DOCKETED	
Docket Number:	79-AFC-01C
Project Title:	Compliance - Application for Certification for PG&E Geysers Unit 17 (78-NOI-3)
TN #:	240996
Document Title:	2020 Annual Compliance Report - Lakeview
Description:	N/A
Filer:	William King
Organization:	Geysers Power Company, LLC
Submitter Role:	Applicant
Submission Date:	12/20/2021 2:51:28 PM
Docketed Date:	12/20/2021

GEYSERS POWER COMPANY, LLC
10350 Socrates Mine Road
Middletown, CA 95461

GWQ-21-010

December 20, 2021

Eric Veerkamp, Compliance Project Manager
Energy Facilities Siting and Environmental Protection Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, California 95814-5512

Mr. Veerkamp:

Subject: **79-AFC-1C** 2020 Annual Compliance Report, Unit 17 (Lake View)

In fulfillment of the Compliance Plan's annual reporting requirement, Geysers Power Company, LLC hereby submits the following report for Unit 17 (Lake View).

If you have any comments or questions, please contact me at (707) 431-6097.

Sincerely,

William J. King Date: 2021.12.20 14:16:12 -08'00'

Bill King
Project Manager, EHS
Calpine Corporation

Geysers Lake View Plant (Unit 17)
79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020 Reporting Period

EXECUTIVE SUMMARY

Section 25532 of the Public Resources Code provides that the California Energy Commission (CEC) shall establish a monitoring system to assure that any facility certified by the CEC is constructed and operated in compliance with air, water quality, public health, safety, and other applicable regulations, guidelines, and conditions adopted or established by the CEC.

On February 26, 1979, Pacific Gas and Electric Company (PG&E) filed an Application for Certification (AFC) for Geysers Power Plant Unit 17. In order for the AFC to be granted the CEC issued the "Final Commission Decision Document for Geysers Power Plant Unit 17". In November 1999, the CEC license transferred from PG&E to Geysers Power Company, LLC (GPC or Project Owner). The license requires GPC to be responsible for administering and monitoring various Conditions for Certification as contained in the Final Commission Decision, in accordance with the Compliance Plan for Unit 17, including submitting an Annual Report that summarizes compliance tasks conducted during the previous year.

Two amendments to the Final Decision have been approved by the CEC, resulting in the inclusion of additional on-going compliance tasks for reporting in the Annual Compliance Report.

First, on January 29, 2020, the CEC Final Decision was amended to revise the Air Quality Conditions of Certification (TN#: 231785). The new Air Quality Conditions of Certification requires on-going reporting of certain monitoring and other activities at Lake View. Second, on November 16, 2020, additional Compliance Conditions of Certification were adopted for Unit 19 (TN#: 235701): GEN-1, COM-1 through 11, FIRE PREVENTION-1 and FIRE PROTECTION-1 through 5. Condition COM-5 requires submission of Periodic and Annual Compliance Reports and details specific reporting requirements that should be included in each Annual Compliance Report (ACR). The following sections of this ACR corresponds with the reporting requirements set forth in Condition COM-5. The ongoing compliance tasks in each of the following areas are summarized below:

Geysers Lake View Plant (Unit 17)
79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020 Reporting Period

Technical Area	Ongoing Tasks
Air Quality	AQ-1, AQ-2, AQ-3, AQ-4, AQ-5 AQ-AE1, AQ-AE2, AQ-AE3, AQ-AE4 AQ-B1, AQ-B2, AQ-B3, AQ-B4, AQ-B5, AQ-B6, AQ-B7, AQ-B8, AQ-B9, AQ-B10, AQ-B11 AQ-BE1, AQ-BE2, AQ-BE3, AQ-BE4, AQ-BE5 AQ-C1, AQ-C2, AQ-C3, AQ-C4, AQ-C5, AQ-C6, AQ-C7, AQ-C8, AQ-C9, AQ-C10 AQ-CE1 AQ-D1, AQ-D2, AQ-D3, AQ-D4, AQ-D5, AQ-D6, AQ-D7 AQ-DE1 AQ-E1, AQ-E2, AQ-E3 AQ-F1 AQ-G1, AQ-G2, AQ-G3, AQ-G4, AQ-G5, AQ-G6, AQ-G7, AQ-G8, AQ-G9, AQ-G10, AQ-G11 AQ-SC1, AQ-SC2, AQ-SC3, AQ-SC4
Biological Resources	BR 5-4
Compliance	COM-1, COM-2, COM-3, COM-4, COM-5, COM-6, COM-7, COM-8, COM-9, COM-10, COM-11
Fire Prevention	Fire Prevention-1
Fire Protection	Fire Protection-1, Fire Protection-2, Fire Protection-3, Fire Protection-4, Fire Protection-5
Geotechnical/Seismic Hazards	GSH 7-5
Gen	GEN-1
Noise	Noise 16-3, Noise 16-4
Public Health	PH 2-1, PH 2-2, PH 2-3, PH 2-4, PH 2-5
Safety	Safety 12-2, Safety 12-3
Solid Waste Management	SWM 11-1, SWM 11-2, SWM 11-3
Transmission Line Safety and Nuisance	TLSN 13-1, TLSN 13-3, TLSN 13-4, TLSN 13-6, TLSN 13-8
Water Quality, Hydrology and Water Resources	WQ 6-1, WQ 6-2

In accordance with Condition Compliance-5 of the License, the Project Owner reports as follows:

1. Updated Compliance Matrix

A copy of the updated compliance matrix showing the status of all conditions of certification (with the exception of fully satisfied conditions) is included as an attachment under COMPLIANCE-5.

Geysers Lake View Plant (Unit 17)
79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
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2. Summary of current project operating status and explanation of any significant changes to facility operating status during the year

Lake View is currently operational and was operational during the 2020 reporting period with the exception of the following outage periods:

Event	Summary	Start	Actual End
Planned Outage, Transmission supplier	Planned Transmission Induced Outage	6/26/2020 4:30	6/26/2020 20:55
Forced Outage	Unit 17 tripped on high back pressure /low vacuum	5/31/2020 14:30	5/31/2020 18:30
Planned Outage (BOP)	Unit Planned maintenance outage	5/10/2020 5:00	5/19/2020 11:15
Planned Outage, Transmission supplier	Planned Transmission Line Outage	2/25/2020 8:00	2/25/2020 12:15
Planned Outage, Transmission supplier	Planned transmission line outage	1/21/2020 6:00	1/22/2020 23:00
Forced Outage	The unit tripped on main condenser low vacuum	12/23/2020 1:10	12/23/2020 9:50
Forced Outage, Transmission supplier	Forced Outage due to Transmission Provider	11/19/2020 11:55	11/20/2020 21:10
Forced Outage, Transmission supplier	Public Safety Power Shutdown	10/25/2020 12:00	10/28/2020 13:40
Planned Outage (BOP)	Planned 4 Day Outage	10/19/2020 2:00	10/22/2020 19:00
Forced Outage	Plant tripped on 386 Unit Lockout Relay activation	8/16/2020 4:55	8/16/2020 14:45
Forced Outage, Transmission supplier	17 Fulton Transmission Induced Emergency	7/24/2020 10:30	7/24/2020 10:50

Geysers Lake View Plant (Unit 17)
79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
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3. Required Annual Compliance Report Documents

The following documents are required by specific conditions to be submitted along with the ACR:

Condition of Certification	Document Title	Condition of Certification	Document Title
AQ-B8	A copy of the Approval to Change Alternative Compliance Plan Letter is provided as Attachment AQ-B8	AQ-SC2	Copies of the quarterly reports are provided as Attachment AQ-C9/AQ-E1/SC-2
AQ-C9	Copies of the quarterly reports are provided as Attachment AQ-C9/AQ-E1/SC-2	Public Health 2-1	See Attachment Public Health 2-1 for table of quarterly analysis.
AQ-E1	Copies of the quarterly reports are provided as Attachment AQ-C9/AQ-E1/SC-2	Public Health 2-2	See the attached table referenced in Public Health 2-1. There was no exceedance of 3.0 pCi/l during the reporting period.
AQ-E2	A copy of the Annual Pollutant Criteria is provided as Attachment AQ-E2	Public Health 2-3	See the attached table referenced in Public Health 2-1. There was no exceedance of 6.0 pCi/l during the reporting period.
AQ-G10	See attached for submitted Title V CEC Compliance Report		

4. Cumulative List of All Known Post-Certification Changes Approved by the CEC or CPM

- The approved Petition for Modification allows the installation of a permanent stand-by diesel engine-driven pump for the cooling tower wet-down system at Lake View, Unit 17 docketed 1/30/2020 per TN#235701.
- Approved permitted installation of permanent emergency standby pump for the cooling tower wet down system. Added new COCs: AQ-SC1 though AC-SC4, AQ-A1 through AQ-A5, AQ-B1 though AQ-B11, AQ-C1 through AQ-C10, AQ-D1 through AQ-D7, AQ-E1 through AQ-E3, AQ-F1, AQ-G1 through AQ-G11 docketed 1/29/2020 per TN# 231785.
- Resolved alleged violations of license and LORS relating to fire systems. Added new COCs: GEN-1, COM-1 through COM-11, Fire Protection-1 through Fire Protection-5. Docketed 11/19/20 per TN# 235701.

5. Submittal deadlines not met

There are no past due compliance submittals.

Geysers Lake View Plant (Unit 17)
79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020 Reporting Period

6. Filings Submitted to or Permits Issued by Other Governmental Agencies

- Quarterly Compliance Reports for Sonoma County Title V compliance to NSCAPCD
- Permit Fees: Payment of Annual Renewal Fees Fiscal Year 2020- 2021 submitted to NSCAPCD
- Title V Operating Permit 2020 Annual Compliance Certification for the Power Plants submitted to NSCAPCD
- Title V Responsible Official Certifications for Power Plant Operating Permit Applications and Annual Compliance Reporting Submitted to NSCAPCD
- Alternative Compliance Plan Unit 17 Exit Gas H2S Concentration from Stretford when, Unit 11 MW Load Curtailed; approved by NSCAPCD on 4/2/20
- 2020 PSD H2S Abatement System Performance Results: Geysers Power Company LLC's Sonoma, Lake View, Grant, Quicksilver and Calistoga Power Plants submitted to CEC & NSCAPCD
- Sonoma County AB2588 Air Toxics "Hot Spots" Emission Inventory Report for the Inventory Year 2020 (electronic data submission) submitted to NSCAPCD -
- 2020 Geysers Power Plant Units Recycled Water Use Report, submitted 2/11/2021 to SWRCB
- Sulfur Hexafluoride (SF6) Geothermal Resource Tracer Testing Exemption- Progress Report submitted to CARB
- Criteria Pollutant Year 2020 Emission Inventory for GPC Plants submitted to NSCAPCD
- Guzzler and Sediment Pond inspection pictures submitted to CEC
- Monthly submission of completed hazardous waste manifests to DTSC.
- Annual Hazardous Waste Report submitted to DTSC.
- Sulfur Hexafluoride (SF6) Geothermal Resource Tracer Testing Exemption- Progress Report submitted to CEC
- 2020 Geysers Power Plant Units Recycled Water Use Report submitted to SWRCB

