D6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Ammonia and Scavenger Feed Skid**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	NALCO 5711	**Gallons**	**400**	**400**	400		- Physical	AMMONIA	15 %		
	CAS No	State: Liquid	Storage Container: Plastic/Non-metalic Drum		Pressue: Ambient	Waste Code	Corrosive To Metal	MEA	8 %		
Corrosive		Type: Mixture	Days on Site: 365		Temperature: Ambient		- Health Skin Corrosion Irritation				
	Map: Figure 2 Grid: C4						- Health Respiratory Skin Sensitization				
							- Health Serious Eye Damage Eye Irritation				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Aqueous Ammonia Storage Tank**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive	**Aqua Ammonia (29%)** CAS No 1336-21-6 Map: Figure 2 Grid: A6	**Gallons** State Liquid Type Mixture	**18020** Storage Container Aboveground Tank Days on Site: 365	**18020**	18020 Pressue Ambient Temperature Ambient	Waste Code	- Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Hazard Not Otherwise Classified	Ammonia	30 %	✓	7664-41-7

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Behind (East of) Plant Service Building and Shop Annex**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**Acetylene, Compressed** CAS No 74-86-2 Map: Figure 2 Grid: B4	**Cu. Feet** State Gas Type Pure	**1740** Storage Container Cylinder Days on Site: 365	**145**	1740 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Acetylene	100 %		74-86-2
DOT: 2.1 - Flammable Gases Flammable Gas	**Propane, Compressed** CAS No 74-98-6 Map: Figure 2 Grid: B4	**Gallons** State Liquid Type Pure	**111** Storage Container Cylinder Days on Site: 365	**9.6**	74 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Propane	100 %		74-98-6
Combustible Liquid, Class III-B	**Shell Turbo Oil DR46** CAS No Map: Figure 2 Grid: C4	**Gallons** State Liquid Type Mixture	**110** Storage Container Steel Drum Days on Site: 365	**55**	110 Pressue Ambient Temperature Ambient	Waste Code		Highly Refined Petroleum Oil Proprietary Additives	99 % 1 %		

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Carbon Dioxide Bulk Storage**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Carbon Dioxide, Liquid** CAS No 124-38-9 Map: Figure 2 Grid: D2	**Gallons** State Liquid Type Pure	**2326** Storage Container Aboveground Tank Days on Site: 365	**2326**	2326 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Carbon Dioxide	100 %		124-38-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Combustion Turbine-A**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Carbon Dioxide, Liquid** CAS No 124-38-9 Map: Figure 2 Grid: B5	**Gallons** State Liquid Type Pure	**2326** Storage Container Aboveground Tank Days on Site: 365	**2326**	2326 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Carbon Dioxide	100 %		124-38-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Combustion Turbine-A Lube Oil Reservoir**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Shell Turbo Oil T 32	**Gallons**	**6000**	**6000**	6000			Highly Refined Petroleum Oil	99 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Proprietary Additives	5 %		
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Combustion Turbine-B**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Carbon Dioxide, Liquid** CAS No 124-38-9 Map: Figure 2 Grid: B5	**Gallons** State Liquid Type Pure	**2326** Storage Container Aboveground Tank Days on Site: 365	**2326**	2326 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Carbon Dioxide	100 %		124-38-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Combustion Turbine-B Lube Oil Reservoir**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Shell Turbo Oil T 32	**Gallons**	**6000**	**6000**	6000			Highly Refined Petroleum Oil	99 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Proprietary Additives	5 %		
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C5	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Construction Power Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**390**	**390**	390			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: B6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Construction Trailer Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**402**	**402**	402			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C8	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT A - PEEC and CT B - PEEC**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2	**AlphaCell OPzS Stationary Flooded Tubular Lead Acid Battery** CAS No Map: Figure 2 Grid: C6, C5	**Gallons** State: Liquid Type: Mixture	**357** Storage Container: Other Days on Site: 365	**3**	357 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Lead, Lead Compounds Sulfuric Acid	62 % 7 %	 ✓	7439-92-1 7664-93-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-A Auxiliary Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**6155**	**6155**	6155			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-A Excitation Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**414**	**414**	414			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-A Isolation Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**1413**	**1413**	1413			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-A Main Step-Up Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**12800**	**12800**	12800			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-B Auxiliary Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**6155**	**6155**	6155			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C5	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-B Excitation Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**414**	**414**	414			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C5	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-B Isolation Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**1413**	**1413**	1413			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C5	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **CT-B Main Step-Up Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**12800**	**12800**	12800			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C5	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Gas Conditioning Station**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Helium, Compressed** CAS No 7440-59-7 Map: Figure 2 Grid: D4	**Cu. Feet** State Gas Type Pure	**1168** Storage Container Cylinder Days on Site: 365	**292**	1168 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Helium	100 %		7440-59-7

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Hazardous Mat/Waste Storage Area**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Non-RCRA Mixed Oil	**Gallons**	**55**	**55**	37	110		Oil			
	CAS No	State: Liquid	Storage Container: Steel Drum		Pressue: Ambient	Waste Code: 221					
	Map: Figure 2 Grid: B8, C3	Type: Waste	Days on Site: 90		Temperature: Ambient						
	Non-RCRA Solids (Oily Debris)	**Pounds**	**3035**	**500**	1742	3035					
	CAS No	State: Solid	Storage Container: Steel Drum		Pressue: Ambient	Waste Code: 223					
	Map: Figure 2 Grid: B8, C3	Type: Waste	Days on Site: 90		Temperature: Ambient						
	RCRA Liquid Lab Bench Waste	**Gallons**	**60**	**30**	30	80	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sulfuric Acid			
	CAS No	State: Liquid	Storage Container: Plastic/Non-metalic Drum		Pressue: Ambient	Waste Code: 791					
	Map: Figure 2 Grid: B8, C3	Type: Waste	Days on Site: 90		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **HRSGs (Heat Recovery Steam Generators) - A and B**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Argon, Compressed Gas** CAS No Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Pure	**1344** Storage Container: Cylinder Days on Site: 365	**336**	1344 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Argon	100 %		
DOT: 2.2 - Nonflammable Gases	**EPA Protocol Gas (Carbon Monoxide/Nitrogen Mixture)** CAS No Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Mixture	**1440** Storage Container: Cylinder Days on Site: 365	**144**	1440 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Carbon Monoxide	88 % 13 %		7727-37-9 630-08-0
DOT: 2.2 - Nonflammable Gases	**EPA Protocol Gas Carbon Monoxide 11/Nitric/Nitrogen Mixture** CAS No Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Mixture	**864** Storage Container: Cylinder Days on Site: 365	**144**	864 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Nitric Oxide Carbon Monoxide	99 % 1 % 10 %		7727-37-9 10102-43-9 630-08-0
DOT: 2.2 - Nonflammable Gases	**EPA Protocol Gas Carbon Monoxide 660/Nitric/Nitrogen Mixture** CAS No Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Mixture	**864** Storage Container: Cylinder Days on Site: 365	**144**	864 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Nitric Oxide Carbon Monoxide	99 % 1 % 20 %		7727-37-9 10102-43-9 630-08-0
DOT: 2.2 - Nonflammable Gases	**EPA Protocol Gas Nitric/Nitrogen Mixture** CAS No Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Mixture	**576** Storage Container: Cylinder Days on Site: 365	**144**	576 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Nitric Oxide	99 % 2 %		7727-37-9 10102-43-9
DOT: 2.2 - Nonflammable Gases	**EPA Protocol Gas Nitrogen/Oxygen Mixture** CAS No Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Mixture	**1152** Storage Container: Cylinder Days on Site: 365	**144**	1152 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Oxygen	99 % 20 %		7727-37-9 7782-44-7
DOT: 2.2 - Nonflammable Gases	**Helium, Compressed** CAS No 7440-59-7 Map: Figure 2 Grid: B5	**Cu. Feet** State: Gas Type: Pure	**1344** Storage Container: Cylinder Days on Site: 365	**336**	1344 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Helium	100 %		7440-59-7

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **HRSGs (Heat Recovery Steam Generators) - A and B**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Oxidizing Gas, Gaseous	**Oxygen, Compressed** CAS No 7782-44-7 Map: Figure 2 Grid: B3, B5	**Cu. Feet** State Gas Type Pure	**1124** Storage Container Cylinder Days on Site: 365	**281**	1124 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Oxidizer - Health Hazard Not Otherwise Classified	Oxygen	100 %		7782-44-7

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location
HRSGs (Heat Recovery Steam Generators) - A and B, Attached to Transformers

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Quantities Largest Cont.	Quantities Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Nitrogen, Compressed** CAS No 7727-37-9 Map: Figure 2 Grid: B5,C4,C5,C6	**Cu. Feet** State Gas Type Pure	**3263** Storage Container Cylinder Days on Site: 365	**251**	3263 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Nitrogen	100 %		7727-37-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Hydrogen Bulk Storage**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**Hydrogen Six Pack, Compressed** CAS No Map: Figure 2 Grid: D2	**Cu. Feet** State: Gas Type: Pure	**4704** Storage Container: Cylinder Days on Site: 365	**196**	4704 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Hydrogen	100 %		1333-74-0
DOT: 2.1 - Flammable Gases Flammable Gas	**Hydrogen, Compressed** CAS No 1333-74-0 Map: Figure 2 Grid: D1	**Cu. Feet** State: Gas Type: Pure	**134000** Storage Container: Other Days on Site: 365	**134000**	134000 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Hydrogen	100 %		1333-74-0

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Nitrogen Bulk Storage**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**Nitrogen, Compressed** CAS No 7727-37-9 Map: Figure 2 Grid: D2	**Cu. Feet** State Gas Type Pure	**10944** Storage Container Cylinder Days on Site: 365	**304**	10944 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Nitrogen	100 %		7727-37-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Phosphate Feed Skid**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	NALCO BT-3400	**Gallons**	**400**	**400**	400		- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide	5 %		1310-73-2
								Proprietary	99 %		
	CAS No	State: Liquid	Storage Container: Tote Bin		Pressue: Ambient	Waste Code					
	Map: Figure 2 Grid: B4	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Plant Services Building**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2	**GNB Flooded HCT 37 Lead Acid Battery** CAS No Map: Figure 2 Grid: B4	**Gallons** State: Liquid Type: Mixture	**834** Storage Container: Other Days on Site: 365	**14**	834 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Lead Sulfuric Acid Lead Dioxide	52 % 44 % 21 %	✓	7439-92-1 7664-93-9 1309-60-0

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **RO Water Treatment**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Sodium Bisulfite CAS No Map: Figure 2 Grid: C2	**Gallons** State: Liquid Type: Mixture	**50** Storage Container: Tank Inside Building Days on Site: 365	**50**	50 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sodium Bisulfite	20 %		763-90-5
Corrosive	**Sodium Hydroxide** CAS No Map: Figure 2 Grid: C2	**Gallons** State: Liquid Type: Pure	**75** Storage Container: Aboveground Tank Days on Site: 365	**75**	75 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	SODIUM HYDROXIDE	100 %		1310-73-2

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Sodium Hexafluoride (Elect Equipment) Breakers**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**SF6** CAS No 2551-62-4 Map: Figure 2 Grid: C5,C6,D4,D5,D6	**Cu. Feet** State Gas Type Pure	**2043** Storage Container Other Days on Site: 365	**639**	2043 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Sulfur Hexafluoride	100 %		2551-62-4

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **ST Electro-Hydraulic Control System**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Hydraulic Oil	**Gallons**	**130**	**130**	130			Highly refined mineral oil (C15 - C50)	99 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C4	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **ST Excitation Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**414**	**414**	414			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C4	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **ST Main Step-Up Transformer**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Mineral Oil	**Gallons**	**14143**	**14143**	14143			Dielectric Oil (highly refined petroleum oil)	100 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C4	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Steam Turbine Lube Oil Reservoir**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Refined Petroleum Oil	**Gallons**	**4800**	**4800**	4800			Highly Refined Petroleum Oil	99 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Proprietary Additives	5 %		
Combustible Liquid, Class III-B	Map: Figure 2 Grid: C4	Type: Mixture	Days on Site: 365		Temperature: > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Stormwater Treatment System**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	HaloKlear BHR-50	**Gallons**	**275**	**275**	275		- Physical	Aluminum chloride hydroxide sulfate	30 %		39290-78-3
	CAS No	State: Liquid	Storage Container: Tote Bin		Pressue: Ambient	Waste Code	Corrosive To Metal				
Corrosive	Map: Figure 2 Grid: C9	Type: Mixture	Days on Site: 365		Temperature: Ambient		- Health Serious Eye Damage Eye Irritation				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Switchyard**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2	**KCR-7 Lead Calcium Batteries** CAS No Map: Figure 2 Grid: D4	**Gallons** State: Liquid Type: Mixture	**90** Storage Container: Other Days on Site: 365	**1.5**	90 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Lead Calcium Sulfuric Acid Lead Dioxide	52 % 44 % 21 %	 ✓ 	7439-92-1 7664-93-9 1309-60-0

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Warehouse**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Gas Turbine Compressor Cleaning Fluid CAS No Map: Figure 2 Grid: B8-9	**Gallons** State: Liquid Type: Mixture	**264** Storage Container: Tote Bin Days on Site: 365	**264**	264 Pressue: Ambient Temperature: Ambient	Waste Code		Cleaning Fluid			
Corrosive	**HaloKlear BHR-50** CAS No Map: Figure 2 Grid: B8-9	**Gallons** State: Liquid Type: Mixture	**275** Storage Container: Tote Bin Days on Site: 365	**275**	275 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Corrosive To Metal - Health Serious Eye Damage Eye Irritation	Aluminum chloride hydroxide sulfate	30 %		39290-78-3
	NALCO BT-3400 CAS No Map: Figure 2 Grid: B8-9	**Gallons** State: Liquid Type: Mixture	**55** Storage Container: Plastic/Non-metalic Drum Days on Site: 365	**55**	55 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide Proprietary	5 % 99 %		1310-73-2
Combustible Liquid, Class III-B	**Petroleum Distillate** CAS No Map: Figure 2 Grid: B8-9	**Gallons** State: Liquid Type: Mixture	**55** Storage Container: Steel Drum Days on Site: 365	**55**	55 Pressue: Ambient Temperature: Ambient	Waste Code		Severely Hydrotreated Naphthenic Petroleum Oil BHT	100 % 0 %		64742-53-6 128-37-0
Combustible Liquid, Class III-B	**Shell Tellus Oil 32** CAS No Map: Figure 2 Grid: B8-9	**Gallons** State: Liquid Type: Mixture	**550** Storage Container: Steel Drum Days on Site: 365	**55**	55 Pressue: Ambient Temperature: Ambient	Waste Code		Highly refined mineral oils and additives			
Combustible Liquid, Class III-B	**Shell Turbo Oil DR46** CAS No Map: Figure 2 Grid: B8-9	**Gallons** State: Liquid Type: Mixture	**55** Storage Container: Steel Drum Days on Site: 365	**55**	55 Pressue: Ambient Temperature: Ambient	Waste Code		Highly Refined Petroleum Oil Proprietary Additives	99 % 1 %		

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Warehouse - Hazardous Mat/Waste Storage**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	NALCO Trac107 CAS No Map: Figure 2 Grid: B8	**Gallons** State: Liquid Type: Mixture	**55** Storage Container: Plastic/Non-metalic Drum Days on Site: 365	**55**	55 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide Inorganic Salt Proprietary	1 % 5 % 99 %		1310-73-2
	RCRA Waste Paint, Liquids CAS No Map: Figure 2 Grid: B8, C3	**Gallons** State: Liquid Type: Waste	**55** Storage Container: Steel Drum Days on Site: 90	**55**	37 Pressue: Ambient Temperature: Ambient	7 Waste Code: 352		Waste Paint, Liquids			
	Universal Waste - eWaste CAS No Map: Figure 2 Grid: B8, C3	**Pounds** State: Solid Type: Waste	**1230** Storage Container: Steel Drum Days on Site: 90	**500**	500 Pressue: Ambient Temperature: Ambient	1230 Waste Code: 181					
	WASTE AMMONIA AND WATER LESS THAN 1% CAS No Map: Figure 2 Grid: B8, C3	**Gallons** State: Liquid Type: Waste	**55** Storage Container: Steel Drum Days on Site: 365	**55**	37 Pressue: Ambient Temperature: Ambient	44 Waste Code: 135		AMMONIUM HYDROXIDE	1 %		1336-21-6
	WASTE RCRA Ethanolamine Soution CAS No Map: Figure 2 Grid: B8, C3	**Gallons** State: Liquid Type: Waste	**275** Storage Container: Tote Bin Days on Site: 365	**275**	151 Pressue: Ambient Temperature: Ambient	245 Waste Code: 331		MONOETHANOLAMINE PROPRIETARY INGREDIENTS			141-43-5
	WASTE SAND BLAST SAND NON-RCRA CAS No Map: Figure 2 Grid: B8, C3	**Pounds** State: Solid Type: Waste	**1600** Storage Container: Steel Drum Days on Site: 365	**500**	1056 Pressue: Ambient Temperature: Ambient	1600 Waste Code: 181					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Warehouse, Behind (East of) Plant Service Building and Shop Annex Flammable Cabinet**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
Combustible Liquid, Class III-B	**Shell S3 BA 150** CAS No Map: Figure 2 Grid: C4, B8-9	**Gallons** State: Liquid Type: Mixture	**100** Storage Container: Plastic Bottle or Jug Days on Site: 365	**5**	67 Pressue: Ambient Temperature: Ambient	Waste Code		HIGHLY REFINED BASE OILS	99 %		64742-54-7
Combustible Liquid, Class III-B	**Shell T68** CAS No Map: Figure 2 Grid: C4, B8-9	**Gallons** State: Liquid Type: Mixture	**50** Storage Container: Plastic Bottle or Jug Days on Site: 365	**5**	33 Pressue: Ambient Temperature: Ambient	Waste Code		HIGHLY REFINED BASE OILS	99 %		64742-54-7
Combustible Liquid, Class III-B	**Shell Tellus Oil 32** CAS No Map: Figure 2 Grid: C4, B8-9	**Gallons** State: Liquid Type: Mixture	**50** Storage Container: Plastic Bottle or Jug Days on Site: 365	**5**	33 Pressue: Ambient Temperature: Ambient	Waste Code		Highly refined mineral oils and additives			
Combustible Liquid, Class III-B	**Shell Turbo Oil T 46** CAS No Map: Figure 2 Grid: C4, B8-9	**Gallons** State: Liquid Type: Mixture	**50** Storage Container: Plastic Bottle or Jug Days on Site: 365	**5**	33 Pressue: Ambient Temperature: Ambient	Waste Code		HIGHLY REFINED BASE OIL	90 %		64741-97-5

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Warehouse, Behind Plant Services Building**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Gear Lubricant (Shell Omala S4 GX 320)	**Gallons**	**170**	**5**	170			Highly Refined Petroleum Oil	99 %		
								Proprietary Additives	1 %		
	CAS No	State: Liquid	Storage Container: Plastic/Non-metalic Drum		Pressue: Ambient	Waste Code					
	Map: Figure 2 Grid: B8-9, C4	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Warehouse, Stormwater Treatment System**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Sodium Hydroxide (10-50%)	**Gallons**	**30**	**15**	15		- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	SODIUM HYDROXIDE	50 %		1310-73-2
Corrosive	CAS No Map: Figure 2 Grid: C9, B8-9	State: Liquid Type: Mixture	Storage Container: Plastic Bottle or Jug Days on Site: 365		Pressue: Ambient Temperature: Ambient	Waste Code					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Water Treatment Building / Fire Water Pump House**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
Combustible Liquid, Class II	**Diesel Fuel** CAS No 68476-34-6 Map: Figure 2 Grid: C1	**Gallons** State Liquid Type Mixture	**500** Storage Container Tank Inside Building Days on Site: 365	**500**	500 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Specific Target Organ Toxicity - Health Aspiration Hazard	Diesel Fuel	100 %		
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2	**Interstate Workaholic Lead Acid Battery** CAS No Map: Figure 2 Grid: C1	**Gallons** State Liquid Type Mixture	**9** Storage Container Other Days on Site: 365	**4.5**	9 Pressue Ambient Temperature Ambient	Waste Code	- Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sulfuric Acid	35 %	✓	7439-92-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **Water Treatment Chemical Storage**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	NALCO 7408 CAS No Map: Figure 2 Grid: C2	**Gallons** State: Liquid Type: Mixture	**65** Storage Container: Plastic/Non-metalic Drum Days on Site: 365	**65**	65 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Sodium Bisulfite Proprietary	60 % 70 %		7631-90-5
Corrosive	**NALCO Stabrex ST20** CAS No Map: Figure 2 Grid: C2	**Gallons** State: Liquid Type: Mixture	**65** Storage Container: Plastic/Non-metalic Drum Days on Site: 365	**65**	65 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide Proprietary	5 % 99 %		1310-73-2

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **WSAC Chem Feed Skid**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive	**NALCO 3D TRASAR 3DT447** CAS No Map: Figure 2 Grid: C3	**Gallons** State: Liquid Type: Mixture	**110** Storage Container: Plastic/Non-metalic Drum Days on Site: 365	**110**	110 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation	Phosphoric Acid Sulfuric Acid Tolyltriazole	5 % 5 % 5 %	✓	7664-38-2 7664-93-9 29385-43-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **PG&E**
Facility Name **PG&E GATEWAY GENERATING STATION**
3225 Wilbur Ave, Antioch 94509

Chemical Location **WSAC Chemical Feed Skid**

CERS ID **10018894**
Facility ID **07-000-773723**
Status **Submitted** on 2/28/2019 10:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	NALCO Stabrex ST70	**Gallons**	**110**	**110**	110		- Physical Corrosive To Metal - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide	5 %		1310-73-2
	CAS No	State: Liquid	Storage Container: Plastic/Non-metalic Drum		Pressue: Ambient	Waste Code		Proprietary	99 %		
	Map: Figure 2 Grid: C3	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Gateway Generating Station
(00-AFC-1C)

Annual Compliance Report No. 11

Exhibit 6
Copy of Notice of Intent (NOI) and Revised SWPPP (October 2018) to comply with the requirements of Industrial General Permit (SOIL & WATER-3)
No changes relative to submitted Exhibit 6 in ACR #10

CALIFORNIA Water Boards

State Water Resources Control Board

NOTICE OF INTENT

GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ ORDER No. 2014-0057-DWQ)
(Excluding Construction Activities)

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

WDID: 5S07I021950 Status: Active

Operator Information

Type: Private Business

Name: Pacific Gas Electric Company
Address: PO Box 770000
Address 2:
City/State/Zip: San Francisco CA 94177
Federal Tax ID:

Contact Name: Tim Wisdom
Title: Plant Manager
Phone Number: 925-522-7812
Email Address: T1WY@pge.com

Facility Information

Level:

Contact Name: Diana Furman
Title: Environmental Compliance Manager
Site Name: Gateway Generating Station
Address: 3225 Wilbur Ave
City/State/Zip: Antioch CA 94509
County: Contra Costa
Latitude: 38.01228 Longitude: -121.75859

Site Phone #: 925-522-7838
Email Address: dmwr@PGE.com
Site Size: 32.5 Acres
Industrial Area Exposed to Storm Water: 22 Acres
Percent of Site Impervious (Including Rooftops): 28 %

SIC Code Information

1. 4911 Electric Services
2.
3.

Additional Information

Receiving Water: San Joaquin River
Flow: Indirectly
Storm Drain System:
Compliance Group:

RWQCB Jurisdiction: Region 5S - Sacramento
Phone: 916-464-3291
Email: r5s_stormwater@waterboards.ca.gov

Certification

Name: Alvin Thoma
Date: October 12, 2016
Title: Senior Plant Manager

Stormwater Pollution Prevention Plan

Gateway Generating Station

WDID#: 5S07I021950

Facility Address: 3225 Wilbur Avenue, Antioch, CA 94509

Facility Contact:
Angel B. Espiritu, Environmental Compliance Manager
Pacific Gas & Electric Company
(925) 522-7838

Prepared for

Pacific Gas and Electric Company®

Storm Water Quality Group
3401 Crow Canyon Road, San Ramon, CA
Jeremy Laurin, Storm Water Work Supervisor
(925) 719-4466

Initial Preparation Date: December 2014
Revision Date: October 2018

EXECUTIVE SUMMARY

This storm water pollution prevention plan (SWPPP) was prepared in accordance with the requirements of the California State Water Resources Control Board (SWRCB) Industrial Storm Water Permit for Discharges Associated with Industrial Activity (Order No. 2014-0057-DWQ) which was adopted on April 1, 2014. This permit replaces Order No. 97-03-DWQ which had been in effect from August 1, 1997 through June 30, 2015.

This SWPPP identifies and evaluates all sources of pollutants that may affect the quality of industrial storm water discharges and authorized non-storm water discharges, identifies and describes the minimum best management practices (BMPs) and any advanced BMPs implemented to reduce or prevent pollutants in industrial storm water discharges and authorized non-storm water discharges.

Pacific Gas and Electric Company shall fully implement this SWPPP by July 1, 2015. The SWPPP will be revised whenever necessary and will be certified and submitted electronically to the SWRCB via the Storm Water Multi-Application and Report Tracking System (SMARTS).

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ACRONYMS AND ABBREVIATIONS

AST	Aboveground Storage Tank
BMP	Best Management Practice
CFR	Code of Federal Regulations
COC	Chain of Custody
CWA	Clean Water Act
DDT	Dichlorodiphenyltrichloroethane
ECM	Environmental Compliance Manager
ELAP	Environmental Laboratory Accreditation Program
ELG	Effluent Limitation Guideline
ERA	Exceedance Response Action
General Permit	Industrial Storm Water Permit for Discharges Associated with Industrial Activity
HMBP	Hazardous Materials Business Plan
LRP	Legally Responsible Person
mg/L	Milligrams per liter
NAL	Numeric Action Level
NEC	No Exposure Certification
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NSWD	Non-Storm Water Discharge
OSHA	Occupational Health and Safety Administration
PG&E	Pacific Gas and Electric Company
PPT	Pollution Prevention Team
PRDs	Permit Registration Documents
QISP	Qualified Industrial Storm Water Practitioner
QSE	Qualifying Storm Event
RWQCB	Regional Water Quality Control Board
SIC	Standard Industrial Classification
SMARTS	Storm Water Multi-Application and Report Tracking System
SPCC	Spill Prevention Control and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
WDID	Waste Discharge Identification

STORM WATER POLLUTION PREVENTION PLAN SIGNATURE AND CERTIFICATION

I am duly authorized to sign reports required by the California State Water Resources Control Board Industrial Storm Water Permit for Discharges Associated with Industrial Activity. 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 ensure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Tim Wisdom
Tim Wisdom, Sr. Plant Manager

Feb. 10, 2017
Date

1. INTRODUCTION

This industrial storm water pollution prevention plan (SWPPP) for Pacific Gas and Electric Company's (PG&E) Gateway Generating Station (facility) was prepared in accordance with the requirements of the California State Water Resources Control Board Industrial Storm Water Permit for Discharges Associated with Industrial Activity ("General Permit," Order NPDES No. CAS000001). A copy of the General Permit (Order No. 2014-0057-DWQ) dated April 1, 2014, is attached as Appendix A.

This SWPPP will be modified whenever there is a change in operation, maintenance or construction which may affect the discharge of pollutants to surface water. It will also be amended if it is found ineffective in achieving the stated objectives listed in the General Permit.

1.1 Background and Requirements

The Federal Clean Water Act (CWA) prohibits discharges from point sources to waters of the United States, unless the discharges are in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was amended to establish a framework for regulating municipal storm water discharges and discharges associated with industrial activity under the NDPES program. Industrial storm water discharges are regulated pursuant to CWA section 402(p)(3)(A). This provision requires NPDES permits for industrial storm water discharges to comply with technology-based effluent limitations and water quality-based limitations, as well as implement best management practices (BMPs).

On April 17, 1997, the California State Water Resources Control Board (SWRCB) issued NPDES General Permit for Industrial Storm Water Discharges, Excluding Construction Activities, Water Quality Order 97-03-DWQ (previous permit). The current General Permit, Order 2014-0057-DWQ, rescinds the previous permit and serves as the statewide general permit for industrial storm water discharges. The General Permit requires dischargers to:

- Eliminate unauthorized non-storm water discharges (NSWDs);
- Develop and implement SWPPPs that include BMPs;
- Implement minimum BMPs, and advanced BMPs as necessary, to achieve compliance with the effluent and receiving water limitations of this General Permit;
- Conduct monitoring, including visual observations and analytical storm water monitoring for indicator parameters;
- Compare monitoring results for monitored parameters to applicable numeric action levels (NALs) derived from the U.S. EPA 2008 Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (2008 MSGP) and other industrial storm water discharge monitoring data collected in California;
- Perform the appropriate Exceedance Response Actions (ERAs) when there are exceedances of the NALs; and
- Certify and submit all permit-related compliance documents via the Storm Water Multiple Application and Report Tracking System (SMARTS). Dischargers shall certify and submit these documents which include, but are not limited to, Permit Registration Documents (PRDs) including Notices of Intent (NOIs), No Exposure Certifications (NECs), and SWPPPs, as well as Annual Reports, Notices of Termination (NOTs), Level 1 ERA Reports, and Level 2 ERA Technical Reports.