7. Projection of Scheduled Compliance Activities for Next Year

- Annual Asbestos Notification: 2021 Nonscheduled Maintenance Projects at Geysers Power Company LLC Facilities Located In Sonoma County submitted to NSCAPCD
- AQ-A1: Perform monthly source test cooling tower H2S
- Biological Resources 5-3: Inspect and maintain guzzler near wildlife water impound
- Compliance-5: Evaluate Site Contingency Plan for unplanned facility closure
- Fire Protection-1: Perform annual inspection, testing, and maintenance of the non-NFPA cooling tower wet down system
- Fire Protection-3: Perform inspections, testing, and maintenance of fire systems
- Public Health 2-1: Perform quarterly sampling and analysis of radon-222 concentrations in noncondensable gases entering the power plant in the incoming steam line, or vent off-gas line, or H2S abatement off-gas line
- Transmission Line Safety and Nuisance 13-3: Maintain and inspect the transmission line

Geysers Lake View Plant (Unit 17)
79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020 Reporting Period

8. Additions to the Compliance Record

- Approved Petition for Modification allows the installation of a permanent stand-by diesel engine-driven pump for the cooling tower wet-down system at Lake View, Unit 17 docketed 1/30/2020 per TN#235701.
- Approved permitted installation of permanent emergency standby pump for the cooling tower wet down system. Added new COCs: AQ-SC1 though AC-SC4, AQ-A1 through AQ-A5, AQ-B1 though AQ-B11, AQ-C1 through AQ-C10, AQ-D1 through AQ-D7, AQ-E1 through AQ-E3, AQ-F1, AQ-G1 through AQ-G11 docketed 1/29/2020 per TN# 231785
- Resolved alleged violations of license and LORS relating to fire systems. Added new COCs: GEN-1, COM-1 through COM-11, Fire Prevention-1, Fire Protection-1 through Fire Protection-5. Docketed 11/19/20 per TN# 235701.
- On-going logging of monitoring and calibration of H2S monitoring devices, continuous strip chart record and appropriate sampling line, and other additions pursuant to AQ-1.
- On-going analyses of results of source tests and other tests requested by the NSCAPCD or CEC pursuant to the AQ conditions of certification.

9. Evaluation of the Site Contingency Plan

An evaluation of the Site Contingency Plan for unplanned facility closure was conducted and minor modifications were made to the plan to update the listed agency contact information for listed to be referenced in case of a facility closure.

10. Listing of complaints, notices of violations, official warnings, and citations

No complaints, notices of violations, official warnings or citations received in the 2020 reporting period.

CONDITION OF CERTIFICATION
AQ-B8

Geysers Lake View Plant (Unit 17) 79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020

NORTHERN SONOMA COUNTY AIR POLLUTION CONTROL DISTRICT
150 Matheson Street, Healdsburg, CA 95448 • PH: (707) 433-5911 • FX: (707) 433-4823

Geysers Power Company, LLC
c/o Calpine Corporation
10350 Socrates Mine Road
Middletown, CA 95461

April 2, 2020

ATTENTION: Brian Benn
Manager Environmental Chemistry

SUBJECT: Alternative Compliance Plan (ACP) for Unit 17

Dear Mr. Benn:

This letter is in response to your request to modify the alternative compliance plan at Unit 17 during times when Unit 11 is off-line or curtailed and steam is shifted from Unit 11 to Unit 17. Based on the information provided in your letter dated April 2, 2020, the District approves the proposed compliance plan.

Please keep a copy of this letter, along with the alternative compliance plan described in the April 2, 2020 letter in the permit files for the power plant.

If you have any questions regarding this matter please call me at (707) 433-5911.

Sincerely,

Alex V. Saschin

Alex Saschin
Air Quality Engineer

AVS/avs
s:\coresp\as\letters\gpcllc\ACP for Unit 17.doc

GEYSERS POWER COMPANY, LLC
10350 Socrates Mine Road
Middletown, CA 95461
707.431.6000

GPC-20-091

April 2, 2020

Alex Saschin Air Quality Engineer
Northern Sonoma County
Air Pollution Control District
150 Matheson Street
Healdsburg, CA 95448

Subject: Alternative Compliance Plan Unit 17 Exit Gas H_2S Concentration from Stretford, Unit 11 MW Load Curtailed

Dear Mr. Saschin:

Geysers Power Company requests approval of a change to the Alternative Compliance Plan (ACP) for Unit 17 Condition A.I.3.

The current ACP, provides for changing the treated gas H_2S concentration limit from 135 $ppm_{(v)}$ up to 300 $ppm_{(v)}$ when Unit 11 is off-line and steam is shifted from Unit 11 to Unit 17. Recent operating conditions have required that while Unit 11 is on line, MW load curtailments at Unit 11 result in shifting steam to Unit 17, which increases the H_2S load on the Stretford H_2S abatement system the same as it would with Unit 11 off line. Plant operators have made adjustments to the Stretford H_2S abatement system and optimized the Stretford chemistry, but will not be able to maintain the treated gas concentration at less than 135 $ppm_{(v)}$ without lowering MW load at Unit 17. GPC requests a change to the current ACP to allow the limit to increase to 300 $ppm_{(v)}$ when Unit 11 is *curtailed and steam is shifted* to Unit 17.

The current MW load curtailment at Unit 11 is the result of congestion on the PG&E 115 KV transmission line, and resulting orders from the California Independent System Operator reducing MW load on Unit 11 transmission line. The Unit 11 MW is curtailed 70 MW to 58 MW.

The requested change is in italics on the attached Unit 17 ACP.

Please call me at (707) 849-9259 (mobile), if you have any questions on this subject.

Sincerely,

brian.benn@calpine.com

Digitally signed by brian.benn@calpine.com
DN: cn=brian.benn@calpine.com
Date: 2020.04.02 10:35:13 -07'00'

Brian J. Benn
Environmental Chemistry Manager
Geysers Power Plant

Alternative Compliance Plan – Unit 17 Permit to Operate
Condition A.I.3. Emission Limits for H_2S

Permit Condition:

3. The exit concentration in the process piping leading from the Stretford System shall not exceed 135 ppmv H2S averaged over any consecutive 60 minute period unless operating under a District approved Alternative Compliance Plan (ACP). ref PTO 79-23 Cond 16.B.

Alternative Compliance Plan:

3. The exit concentration in the process piping leading from the Stretford System shall not exceed 135 ppmv H2S averaged over any consecutive 60 minute period unless operating under a District approved Alternative Compliance Plan (ACP). ref PTO 79-23 Cond 16.B.

During Geysers Unit 11 plant *MW load curtailment* periods, the exit concentration in the process piping leading from the Stretford System shall not exceed 300 ppmv H_2S averaged over any consecutive 60 minute period. If the hourly average exit H_2S concentration is greater than 135 ppmv for more than 24 hours, GPC will conduct a parametric H_2S emissions test to verify that the overall emissions from the plant do not exceed 6.0 Kg/hr as limited under Condition A.I.1 Emission Limits for H_2S.

When operating under the ACP, GPC need not lower plant MW load, but will verify that Stretford process chemistry and flow rates are within normal operating guidelines recommended in the weekly Stretford system chemical analysis, and make adjustments to the process to attempt to return the exit gas concentration to less than the 135 ppmv hourly average limit specified in condition *A.I.3.* Actions taken to reduce the exit H_2S concentration will be recorded in the power plant log.

CONDITION OF CERTIFICATION
AQ-C9/AQ-E1/AQ-SC2

Geysers Lake View Plant (Unit 17) 79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CALIFORNIA 95461
707.431.6000

GPC-20-037

April 30, 2020

Rob Bamford
Air Pollution Control Officer
Northern Sonoma County
Air Pollution Control District
150 Matheson St.
Healdsburg CA, 95448-

Attention: Alex Saschin

Dear Mr. Bamford:

Subject: Compliance Reports – First Quarter of 2020 For Calpine Geysers Power Company LLC Power Plants Located in Sonoma County

Enclosed are Geysers Power Company LLC's first quarter 2020 compliance reports for the Calpine Geysers Power Company LLC geothermal power plants located in the Northern Sonoma County Air Pollution Control District (NSCAPCD). The attached reports are submitted to the NSCAPCD in accordance with:

- Aidlin Power Plant PTO 88-35 & 88-36 Condition E.2,
- McCabe Power Plant Title V Operating Permit Condition II.A.V.1,
- Ridgeline Title V Operating Permit Condition II.A.V.1,
- Eagle Rock Title V Operating Permit Condition II.A.V.1,
- Cobb Creek Title V Operating Permit Condition II.A.V.1,
- Sulfur Springs Title V Operating Permit Condition II.A.V.1,
- [1] Lake View (Unit 17) Title V Operating Permit Condition II.A.V.1,
- [1] Socrates (Unit 18) Power Plant Title V Operating Permit Condition II.A.V.1,
- [1] Grant Power Plant (Unit 20) Title V Operating permit Condition II.A.V.1,
- [1] Sonoma Power Plant (Unit 3) Title V Operating permit Condition II.A.V.1,

If you have any questions, please contact me at (707) 431-6266.

Sincerely,

Brian J. Berndt
EHS Manager, Geysers

Enclosure
cc: Eric VeerKamp, Compliance Project Manager
California Energy Commission (CEC),
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

[1] These reports are copied to the CEC compliance project manager as a separate enclosure containing only the information required for CEC licensed facilities pursuant to: Unit 17 CEC Docket 79-AFC-1C, Unit 18 CEC Docket 79-AFC-3C, Unit 20 CEC Docket 82-AFC-1C, and Unit 3 CEC Docket 80-AFC-1C

FIRST QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

CONTENTS

FIRST QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

Introduction: This report provides data and information for the period January 1, 2020 through March 31, 2020.

Table 1 lists the hours that the monitor was in service and operating within the permit required operational specification requirements for the monitor. The unit operating hours are included for reference. Monitor availability hours are determined by subtracting the duration of time that the monitor is out of service for repair and routine calibration from the abatement system operating hours.

Table 1

Unit Operating Hours, and Continuous Process Monitor Availability

First Quarter 2020	Unit Operating Hours (Hrs)	Quarterly Continuous Process Monitor Availablilty (Hrs)
Sonoma (Unit 3)	1713.9	1694.0
Lake View (Unit 17)	2095.7	2080.3
Socrates (Unit 18)	1717.9	1697.4
Grant (Unit 20)	1732.1	1721.4

FIRST QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

Table 2 may include NSCAPCD Rule 540 Breakdown events where operator actions were required to maintain emissions below the permitted H_2S emission limits. Events are included when meeting with the reporting criteria described in the NSCAPCD Continuous Compliance Monitoring Reporting Policy issued October 20, 1998. Table 2 Monitor irregularities identify periods when the output of the treated gas monitor drops to zero or suddenly spikes with no corresponding plant or abatement process changes. (Reference: Title V Permit Condition V.1.c.)