Copies of all PRDs are included in Appendix B.

1.2 SWPPP Performance Standards

This SWPPP identifies and evaluates all sources of pollutants from the facility that may affect the quality of industrial storm water discharges and authorized NSWDs. Additionally, this SWPPP identifies and describes the minimum BMPs and any advanced BMPs implemented to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs. BMPs will be selected to achieve compliance with this General Permit and will identify and describe conditions or circumstances which may require future revisions to be made to the SWPPP. A copy of the SWPPP shall be maintained at the facility.

1.3 SWPPP Implementation and Revisions

PG&E shall fully implement this SWPPP by July 1, 2015. The SWPPP shall be revised whenever necessary and will be certified and submitted electronically to the SWRCB via SMARTS within 30 days whenever the SWPPP contains significant revisions. Minor revisions are not required to be entered into SMARTS more than once every three months within a given reporting year. A log of all SWPPP revisions is included in Appendix C.

1.4 General Facility Information

Facility Name: Gateway Generating Station

Facility Address: 3225 Wilbur Avenue, Antioch CA 94509

Telephone Number: (925) 522-7838

Standard Industrial Classification (SIC) Code: 4911 (Electric Power Generating Facility)

Waste Discharge Identification (WDID) Number: 5S07I021950

Scheduled Facility Operating Hours: 24 hours/7 days (2 shifts)

Size of Facility: Approximately 32.5 acres

The facility is located in unincorporated Contra Costa County (within the City of Antioch's Sphere of Influence), on Wilbur Avenue, 1 mile northeast of Antioch, on the southern shore of the San Joaquin River (Figure 1). The operating portion of the site area is approximately 22 acres. The facility is a natural gas-fired, combined cycle, combustion turbine power plant with a nominal generation capacity of 530 megawatts. The facility includes the following building structures and areas:

- Two Combustion Turbine Electrical Generators;
- Steam Powered Electrical Generator;
- Wet Surface Air Cooler (Wet SAC);
- Fin Fan (Close-loop Cooling System);
- Air Cooled Condenser;
- Plant Services Building;
- Laydown Area for Equipment/Parts Staging;
- Warehouse;

- Hazardous Materials Storage Shed;
- Hazardous Waste Accumulation Storage Shed; AND
- Water Treatment Building.

Percent Impervious: ~28%

Facility Contact:
Name: Angel Espiritu
Title: Environmental Compliance Manager
Company: Pacific Gas and Electric Company
Phone: (925)522-7838
Email: ABE4@pge.com
Street Address: 3225 Wilbur Ave
City: Antioch
State: California
Zip Code: 94509

1.5 Pollution Prevention Team

PG&E has identified a Pollution Prevention Team responsible for assisting with the implementation of this SWPPP and for conducting all monitoring required under the General Permit. The specific individuals (and job title) that are responsible for developing, implementing, and revising this SWPPP and conducting monitoring are identified in the Table1.

Table I Pollution Prevention Team

Name of Person	Title/Position	Responsibilities, Duties, and Activities
Jeremy Laurin	Water Quality Subject Matter Expert	Supervise SWPPP development and implementation; provide support and training to the ECM and Plant Manager; review of any documents uploaded to SMARTS; interface with the Regional and/or State Water Quality Control Boards when necessary.
Angel Espiritu	Environmental Compliance Manager (ECM)	Facility lead for storm water permit compliance, monitoring, and reporting; conduct employee training; supervise and/or conduct inspections and sampling, record and report maintenance; record and report spills and leaks; file documents in SMARTS; BMP Implementation, emergency response coordinator, spill cleanup coordination.
Name of Person	**Title/Position**	**Responsibilities, Duties, and Activities**
Steve Royall	Director, Fossil Generation	Legally Responsible Party (LRP); responsible for certification of Notice of Intent (NOI) within SMARTS.
Tim Wisdom	Sr. Plant Manager	Duly Authorized Representative (DAR); responsible for certification of documents within SMARTS.
Aman Singh	Maintenance Supervisor	BMP Implementation and maintenance.
David J. Hammond	Operations Supervisor	BMP Implementation and maintenance.

David Thurston	Plant Engineer	Engineering guidance, supervision and review of BMPs.
Doug Welch or available on-shift Power Plant Technician	Plant Chemist or available on shift power plant technician	Storm water inspections and sampling.

In the event that the Environmental Compliance Manager or other positions responsible for SWPPP implementation are temporarily unavailable to conduct storm water activities due to vacation, illness, out of town business or other absences, backup personnel will implement the SWPPP and conduct required monitoring. PG&E will train all backup personnel so they are familiar with storm water requirements.

The Environmental Compliance Manager, through the Operations or Maintenance Supervisor, will notify the backup PPT member of any expected absences. If the backup PPT member is unavailable, a tertiary individual will be selected and trained to perform the tasks necessary during the primary and secondary PPT member's absence. The backup PPT member has been trained to complete Environment Compliance Manager's tasks when the ECM is unexpectedly absent.

PG&E will ensure that this SWPPP is implemented and revised as necessary to be consistent with applicable municipal, state, and federal requirements that pertain to the requirements in the General Permit.

2. SITE LAYOUT AND EXISTING FACILITY PLANS (PERMIT SECTION X.E)

PG&E has prepared three figures illustrating the information required by the General Permit. These include Figure 1 Site Location Map, Figure 2 Facility Details Map, and the Figure 3 Storm Water Flow and BMP Map. The maps present the following information where applicable:

- Site location;
- North arrow;
- Facility boundary;
- Drainage areas;
- Portions of any drainage area impacted by discharges from surrounding areas;
- Direction of flow within each drainage area;
- On-facility surface water bodies;
- Areas of soil erosion;
- Nearby water bodies (e.g., rivers, lakes, wetlands);
- Municipal storm drain inlets;
- Location of storm water collection and conveyance systems;
- Points of discharge;
- Sampling locations;
- Structural control measures;
- Impervious areas;
- Locations of directly exposed materials;
- Locations of significant spills and leaks;
- Areas of industrial activity;
- Industrial storage areas/storage tanks;
- Shipping and receiving areas;
- Fueling areas;
- Vehicle and equipment storage/maintenance areas;
- Material handling/processing areas;
- Waste treatment and disposal areas;
- Dust or particulate generating areas;
- Cleaning and material reuse areas; and
- Other areas of industrial activity.

Storm water in Drainage Area A is generally conveyed from the south to the north. Surface run-off travels to drain inlets and/or rock-lined ditches which connect to a covered drainage conveyance into a concrete structure with flow valves. The valves on the outlet structure are typically left open to allow the discharge of stormwater in the wet season. The valves are typically left closed in the dry season to

provide an additional measure to capture potential pollutants if a spill occurred. Stormwater in Drainage Area B is contained in a depression centrally located in the drainage area and does not discharge. Additionally, there is no industrial activity in Drainage Area B. The facility details are shown on Figure 2.

3. LIST OF INDUSTRIAL MATERIALS (PERMIT SECTION X.F)

3.1 List of Industrial Materials Handled at the Facility

The following table lists the industrial materials stored or handled at the facility (as detailed in the Hazardous Materials Business Plan):

Table II Industrial Materials Handled at the Facility

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Aqueous Ammonia (29%)	Aboveground Storage Tank (AST)	Weekly	Aqueous Ammonia Storage Area	18,000 gallons
Pre-blended Phosphate/Caustic (Soap)	Tote	Daily	Plant Services Building	460 gallons
Sodium Bisulfite	Tote	Monthly	Water Treatment Building	50 gallons
Stabilized Bromine/Sodium Hydroxide	Tote	Monthly	Water Treatment Building and Wet SAC	110 gallons
Sulfuric Acid	Tote	Semi-annual	Wet SAC	35 gallons
Corrosion/Scale Inhibitor/Sodium Hydroxide	Tote	Semi-annual	Wet SAC	110 gallons
Chlorine Scavenger	Tote	Monthly	Water Treatment Building	65 gallons
Mineral Oil	Transformers	As needed	Transformers (throughout the site) and the inlet chiller	58,000 gallons
Diesel Fuel No. 2	AST	Weekly	Water Treatment Building	500 gallons
Turbine Oil	Within Turbines / Drums	As needed	Combustion Turbines, Steam Turbine, Hazardous Materials / Waste Storage Shed	17,000 gallon

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Mixed Oil	Drum	As needed	Hazardous Materials / Waste Storage Shed	55 gallon
Hydraulic Oil	Steam Turbine	As needed	Steam Turbine	130 gallons
Liquid Carbon Dioxide	Cylinder	As needed	Combustion Generators and CO2 Bulk Storage	36,000 gallons
Argon	Cylinder	As needed	Combustion Turbines	1,344 cubic feet
EPA Protocol Gases (Carbon Monoxide / Nitrogen / Oxygen / Nitric Oxide)	Cylinder	As needed	Combustion Turbines	4,896 cubic feet
Helium	Cylinder	As needed	Combustion Turbines and Gas Conditioning Station	2,200 cubic feet
Oxygen	Cylinder	As needed	Combustion Turbines	1,124 cubic feet
Hydrogen	Cylinder	As needed	Tube Trailer and Gas Conditioning Station	134,200 cubic feet
Nitrogen	Cylinder	As needed	Combustion Turbines, Steam Turbine, Inlet Chiller	8,735 cubic feet
Propane	Cylinder	As needed	Combustion Turbines and Plant Services Building	60 pounds
Acetylene	Cylinder	As needed	Plant Services Building	1,700 cubic feet
Petroleum Distillates	Within Transformer	As needed	Spare GSU Transformer	14,000 gallon
Refined Petroleum Oil	Drum	As needed	Spare GSU Transformer	55 gallons

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Dielectric Fluid	Transformer housing	As needed	Plant Services Building Transformers, Water Treatment Building, Combustion Turbines, Main Electrical Control Enclosure and Inlet Chiller	4,800 gallons
Gear Lubricant	Gear Boxes (36) and Drums	As needed	Air Cooled Condenser Gear Boxes (36), Warehouse and Hazardous Materials / Waste Storage Shed	540 gallons
Lead Acid Batteries	Within Electrical Equipment	As needed	Combustion Turbines	48,000 pounds
Lead Calcium Batteries	Within Electrical Equipment	As needed	Switchyard	90 gallons
Sulfur Hexafluoride	Internally within breakers	As needed	Sulfur Hexafluoride Breakers	774 pounds
Carbon Dioxide, Gas	Cylinders	As needed	Stormwater Treatment System	6,620 cubic feet
HaloKlear BHR-50	Plastic Tote	As needed	Stormwater Treatment System	275 gallons
Yardney 3660 Media Filter (glass media beads)	Within Equipment	As needed	Stormwater Treatment System	6,300 pounds
Sodium Hydroxide	Plastic Container	As needed	Stormwater Treatment System	30 gallons
Non-hazardous trash	In enclosed dumpster	Daily	Laydown in roofed area	3 yards
Metal scraps for recycling	Roll-off bin with tarp cover	Weekly	Laydown area	20 yards

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Wood Pallets	Outside	Daily	Laydown	50 to 100 total
Plastics	In enclosed dumpster	Daily	Laydown in roofed area	3 yards
Recyclables	In enclosed dumpster	Daily	Laydown in roofed area	3 yards
Cardboard	In enclosed cardboard compactor	Daily	Laydown in roofed area	3 yards
RCRA Waste (i.e., waste absorbent)	In secondary-contained drums within covered waste storage area	As needed	Hazardous Materials / Waste Storage Sheds	55 gallons
Non-RCRA Waste (i.e. oily debris)	In secondary-contained drums within covered waste storage area	As needed	Hazardous Materials / Waste Storage Sheds	55 gallons
Universal Waste (i.e., batteries and fluorescent light bulbs)	Bins	As needed	Hazardous Materials / Waste Storage Sheds	5 pounds
Monoethanolamine (30%-60%)	Tote	As needed	Northeast corner of Air Cooled Condenser (ACC)	400 gallons
Cooling Water Inhibitor (3DTRASAR)	Tote	As needed	Water Treatment Building	110 gallons
Antiscalant (Avista Vitec)	Drum	As needed	Water Treatment Building	60 gallons
Antifungal/bacteria/slime (Stabrex)	Tote	As needed	Water Treatment Building	110 gallons
Simple Green	2.5 gallon Containers	As needed	East of the Plant Services Building	10 gallons
Reclaimed water	Tanks	Daily	East of the Water Treatment Building	140,000 gallons
Wastewater	Tank	Daily	East of the Water Treatment Building	40,000 gallons

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Turbine Cleaning Fluid	Tote	As needed	Parts and Miscellaneous Storage Building	250 gallons
Various solvents, degreasers, paints, adhesives, etc.	Fire Cabinet	As needed	East of the Plant Service Building	Typically less than 1 gallon each

4. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES (PERMIT SECTION X.F AND G)

4.1 Industrial Processes

Gateway Generating Station facility manufactures electricity through the use of two natural gas fired combustion turbines and a steam powered generator. The industrial materials utilized throughout the facility are detailed in Table II. All industrial processes associated with manufacturing occur at locations denoted on Figure 2.

Industrial materials imported to the site are imported directly into the warehouse, directly to aqueous ammonia storage tank, the water treatment plant and the wet surface air cooler. Handling, shipping and receiving of hazardous materials including waste occurs at the frequencies denoted in Table II above. Storage areas identified in Table II are also denoted in Figure 2. These areas are further described as follows.

The aqueous ammonia is stored in an area that houses two 20,000 gallon capacity tanks. These tanks sit above grade within a secondary containment unit and a sump. This area has sufficient storage capacity to meet the facility's Risk Management Plan requirements. Storm water that collects in this sump is discharged to the sanitary sewer per a separate permit. This storage area has its own loading ramp that drains to the secondary containment sump below the tanks.

The hazardous materials storage shed, hazardous waste storage shed and hazardous materials accumulation shed are all covered sheds with secondary containment that meets the facilities hazardous materials business plan (HMBP) and SPCC plan requirements. The various oils the facility uses are stored within these sheds in 55 gallon drums. In addition to those drums universal waste and used absorbent is also stored within these sheds. Materials and wastes are moved using services vehicles.

All hazardous materials associated with the water treatment plant including the diesel fuel used for the emergency fire water system are housed in a roofed water treatment building. Secondary containment for these materials is provided. All of the ASTs within this area are filled by bulk delivery.

There are various transformers throughout the facility. These transformers are filled with dielectric oil and are housed in secondary containment that meets the facility's SPCC plan requirements.

Various hazardous materials are stored adjacent to the wet surface air cooler. These materials are all stored in sealed tanks within secondary containment. These tanks are filled by bulk delivery.

Trash, recyclable materials, and cardboard are accumulated in three separate dumpsters. The dumpsters have lids which are closed when the dumpsters are not actively used. To further isolate the dumpsters from exposure to storm water, they are housed under a roof.

Metals for recycling are accumulated in a roll off bin or bins and are covered when not actively in-use.

Various pressurized gases are stored throughout the facility for various uses. These pressurized gases are stored according to all applicable HMBP requirements.

Various batteries are stored throughout the facility for various uses. These batteries are stored in roofed buildings and according to all applicable HMBP requirements.

4.2 Material Receiving, Shipping, and Handling

Receiving

The facility receives regular deliveries of the materials listed in Table II. The materials stored in larger tanks are delivered by service trucks and are directly loaded into the respective vessels. Receiving and loading of materials (e.g., fuels, fuel additives, oils, and ammonia) is performed at the respective material storage areas. Other sources include smaller quantities of oils used in transformers, sulfuric acid used in batteries, and oils used in miscellaneous equipment and machines which are delivered to their various storage locations throughout the facility, including but not limited to the warehouse, plant services building, parts and miscellaneous storage building, and the water treatment building.

Material Handling

The primary function of the power plant facility is to generate electricity through a combined-cycle process utilizing natural gas as fuel. The potential pollutants at the facility are used in ancillary functions such as lubricants, aqueous ammonia for emissions control, and other various maintenance fluids. Most materials and wastes are transported via on-site pipe networks. For example, potable water is piped to the facility from a municipal water purveyor to the water treatment area and then transferred from the treatment plant to the boilers and other heat exchange equipment. Used water is conveyed to the sanitary sewer. Small quantities of other materials and wastes, typically for maintenance activities, are moved using services vehicles. There is a seldom used parts cleaning machine that is located outdoors, immediately east of the plant services building.

Waste

General trash is accumulated in dumpsters located north of the inlet chiller. The waste dumpster area is equipped with a storm resistant shelter. Trash is transferred to a collection facility by a service vendor.

Metals for recycling are accumulated in two dumpsters that are equipped with lids. One metal disposal dumpster is located near the trash dumpsters and the other is located east of the parts and miscellaneous storage building. Occasionally, roll-off dumpsters are placed near the warehouse during maintenance and repair operations.

Hazardous waste is temporarily stored onsite in storage sheds located east of the plant service building and the south-east corner of the warehouse. The majority of hazardous waste produced at the facility is waste oil sludge and used lubricating oil. Hazardous waste is picked up by a waste disposal vendor as necessary, though typically picked up more frequently; the hazardous waste vendor is on 90-day maximum schedule. An industrial service vendor visits the site weekly to perform a required weekly inspection and schedule waste pick-up.

The water-side effluent from the oil/water separator is conveyed to the sanitary sewer along with other waste water generated from plant operation. The oily sludge effluent is transported offsite for proper disposal.

Portable toilets are commonly placed onsite in various locations for construction and maintenance projects and are serviced regularly by a service vendor.

Shipping

The industrial product produced at the facility is electricity and therefore shipping of industrial products does not occur at this facility. The electricity generated at the facility is transmitted through the substation located west of the facility.

4.3 Dust and Particle Generating Activities

PG&E does not conduct any activities that generate dust and/or particles. The vents located on the combustion turbines are designed only for heat dissipation. The active areas of the site are paved or covered in gravel to prevent dusting.

4.4 Significant Spills and Leaks

Significant spills and leaks include any toxic chemicals identified in 40 Code of Federal Regulations (CFR) Section 302 that are discharged into the facilities' storm water conveyance system as reported on U.S. EPA Form R, as well as spills or leaks of oil and hazardous substances in excess of reportable quantities (40 CFR §§ 110, 117, and 302). PG&E contracts with a service vendor to respond to any significant spills of fuels, oil or other materials. During the routine monthly inspections, PG&E will evaluate the facility in areas where spills and leaks could potentially occur during material delivery, unloading, loading, transport, storage/containment, or use. There have not been any significant spills or leaks of industrial materials at this facility in the last five years that had potential to be discharged from the facility.

In accordance with the facility SPCC Plan and the General Permit, in the event that significant spills or leaks occur in the future, for each potential discharge PG&E will record and document the following information: the location, characteristics, and approximate quantity of the materials spilled or leaked; approximate quantity of the materials discharged from the facility's storm water conveyance system; the cleanup or remedial actions that have occurred or are planned; the approximate remaining quantity of materials that have the potential to be discharged; and the preventive measures taken to ensure spills or leaks of the material do not reoccur.

4.5 Non-Storm Water Discharges

A NSWD is any water discharged at the Facility which is not the direct result of a rain event. Examples include process water, cooling water, wash water, and sanitary wastewater. Certain limited categories of NSWDs are considered to be authorized by the General Permit (as long as they are not in violation of any Basin Plan, municipal agency ordinance, or other statewide water quality control plans or policy requirements), including: fire hydrant flushing; potable water sources; drinking fountain water; refrigeration, air conditioning, and compressor condensate; irrigation drainage and landscape watering; uncontaminated natural springs, groundwater, and foundation/footing drainage; seawater infiltration; and incidental windblown mist from cooling towers.

Authorized NSWDs at the Gateway Generating Station facility are expected to be prevented or minimized and would occur at an unknown frequency if they arise with the exception of the fire system flushing. The fire system is flushed annually and the quantity of water would be equal to the amount in the system or necessary to flush the system. Expected authorized NSWDs include:

- Fire system flushing water;
- Irrigation water;
- Eye wash system flushing and testing water; and
- Air conditioning or compressor condensate.

The NSWDs listed above are authorized by the General Permit if all of the following conditions are met:

- The NSWDs are in compliance with Regional Water Quality Control Board (RWQCB) requirements;
- The NSWDs are in compliance with local agency ordinances and/or requirements;
- BMPs are specifically included in the SWPPP to (1) prevent or reduce the contact of NSWDs with significant materials or equipment and (2) minimize, to the extent practicable, the flow or volume of NSWDs;
- The NSWDs do not contain significant quantities of pollutants;
- The monitoring program includes quarterly visual observations of each NSWD and its sources to ensure that BMPs are being implemented and are effective; and
- The NSWDs are reported and described annually as part of the Annual Report.

As part of the routine monthly site inspections, PG&E will conduct an evaluation of the facility to identify any NSWDs, sources, and drainage areas. The inspection will include an evaluation of all storm drain inlets to identify connections to the storm water conveyance system; and a description of any NSWDs and how any which have occurred and have been eliminated. In the event that NSWDs are discovered, they will be described on the inspection form located in Appendix E of the SWPPP. This description will include the source, quantity, frequency, and characteristics of the NSWDs, associated drainage area, and whether it is an authorized or unauthorized NSWD.

Potential unauthorized NSWDs at the Gateway Generating Station Facility include:

- Secondary containment failure;
- Pipeline leak, rupture, or failure;
- Contaminated water in sumps;
- Leaks or spills from portable restrooms; and
- Leaks or spills from service vehicles or portable equipment.

Unauthorized NSWDs have been eliminated or prevented through the use of sumps, secondary containment structures, an oil/water separator, drains that convey waste to the oil/water separator, controlled site access, and the placement and maintenance of numerous spill clean-up kits throughout the facility.

4.6 Erodible Surfaces

There are three vegetated areas (Figure 3) that may be considered erodible surfaces at the facility. The only unpaved areas within the active facility exposed to storm water are flat gravel-capped surfaces between structures and adjacent to roadways, and three vegetated surfaces on the northeastern edge of the property.

The southern portion of the facility is inactive and self-contained, with a berm which surrounds the entire perimeter. This area has also been graded into a depression and decompacted to help increase infiltration of any storm water that lands within the area.

5. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES (PERMIT SECTION X.G.2)

5.1 Narrative Assessment of Likely Pollutants Present in Storm Water Discharges

PG&E conducts frequent preventive maintenance to ensure that plant machinery, equipment and storage vessels are in good working order. The most likely potential pollutants in storm water discharges are the materials listed in Table II. Approximately 28 storm water catch basins drain the site and are located throughout the facility and in proximity to material storage areas. PG&E has implemented BMPs to control the offsite migration of potential pollutants by following good housekeeping, requiring immediate cleanup of spills, and by installing filter screens (Dandy Pops®) in storm water catch basins on the site, as appropriate. The filter screens are cleaned and/or replaced as needed.

5.2 Identification of Additional BMPs

In the event that conditions change or monitoring results indicate a need, PG&E will consider identifying additional BMPs to address the changed conditions or constituents of concern.

5.3 Identification of Drainage Areas with No Exposure

There is one drainage area at the facility with no exposure, as indicated on Figure 2. The southern area meets the requirements for no exposure, as there are no industrial activities occurring within it.

5.4 Identification of Additional Parameters

In addition to the standard parameters required for all industrial facilities (pH, oil & grease, and total suspended solids), PG&E will continue to analyze for total iron, as per the SIC code 4911 requirements of Table 1 and Attachment A of the General Permit.

The facility drains to the Delta Waterways (western portion) which is in the HUC 10 watershed of the site. The 303(d) listed impairments for the Delta include: Chlordane; Chlorpyrifos; Dichlorodiphenyltirchloroethane (DDT); Diazinon; Dieldrin; Dioxin; Dioxin compounds (including 2,3,7,8-TCDD); Disulfoton; Electrical Conductivity; Escherichia coli (E. coli); Furan Compounds; Group A Pesticides; Invasive Species; Mercury; Organic Enrichment/Low Dissolved Oxygen; Oxygen, Dissolved; Low Dissolved Oxygen; Pathogens; PCBs (Polychlorinated biphenyls) (dioxin-like); PCBs (Polychlorinated biphenyls); Selenium; and Unknown Toxicity. The sources of the impairments listed are primarily caused by agricultural sources or mineral resource extraction and the Gateway Generating Station does not have the potential to discharge most of the pollutants; however, electrical conductivity may be an exception.

Electrical Conductivity is a measure of the ability of water to pass an electrical current. Conductivity in water is affected by the presence of inorganic dissolved solids such as chloride, nitrate, sulfate, and phosphate anions (ions that carry a negative charge) or sodium, magnesium, calcium, iron, an aluminum cations (ions that that carry a positive charge). Though the General Permit does not have a Numeric Action Level for electrical conductivity, the facility has the potential to discharge inorganic dissolved solids and analytical results may be beneficial as an indicator of other pollutant concerns; therefore, the facility will also collect and analyze samples for electrical conductance.

6. STORM WATER BEST MANAGEMENT PRACTICES (PERMIT SECTION X.H)

This section describes the BMPs implemented and maintained as a result of the activities assessment in Section 4. The current BMPs, when properly maintained, are effective for the operations at the facility. BMPs are divided into minimum and advanced measures.

6.1 Minimum BMPs (PERMIT SECTION X.H.1)

6.1.1 Good Housekeeping

- **Monthly Visual Inspections.** Once per calendar month, PG&E inspects all outdoor areas associated with industrial activity, including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials identified during the inspections are cleaned and disposed of properly.
- **Tracking Control.** Although there is low potential for tracking of sediment at the facility, paved surfaces are swept on a monthly basis. Additionally sweeping will occur as needed.
- **Dust Control.** PG&E's power generation process does not generate dust, and the surface of the site is either paved, has a gravel cap, or is vegetated. Therefore, there is no need to implement dust control at this facility.
- **Cleaning Areas Impacted by Rinse/Wash Waters.** No washing or rinsing of equipment is performed at the facility. Parts are washed within an enclosed parts washer, within the roofed Plant Services building.
- **Industrial Materials Storage Control.** The facility stores all materials and performs all activities that involve hazardous materials under roofed areas (buildings or storage containers), within secondary containment, or during dry weather, if possible.
- **Control of Non-Solid Industrial Materials/Wastes.** The facility contains all stored non-solid industrial materials or wastes (e.g., fuel, waste oil) that can be transported or dispersed by wind or contact with storm water. Spill kits are maintained appropriately and allow for immediate response to spills. In addition, all materials are stored within secondary containment to prevent any spilled or leaked material from being transported by storm water. Numerous secondary containment structures have been designed and constructed throughout the facility to contain spills, leaks, or ruptures from various tanks and oil filled equipment. The secondary containment structures have been designed per SPCC requirements to contain the capacity of either 100 percent of the largest tank or 10 percent of all tanks or containers stored within the containment. Additional material and waste control information is included in the facility's Spill Prevention Control and Countermeasure (SPCC) Plan.
- **Control of Rinse/Wash Water Disposal.** No washing or rinsing is performed at the facility. The facility prevents the disposal of any industrial materials into the storm water conveyance system by maintaining spill kits appropriately and immediately responding to spills.
- **Minimize Storm Water Discharges from Non-Industrial Areas.** A non-industrial area exists within the facility, as denoted on Figure 2. This area is self-contained, with a berm surrounding the entire perimeter of this portion. This area has also been graded into a

depression and decompacted to help increase infiltration of any storm water that lands within the area, as described in Section 4.5.

- **Minimize Authorized NSWDs from Non-Industrial Areas.** A non-industrial area exists within the facility and no authorized NSWDs occur from it.