Table 2 Summary of H2S Abatement Incidents Requiring Corrective Action and Monitor Irregularities

INCIDENTS REQUIRING CORRECTIVE ACTION

First Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	None		0:00			
Lake View (Unit 17)	None		0:00			
Socrates (Unit 18)	None		0:00			
Grant (Unit 20)	None		0:00			

MONITOR IRREGULARITIES

First Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	3/1/20 5:18 AM	3/2/2020 10:41	29:23	CCM recording irregular negative values H2S ppm	Unknwon	Tech reported on Monday morning, performed cal check, weekly routines and found no apparent evidence of component failure or issues with the ASI.
Lake View (Unit 17)	1/23/2020 8:30	1/23/2020 10:00	1:30	Mid-span daily check of calibration accuracy reponse recorded low.	Tech adjusted output isolator POT and returned CCM to service. During this period, the Operator 's Drager sample recorded less than 20 ppm H2S.	Tech adjusted output isolator POT and returned CCM to service. During this period, the Operator 's Drager sample recorded less than 20 ppm H2S.
Lake View (Unit 17)	3/20/2020 11:49	3/20/2020 12:04	0:15	Operator initiated a manual calibrations after observing that the daily calibration check did not occur.	Span Gas was not aligned following weekly calibration	Operator nottified Tech. Tech verified alignment, and ran span gas to ensure CCM return to service.
Socrates (Unit 18)	2/14/2020 5:01	2/14/2020 13:10	8:09	CCM problem	Tape not advancing	Tech repaired tape, CCM returned to service. Dragers indicate compliance
Grant (Unit 20)	None					

Table 3 includes the H_2S emission rates determined during the monthly source tests conducted by Calpine in accordance with Title V operating condition III.1, utilizing Modified District Method 102.

Table 3
Monthly H2S Emissions from Method 102 Source Tests

First Quarter 2020	Date	Measured H2S Emissions Kg/Hr	Allowable H2S Emissions Kg/Hr
Sonoma (Unit 3)	1/14/2020	0.0	3.6
	2/6/2020	0.1	
	3/17/2020	0.4	
Lake View (Unit 17)	1/18/2020	0.5	6.0
	2/11/2020	0.1	
	3/3/2020	0.2	
Socrates (Unit 18)	1/27/2020	4.5*(3.3)	5.2
	2/20/2020	1.2	
	3/10/2020	4.2*(0.8)	
Grant (Unit 20)	1/29/2020	0.2	4.7
	2/24/2020	0.4	
	3/18/2020	3.0*(2.8)	

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CALIFORNIA 95461
707.431.6000

GPC-20-075

July 29, 2020

Rob Bamford
Air Pollution Control Officer
Northern Sonoma County
Air Pollution Control District
150 Matheson St.
Healdsburg CA, 95448

Attention: Alex Saschin

Dear Mr. Bamford:

Subject: Compliance Reports – Second Quarter of 2020 for Calpine Geysers Power Company LLC Power Plants Located in Sonoma County

Enclosed are Geysers Power Company LLC's second quarter 2020 compliance reports for the Calpine Geysers Power Company LLC geothermal power plants located in the Northern Sonoma County Air Pollution Control District (NSCAPCD). The attached reports are submitted to the NSCAPCD in accordance with:

- Aidlin Power Plant PTO 88-35 & 88-36 Condition E.2,
- McCabe Power Plant Title V Operating Permit Condition II.A.V.1,
- Ridgeline Title V Operating Permit Condition II.A.V.1,
- Eagle Rock Title V Operating Permit Condition II.A.V.1,
- Cobb Creek Title V Operating Permit Condition II.A.V.1,
- Sulfur Springs Title V Operating Permit Condition II.A.V.1,
- [1] Lake View (Unit 17) Title V Operating Permit Condition II.A.V.1,
- [1] Socrates (Unit 18) Power Plant Title V Operating Permit Condition II.A.V.1,
- [1] Grant Power Plant (Unit 20) Title V Operating permit Condition II.A.V.1,
- [1] Sonoma Power Plant (Unit 3) Title V Operating permit Condition II.A.V.1,

If you have any questions, please contact me at (707) 431-6266.

Sincerely,

Brian J. Berndt
EHS Manager, Geysers

Enclosure
cc: Eric VeerKamp, Compliance Project Manager
California Energy Commission (CEC),
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

[1] These reports are copied to the CEC compliance project manager as a separate enclosure containing only the information required for CEC licensed facilities pursuant to: Unit 17 CEC Docket 79-AFC-1C, Unit 18 CEC Docket 79-AFC-3C, Unit 20 CEC Docket 82-AFC-1C, and Unit 3 CEC Docket 80-AFC-1C

SECOND QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

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SECOND QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

Introduction: This report provides data and information for the period April 1, 2020 through June 30, 2020.

Table 1 lists the hours that the monitor was in service and operating within the permit required operational specification requirements for the monitor. The unit operating hours are included for reference. Monitor availability hours are determined by subtracting the duration of time that the monitor is out of service for repair and routine calibration from the abatement system operating hours.

Table 1

Unit Operating Hours, and Continuous Process Monitor Availability

Second Quarter 2020	Unit Operating Hours (Hrs)	Quarterly Continuous Process Monitor Availablilty (Hrs)
Sonoma (Unit 3)	2161.6	2145.6
Lake View (Unit 17)	1918.3	1902.3
Socrates (Unit 18)	2047.9	2035.1
Grant (Unit 20)	2153.6	2144.3

Table 2 may include NSCAPCD Rule 540 Breakdown events where operator actions were required to maintain emissions below the permitted H_2S emission limits. Events are included when meeting with the reporting criteria described in the NSCAPCD Continuous Compliance Monitoring Reporting Policy issued October 20, 1998. Table 2 Monitor irregularities identify periods when the output of the treated gas monitor drops to zero or suddenly spikes with no corresponding plant or abatement process changes. (Reference: Title V Permit Condition V.1.c.)

Table 2 Summary of H2S Abatement Incidents Requiring Corrective Action and Monitor Irregularities

INCIDENTS REQUIRING CORRECTIVE ACTION

Second Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	None		0:00			
Lake View (Unit 17)	None		0:00			
Socrates (Unit 18)	None		0:00			
Grant Line (Unit 20)	None		0:00			

MONITOR IRREGULARITIES

Second Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	None		0:00			
Lake View (Unit 17)	5/30/2020 8:30	5/30/2020 14:00	5:30	CCM failed auto calibration twice	Manual calibration required	Technician checked and calibrated CCM. Dragers taken every 4 hours to verify compliance.
Socrates (Unit 18)	None		0:00			
Grant (Unit 20)	None		0:00			

Table 3 includes the H_2S emission rates determined during the monthly source tests conducted by Calpine in accordance with Title V operating condition III.1, utilizing Modified District Method 102.

Table 3
Monthly H2S Emissions from Method 102 Source Tests

Second Quarter 2020	Date	Measured H2S Emissions Kg/Hr	Allowable H2S Emissions Kg/Hr
Sonoma (Unit 3)	4/14/2020	0.4	3.6
	5/20/2020	0.5	
	6/10/2020	0.2	
Lake View (Unit 17)	4/8/2020	0.3	6.0
	5/5/2020	0.0	
	6/15/2020	0.1	
Socrates (Unit 18)	4/7/2020	1.7	5.2
	5/27/2020	0.2	
	6/9/2020	0.3	
Grant (Unit 20)	4/14/2020	*3.4 (2.9)	4.7
	5/11/2020	*3.1 (2.9)	
	6/4/2020	*2.8	

*Worst case potential emissions based upon condensate H2S loading.
(Estimated actual emissions from parametric measurements in parentheses.)

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CALIFORNIA 95461
707.431.6000

GPC-20-086

October 28, 2020

Rob Bamford
Air Pollution Control Officer
Northern Sonoma County
Air Pollution Control District
150 Matheson St.
Healdsburg CA, 95448

Attention: Alex Saschin

Dear Mr. Bamford:

Subject: Compliance Reports – Third Quarter of 2020 for Calpine Geysers Power Company LLC Power Plants Located in Sonoma County

Enclosed are Geysers Power Company LLC's third quarter 2020 compliance reports for the Calpine Geysers Power Company LLC geothermal power plants located in the Northern Sonoma County Air Pollution Control District (NSCAPCD). The attached reports are submitted to the NSCAPCD in accordance with:

- Aidlin Power Plant PTO 88-35 & 88-36 Condition E.2,
- McCabe Power Plant Title V Operating Permit Condition II.A.V.1,
- Ridgeline Title V Operating Permit Condition II.A.V.1,
- Eagle Rock Title V Operating Permit Condition II.A.V.1,
- Cobb Creek Title V Operating Permit Condition II.A.V.1,
- Sulfur Springs Title V Operating Permit Condition II.A.V.1,
- [1] Lake View (Unit 17) Title V Operating Permit Condition II.A.V.1,
- [1] Socrates (Unit 18) Power Plant Title V Operating Permit Condition II.A.V.1,
- [1] Grant Power Plant (Unit 20) Title V Operating permit Condition II.A.V.1,
- [1] Sonoma Power Plant (Unit 3) Title V Operating permit Condition II.A.V.1,

If you have any questions, please contact me at (707) 431-6266.

Sincerely,

Dave Jackson

Dave Jackson
Regional Manager, Geysers EHS

Enclosure
cc: Eric VeerKamp, Compliance Project Manager
California Energy Commission (CEC),
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

[1] These reports are copied to the CEC compliance project manager as a separate enclosure containing only the information required for CEC licensed facilities pursuant to: Unit 17 CEC Docket 79-AFC-1C, Unit 18 CEC Docket 79-AFC-3C, Unit 20 CEC Docket 82-AFC-1C, and Unit 3 CEC Docket 80-AFC-1C

THIRD QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

CONTENTS

THIRD QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

Introduction: This report provides data and information for the period July 1, 2020 through September 30, 2020.

Table 1 lists the hours that the monitor was in service and operating within the permit required operational specification requirements for the monitor. The unit operating hours are included for reference. Monitor availability hours are determined by subtracting the duration of time that the monitor is out of service for repair and routine calibration from the abatement system operating hours.

Table 1

Unit Operating Hours, and Continuous Process Monitor Availability

Third Quarter 2020	Unit Operating Hours (Hrs)	Burner Off line (Hrs)	Quarterly Continuous Process Monitor Availablilty (Hrs)
Sonoma (Unit 3)	2207.2		2183.4
Lake View (Unit 17)	2197.8		2179.3
Socrates (Unit 18)	2208.0		2194.5
Grant (Unit 20)	1829.6		1820.8

Table 2 may include NSCAPCD Rule 540 Breakdown events where operator actions were required to maintain emissions below the permitted H_2S emission limits. Events are included when meeting with the reporting criteria described in the NSCAPCD Continuous Compliance Monitoring Reporting Policy issued October 20, 1998. Table 2 Monitor irregularities identify periods when the output of the treated gas monitor drops to zero or suddenly spikes with no corresponding plant or abatement process changes. (Reference: Title V Permit Condition V.1.c.)

Table 2 Summary of H2S Abatement Incidents Requiring Corrective Action and Monitor Irregularities

INCIDENTS REQUIRING CORRECTIVE ACTION

Third Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	None		0:00			
Lake View (Unit 17)	None		0:00			
Socrates (Unit 18)	None		0:00			
Grant Line (Unit 20)	None		0:00			

MONITOR IRREGULARITIES

Third Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	7/28/2020 23:25	7/28/2020 23:59	0:34	Analyzer reading erroneously	Broken tape	Tape repaired, analyzer returned to service
Lake View (Unit 17)	None		0:00			
Socrates (Unit 18)	8/7/2020 1:10	8/7/2020 11:10	0:00	Analyzer reading negative H2S	Operator checked analyzer operation including tape, all appears okay. Drager reading <1 ppm H2S. Tech checked analyzer and found faulty power supply module	Power supply module replaced
Grant (Unit 20)	None		0:00			

Table 3 includes the H_2S emission rates determined during the monthly source tests conducted by Calpine in accordance with Title V operating condition III.1, utilizing Modified District Method 102.