6.1.2 Spill and Leak Spill and Leak Prevention

The facility implements the following preventative maintenance measures:

- PG&E has identified the following outdoor equipment at the Facility which may spill or leak pollutants, as follows:
  - Containment areas, tanks and containers storing hazardous materials or wastes
  - Oil-filled electrical equipment and oil-filled operating equipment in the Radiator Area, and Transformer Yard
  - Service vehicles (when transporting materials such as drums of waste oil)
- Monthly observations of containment areas, tanks, equipment and systems are conducted to detect leaks, or identify conditions that may result in the development of leaks.
- The facility maintains a schedule for conducting routine maintenance of identified equipment and systems. There is a daily inspection of all equipment at the facility, monthly preventative maintenance and periodic servicing. Daily inspections are informal visual inspections by operators, and are not documented. Service vehicles are not washed on site.
- The facility has defined procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.
- The facility utilizes forklifts and golf carts that are loaned to the facility from PG&E Fleet. Fleet vehicles are repaired and maintained by the Fleet group.
- The manufacturer of the power generation equipment requires maintenance of equipment after a specified number of operating hours and therefore the facility conducts two shut-downs per year to maintain the facility's power generation equipment.

6.1.3 Spill and Leak Response

PG&E has established the following protocols to respond to spills and leaks:

- The facility has developed procedures to minimize spills and leaks. The facility has a SPCC Plan that addresses storage of materials and wastes.
- The facility has established spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials are cleaned up promptly and disposed of properly.
- The facility has identified and described all necessary and appropriate spill and leak response equipment, locations of spill and leak response equipment, and spill/leak response equipment maintenance procedures, in the facility's HMBP and SPCC plans. Spill kits are maintained throughout the facility and denoted in maps located in the facility's HMBP.

- The facility has designated and trained appropriate spill and leak response personnel, identified as the PPT in Table 1 above. Spill and leak response personnel are trained annually, at a minimum. Plant operations personnel are responsible for spill cleanup; an outside vendor is used to respond to significant spills. Spill response personnel receive OSHA hazard communication training and spill training consistent with the hazardous materials business plan and SPCC plan.
- Powered industrial truck maintenance shall be performed on tarps or other impervious materials to capture spills.

6.1.4 Material Handling and Waste Management

PG&E has a robust program for addressing material handling and waste management, as follows:

- The facility minimizes the handling of industrial materials or wastes that can be readily mobilized by contact with storm water during storm events through the use of awnings at loading docks.
- The facility appropriately contains stored non-solid industrial materials or wastes (e.g., lubricant oil) that can be transported or dispersed by the wind or contact with storm water by storing these materials in secondary containment with water tight lids.
- Industrial waste disposal containers (dumpsters and metal waste recycling bins) and industrial material storage containers that contain industrial materials are covered with lids or plastic tarps when not in use.
- Site run-on and storm water generated from within the facility is diverted away from material storage areas.
- Spills of industrial materials or wastes that occur during handling are cleaned up in accordance with the spill response procedures.
- Outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes are inspected and cleaned, as appropriate.

6.1.5 Erosion and Sediment Controls

Erosion is not a significant issue at the site because approximately 28 percent is paved and the remainder is covered with a gravel cap or is vegetated (Figure 3). Therefore, erosion is not a problem at the site, and the facility does not implement erosion and sediment controls.

6.1.6 Employee Training Program

PG&E employees responsible for implementing the storm water program at the Facility will receive annual storm water training. The facility has identified which personnel require training (per Section 1.5), their responsibilities, and the type of training they will receive, and will prepare or acquire appropriate training materials and establish a schedule for providing the training. All participants will sign a Training Log that will be kept in Appendix D. This documentation will be maintained with the SWPPP. Annual training is required once every calendar year. At a minimum, training will cover the following topics:

- BMP implementation;
- BMP effectiveness evaluations;
- Visual observations; and

- Monitoring activities.

In the event the Facility enters Level 1 status (see Section 9), appropriate team members will be trained by a Qualified Industrial SWPPP Practitioner (QISP). A QISP must complete a SWRCB-approved training course and assist in the preparation of ERAs for Level 1 and 2 status designations which are described in further detail in Section 9 of this SWPPP.

6.1.7 Quality Assurance and Record-Keeping

PG&E has done [and will continue to perform] the following to retain proper quality assurance and record-keeping:

- The facility has developed and implemented management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan;
- The facility has developed a method of tracking and recording the implementation of BMPs identified in the SWPPP, through the monthly inspection process; and
- The facility will maintain the BMP implementation records, training records and records related to any spills and clean-up related response activities for a minimum of five years.

6.2 Advanced BMPs (Permit Section X.H.2)

In addition to the minimum BMPs described above in Section 6.1 and in Section X.H.1 of the General Permit, the facility will, to the extent feasible, implement and maintain any advanced BMPs necessary to reduce or prevent discharges of pollutants in its storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

6.2.1 Exposure Minimization BMPs

The facility has installed permanent storm resistant shelters to prevent contact of storm water with certain kinds of materials. These areas include the hazardous materials/waste storage sheds, and the Laydown area (e.g., for waste and recycling dumpsters).

6.2.2 Storm Water Containment and Discharge Reduction BMPs

These BMPs include structures that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. As described in Section 4.5, the facility includes gravel caps to areas that haven't been paved or are not roofed which may increase infiltration at the site and prevent erosion. Additional BMPs will be explored and implemented as needed.

6.2.3 Treatment Control BMPs

- **Oil/Water Separator.** The site is equipped with an oil/water separator; however, since the effluent from the oil/water separator is conveyed to the municipal sanitary sewer (which is permitted through the publicly owned treatment works), this water is not considered storm water discharge. The oil (if any) is separated and sent offsite for proper disposal. The coalescer packs are inspected regularly and cleaned if indicated by inspection.

- **Parts Cleaner.** The site is equipped with a parts cleaner that is located outdoors on the east side of the maintenance shop. The manufacturer inspects the washer and replaces the solvent as necessary.

- **Drain Inlet Filters.** Filter screens (Dandy Pops®) are installed in storm water catch basins on the site, as appropriate, to capture sediment. The filter screens are cleaned and/or replaced as needed.

- **Stormwater Chemical Treatment/Filtration System.** The site is equipped with a standard chemical treatment and filtration system for the stormwater prior to discharge. The treatment system is located immediately adjacent to the existing outfall, E-006, to allow treatment of all of Gateway Generating Station's stormwater prior to discharge into the river. The system is expected to reduce the total iron content of the storm water effluent to less than or equal to 1 ppm.

  Design of the system was precluded by volume-based calculations to meet the provisions of the IGP (see memo dated October 12, 2016 found in Appendix H). The volume of runoff produced from an 85th percentile 24-hour storm event and 85th Percentile Hourly Rainfall Intensity per the IGP, as determined from local, historical rainfall records produces a maximum of 229,562 gallons. The design volume processing rate of the treatment system is 468,895 gallons, both meeting and exceeding the volume-based calculations of the IGP.

  Treatment steps for the treatment system are as follows:
  1. The storm water is pH adjusted to allow the iron to precipitate out of the stormwater,
  2. A chemical flocculating agent is added to clump the iron particles together,
  3. The stormwater is settled and pumped over a series of small weirs to capture the solids,
  4. Stormwater is then passed through the media filters for finer particulate removal,
  5. The water is monitored real-time to assure it meets discharge criteria, if it does not meet pH or turbidity criteria, it is recirculated, and,
  6. The treated stormwater is discharged into the San Joaquin River.

6.2.4 Other Advanced BMPs

At this time, the Facility does not implement other advanced BMPs. In the event that conditions change or monitoring results indicate a need, PG&E will consider additional advanced BMPs to address the changed conditions or constituents of concern.

7. TEMPORARY SUSPENSION OF ACTIVITIES (PERMIT SECTION X.H.3)

PG&E's Gateway Generating Station operates two shifts, seven days a week. The facility does not have any plans to suspend industrial activities for ten or more consecutive calendar days in any given year. Therefore, this section of the General Permit is not applicable.

8. BMP SUMMARY (PERMIT SECTIONS X.H.4 AND 5)

The following table summarizes each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs implemented. The approximate boundaries of Drainage Areas A and B are shown on Figure 2. The PPT identified in Section 1.5 is responsible for implementing all BMPs at the site. Some of the BMPs described below require the use of mechanical equipment, such as forklifts, in order to perform maintenance activities on the BMPs. PPT members are authorized to use the required equipment or to obtain the help of other facility staff to maintain the BMPs onsite. The facility mechanics are responsible for maintaining the mechanical equipment throughout the facility.

To retain effectiveness during and after significant weather conditions, certain BMPs need to be inspected more frequently than monthly. These BMPs will be informally inspected by PPT members during large rain events or following rain events.

Table III BMP Summary

Drainage Area	BMPs Implemented	Associated Industrial Pollutant Sources	Potential Industrial Pollutants	Frequency of BMP Implementation
Combustion turbines	Spill kit	Oil Filled Equipment (Transformers)	Petroleum hydrocarbons, heavy metals	As needed
	Secondary containment	Aqueous Ammonia for exhaust system	Aqueous Ammonia	As needed
	Check dams	All facility pollutants	Suspended Sediment	As needed
Oil and Universal Waste Storage Used Oil / Hazardous Waste Storage	Spill kits	Truck access	Petroleum hydrocarbons, heavy metals	As needed
	Parts Cleaner	Part Cleaning	Solvents, lubricants, metals	As needed
	Spill kits and secondary containment	Spills during shipping and receiving	Petroleum hydrocarbons, heavy metals	As needed
	Covered forklift parking	Forklift	Vehicle related pollutants	Daily
Water Treatment Plant	Spill kit	Truck access	Petroleum hydrocarbons, heavy metals	As needed
	Spill kits and secondary containment	Spills during shipping and receiving	Diesel, various chemicals	As needed
	Fueling Sump	Fuel	Petroleum	Permanent
Trash and Scrap Metal Dumpsters	Dumpsters have lids, roll offs are tarped	Spills during shipping and receiving	Metals and non-petroleum waste	Cover daily when not in use
	Storm resistant shelter	Waste	Metals, oils, suspended solids	Permanent

Warehouse	Run-on diversions	Run-on from neighboring facilities	Iron	Permanent
Discharge Location	Valves and Concrete Containment	All facility pollutants	All potential pollutants	Permanent
	Treatment and filtration			As needed
All Drainage Areas	Drain inlet filters	All pollutant sources	All potential pollutants	Permanent
	Rock-lined ditches	All pollutant sources	Suspended solids	Permanent
	Site has access control and security 24 hours a day, 7 days a week	All pollutant sources	All potential pollutants	As needed
	Oil/Water Separator	All pollutants	Oils and Grease	Daily
	Oil absorbent socks around various drain inlets	All pollutant sources	Oils and Grease	Daily
	Powder coated drain inlet grates	Rusting grates	Iron	Permanent
	"No Dumping, Drains to Delta Signs"	Illicit dumping	All potential pollutants	Permanent

9. MONITORING IMPLEMENTATION PLAN (PERMIT SECTION X.I)

As described above in Section 1.5, PG&E has assembled a PPT that includes members assigned to conduct storm water monitoring. The facility has one industrial discharge location which is also the sampling location. The discharge location (Sample Location E-006) is located at the northern perimeter of the facility. Analytical monitoring and visual observations will be conducted at the sampling location shown on Figure 2.

Procedures for Monthly Visual Observations

PG&E will conduct visual observations within the drainage area at the facility at least once per calendar month, which will include an evaluation of:

- Presence or indications of prior, current, or potential unauthorized NSWDs and their sources;
- Authorized NSWDs, sources, and associated BMPs; and
- Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants.

Monthly visual observations will be conducted during daylight hours of scheduled facility operating hours and on days without precipitation. Visual observations will be recorded on the form provided in Appendix E. Information to be recorded will include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations. To ensure adequate documentation of response action completion, a PPT member will initial and date the documented response action when the action is complete. If a monthly visual observation is not conducted, PG&E will provide an explanation in the Annual Report.

Procedures for Sampling Event Visual Observations

PG&E will conduct visual observations at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, PG&E will observe the discharge of storm water associated with industrial activity and record these observations on the form provided in Appendix E. The same types of information will be recorded as for the monthly inspections. The following items will be observed and recorded:

- The appearance of storm water discharged from containment sources (e.g., secondary containment or sumps) at the time that the discharge is sampled;
- The presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.

In the event that a discharge location is not visually observed during a sampling event, PG&E will record which discharge locations were not observed during sampling or that there was no discharge from the discharge location and will provide an explanation in the Annual Report for uncompleted sampling event visual observations. PG&E will revise BMPs as necessary if the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP. If any response actions are noted during Sampling Event Visual Observations, a PPT member will initial and date the documented response action when the action is complete.

Sampling and Analysis

Samples will be collected during Qualifying Storm Events (QSE). A QSE is defined as a precipitation event that produces a discharge for at least one drainage area and is preceded by 48 hours with no discharge from any Facility drainage area. PG&E will collect and analyze storm water samples from two QSEs within the first half of each reporting year (July 1 to December 31), and two QSEs within the second half of each reporting year (January 1 to June 30). Samples will be collected within four hours of the start of discharge at the E006 discharge/sampling location shown on Figure 2. The sampling point at E006 is upstream from the actual discharge into the San Joaquin River (Outfall), due to the comingling of our discharge with the neighboring industrial facility just after E006 and prior to Outfall.

Sampling will be performed in accordance with requirements of the General Permit. Use caution when collecting samples at night and do not collect samples without sufficient lighting. Samples will be collected and analyzed for pH, oil and grease, total suspended solids, and total iron (based on the facility's SIC code listed in Table 1 of the General Permit for additional analytical parameters). Sampling results will be compared to two types of NAL values based on the specific parameter to determine whether either type of NAL has been exceeded for each applicable parameter. Annual NAL exceedances are based on analytical results for the entire facility for the reporting year, while Instantaneous NAL exceedances are based on analytical results from each distinct sample. The table below describes test methods, reporting units, and NAL values:

Table IV NAL Values

Parameter	Test Method	Reporting Units	Annual NAL	Instantaneous Maximum NAL
pH	Portable instrument*	pH units	N/A	<6.0 or >9.0
Oil and Grease	EPA 1664A	mg/L	15	25
Total Suspended Solids	SM 2540-D	mg/L	100	400
Total Iron	EPA 200.7	mg/L	1.0	--
Electrical Conductivity			N/A	N/A

*The pH screen will be performed as soon as practicable, but no later than 15 minutes after the sample is collected and will be analyzed using a calibrated portable instrument for pH.

All instruments used for pH measurement will be properly calibrated in accordance with the manufacturer's instructions and recommended frequency, and copies of the calibration records will be maintained onsite. Samples for total iron, total suspended solids, oil and grease, and electrical conductivity will be analyzed by an analytical laboratory that is Environmental Laboratory Accreditation Program (ELAP)-certified. All samples will be collected in accordance with Attachment H of the General Permit ("Sample Collection and Handling Instructions") and handled under proper Chain-of-Custody (COC) protocols. General Permit Attachment H and an example COC are included in Appendix F.

Though there are Effluent Limitation Guidelines (ELGs) for Electric Power Generation facilities, which require copper and chlorine analysis, the regulation only applies to runoff from coal storage piles and therefore the ELGs for Electric Power Generation do not apply to this facility because coal is not stored or used at the facility.

Exceedance Response Actions

ERAs are required when an NAL exceedance occurs for any parameter. At the beginning of NOI coverage, PG&E will enter as a Baseline status for all parameters designated in Table IV above. If sampling results indicate an NAL exceedance [either annual or instantaneous] for any parameter listed in Table IV, the status will move up to Level 1 for that parameter on July 1st following the reporting year during which the exceedance occurred (i.e., if there was an instantaneous exceedance on September 30, 2015, Level 1 would begin on July 1, 2016). Moving to Level 1 status triggers two actions: a Level 1 ERA Evaluation and a Level 1 ERA Report, both prepared with assistance of a QISP.

- A Level 1 ERA Evaluation, due by October 1 following commencement of Level 1 status, consists of completing an evaluation of the industrial pollutant sources at the facility that may be related to the NAL exceedance and evaluate all BMPs to determine if revisions are necessary to prevent future NAL exceedances.
- A Level 1 ERA Report, due by January 1 following commencement of Level 1 status, is prepared after the Level 1 ERA Evaluation and consists of revising the SWPPP as necessary to implement any additional BMPs identified in the Evaluation and submitting via SMARTS the Level 1 ERA Report with details regarding SWPPP revisions and the results of the Evaluation.

A Level 1 status for any exceeded parameter will return to Baseline status once the Level 1 ERA Report has been completed, additional BMPs have been implemented, and results from four consecutive QSEs indicate no additional NAL exceedances for that parameter.

The status for any exceeded parameter will change to Level 2 if sampling results indicate an NAL exceedance for that same parameter while in Level 1 (i.e., if Level 1 was implemented on July 1, 2015 and an exceedance occurred on December 1, 2015, Level 2 would be triggered on July 1, 2016). Moving to Level 2 status triggers two actions: a Level 2 ERA Action Plan and a Level 2 ERA Technical Report, both prepared with assistance of a QISP.

- A Level 2 ERA Action Plan, due by January 1 following the reporting year during which the NAL exceedance occurred, consists of a schedule and description of implementing a particular demonstration, as described in the Level 2 Technical Report, in response to the NAL exceedance.
- A Level 2 ERA Technical Report, due by January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, describes one or more of the demonstrations in response to the NAL exceedance: Industrial Activity BMPs Demonstration, Non-Industrial Pollutant Source Demonstration, and/or Natural Background Pollutant Source Demonstration (as described in the General Permit Section XII.D.2).
- A Level 2 ERA Technical Report may be prepared and submitted at any time, whether or not the Facility is required to submit such a report.

A new Level 2 NAL exceedance is any Level 2 NAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.

NAL exceedances, in and of themselves, are not violations of the General Permit. Failure to comply with the Level 1 status and/or Level 2 status ERA requirements is in violation of the General Permit.

PG&E Gateway Generation Station ERA Status

Reporting Year	*ERA Level Status*	*Parameter*	*Level 1 ERA Evaluation Completion Date*	*Level 1 ERA Report Submittal Date*	*Level 2 ERA Action Plan Submittal Date*	*Level 2 ERA Technical Report Submittal Date*

2015-2016	Baseline	N/A	N/A	N/A	N/A	N/A
2016-2017	Level 1	Iron, Total	09/27/2016	12/30/2016	N/A	N/A

See Appendix H for the ERA Evaluation(s) and Report(s)

Reporting

PG&E will submit all sampling and analytical results via SMARTS within 30 days of obtaining all results for each sampling event. In the event a sample's analytical result is reported by the laboratory as non-detect or less than the method detection limit, the method detection limit will be provided. A value of zero will not be reported.

PG&E will provide the sample analytical results reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit. Reported analytical results from multiple discharge points will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero for all results less than the minimum level as reported by the laboratory.

10. ANNUAL REPORTING (PERMIT SECTIONS XV AND XVI)

PG&E will conduct an Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) each reporting year (July 1 to June 30). If the Annual Evaluation is conducted fewer than eight months, or more than sixteen months, after the previous Annual Evaluation, the facility will document the justification for doing so. Within 90 days of the Annual Evaluation, PG&E will revise the SWPPP, as appropriate, and implement the revisions. At a minimum, the Annual Evaluation will cover the following:

- Review of all sampling, visual observation, and inspection records conducted during the previous reporting year;
- Inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system;
- Inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section XVII;
- Inspection of equipment needed to implement the BMPs;
- Inspection of all site BMPs;
- Review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDs; and
- Assessment of any other factors needed to comply with the requirements in Section XVI.B.

Information gathered during the Annual Evaluation will be recorded on the form provided in Appendix E.

Annual Report

PG&E will certify and submit via SMARTS an Annual Report no later than July 15th following each year. The Annual Report will be created by the Environmental Compliance Manager, reviewed by the Subject Matter Expert, and certified by the Legally Responsible Party. The Annual Report will include the following:

- A Compliance Checklist that indicates compliance with all applicable requirements of the General Permit;
- An explanation for any non-compliance of requirements within the reporting year;
- Identification of all revisions made to the SWPPP within the reporting year; and
- The date of the Annual Evaluation.

Copies of the Annual Report are included in Appendix G.

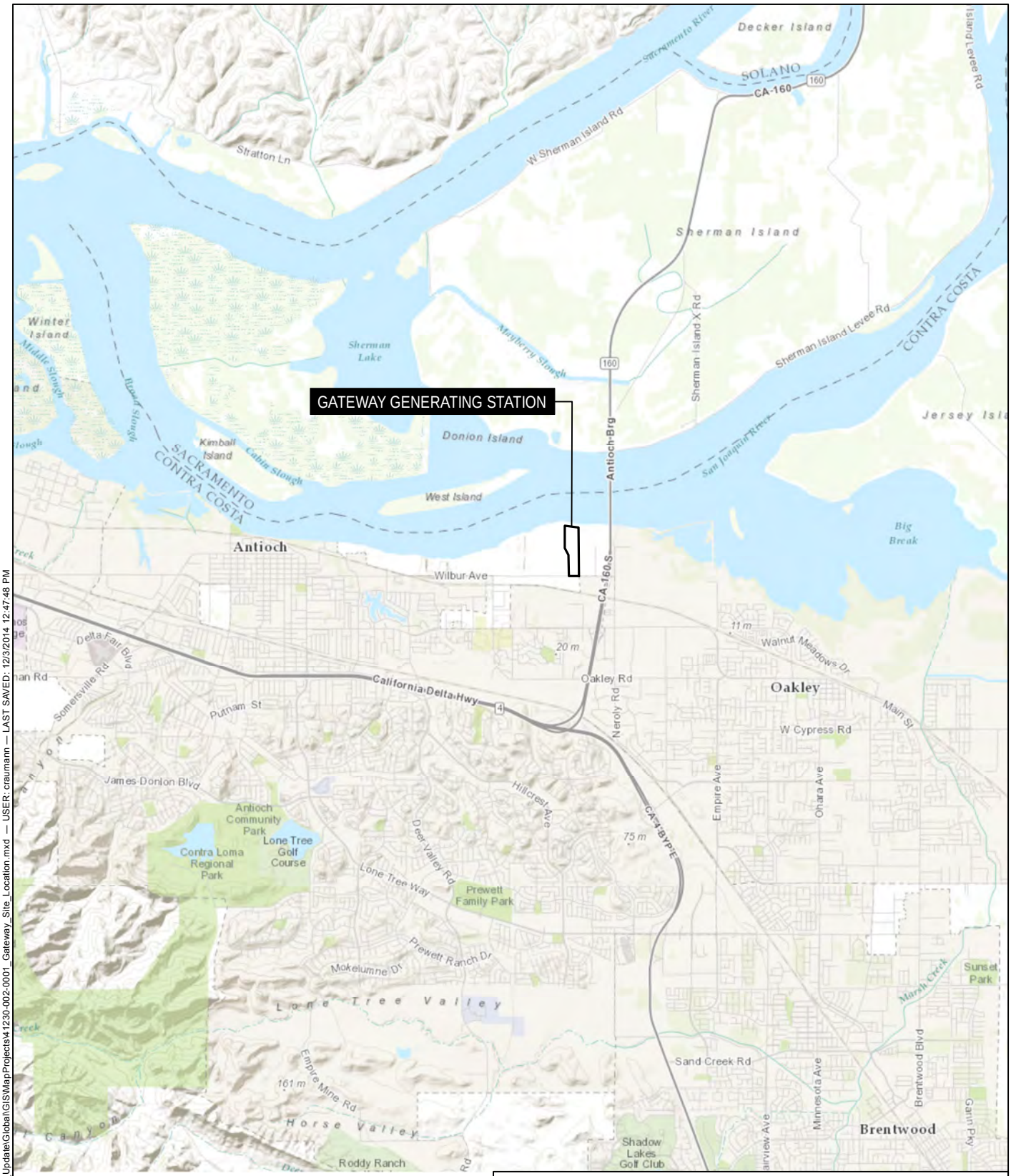
REFERENCES

1. California State Water Resources Control Board. Industrial Storm Water Permit for Discharges Associated with Industrial Activity (Order No. 2014-0057-DWQ). 2014.

2. Excerpts from Gateway Generating Facility Hazardous Materials Business Plan.

3. Spill Prevention, Control, and Countermeasures Plan for Gateway Generating Station, initially prepared by CH2MHill January 12, 2009 and revised August 2, 2013.

FIGURES



HALEY & ALDRICH

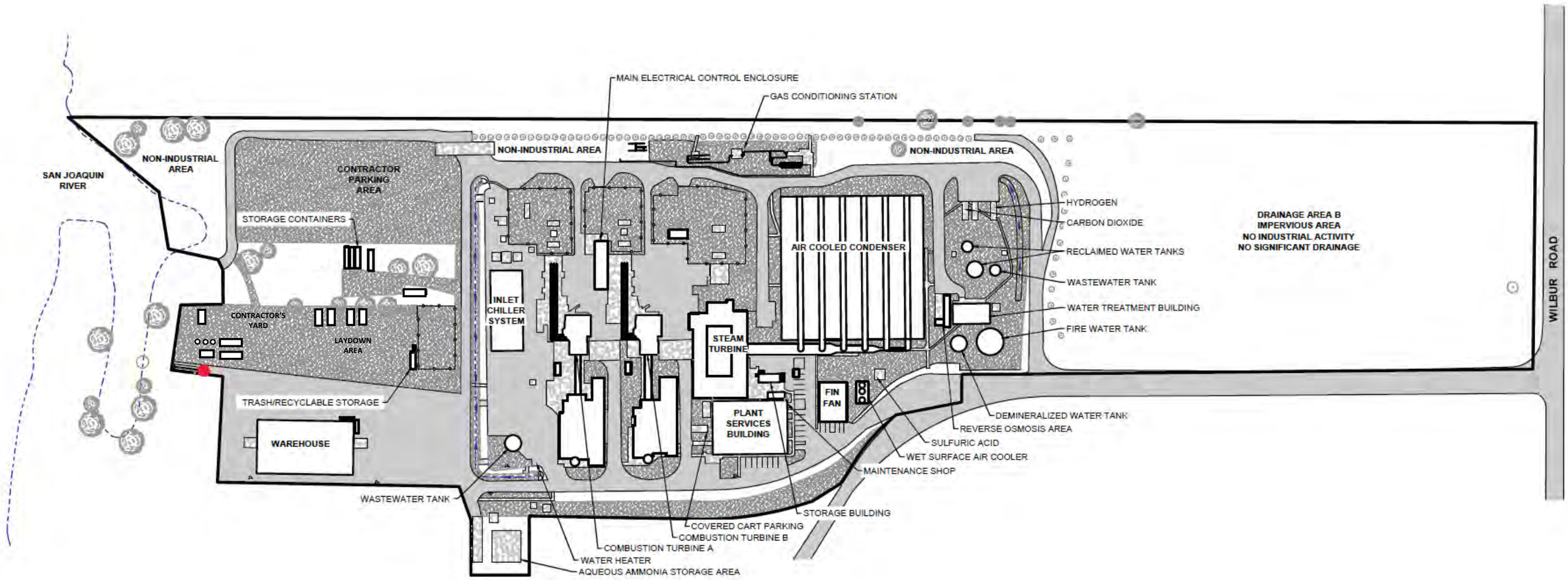
PACIFIC GAS AND ELECTRIC COMPANY
GATEWAY GENERATING STATION
ANTIOCH, CALIFORNIA

SITE LOCATION

DECEMBER 2014

FIGURE 1

GIS FILE PATH: G:\41230_PGE_IGP_SWPPP_Update\Global\GIS\MapProjects\41230-002-0001_Gateway_Site_Location.mxd — USER: craumann — LAST SAVED: 12/3/2014 12:47:48 PM

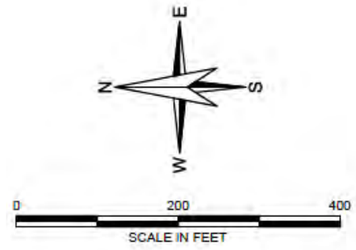


LEGEND

- STORM WATER DISCHARGE/SAMPLING POINT
- FACILITY BOUNDARY
- CO-MINGLED OUTFALL POINT
- ASPHALT CONCRETE
- CONCRETE
- GRAVEL
- TREE/VEGETATION