Table 3
Monthly H2S Emissions from Method 102 Source Tests

Third Quarter 2020	Date	Measured H2S Emissions Kg/Hr	Allowable H2S Emissions Kg/Hr
Sonoma (Unit 3)	7/4/2020	0.1	3.6
	8/12/2020	0.2	
	9/16/2020	0.4	
Lake View (Unit 17)	7/22/2020	0.2	6.0
	8/11/2020	0.2	
	9/2/2020	0.2	
Socrates (Unit 18)	7/2/2020	0.2	5.2
	8/20/2020	0.1	
	9/9/2020	4.7	
Grant (Unit 20)	7/7/2020	0.2	4.7
	8/5/2020	0.2	
	9/1/2020	0.3	

CALPINE
GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CA 95161
707.431.6000

GPC-21-002

January 26, 2021

Rob Bamford
Air Pollution Control Officer
Northern Sonoma County
Air Pollution Control District
150 Matheson St.
Healdsburg CA, 95448

Attention: Alex Saschin

Dear Mr. Bamford:

Subject: Compliance Reports – Fourth Quarter of 2020 for Calpine Geysers Power Company LLC Power Plants Located in Sonoma County

Enclosed are Geysers Power Company LLC's fourth quarter 2020 compliance reports for the Calpine Geysers Power Company LLC geothermal power plants located in the Northern Sonoma County Air Pollution Control District (NSCAPCD). The attached reports are submitted to the NSCAPCD in accordance with:

- Aidlin Power Plant PTO 88-35 & 88-36 Condition E.2,
- McCabe Power Plant Title V Operating Permit Condition II.A.V.1,
- Ridgeline Title V Operating Permit Condition II.A.V.1,
- Eagle Rock Title V Operating Permit Condition II.A.V.1,
- Cobb Creek Title V Operating Permit Condition II.A.V.1,
- Sulfur Springs Title V Operating Permit Condition II.A.V.1,
- [1] Lake View (Unit 17) Title V Operating Permit Condition II.A.V.1,
- [1] Socrates (Unit 18) Power Plant Title V Operating Permit Condition II.A.V.1,
- [1] Grant Power Plant (Unit 20) Title V Operating permit Condition II.A.V.1,
- [1] Sonoma Power Plant (Unit 3) Title V Operating permit Condition II.A.V.1,

If you have any questions, please contact me at (707) 431-6858.

Sincerely,

Sharon Peterson
EHS Air Compliance Manager, Geysers

Enclosure

[1] These reports are copied to the CEC compliance project manager as a separate enclosure containing only the information required for CEC licensed facilities pursuant to: Unit 17 CEC Docket 79-AFC-1C, Unit 18 CEC Docket 79-AFC-3C, Unit 20 CEC Docket 82-AFC-1C, and Unit 3 CEC Docket 80-AFC-1C

cc: Eric VeerKamp, Compliance Project Manager
California Energy Commission (CEC),
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

FOURTH QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

CONTENTS

FOURTH QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

Introduction: This report provides data and information for the period October 1, 2020 through December 31, 2020.

Table 1 lists the hours that the monitor was in service and operating within the permit required operational specification requirements for the monitor. The unit operating hours are included for reference. Monitor availability hours are determined by subtracting the duration of time that the monitor is out of service for repair and routine calibration from the abatement system operating hours.

Table 1

Unit Operating Hours, and Continuous Process Monitor Availability

Fourth Quarter 2020	Unit Operating Hours (Hrs)	Burner Off line (Hrs)	Quarterly Continuous Process Monitor Availablilty (Hrs)
Sonoma (Unit 3)	2033.07		2010.2
Lake View (Unit 17)	2012.10		1994.7
Socrates (Unit 18)	2024.93		2012.5
Grant (Unit 20)	2005.42		1996.0

* Chemical abatement used until Burner repairs could be made and Burner placed back in service on 12/20/20. CCM out of service 10/1/20-12/19/20 until repairs to damage caused to off gas header could be made. District approved methods to monitor emissions used during this time.

FOURTH QUARTER 2020 COMPLIANCE MONITORING REPORTS
TO THE CALIFORNIA ENERGY COMMISSION (CEC) COMPLIANCE PROJECT MANAGER
FOR GEYSERS POWER COMPANY LLC PLANTS LOCATED IN NORTHERN SONOMA COUNTY

Table 2 may include NSCAPCD Rule 540 Breakdown events where operator actions were required to maintain emissions below the permitted H_2S emission limits. Events are included when meeting with the reporting criteria described in the NSCAPCD Continuous Compliance Monitoring Reporting Policy issued October 20, 1998. Table 2 Monitor irregularities identify periods when the output of the treated gas monitor drops to zero or suddenly spikes with no corresponding plant or abatement process changes. (Reference: Title V Permit Condition V.1.c.)

Table 2 Summary of H2S Abatement Incidents Requiring Corrective Action and Monitor Irregularities

INCIDENTS REQUIRING CORRECTIVE ACTION

Fourth Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	None		0:00			
Lake View (Unit 17)	None		0:00			
Socrates (Unit 18)	None		0:00			
Grant Line (Unit 20)	None		0:00			

MONITOR IRREGULARITIES

Fourth Quarter 2020	Event Start Time	Event End Time	Duration (Hrs:Min)	Description	Cause	Actions/Comments
Sonoma (Unit 3)	None		0:00			
Lake View (Unit 17)	10/25/2020 2:06	10/25/2020 2:07	0:01	H2S increased to 289ppm	Possibly excess water in off gas header	Dragers indicated <10 ppm H2S. Tech ran calibration and found no problems
Lake View (Unit 17)	10/25/2020 2:31	10/25/2020 2:47	0:16	H2S increased to 289ppm	Possibly excess water in off gas header	Dragers indicated <10 ppm H2S. Tech ran calibration and found no problems
Socrates (Unit 18)	None		0:00			
Grant (Unit 20)	10/29/2020 16:43	10/29/2020 16:50	0:07	Monitor spike to full scale, 50ppm	No issues identified	Normal readings returned after 7 minutes, Dragers indicated <1ppm H2S during spike

Table 3 includes the H_2S emission rates determined during the monthly source tests conducted by Calpine in accordance with Title V operating condition III.1, utilizing Modified District Method 102.

Table 3
Monthly H2S Emissions from Method 102 Source Tests

Fourth Quarter 2020	Date	Measured H2S Emissions Kg/Hr	Allowable H2S Emissions Kg/Hr
Aidlin (Unit 1)	10/28/2020	0.3	1.1
	11/19/2020	0.5	
	12/15/2020	0.6	
Sonoma (Unit 3)	10/21/2020	0.1	3.6
	11/19/2020	0.1	
	12/10/2020	0.1	
Lake View (Unit 17)	10/14/2020	0.1	6.0
	11/10/2020	0.1	
	12/15/2020	0.1	
Socrates (Unit 18)	10/12/2020	0.6	5.2
	11/16/2020	0.9	
	12/8/2020	0.4	
Grant (Unit 20)	10/8/2020	0.4	4.7
	11/12/2020	0.4	
	12/9/2020	0.0	

CONDITION OF CERTIFICATION
AQ-E2

Geysers Lake View Plant (Unit 17) 79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020

CALPINE
GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CA 95461
707.431.6000

GPC-21-016

February 9, 2021

Alex Saschin
Air Quality Engineer
Northern Sonoma County Air Pollution Control District
150 Matheson Street
Healdsburg, CA 95448

Subject: Criteria Pollutants Inventory Report Year 2020, For NSCAPCD Plants

Dear Mr. Saschin:

Enclosed is the year 2020 Criteria Pollutants Inventory Report for Geysers Power Plant generating units located in the Northern Sonoma County Air Pollution Control District. This inventory is submitted pursuant to the Title V Operating Permits for Units 5–12, 14, 17, 18, 20, and Sonoma, Condition II.A.V.2.

Included in the table of pollutants is the information required annually for the Aidlin Power Plant Permits to Operate #88-35 and #88-36 Condition E.3. Not included in the table, but required by the Aidlin permit, is the average annual supplied steam ammonia concentration, which is 525 ppm (w).

Please call me at (707) 431-6858, if you have any questions on this subject.

Sincerely,

Sharon Peterson
EHS Air Compliance Manager, Geysers

Enclosure[1] (CEC Licensed Units: 3, 17, 18, and 20)

cc: Eric VeerKamp, Compliance Project Manager
California Energy Commission (CEC)
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

[1] Data are copied to the CEC compliance project manager as a separate enclosure containing only the information required for CEC licensed facilities pursuant to: Unit 17 CEC Docket 79-AFC-1C, Unit 18 CEC Docket 79-AFC-3C, Unit 20 CEC Docket 82-AFC-1C, and Unit 3 CEC Docket 80-AFC-1C

Geysers Power Company LLC
Annual Emissions Report For Inventory Year 2020 Including Criteria Pollutants

Unit No.	Gross Generation (MWHrs)	Gross Steam Rate (Klbs / MWHr)	Unit Operating Hour (hrs)	Avg. Circ.Water Flowrate (Gal/Min)	[1] TSDS (ppm_w)	Cooling Tower Drift Rate	Cooling Tower PM: PM10 & PM2.5 (tons)	[2] TOG (Methane) Emissions (tons)	[4] NH_3 Emissions (tons)	[5] Avg. H_2S Conc. (ppm_w)	H_2S (tons)	[6] CO_{2e} (tons)	Stretford Cooler PM (tons)	Total PM: PM10 & PM2.5 (tons)
17	554,760	16.6	8223.90	97,000	1933	0.00002	7.8	1064.4	188	304	1.4	53299	1.5	9.3
18	455,210	15.4	7998.73	84,000	513	0.00001	0.9	105.4	143	62	20.1	5698	2.1	3.1
20	309,021	15.6	7720.72	84,000	1040	0.00001	2.4	40.6	99	43	14.9	2316	6.2	8.6
3 (Sonoma)	496,598	15.4	8115.77	99,104	778	0.00001	1.7	227.3	156	99	1.8	10657		1.7

[1] Annual average of monthly samples of cooling tower water total suspended and dissolved solids, (TSDS)

[2] Total organic gasses in supplied steam measured as methane.

[4] Ammonia emissions expressed as NH_3 determined from mass balance and steam and water analyses,

[5] H_2S concentration in the supplied steam from the average of weekly samples.

[6] CO_{2e} is regulated not as a criteria pollutant

CONDITION OF CERTIFICATION
AQ-G10

Geysers Lake View Plant (Unit 17) 79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD

MIDDLETOWN, CA 95461

GPC-21-013

August 31, 2021

Alex Saschin
Air Quality Engineer
Northern Sonoma County
Air Pollution Control District
150 Matheson Street
Healdsburg, CA 95448

Subject: Title V Operating Permit Annual Compliance Certifications 2020

Dear Mr. Saschin:

Attached are the Annual Compliance Certifications required pursuant to Condition V.C.17 of the Title V Operating Permits.

The Certification Period for each Title V Permit is January 1, 2020 through December 31, 2020. The certification periods are all on a calendar year basis regardless of the permit issue date.

The certification signature by the duly authorized responsible official is included on the title page of each annual compliance report.

If you require any additional information on this subject, please call me at (707) 431-6858.

Sincerely,

Sharon Peterson
Air Compliance Manager, Geysers

Enclosures

cc[1]: Eric VeerKamp, Compliance Project Manager
California Energy Commission (CEC)
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

[1] Enclosed reports required for CEC licensed facilities pursuant to: Unit 17 CEC Docket 79-AFC-1C, Unit 18 CEC Docket 79-AFC-3C, Unit 20 CEC Docket 82-AFC-1C, and Unit 3 CEC Docket 80-AFC-1C are provided to the CEC compliance project manager.

ATTACHMENT

Geysers Power Company LLC,

Unit 17 Title V Operating Permit, Annual Compliance Certification Report

For The Period January 1, 2020 through December 31, 2020

I certify that all information submitted herein is true, accurate and complete. Based on belief formed after reasonable inquiry, the Geysers Power Company LLC, Unit 17 Geothermal Power Plant is in compliance with the applicable federal, state, and local requirement(s) as identified in the attached Geysers Power Company LLC, Unit 17 Title V Operating Permit Annual Compliance Certification Report.

Michael A Puccioni

Signature of Responsible Official
Mike Puccioni – General Manager

8/31/21

Date

Geysers Power Company LLC, Unit 17 Title V Operating Permit
ANNUAL COMPLIANCE CERTIFICATION REPORT
01/01/20 through 12/31/20

CONTENTS

I. EQUIPMENT LIST

A. PERMITTED SOURCE LIST Each of the following sources has been issued a Permit to Operate pursuant to the requirements of NSCAPCD Regulation 1, Chapter II Permits.

The equipment and capacities listed in Tables I.A and I.B are based on information provided by the permit holder. Routine maintenance, repair, or replacement with identical or equivalent equipment that does not result in an increase, or potential increase, in emissions of any air pollutant subject to District control does not require a permit modification. Replacement equipment that is within 5% of the listed capacity shall be considered equivalent for the purposes of this permit.

Pumps listed with a capacity range may be replaced with pumps within the listed range without notification to the District. Any replacement of pumps outside the listed range shall receive District approval prior to replacement;

POWER PLANT			
S-#	**Unit 17 Description**	**Nominal Capacity**	**Notes**
1	Steam Turbine	1,968,900 lb Steam/hr; maximum plant gross steam flow	***No Changes***
2	Generator	119.95 MW gross nameplate capacity	***No Changes***
3	Surface Condenser with 2 Steam Operated 3 Stage Gas Ejector Systems	1,750,000,000 BTU/Hr	***No Changes***
4	Cooling Tower, Cross Flow Mechanical Draft Type with 0.002% rated drift eliminators with 11 fans	165,000 gpm 200 Hp each	***No Changes***

B. ABATEMENT DEVICE LIST

Hydrogen Sulfide Control System consisting of:			
A-#	**Description**	**Nominal Capacity**	**Notes**
1	**Stretford Air Pollution Control System consisting of:**	476 lb/hr H2S	***No Changes***
A	Three Venturi Scrubbers	1,200 gpm each	***No Changes-***
B	H2S Absorber, 5'6" D x 38' H.	560 gpm	***No Changes***
C	Three Oxidizer Tanks 19'D x20'H, with 4 oxidizer blowers, 100 HP each	790 scfm air per blower	***No Changes***
D	Reaction Tank 19"D x 20' H	42,000 gallon	***No Changes***
E	Balance Tank, 24' D x 18' H	60,000 gallon	***No Changes***
F	Froth Tank 12' D x 18 H	15,000 gallon	***No Changes***
G	Caustic Tank 12' D x 12' H	10,000 gallon	***No Changes***
H	Condensate Tank 4' D x 5' H	450 gallon	***No Changes***
I	Heat Exchangers consisting of		
a	Stretford Heater	3.0 MM BTU/hr	***No Changes***
b	Stretford Cooling Tower, .002% drift	5.6 MM BTU/hr	***No Changes-***
c	Auxiliary Stretford Heater		***No Changes***
J	Main Pumps Consisting of:		
a	4 Stretford Circulating Pumps	1560 gpm each	***No Changes***
b	2 Stretford Cooler Circulating Pumps	1100 gpm each	***No Changes***
c	2 Air-Operated Diaphragm Sulfur Slurry Pumps	200 gpm each	***No Changes***
d	Make up Sump Pump	110 gpm	***No Changes***
e	2 Sulfur Cake Wash Pumps	150 gpm each	***No Changes***
f	Caustic Additive Pump	15-100 gpm	***No Changes***
K	Stretford Treated Gas Analyzer and Alarm System		
L	Sulfur Filter Press		

2	**Circulating Water H2S Abatement Solution Injection (For H2S Control) System Consisting of:**		
A	Abatement Solution Storage Tanks	6,000 gallons	***No Changes***
B	One Abatement Solution Feed Pump and One Spare Pump	0-100 gph range	***No Changes***
C	Mass Flow Meter and Flow Alarm		***No Changes***
D	Three Storage Tanks	20,500 gallons	***No Changes***
E	Two Transfer Pumps	5 hp	***No Changes***
3	**Mercury Removal System Consisting of:**		
A	Vapor Liquid Separator Assembly		***No Changes***
B	Mercury Adsorption Vessel		***No Changes***

II. PERMIT CONDITIONS

Permit conditions are designated federally (**F**), state (**S**), and/or locally (**L**) enforceable. Where a condition references a specific District regulation, the text of the referenced regulation can be found in Appendix A.

A. POWER PLANT AND ABATEMENT SYSTEMS		***Compliance***	***NOTES/MEANS/METHODS***
I. Emission Limits			
Emission Limits for H2S			
1. The Unit 17 power plant and associated abatement systems shall comply with Regulation 1 Rule 455 (b)-Geothermal Emission Standards. Total emissions of H2S shall not exceed 6.0 kilograms averaged over any one hour period unless operating under a District approved Alternative Compliance Plan (ACP) in accordance with note 8 of Regulation 1 Rule 455(b). Total H2S emissions shall be the cumulative emissions to the atmosphere from the power plant and associated abatement equipment. *ref. Rule 455(b),* ***PTO 79-23 Cond. 16.A.***	**S** **L**	***Yes***	***Source Tests are conducted monthly, as required in condition III.1. to verify compliance with this condition. Results of the NSCAPCD Method 102 source tests, as well as excursions and exceedances, are reported to the District in the quarterly compliance reports.***
2. The operator of this source shall not discharge or cause the discharge into the atmosphere of more than a total of 12 kilograms/hour of H2S from Geysers Unit 17. ***Ref. PSD NC 79-01Cond. VIII.A.***	**F** **S** **L**	***Yes***	***Source Tests are conducted monthly, as required in condition III.1. to verify compliance with this condition. Results of the NSCAPCD Method 102 source tests, as well as excursions and exceedances, are reported to the District in the quarterly compliance reports.***
3. The exit concentration in the process piping leading from the Stretford System shall not exceed 135 ppmv H2S averaged over any consecutive 60 minute period unless operating under a District approved Alternative Compliance Plan (ACP). *ref.* ***PTO 79-23 Cond. 16.B****.*	**S** **L**	***Yes***	***Continuous monitoring is in service and maintained to verify compliance. An automatic alarm notifies the operator prior to exceeding the limit. Excursions and exceedances are documented in follow-up reports and in the quarterly compliance reports. No deviations to this condition occurred during the reporting period.*** ***Ref. Letters dated 4/2/2020: Calpine letter GPC 17-020 Alternative Compliance Protocol (ACP) and NSCAPCD approval allow operation of Unit 17 not to exceed 300 ppmv when Unit 11 is off line or curtailed and steam is shifted.***
4. The power plant and associated abatement systems shall comply with Regulation 1 Rule 455 (a)-Geothermal Emission Standards; no person shall discharge into the atmosphere from any geothermal operation sulfur compounds, calculated as sulfur dioxide, in excess of 1,000 ppmv. *ref. Rule 455(a)*	**S** **L**	***Yes***	***Plant systems that contain sulfur oxides are designed to limit emissions to concentrations less than the limit. Continuous monitoring of process piping gas concentration prior to release in the cooling tower is in service and maintained to verify compliance. No deviations to this condition occurred during the***

			reporting period.
Emission Limits for Particulate Matter			
5. The power plant and associated abatement systems shall comply with Regulation 1 Rule 420 (d) Non-Combustion Sources- Particulate Matter; no person shall discharge particulate matter into the atmosphere from a non-combustion source in excess of 0.2 grains per cubic foot of exhaust gas or in total quantities in excess of the amount shown in Table I. (40 lb/hr) whichever is the more restrictive condition. *ref. Rule 420(d)*	**F S L**	***Yes***	***Calculation of the PM discharge rate is based upon monthly total solids analyses and the cooling water flow rate. PM emission calculation is per Permit specified condition III.4. Calculations indicate that the plant was in compliance with this limit during the reporting period***
II. Operational Limits and Requirements			
1. The permit holder shall not operate the plant unless emissions are vented to the Stretford Air Pollution Control System. The condensate H2S abatement chemical feed system and the Stretford abatement system shall be kept in good working order and operated as necessary in order to limit H2S and particulate emissions on a continuous basis from the power plant as specified in condition I.1, I.2, I.3, I.4, and I.5. *ref. Rule 240.d,* ***PTO 88-62 Cond. 18***	**F S L**	***Yes***	***The H_2S abatement systems are operated and maintained in accordance with operating practices and a maintenance program described in the Title V application.***
2. The abatement solution storage tank shall have a minimum of 1000 gallons of abatement solution at all times when the plant is in operation. All continuously operated chemical feed pumps shall have a standby spare available, a readily accessible flowmeter readable in appropriate units and equipped with alarms signaling no or low flow. Flowmeter accuracy shall be plus or minus 10% of flow. ***ref. PTO 88-62 Cond. 18***	**S L**	***Yes***	***A review of chemical tank sounding records indicates compliance with this condition. A program is in place to verify tank levels and to order and deliver chemicals prior to reaching the minimum level.*** ***Flowmeters and alarms are tested quarterly per permit condition II.4.***
3. Except for justifiable reasons during performance testing or under operation of an ACP, for which the permit holder has received prior District written approval, the circulating water shall be kept to the following specification: Circulating water iron chelate concentration shall be maintained at or above the ppmw recommended in the power plant operating guidelines as necessary to abate H2S emissions from the power plant to the emission limit specified in Condition I.1. ***ref. PTO 88-62 Cond. 19***	**S L**	***Yes***	***A review of the operator's compliance check-off sheets and logs indicates that the requirement is consistently met when iron chelate is used. Operating practices are in place to maintain the circulating iron concentration when required.***
4. All the abatement systems shall be properly winterized and maintained to ensure proper and reliable functioning. All primary pressure gauges and flow meters associated with abatement equipment shall be readily identified, maintained in good operating condition and calibrated on a quarterly basis. Alarm systems associated with abatement equipment shall be tested on a quarterly basis. Calibration and maintenance shall be performed according to manufacturer's recommendations or per the permit holder's maintenance schedule as needed to	**S L**	***Yes***	***Maintenance practices are in place to ensure compliance with this condition. Flowmeters and alarms were tested as required during this reporting period.***