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

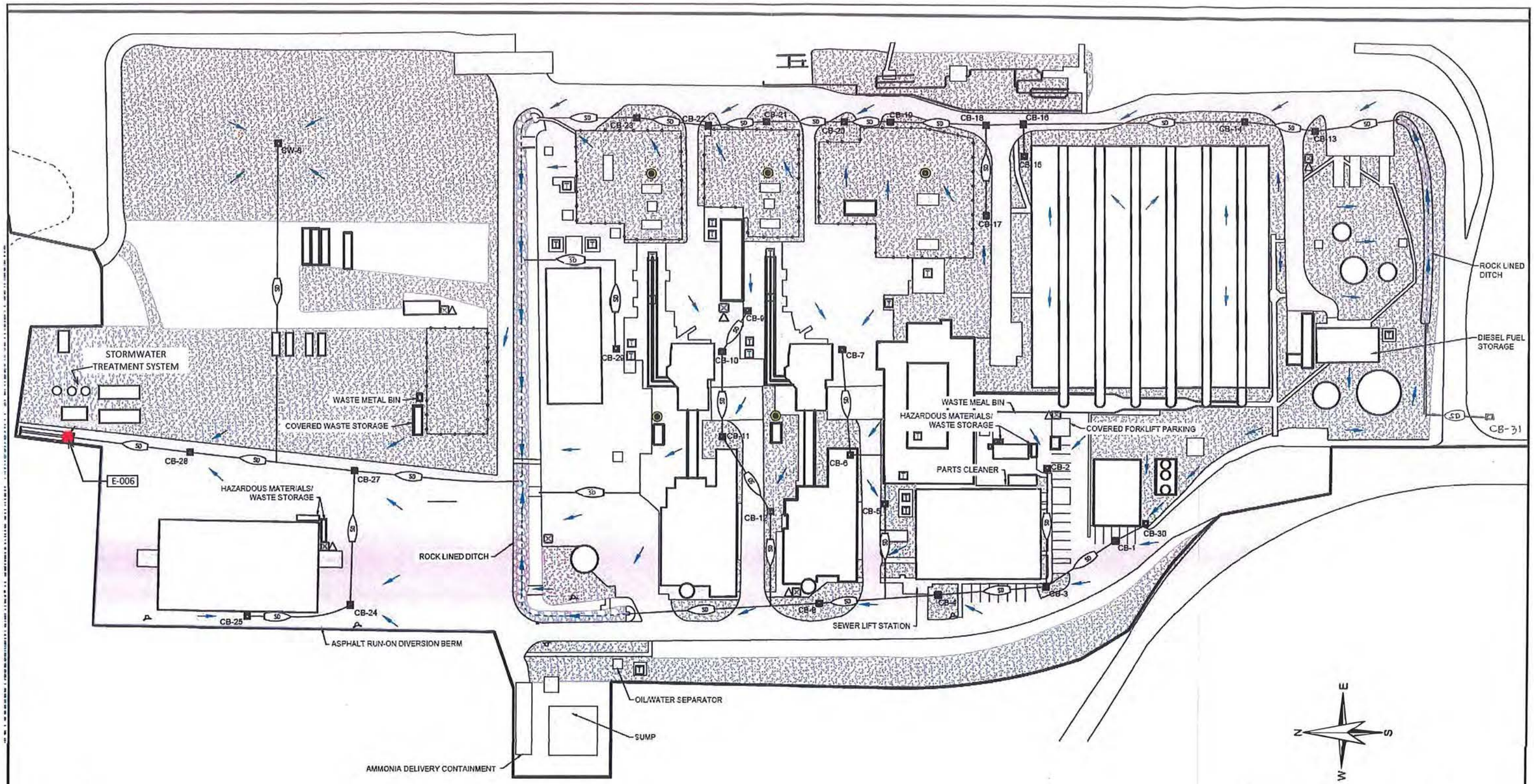


PACIFIC GAS AND ELECTRIC COMPANY (PG&E)
GATEWAY GENERATING STATION
ANTIOCH, CALIFORNIA

FACILITY DETAILS

SCALE: AS SHOWN
FEBRUARY 2017

FIGURE 2



LEGEND

- DRAIN INLET WITH SEDIMENT FILTER
- STORM WATER DISCHARGE/SAMPLING POINT
- FACILITY BOUNDARY
- PORTABLE RESTROOM
- HANDWASH STATION
- SULFUR HEXAFLOURIDE BREAKER
- TRANSFORMER
- ASPHALT CONCRETE
- CONCRETE
- GRAVEL

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AREA SHOWN IS DRAINAGE AREA A WHICH DRAINS TO E006

PACIFIC GAS AND ELECTRIC COMPANY (PG&E)
GATEWAY GENERATING STATION
ANTIOCH, CALIFORNIA

STORM WATER FLOW AND BMPs

SCALE: AS SHOWN
OCTOBER 2018

FIGURE 3

APPENDIX A

General Permit for Storm Water Discharges Associated with Industrial Activities (State Water Resources Control Board Order 2014-0057-DWQ)

APPENDIX B

Permit Registration Documents

CALIFORNIA Water Boards

State Water Resources Control Board

NOTICE OF INTENT

GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ ORDER No. 2014-0057-DWQ)
(Excluding Construction Activities)

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

WDID: 5S07I021950 Status: Active

Operator Information

Type: Private Business

Name: Pacific Gas Electric Company
Address: PO Box 770000
Address 2:
City/State/Zip: San Francisco CA 94177
Federal Tax ID:

Contact Name: Tim Wisdom
Title: Plant Manager
Phone Number: 925-522-7812
Email Address: T1WY@pge.com

Facility Information

Level:

Contact Name: Angel Espiritu
Title: Environmental Compliance Manager
Site Name: Gateway Generating Station
Address: 3225 Wilbur Ave
City/State/Zip: Antioch CA 94509
County: Contra Costa
Latitude: 38.01228 Longitude: -121.75859

Site Phone #: 925-522-7838
Email Address: abe4@PGE.com
Site Size: 32.5 Acres
Industrial Area Exposed to Storm Water: 22 Acres
Percent of Site Impervious (Including Rooftops): 28 %

SIC Code Information

1. 4911 Electric Services
2.
3.

Additional Information

Receiving Water: San Joaquin River
Flow: Indirectly
Storm Drain System:
Compliance Group:

RWQCB Jurisdiction: Region 5S - Sacramento
Phone: 916-464-3291
Email: r5s_stormwater@waterboards.ca.gov

Certification

Name: stephen royall
Date: June 14, 2017
Title: Senior Plant Manager

State Water Resources Control Board

NOTICE OF INTENT

GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH INDUSTRIAL ACTIVITIES (WQ ORDER No. 2014-0057-DWQ)
(Excluding Construction Activities)

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

WDID: 5S07I021950 **Status:** Active

Operator Information

Type: Private Business

Name: Pacific Gas Electric Company
Address: PO Box 770000
Address 2:
City/State/Zip: San Francisco CA 94177
Federal Tax ID: 94-0742640

Contact Name: Benjamin Stanley
Title: Senior Plant Manager
Phone #: 925-522-7812
Email: BESN@pge.com

Facility Information

Level:

Site Name: Gateway Generating Station
Address: 3225 Wilbur Ave
City/State/Zip: Antioch CA 94509
County: Contra Costa
Latitude: 38.01228 Longitude: -121.75859
Total Site Size: 32.5 Acres
Industrial Area exposed to Storm Water: 22 Acres

Contact Name: Angel Espiritu
Title: Environmental Compliance Manag
Site Phone #: 925-522-7838
Email: ABE4@PGE.com
Emergency:

Percent of Site Impervious (including rooftops): 28 %

SIC Code(s)

Primary SIC: 4911 Electric Services
Secondary SIC:
Tertiary SIC:

Additional Information

Receiving Water: San Joaquin River
Storm drain system:
Compliance Group:
RWQCB Jurisdiction: Region 5S - Sacramento
Phone: 916-464-3291

Water Flow: Indirectly
Email: r5s_stormwater@waterboards.ca.gov

Certification

Name Benjamin Stanley
Title: Senior Plant Manager

Date: June 03, 2015

Attachments Meta Data Information:

Attachment ID	File Name	File Description	File Hash	File Size	Date Attached	Attachment Type
1393445	14-15 AR & Recert Reminder Letter	14-15 AR & Recert Reminder Letter	e4101d3683ba9ccde463ee75ce717893ca19ad7dfa27b69cde4b24692d959	199940	2015-05-04 07:10:34.0	Other

APPENDIX C

SWPPP Amendment Form

SUMMARY OF SWPPP AMENDMENTS OR REVISIONS

Section and Page	Summary of Revision	Date	Name/Title
Entire Document	Preparation of the SWPPP under the 2014 IGP	Dec-14	Nancy E. Gardiner, CPESC, QSD/QSP Haley & Aldrich, Inc.
Various	Subsequent to performing a stormwater compliance assessment for the vacility, revisions, additions, and updates were made to the SWPPP and site maps.	3/14/2016	Alicia Brenner, CPESC, CESSWI, QSD/P, QISP BTConsulting, Inc.
Cover page, Section 1.4 (pg 3), Section 1.5 (pg 3), Appendix B NOI	Update contact information: Facility Contact, Plant Manager & Operations Supervisor	6/23/2016	Diana Furman, ECM
Section 3.1, Table II (pg. 7), Section 4.1 (pg. 11)	Removed anhydrous ammonia, this is no longer used or stored at the facility	6/23/2016	Diana Furman, ECM
Section 5.4 (pg. 15)	Reviewed and evaluated the site for the updated 303(d) listed impairments. SWPPP updated and now includes all 303(d) impairments listed on SMARTS.	7/1/2016	Diana Furman, ECM
§ 6.1.6 pg18	Include clarification for annual training	11/14/16	DIANA FURMAN, ECM
Appendix E	Revised ~~DMWE~~ visual observation form template	12/8/2016	DIANA FURMAN ECM
§1.5 Table 1 pg3	Updated contact info for plant manager	12/30/2016	DIANA FURMAN ECM
Sect§ 1.4 (p.7) 1.5 (p3)	Facility Contact info & Pollution Prevention Team were updated	5/31/2017	Angel ESPIRITU / ECM
cover pg P.3 Fig. 3	- updated revision date - updated Table 1 - updated map	10/3/2016	Angel Espiritu ECM

APPENDIX D

Training Log, including training material

SWPPP Training Log

Name of Trainer: _____

Location of Training: _____ Date of Training: _____

Signature of Trainer: _____

Topics covered:

- ☐ SWPPP Compliance Responsibilities
- ☐ BMP Implementation and Maintenance
- ☐ BMP Effectiveness Evaluations
- ☐ Visual Observations
- ☐ Monitoring Activities
- ☐ SMARTS Reporting

Name	Title	Company	Signature

APPENDIX E

Industrial Storm Water Facility Inspection and Visual Observation Form
Annual Evaluation Form
Sampling Log

Industrial Storm Water Facility Inspection and Visual Observation Form

General Information			
Facility Name	Gateway Generating Station		
WDID No.	5S07I021950		
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Inspector's Signature			
Type of Inspection[1,2]	❑ Monthly Visual Observation ❑ Sampling Event Visual Observation		

Weather Information

Weather at time of this inspection?
❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature:

If this is a sampling event visual observation, fill in storm event information:
Date and Time Storm Began: Rain Gauge Level: Rain Gauge ID:

Date and Time Discharge Began: Previous Discharge Ended Greater Than 48 Hours: ❑Yes ❑No

Visual Observations

Are there any spills/leaks observed at the time of inspection? ❑Yes ❑No
If yes, describe:

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ❑No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ❑No
If yes, note the presence of any of the following:
❑ Floating Materials ❑Sheen ❑ Discoloration ❑ Turbidity ❑ Odor ❑ Trash/Debris ❑ Other:
Describe all checked above:

Outfall Observations

Outfall No.	Observations	Is NSWD Present?	Potential Source(s) of NSWD	Corrective Action	Person Contacted	Date Corrective Action Completed
E-006		❑Yes ❑No				
		❑Yes ❑No				
		❑Yes ❑No				

[1] Monthly visual observations will be conducted during daylight hours of normally scheduled facility operation and on days without precipitation. Sampling event visual observations will be recorded at the same time sampling occurs at a discharge location.
[2] For monthly visual observations, pages 1-5 need to be completed. For sampling event visual observations, pages 1-2 need to be completed.

BMP Control Measures

- *Number the structural storm water control measures identified in your SWPPP below (add as many control measures as are implemented on-site).*
- *Describe corrective actions initiated, date completed, and note the person that completed the work.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)	**Date Corrective Action Completed**	**Initials of Person Responsible for the Correction Action**
1	**Drain Inlets**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
2	**Secondary Containment: Transformers**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
3	**Secondary Containment: Turbines/Oil-filled Equipment**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
4	**Secondary Containment: Firewater Pump Bldg**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
5	**Secondary Containment: Hazardous Material/Waste Sheds**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
6	**Trash/Scrap Dumpsters**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
7	**Oil/Used Oil Storage**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
8	**Ditches/Outfall**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
9	**Iron Treatment System**	❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			
10		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement			

Areas of Industrial Materials or Activities exposed to storm water

Below is a list of areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes	Date Corrective Action Completed	Initials of Person Responsible for the Correction Action
1	**Material loading/unloading and storage areas**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
2	**Equipment operations and maintenance areas**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
3	**Fueling areas**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
4	**Outdoor vehicle and equipment washing areas**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
5	**Waste handling and disposal areas**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
6	**Erodible areas/construction**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
7	**Non-storm water/ illicit connections***	❑Yes ❑No ❑ N/A	❑Yes ❑No			
8	**Dust generation and vehicle tracking**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
9	**General Housekeeping**	❑Yes ❑No ❑ N/A	❑Yes ❑No			
10		❑Yes ❑No ❑ N/A	❑Yes ❑No			

*Include a description of the source, quantity, frequency, and characteristics of the non-storm water discharges, associated drainage area, and whether it is an authorized or unauthorized non-storm water discharge.

BMP Implementation Tracking and Recording

Describe all BMP implementation and/or maintenance that occurred since the last inspection here.

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures**

Describe any additional control measures needed to comply with the permit requirements:

****Additional Control Measures include the following categories as described in the General Permit:**

Minimum BMPs: *Good Housekeeping; Preventative Maintenance; Spill and Leak Protection; Material Handling and Waste Management; Erosion and Sediment Controls; Employee Training; and Quality Assurance and Record Keeping*

Advanced BMPs: *Exposure Minimization; Storm Water Containment and Discharge Reduction; and Treatment Control*

Notes

Use this space for any additional notes or observations from the inspection:

Pacific Gas and Electric Company

Annual Compliance Evaluation Form

General Information			
Facility Name:		Evaluation Date:	
Facility Location:		WDID#:	
Is the SWPPP Onsite?	Yes ☐ No ☐ NA ☐	Is the NOI Onsite?	Yes ☐ No ☐ NA ☐

Document Review Information	
Have all sampling records from the previous reporting year been reviewed?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about sampling records here.	
Have all visual observation and inspection records from the previous reporting year been reviewed?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about inspection records here.	
Have all industrial activity areas and associated potential pollutant sources been inspected for evidence of or the potential for, pollutants entering the storm water conveyance system?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about industrial areas and pollutants here.	
Have all drainage areas previously identified as having no exposure to industrial activities and materials been inspected?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about no exposure areas here.	
Has all equipment needed to implement BMPs been inspected?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about BMP implementation equipment here.	