maintain the equipment in good working order. ***ref. PTO 79-23 Cond. 14.***			
5. Untreated vent gas shall be directed through the vent to the atmosphere only during upset/breakdown situations pursuant to Regulation 1 Rule 540. During periods of cold start-ups the vent gas H2S treatment system shall be operated as necessary to preclude the release of untreated vent gases to the atmosphere above the permitted emission limits specified in Condition I.1 and I.4. ***ref. PTO 79-23 Cond. 15.***	**F S L**	***Yes***	***Plant design and operating practices preclude the release of untreated vent gas during startup operations. There were no untreated gas releases during this reporting period. Emergency gas release vents are equipped with automatic alarm systems that indicate if they are activated.***
6. All areas in the immediate vicinity and under the permit holder's responsibility shall be properly treated to control fugitive dust. ***ref. PTO 79-23 Cond. 17.***	**S L**	***Yes***	***Fugitive dust is controlled with general clean-up and housekeeping.***
7. **Fugitive Leaks**			
a. Non-condensable gas leaks: Valves, flanges, seals on pumps and compressors, piping and duct systems shall be inspected, maintained and repaired to prevent the emission of non- condensable gases to the atmosphere. Valves, flanges and seals shall be tightened, adjusted, or have gasket material added using the best modern practices for the purpose of stopping or reducing leakage to the atmosphere. Non-condensable gas leaks shall not (i) exceed (as measured within 1 cm of such leak) 1000 ppm(vol) H2S nor 10,000 ppm(vol) methane nor (ii) exceed emission limits of Rule 440. Such leaks shall be repaired within 24 hours, unless the leak is from essential equipment. If the leak is from essential equipment, the leak must be minimized within 24 hours using best modern practices and eliminated at the next prolonged outage of the process unit unless an extension is approved by the APCO. Essential Equipment is defined as equipment which cannot be taken out of service without shutting down the process unit which it serves. Leak Minimization is defined as the tightening, adjusting, or addition of packing material which surrounds the leak, or the replacement of the valve or flange for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices.	**S L**	***Yes***	***A review of maintenance records indicated that the plant is in compliance. A review of daily compliance checklists indicated that the operators inspect the system for fugitive leaks.*** ***Plant operations and maintenance follow the procedure outlined in this permit condition to identify fugitive emissions.*** ***Maintenance records are available to inspectors to verify that fugitive emissions are minimized and controlled in a timely manner.*** ***Fugitive leak inspections are performed more frequently than once per quarter. The operator conducts daily rounds to inspect the plant which include identifying any leaks and entering the information into the plant log and submitting a work order requesting repair.***
b. Steam and condensate leaks: Valves, flanges, seals on pumps and compressors, piping and duct systems shall be inspected, maintained and repaired to prevent the emission of steam and condensate to the atmosphere. Valves, flanges and seals shall be tightened, adjusted, or have gasket material added using the best modern practices for the purpose of stopping or reducing leakage to the atmosphere. Valves, flanges, drip legs, threaded fittings and seals on pipelines shall be maintained to prevent or reduce the emission of steam, non-condensable	**S L**	***Yes***	***A review of maintenance records indicated that the plant is in compliance. A review of daily compliance checklists indicated that the operators inspect the system for fugitive leaks.*** ***Plant operations and maintenance follow the procedure outlined in this permit condition to identify***

gases and condensate to the atmosphere as noted below: Liquid leak rate in pressurized steam and condensate lines shall not exceed 20 ml in 3 minute. Liquid leak rates in excess of 20 ml in 3 minutes shall be repaired within 15 calendar days, excepting those leaks from essential equipment. If the leak is from essential equipment, the leak must be minimized within 15 days using best modern practices and eliminated at the next prolonged outage of the process unit unless an extension is approved by the APCO. Essential Equipment is defined as equipment which cannot be taken out of service without shutting down the process unit which it serves. Leak Minimization is defined as the tightening, adjusting, or addition of packing material which surrounds the leak, or the replacement of the valve or flange for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices. The permit holder shall check the power plant for fugitive leaks at least once per quarter. ***ref. PTO 79-23 Cond. 17.***			***fugitive emissions.*** ***Maintenance records are available to inspectors to verify that fugitive emissions are minimized and controlled in a timely manner.*** ***Fugitive leak inspections are performed more frequently than once per quarter. The operator conducts daily rounds to inspect the plant which include identifying any leaks and entering the information into the plant log and submitting a work order requesting repair.***
8. *Alternative Compliance Plan*			
a. The permit holder may propose an Alternative Compliance Plan (ACP) which allows for operating flexibility of the power plant while maintaining compliance with all applicable emission limits of Conditions I.4, and I.5. The ACP shall list operating parameters such as power output (MW), and abatement solution concentration levels, which shall be met in order to meet all applicable emission limits listed above. The ACP shall be submitted to the APCO for approval. The APCO shall approve, disapprove or modify the plan within 30 days of receipt of the ACP. An APCO approved ACP shall consist of all parametric operating guidelines which shall be used to determine compliance with Conditions I.4, and I.5. The ACP shall list the specific operating conditions the ACP will supersede.	**F** **S** **L**	***Yes***	***No ACP is currently in place as allowed under this condition.*** ***Condition I.4 is based on Rule 455(b) which was removed from the SIP and is therefore should no longer be considered Federally enforceable.*** ***Recommend moving I .4 reference to next condition.***
b. The permit holder may propose an Alternative Compliance Plan (ACP) which allows for operating flexibility of the power plant while maintaining compliance with all applicable emission limits of Conditions I.1, and I.3. The ACP shall list operating parameters such as power output (MW) and abatement solution concentration levels, which shall be met in order to meet all applicable emission limits listed above. The ACP shall be submitted to the APCO for approval. The APCO shall approve, disapprove or modify the plan within 30 days of receipt of the ACP. An APCO approved ACP shall consist of all parametric operating guidelines which shall be used to determine compliance with Conditions I.1, and I.3. The ACP shall list the specific operating conditions the ACP will supersede.	**S** **L**	***Yes***	***Ref. Letters dated 4/2/2020: Calpine letter GPC 17-020 Alternative Compliance Protocol (ACP) and NSCAPCD approval allow operation of Unit 17 not to exceed 300 ppmv when Unit 11 is off line or curtailed and steam is shifted.***

Facilities Operation			
9. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Permit shall at all times be maintained in good working order. The equipment shall be operated in a manner necessary to meet all emission limits of the permit. *Ref. Rule 240(d)*	**S L**	***Yes***	***The Plant operator conducts daily rounds to inspect the plant. Any equipment or system in need of repair is identified and the information is entered into the plant log and a work order is submitted requesting repair. Weekly compliance checks indicate compliance with this condition.***
10. The cooling tower shall be maintained in good operating condition. The permit holder shall conduct an integrity inspection of the cooling tower during each scheduled plant overhaul and carry out any repairs necessary to correct all deficiencies encountered. *ref. Rule 240(d)*	**S L**	***Yes***	***Routine plant inspections by operators include the cooling tower to identify areas in need of repair. Plant maintenance makes repairs during plant overhauls. A review of plant overhaul work planning indicated that cooling tower repair work is included.***
11. The control technology utilized at Unit 17 to achieve compliance with the H2S emission limitation specified in Condition I.2. shall include a surface condenser/Stretford process system. ***Ref. PSD NC 79-01 Cond. VIII.B.***	**F S L**	***Yes***	***Surface condenser/Stretford process is used to achieve compliance.***
III. Monitoring, Testing and Analysis			
Performance Tests			
1. The permit holder shall, on a monthly basis, conduct a source test of the cooling tower to determine the H2S emission rate to verify compliance with condition I.1. District Method 102 shall be utilized to determine the H2S emission rate. The permit holder may propose an Alternative Compliance Plan (ACP) which allows for operating flexibility of the power plant, including periods when accessing the cooling tower is not possible, while maintaining compliance with all applicable emission limits of Conditions I.1. The ACP shall list operating parameters such as power output (MW), target pH, abatement solution concentration levels, and burner/scrubber exit concentrations which shall be met in order to meet all applicable emission limits listed above. The ACP shall be submitted to the APCO for approval. The APCO shall approve, disapprove or modify the plan within 30 days of receipt of the ACP. An APCO approved ACP shall consist of all parametric operating guidelines which shall be used to determine compliance with Conditions I.1. The ACP shall list the specific operating conditions the ACP will supersede***. ref. PTO 88-62 Cond. 22.***	**S L**	***Yes***	***NSCAPCD Approved version of Method 102 (Modified Method 102) Source tests were performed each month, and reported to the District in the quarterly reports.*** ***All test results and determinations indicated compliance with this condition.***

1a. The permit holder shall, on an annual basis, conduct a source test of the cooling tower to determine the H2S emission rate to verify compliance with condition I.2. District Method 102 shall be utilized to determine the H2S emission rate. ***Ref. PSD NC 79-01 Cond. VIII.C.***	**F** **S** **L**	***Yes***	***An annual report including all Geysers plants with PSD permits is sent to the agencies listed in this condition. Reference letter GPC21-026 dated 2/18/2021.***
2. The permit holder shall provide platforms, electrical power and safe access to sampling ports to enable representatives of the District and ARB to collect samples from the main steam supply, treated and untreated condensate, circulating water upstream of the cooling tower, cooling tower stacks, untreated and treated non-condensable gas stream to and from the Stretford abatement facility, any off gas bypass vents to the atmosphere and any Stretford tanks or evaporative coolers***. ref. PTO 79-23 Cond. 11.***	**S** **L**	***Yes***	***Sample taps used by plant personnel for chemical sampling and analysis are also available for use by CARB and District personnel. Safety Orientations and Job Safety Analysis are available for District and ARB representatives and highly encouraged for sampling activities.***
3. The permit holder, as requested by the Control Officer, shall conduct a District approved performance test for particulate matter (PM), H2S, other species (i.e. benzene, mercury, arsenic, TRS, mercaptans, radon, other nitrogen compounds (amines) and compounds listed under NESHAPS and/or AB2588 from the power plant evaporative cooling tower and/or the Stretford evaporative cooling tower. Upon written request of the Control Officer, the permit holder shall submit to the District at least 45 days prior to testing a detailed performance test plan. The District shall approve, disapprove or modify the plan within 45 days of receipt of the plan. The permit holder shall incorporate the District's comments or modifications to the plan which are required to assure compliance with the District's regulations. The Control Officer shall be notified 15 days prior to the test date in order to arrange for an observer to be present for the test. The test results shall be provided to the District within 45 days of the test date unless a different submittal schedule is approved in advance by the Control Officer. ***ref. PTO 88-62 Cond 9 &10.***	**S** **L**	***Yes***	***Tests for listed species are performed at the request of the District utilizing District approved methods and a approved test plan. No test requests by the District are currently active.***
4. Compliance with the particulate mass emission limitation shall be based on the evaporative cooling tower manufacturers design drift eliminator drift rate, 0.002 percent for the main cooling tower, multiplied by the circulating water rate and, total dissolved solids (TDS) and total suspended solids (TSS). A circulating water sample shall be collected and analyzed for TDS and TSS on a monthly basis. ***ref. PTO 88-62 Cond. 21***	**F** **S** **L**	***Yes***	***Monthly analysis by plant chemical staff and calculations done in accordance with the condition. Calculation of the particulate emissions is based upon monthly samples and analysis of the cooling tower water TSS and TDS. These calculations indicate that the unit was in compliance with this condition during the reporting period.***
5. Main steam supply H2S concentrations shall be determined minimally on a weekly basis and any additional times as required by the operating protocol or ACP. ***Ref. PTO 88-62 Cond.19.***	**S** **L**	***Yes***	***A protocol on file with the District describes the method used to determine H_2S concentration. A review of the records indicates that the requirements of this condition are being met.***

6. The permit holder shall perform an abatement solution concentration test of the cooling tower circulating water once per operating shift when abatement solution is necessary in order to achieve compliance with Condition I.1. The testing equipment shall be kept calibrated per the manufacturer's specifications. ***ref. PTO 88-62 Cond.19***	**S L**	***Yes***	***Operators perform tests required by this condition as a part of their daily routine when abatement solution is necessary. Iron concentration tests are validated by the plant chemistry staff. A review of the operating logs during this reporting period indicates compliance with this condition.***
7. Instruments used for the measurement of H2S or Total Organic Gases to satisfy District permit conditions or regulations shall receive District approval prior to use. Test plans shall be submitted for District approval of instruments used for the measurement of H2S or Total Organic Gases to satisfy District permit conditions or regulations. *ref. Rule 240(d)*	**S L**	***Yes***	***The NSCAPCD has approved the following instruments that are used to measure H2S: Teledyne Model 101E, Jerome Instruments Model 631, "Dräger" brand sampling and analysis tubes. Organic gases are analyzed utilizing an "Aglient" Model 3000C G.C.***
8. All sampling protocols, chemical feed charts, targets and operational guidelines for using said charts and targets, necessary to abate H2S emissions from the power plant to the emission limits specified in Conditions I.1 and I.2 must be developed using good engineering judgment and supporting data. The APCO may review such sampling protocols, chemical feed charts, targets and guidelines upon request. If the APCO determines that any of the protocols, feed charts, targets, or guidelines are not sufficient to maintain compliance with Conditions I.1 and I.2, the APCO shall require the permit holder to develop revised protocols, feed charts, targets and guidelines. *ref. Rule 240(d)*	**F S L**	***Yes***	***Protocols related to this condition were submitted and approved by the District in the initial Title V application.*** ***Plant unit engineers specify targets and guidelines based on good engineering judgment and recent chemical analyses. Targets and operating requirements are available electronically via the plant intranet and they are posted on an erasable board in the operating control room.***
Continuous Compliance Monitoring (CCM)			
9. The permit holder shall operate a continuous compliance monitor capable of measuring the concentrations of H2S in the exhaust stream from the Stretford absorber in order to verify compliance with conditions I.1 and I.3. The monitoring system must alarm the operator when H2S in the treated gas is in excess of 135 ppmv (dry basis). The permit holder shall respond to the alarm with appropriate mitigative measures. Mitigative measures taken shall be logged in the power plant abatement log book. In the event H2S concentrations are in excess of 135 ppmv and the range of the CCM is exceeded, the permit holder shall test for H2S using an approved alternative method (ex Draeger tester, wet chemical tests) once every hour during the excess. The monitor shall have a full range of at least 300 ppmv (dry basis). The monitor shall meet the following operational specifications: an accuracy of plus or minus 10% of full scale, provide measurements at least every 3 minutes, provide a continuous strip chart record or a District approved alternative, and provide monthly data capture of at least 90%. The District must be notified when the concentration of H2S exceeds the hourly average limit of 135 ppmv.	**S L**	***Yes***	***A monitor meeting the requirements of this condition is in place and operational. Plant records indicate that the continuous monitor consistently meets the requirements of this condition. Verification of these requirements is sent to the NSCAPCD in the quarterly reports. There were no deviations from this condition during the reporting period.***

A one point calibration shall be performed at least once per week. A three point calibration shall be performed at least once per quarter. The Control Officer may allow modifications to the above specifications under an ACP upon written request with justification by the permit holder as long as emissions from the power plant do not exceed the "total" H2S emission limitations of condition I.1. Written notification from the Control Officer must be received by the permit holder prior to any change in monitoring specifications. ***ref. PTO 79-23 Cond. 19.***			
Ambient Air Monitoring			
10. The permit holder shall maintain and operate one H2S/meteorological monitoring station, PM-10 high volume station at a location approved in advance by the Control Officer for the life of the facility. The permit holder shall install and operate additional monitoring stations, such as a PM 2.5 monitoring station, if required by the Control Officer, California Air Resources Board or EPA. Participation by the permit holder in a joint air monitoring program, such as the Geysers Air Quality Monitoring Program (GAMP), shall be deemed to satisfy all ambient air quality monitoring requirements of this permit provided the term of monitoring is equivalent. The Control Officer can alter, suspend, or cancel this requirement provided no ambient air quality standard applicable to this facility is threatened or that sufficient other monitoring is available by the District, Lake County AQMD or other third party. ***ref. PTO 88-62 Cond. 22***	**S** **L**	***Yes***	***Geysers Power Company LLC participates in GAMP.***
IV. Recordkeeping			
1. All records and logs shall be retained for a period of at least 5 years from the date the record or log was made and shall be submitted to the NSCAPCD upon request.	**F** **S** **L**	**Yes**	***Files are retained for a minimum of 5 years and are submitted upon NSCAPCD request.***
2. The permit holder shall maintain a weekly abatement solution inventory log available for on-site inspection. ref. Rule 240(d)	**S** **L**	**Yes**	***Operators conduct on-site inspections. Weekly chemical inventory files are kept and available for inspection.***
3. The permit holder shall maintain a strip chart or other District approved data recording device of H2S readings measured by the CCM. All measurements, records, and data shall be maintained by the permit holder for at least five (5) years. The permit holder shall report all exceedances of Condition I.2 in the quarterly report as required in V.1. The report shall include a description of all measures taken to bring the Stretford system back into compliance with Condition I.2. The permit holder shall include in the report a copy of the output from the H2S CCM or alternative District approved data during the upset condition. ref. Rule 240(d)	**S** **L**	**Yes**	***The District has approved Digital strip chart recorders to archive data in electronic format for later retrieval and review of CCM measurements. These data are available in the plant file system.*** ***All exceedances of Condition I.2 are reported in the quarterly reports. There were no reportable exceedances during this reporting period.***

4. The permit holder shall maintain copies of the source test results as required in condition III.1 for a minimum of 5 years. *ref. PTO 88-62 cond. 22.*	**S L**	***Yes***	***Source test data is available in the plant chemistry laboratory files on site, and in the plant archives.***
5. Fugitive Leak Records			
a. Any non-condensable gas leak in excess of the limitations of condition II.12. which has been detected by the permit holder and is awaiting repair shall be identified in a manner which is readily verifiable by a District inspector. Any leak in the above listed pieces of equipment exceeding the limitations of II.12 and not identified by the permit holder and which is found by the District shall constitute a violation of this Permit. The permit holder shall maintain a current listing of such leaks awaiting repair and shall make this list available to the District upon request	**S L**	**Yes**	***Operators conduct on-site inspections Daily plant inspections by operators identify leaks described by this condition. Plant maintenance records are available upon request to verify leak identification and repair.***
b. Any valve, flange, drip leg threaded fitting or seal on a pipeline or condensate collection system with a leak in excess of the limitations of condition II.12 which has been detected by the permit holder and is awaiting repair shall be identified in a manner which is readily verifiable by a District inspector. Any leak in the above listed pieces of equipment exceeding the limitations of II.12 and not identified by the permit holder and which is found by the District shall constitute a violation of this Permit. The permit holder shall maintain a current listing of such leaks awaiting repair and shall make this list available to the District upon request. *ref. PTO 88-62 cond. 20.*	**S L**	**Yes**	***Operators conduct on-site inspections Daily plant inspections by operators identify leaks described by this condition. Plant maintenance records are available upon request to verify leak identification and repair.***
6. The permit holder shall maintain records detailing: a. any periods of significant abatement equipment malfunction, reasons for malfunctions and corrective action. b. dates and hours in which the emission rates were in excess of the emission limitations specified in permit conditions I.2, and I.5. c. fugitive steam and non-condensable gas emission source inspections, leak rates, repairs and maintenance. d. total dissolved solids and total suspended solids in the circulating water. Ref. Rule 240(d)	**F S L**	**Yes**	***a. Operator logs and incident reports.*** ***b. Operator logs and incident reports.*** ***c. Recurring maintenance records.*** ***d. Plant Chemistry Lab data records.***
7. The permit holder shall maintain operating records detailing: a. hours of operation. b. types, concentrations and amounts of chemicals used for Stretford absorbing solution and used for condensate treatment including target levels for abatement solution concentration in the circulating water. c. a summary of any irregularities that occurred with a continuous compliance monitor. d. the dates and hours in which the emission rates were in excess of the	**S L**	**Yes**	***a. Plant logs and data acquisition system (J-5 and EDNA).*** ***b. Operator logs, EDNA, and purchasing records.*** ***c. Technicians log of maintenance of continuous monitors, EDNA, incident reports.*** ***d. Incident reports, logs, and EDNA.***

emission limitations specified in permit conditions I.1, I.3, and I.4. e. periods of scheduled and unscheduled outages and the cause of the outages. f. time and date of all pump and flowmeter calibrations required by this permit. g. time and date of all alarm system tests. h. leaking equipment awaiting repair; time and date of detection and final repair. ref. Rule 240(d)			***e. Operator logs and EDNA.*** ***f. Plant operating logs and maintenance records.*** ***g. Plant operating logs and maintenance records.*** ***h. Plant maintenance records (Maximo).***
V. Reporting			
1. A quarterly report shall be submitted to the District which contains the following information: a. CCM availability for the given quarter. b. any periods of significant abatement equipment malfunction, reasons for malfunctions and corrective action taken. c. time and date of any monitor indicating an hourly average exceed of 135 ppmv of H2S. d. source test results. The quarterly report shall be submitted to the District within 30 days of the end of each quarter. The reports are due by May 1, August 1, November 1 and February 1 for each corresponding quarter. ref. Rule 240(d)	**S** **L**	***Yes***	***Quarterly Reports were submitted as required or on a date agreed upon with NSCAPCD.*** ***Ref. Geysers Power Company LLC letters:*** ***GPC-20-037, 1st Quarter 4/30/20*** ***GPC-20-075, 2nd Quarter 7/29/20*** ***GPC-20-086, 3rd Quarter 10/28/20*** ***GPC-21-002, 4th Quarter - 1/26/21***
2. An annual report shall be submitted to the District which contains the following information: a. average mainsteam H2S concentrations. b. average total dissolved and suspended solids and average flowrate of the cooling tower water. c. annual ammonia emissions. d. gross megawatt hours generated. e. steaming rate, gross average (gross steam flow; lb/ gross MW). f. update to any changes in operating protocols used to determine plant chemical feed charts and targets; calibration and maintenance programs. g. total organic gasses emitted as methane. h. hours of plant operation. i. annual CO2e emissions. The annual report shall be submitted to the District within 45 days of the end of each calendar year. Ref. Rule 240(d)	**S** **L**	***Yes***	***Geysers Power Company LLC submitted the required 2020 annual Criteria Pollutants Inventory Report to the NSCAPCD, on 2/9/2021 ref GPC letter GPC-21-016.***
3. The permit holder shall submit reports to the California Air Resources Board (CARB) in accordance with the provisions of CCR Title 17, Division 3, Chapter 1, Subchapter 10, Article 2, Regulation for Mandatory Reporting of Greenhouse Gas Emissions.	**S** **L**	***Yes***	***The 2020 report was submitted Cal e-GGRT to CARB, Facility ARB ID:101527 on 4/8/2021 verification by the independent third party has been completed.***