Pacific Gas and Electric Company

Annual Compliance Evaluation Form

Have all BMPs been inspected?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about BMPs here.	
Has a review and effectiveness assessment of all BMPs been conducted for each area of industrial activity and associated pollutant potential sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized non-stormwater discharges?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about BMP effectiveness here.	
Has the SWPPP been reviewed to ensure the information within is accurate for current operations and personnel?	Yes ☐ No ☐ NA ☐
Document any trends, concerns, or notable information about SWPPP revisions here.	
Have any other factors needed to comply with the requirements of the General Permit been assessed?	Yes ☐ No ☐ NA ☐
Document any other trends, concerns, or notable information here.	

Inspector Information

Evaluator Name:	Evaluator Title:
Signature:	Report Date:

Pacific Gas and Electric Company

Sampling Field Log

General Information			
Facility Name:			
Date:		Event Start Time:	
Sampler:		Rainfall Amount:	☐ Today ☐ Storm
Sampling Event Type:	☐ Storm Water	☐ Non-storm water	☐ Storm Water & NSWD

pH Sampling Information			
Method:	☐ Litmus Paper ☐ Test Kit ☐ Portable Instrument	Portable Instrument Calibration Date/Time:	

Field pH and Turbidity Measurements

Were field dupliates taken? ☐ Yes ☐ No

Discharge Location	% Total Daily Flow	pH	Time
Sum % Flow (Must = 100)	**0**		
	pH Calculated Average:	**#NUM!**	

Other Parameters (check those collected)

Oil and Grease ☐	Other: _____ ☐
Total Suspended Solids (TSS) ☐	Other: _____ ☐
Other: _____ ☐	Other: _____ ☐
Other: _____ ☐	Other: _____ ☐

Was a chain of custody completed? ☐ Yes ☐ No

Additional Sampling Notes/Exception Documentation

Estimated Event End:	

APPENDIX F

General Permit Attachment H "Sample Collection and Handling Instructions" and Example Chain of Custody Form

ATTACHMENT H

SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

For more detailed guidance, Dischargers should refer to the U.S. EPA's "Industrial Stormwater Monitoring and Sampling Guide," dated March 2009, available at: http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf and the "NPDES Storm Water Sampling Guidance Document," dated July 1992, available at: http://www.epa.gov/npdes/pubs/owm0093.pdf .

1. Identify the sampling parameters required to be tested and the number of storm water discharge points that will be sampled. Request the analytical testing laboratory to provide the appropriate number and type of sample containers, sample container labels, blank chain of custody forms, and sample preservation instructions.

2. Determine how samples will be transported to the laboratory. The testing laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory). The Discharger may either deliver the samples to the laboratory, arrange for the laboratory to pick up the samples, or overnight ship the samples to the laboratory. All sample analysis shall be done in accordance with 40 Code of Federal Regulations part 136. Samples for pH have a holding time of 15 minutes.[1]

3. Qualified Combined Samples shall be combined by the laboratory and not by the Discharger. Sample bottles must be appropriately labeled to instruct the laboratory on which samples to combine.

4. Unless the Discharger can provide flow weighted information, all combined samples shall be volume weighted.

5. For grab samples, use only the sample containers provided by the laboratory to collect and store samples. Use of any other type of containers may contaminate samples.

6. For automatic samplers that are not compatible with bottles provided by the laboratory, the Discharger is required to send the sample container included with the automatic sampler to the laboratory for analysis.

[1] 40 C.F.R. section 136.3, Table II - Required Containers, Preservation Techniques, and Holding Times.

SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

7. The Discharger can only use automatic sampling device to sample parameters that the device is designed to. For pH, Dischargers can only use automatic sampling devices with the ability to read pH within 15 minutes of sample collection.

8. The Discharger is prohibited from using an automatic sampling device for Oil and Grease, unless the automatic sampling device is specifically designed to sample for Oil and Grease.

9. To prevent contamination, do not touch inside of sample container or cap or put anything into the sample containers before collecting storm water samples.

10. Do not overfill sample containers. Overfilling can change the analytical results.

11. Tightly screw on the cap of each sample container without stripping the threads of the cap.

12. Complete and attach a label for each sample container. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label should also identify any sample containers that have been preserved.

13. Carefully pack sample containers into an ice chest or refrigerator to prevent breakage and maintain temperature during shipment. Remember to place frozen ice packs into shipping containers. Samples should be kept as close to 4 degrees Celsius (39 degrees Fahrenheit) as possible until arriving to the laboratory. Do not freeze samples.

14. Complete a Chain of Custody form for each set of samples. The Chain of Custody form shall include the Discharger's name, address, and phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis that is required for each sample container.

15. Upon shipping/delivering the sample containers, obtain both the signatures of the persons relinquishing and receiving the sample containers.

16. Dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the sample protocols and laboratory practices.

17. Refer to Table 1 in the General Permit for test methods, detection limits, and reporting units.

18. All sampling and sample preservation shall be in accordance with 40 Code of Federal Regulations part 136 and the current edition of "Standard Methods for

the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including Discharger field instruments for measuring pH or specific conductance if identified as an additional sampling parameter) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses shall be conducted according to approved test procedures under 40 Code of Federal Regulations part 136, unless other test procedures have been specified by the Regional Water Quality Control Board. All metals shall be reported as total metals. Dischargers may conduct their own field analysis of pH (or specific conductance if identified as an additional sampling parameter) if the Discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis. With the exception of field analysis conducted by Dischargers for pH (or specific conductance if identified as an additional sampling parameter), all analyses shall be sent to and conducted at a laboratory certified for such analyses by the California Department of Public Health. Dischargers are required to report to the Water Board any sampling data collected more frequently than required in this General Permit (Section XXI.J.2)

GGS Stormwater Treatment System Operations Recordkeeping Log

Discharge Date/Time		Discharge Volume - Flow Meter Readings (100 gal)			Discharge Iron Levels (ppm or mg/L)		Discharge pH Probe (S.U.)			Turbidity Probe (NTU)			Operator Initials	Comments
Start	End	Initial	Final	Total	Date/Time	Bench Kit Reading	Date/Time	Handheld Reading	Probe Reading	Date/Time	Handheld Reading	Probe Reading		

Flow Meter Readings to be taken prior to beginning of discharge and after discharge ends.
Discharge if iron level is less than 1 ppm.
Perform accuracy checks on pH and turbidity probes at least twice per discharge event. Do not perform accuracy checks during backwash; meters are inaccurate during this time.
Accuracy for pH ±0.5 s.u.
Accuracy for turbidity ±15-20 NTU
Allowable pH discharge range: 6.0-9.0 s.u.
Normal pH range at pretreatment probe (i.e. weir tank): 8.8-9.3 s.u.

rev: FEB2017

CHAIN OF CUSTODY FORM

Client Name:

Laboratory: _____

Laboratory Contact:_____

Project:

Sampler: _____

Contact:

ANALYSIS REQUIRED

Field readings: (Include units)
Time of readings_____

pH_____ pH unit

Field readings QC:

Checked by:_____

Date _____

Sample Description	Sample Matrix	Container Type	# of Cont.	Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Total Suspended Solids	Oil & Grease	Total Iron											Comments
Outfall 001	W																				
Outfall 002	W																				
Outfall 003	W																				
Duplicate	W																				

Relinquished By	Date/Time:	Received By	Date/Time:
Relinquished By	Date/Time:	Received By	Date/Time:
Relinquished By	Date/Time:	Received By	Date/Time:

Turn-around time: (Check)
24 Hour: _ 72 Hour: __ 10 Day: _____
48 Hour: _ 5 Day: __ Normal: _____

Sample Integrity: (Check)
Intact: __ On Ice: _____

APPENDIX G

Annual Reports

APPENDIX H

ERA Evaluations and Reports

APPENDIX I

Advanced Treatment System (Chemical & Filtration) Operating Manual, including the Gateway Generation Station Quick Operations Guide and Operating Log

Gateway Generating Station (00-AFC-1C)

Annual Compliance Report No. 11

Exhibit 7
Biological Record Summaries
(BIO-2)

Gateway Generating Station California Energy Commission Annual Compliance Report Biology Section, 2019

PREPARED FOR:	Angel Espiritu/PG&E Gateway Generating Station Compliance Manager
PREPARED BY:	Gateway Generating Station Designated Biologist Richard Crowe/Jacobs
COPIES:	Jerry Salamy/Jacobs Project Manager Amy Krisch Co-Designated Biologist/PG&E
DATE:	March 18, 2020

Introduction

This Gateway Generating Station (GGS) Annual 2019 Biological Resources Compliance Report fulfills the California Energy Commission (CEC) requirement of Condition of Certification (COC) BIO-2. Condition BIO-2 Verification states; "During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report."

On December 19, 2006, Pacific Gas and Electric Company (PG&E) filed a petition (TN 38720) with the CEC requesting to amend the Energy Commission Decision to eliminate the use of San Joaquin River water as the cooling source for the GGS Project (formerly known as the Contra Costa Power Plant Unit 8 Project). The petition also proposed ten associated project design changes at the project site. The 530-megawatt project was originally certified by the Energy Commission on May 30, 2001. Construction of the facility started late in 2001 and was suspended in February of 2002 due to financial difficulties, with approximately 7 percent of construction completed. On July 19, 2006, the Energy Commission approved[1] the addition of PG&E as co-owner of the project with Mirant Delta, LLC. On December 4, 2006, PG&E filed a petition[2] to remove Mirant as a co-owner and change the name of the facility to the Gateway Generating Station. Construction was restarted in January 2007 with PG&E as the project proponent.

After PG&E became the project owner/operator, the project was re-designed to avoid biological resource impacts to the extent feasible through development of mitigation and protection measures for the new design. These mitigation and protection measures reduced biological resource impacts so that no agency permits were required. These changes resulted in Conditions BIO-7, 10 and 11 being eliminated; also, additional minor changes were made to Conditions 5, 6 and 9.[3]

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[1] http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2006/Jul/TN%2037478%2007-19-06%20Filing%20of%20Notice%20of%20Decision%20in%20compliance%20with%20Public%20Resources%20Code%20Section%2021080.5%20and%20Title%2020%20Ca%20.pdf

[2] http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2006/Dec/TN%2038529%2012-04-06%20PG-E's%20Petition%20for%20Minor%20Amendment%20to%20Clarify%20it%20is%20the%20Sole%20Owner.pdf

[3] http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2007/Aug/TN%2041809%2008-01-07%20Order%20Amending%20the%20CEC%20Decision%20to%20Eliminate%20the%20use%20of%20San%20Joaquin%20River%20Water%20for%20Cooling.pdf

GGS construction, including restoration activities, was completed in June 2009.

2019 Monitored Activities and Wildlife Interaction

PG&E has complied with the biological resource COCs, including having the Designated Biologists (DB) or an alternative Biologist perform pre-disturbance surveys, and when necessary, evaluate/demarcate nesting bird activity within the facility. All new employees and contract workers employed at the site received the CEC-approved Worker Environmental Awareness Program training (WEAP) via video or lecture and daily tailgate training with the DB or the PG&E GGS Compliance Manager Angel Espiritu (CM). The DB remained on-call throughout 2019.

The on-call monitoring and compliance efforts for 2019 are documented in chronological order below and within Appendix A, Site Photos;

April 24th, the DB received an e-mail from GGS staff concerning a proposed herbicide application to the grassland areas at GGS. The DB inquired as to when the herbicide application would take place.

April 25th, the DB received an e-mail from GGS staff stating that the herbicide application had been postponed until the end of May after the areas had been mowed and weeds removed.

May 14th, the DB received an e-mail from the GGS CM and the PG&E GGS Co-Designated Biologist Laura Burkholder (Co-DB) concerning the planned mowing and herbicide application of the ruderal vegetation around the GGS site. The Co-DB informed the DB that she was available to conduct a pre-disturbance survey of the areas scheduled for disturbance.

May 23rd, the Co-DB conducted a pre-disturbance survey of the areas scheduled to be mowed. Photo 1 shows in detail the areas of vegetation scheduled for mowing. The Co-DB walked meandering transects of the areas to be disturbed focusing on nesting birds, burrowing owls or their sign (Photos 2-5). The areas are vegetated with ruderal grasses and some bare ground. The Co-DB did not observe any nesting birds or sign of burrowing owls during the survey.

September 6th, the DB received an e-mail from the GGS CM concerning the removal of 4 mature eucalyptus trees in the northeast corner of the GGS facility (Photo 6). PG&E had determined that the trees were potential fire hazards and needed to be removed. The DB and Co-DB replied that it was out of the nesting bird season so there was no need for a nesting bird survey. The DB requested the CM take before and after pictures of the eucalyptus tree removal.

October 29th, the DB received an e-mail from the GGS CM that contained before and after pictures documenting the 4 eucalyptus trees removed from the northwest corner of the GGS facility (Photos 7-10). The CM stated that the trees were removed on 10-21 through 10-25 and that no wildlife was disturbed during the removal.

November 12th, the DB received an e-mail from the GGS CM concerning the planned vegetation mowing of the GGS grounds on the following week. The DB replied to the CM that it was well out of the nesting bird period, so a pre-disturbance survey was not necessary.

December 9th, the DB received an e-mail from the GGS CM regarding the replacement of the GGS Co-DB Laura Burkholder. PG&E Biologist Amy Kirsch had been approved by the CEC GGS Compliance Manager and would now be conducting the duties of the Co-DB.

Conclusion

The Gateway 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 2019.

Appendix A
Site Photos

Photo 1, Pre-mowing survey area outlined in red, Gateway Generating Station, 5-23-19.

Photo 2, South field prior to mowing photo facing southwest, 5-23-19

Photo 3, of south field eastern roadside edge prior to mowing 5-23-19.

Photo 4, of south field facing west prior to mowing, 5-23-19.

Photo 5, of vegetated strip just north of power block prior to mowing, 5-23-19.

Photo 6, of 4 eucalyptus trees planned for removal, 9-6-19.

Photo 7, of eucalyptus tree #1 prior to removal, 10-21-19.

Photo 8, of eucalyptus tree #1 after removal, 10-29-19.

Photo 9, of eucalyptus trees #2, #3 and #4 prior to removal, 10-21-19.

Photo 10, of eucalyptus trees #2, #3, and #4 after removal, 10-29-19.