B. PLANT WIDE PERMIT CONDITIONS			
The plant shall comply with the following District regulations. The text of the referenced regulations can be found in Appendix A of this Title V Operating Permit. 1. Regulation 1 Rule 400-General Limitations 2. Regulation 1 Rule 410-Visible Emissions 3. Regulation 1 Rule 430-Fugitive Dust Emissions 4. Regulation 1 Rule 492 (40 CFR part 61 Subpart M)-Asbestos 5. Regulation 1 Rule 540-Equipment Breakdown 6. Regulation 2- Open Burning 7. If in the event this stationary source, as defined in 40 CFR part 68.3, becomes subject to part 68, this stationary source shall submit a risk management plan (RMP) by the date specified in part 68.10. As specified in Parts 68, 70 and 71, this stationary source shall certify compliance with the requirements of part 68 as part of the annual compliance certification required by 40 CFR part 70 or 71. 8. 40 CFR Part 82- Chlorinated Fluorocarbons 9. If in the event this stationary source, as defined in 40 CFR part 63, becomes subject to part 63, this stationary source shall notify the District within 90 days of becoming subject to the regulation. The stationary source shall identify all applicable requirements of part 63 and submit a plan for complying with all applicable requirements.	**F S L**	***Yes***	***1-3 Reviewed Quarterly compliance reports and District Inspections.*** ***4. Reviewed Asbestos Notification letters. Notifications were submitted as required during the reporting period. GPC20-058, dated 12/15/2020.*** ***5. Reviewed Quarterly compliance records "Incidents Requiring Corrective Action".*** ***6. No open burning is performed at this location.*** ***7. The Plant is exempt from the Risk Management Plan because quantities of flammable hydrocarbons are less than 67,000 lbs. Ref.: EPA notice dated March 13, 2000.*** ***8. All work performed on appliances containing chlorinated fluorocarbons is performed by HVAC Technicians certified through EPA approved training programs in accordance with the Clean Air Act Section 608 and 40 CFR part 82, Subpart F..*** ***9. Not currently applicable for this source.***
C. ADMINISTRATIVE REQUIREMENTS			
Payment of Fees			
1. This Permit shall remain valid during the 5 year term as long as the annual renewal fees are paid in accordance with Regulation 1 Rule 300 and Rule 360 of the District. Failure to pay these fees will result in forfeiture of this permit. Operation without a permit subjects the source to potential enforcement action by the District and the EPA pursuant to section 502(a) of the Clean Air Act. ref. Reg 5.670	**F S L**	***Yes***	***Geysers Power Company LLC submitted the required Permit Fees: Payment of Annual Renewal Fees Fiscal Year 2020-2021, GPC-20-032, dated 8/24/20. Federal Program Fees fiscal year 2020/2021: GPC-21-042, dated 5/27/21.***
Right to Entry and Inspection			
2. The Control Officer, the Chairman of the California Air Resources Board, The Regional Administrator of the EPA and/or their authorized representatives, upon the presentation of credentials, shall be permitted: A. to enter upon the premises where the source is located or areas in which any records are required to be kept under the terms and conditions of this Permit; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Permit; and	**F S L**	***Yes***	***Agency representatives are admitted to the project upon presentation of credentials. After receiving a safety advisory no restrictions are placed on access to plant premises, sample locations and records.***

	C. to inspect any equipment, operation, or method required in this Permit; and D. to sample emissions from the source. ref. Reg 5.610(e)			
	Compliance with Permit Conditions			
3.	This Title V Operating Permit expires on March 24, 2024. The permit holder shall submit a complete application for renewal of this Title V Operating Permit no later than 6 months prior to expiration and no earlier than one year prior to expiration. If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after March 23, 2019. R*ef Reg 5.660*	**F S L**	***Yes***	***Geysers Power Company LLC submitted the required application 6 months prior to expiration, ref. GPC-18-052 dated June 20, 2018. The permit renewal was issued with an effective date of March 24, 2019. The next application is due by September 24, 2023.***
4.	The permit holder shall comply with all conditions of this permit. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and may be grounds for enforcement action, including monetary civil penalties, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. *ref. Reg 5.610(f)(3)*	**F S L**	***Yes***	***No NOVs were issued to Unit 17 during the reporting period.***
5.	In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permit holder to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. ref. Reg 5.610(f)(4)	**F S L**	***Yes***	
6.	The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. ref. Reg 5.610 f)(5)	**F S L**	***Yes***	
7.	This permit does not convey any property rights of any sort, nor any exclusive privilege. ref. Reg 5.610(f)(2)	**F S L**	***Yes***	
8.	The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists, per Regulation 5.570, for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. ref. Reg 1 Rule 200, Reg 5.430	**F S L**	***Yes***	***There are no active information requests.***
	Reporting			
9.	All deviations from permit requirements, including those attributable to upset conditions (as defined in the permit) must be reported to the District at least once every six months. For emissions of a hazardous air pollutant (HAP) or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of the permit requirements, the report must be made within 24	**F S L**	***Yes***	***There were no deviations to report during this period.*** ***No excess emissions occurred.***

hours of the occurrence. For emissions of any regulated air pollutant, excluding those HAP emission requirements listed above, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours. All reports of deviation from permit requirements shall include the probable cause of the deviation and any preventative or corrective action taken. A progress report shall be made on a compliance schedule at least semi-annually and shall include the date when compliance will be achieved, an explanation of why compliance was not, or will not be, achieved by the scheduled date, and a log of any preventative or corrective action taken. The reports shall be certified by the responsible official as true, accurate and complete. ref. Reg 5.625			
Severability			
10. In the event that any provision of this permit is held invalid all remaining portions of the permit shall remain in full force and effect. ref. Reg 5.610(g)	**F S L**	***Yes***	
Transfer of Ownership			
11. In the event of any changes in control or ownership of facilities to be modified and/or operated, this Permit is transferable and shall be binding on all subsequent owners and operators. The permit holder shall notify the succeeding owner and operator of the existence of this Permit and its conditions by letter, a copy of which shall be forwarded to the Control Officer. ref. Rule 240(j)	**F S L**	***Yes***	***No ownership changes occurred during the reporting period.***
Records			
12. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry and shall include: date place and time of sampling, operating conditions at the time of sampling, date, place and method of analysis and the results of the analysis. ref. Reg 5.615	**F S L**	***Yes***	***Plant policy requires files to be maintained to meet the requirements of this condition.***
Emergency Provisions			
13. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1 Rule 540 of the District's Rules and Regulations, by following the procedures contained in Regulation 1, Rule 540 (b). The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1, Rule 540 (b)(3). ref. Reg 5.640	**F S L**	***Yes***	
14. The permit holder may seek relief from enforcement action for a violation of any the terms and conditions of this permit caused beyond permit holders reasonable control by applying to the District's Hearing Board for a variance pursuant to	**F S L**	***Yes***	***No variances are currently requested or in effect.***

Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42340 et seq. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. Ref. Reg 1 Rule 600			
15. Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Title V Operating Permit has been modified pursuant to Regulation 5 or other EPA approved process. ref. Reg 1 Rule 600	**F S L**	***Yes***	
Permit Posting			
16. Operation under this permit must be conducted in compliance with all data specifications included in the application which attest to the operator's ability to comply with District rules and regulations. This permit must be posted in such a manner as to be clearly visible and accessible at a location near the source. In the event that the permit cannot be so placed, the permit shall be maintained readily available at all times on the operating premises. *ref. Rule 240(i)*	**S L**	***Yes***	***Operators conduct on-site inspections. This permit is located in the Unit 17 control room and is available electronically to Operators in the control room.***
Compliance Certification			
17. Compliance certifications shall be submitted annually by the responsible official of this facility to the Northern Sonoma County Air Pollution Control District and to the EPA. Each compliance certification shall be accompanied by a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report. ref. Reg 5.650	**F S L**	***Yes***	***This submittal serves as the Compliance Certification for this Permit. The cover letter contains a written statement by the responsible official certifying truth, accuracy and completeness.***
18. This Permit does not authorize the emission of air contaminants in excess of those allowed by the Health & Safety Code of the State of California or the Rules and Regulations of the Northern Sonoma County Air Pollution Control District. This Permit cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other governmental agencies. ref. Rule 240(d)	**F S L**	***Yes***	
Permit Modification			
19. The permit holder shall comply with all applicable requirements in NSCAPCD Regulation 1 Chapter II- Permits and New Source Review. ref. Regulation 1 Rule 200	**F S L**	***Yes***	***There were no modifications during the reporting period.***

CONDITION OF CERTIFICATION
COMPLIANCE 5

Geysers Lake View Plant (Unit 17) 79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	A1	Operations/ Ongoing	Test	The Lake View (Unit 17) power plant and associated abatement systems shall comply with Regulation 1 Rule 455(b) – Geothermal Emission Standards. Total emissions of hydrogen sulfide (H2S) shall not exceed 6.0 kilograms averaged over any one-hour period unless operating under a District-approved Alternative Compliance Plan (ACP) in accordance with note 8 or Regulation 1 Rule 455(b). Total H2S emissions shall be the cumulative emissions to the atmosphere from the power plant and associated abatement equipment. [ref. Rule 455(b), PTO 79-23 Cond. 16.A]	The project owner shall verify compliance by conducting a monthly source test on the cooling tower as indicated in **AQ-C1**, weekly determinations of the H2S content in the main steam supply as required in **AQ-C6**, or as required in an approved Alternative Compliance Plan.			Ongoing	Source Tests are conducted monthly, as required in AQ-C1. to verify compliance with this condition. Results of the NSCAPCD Method 102 source tests, as well as excursions and exceedances, are reported to the District in the quarterly compliance reports.
AQ	A2	Operations/ Ongoing	Annual test	The project owner shall not discharge or cause the discharge into the atmosphere of more than a total of 12 kilograms/hour of H2S from Lake View (Geysers Unit 17). [ref. PSD NC 79-01 Cond. VIII.A.]	The project owner shall verify compliance by conducting an annual performance test on the turbine exhaust system to determine the H2S emission rate as required in AQ-C1.			Ongoing	Source Tests are conducted monthly, as required in condition AC-C1 to verify compliance. Results of the NSCAPCD Method 102 source tests, as well as excursions and exceedances, are reported to the District in the quarterly compliance reports.
AQ	A3	Operations/ Ongoing	N/A	The exit concentration in the process piping leading from the Stretford system shall not exceed 135 ppmv H2S, averaged over any consecutive 60-minute period, unless operating under a District-approved Alternative Compliance Plan (ACP). [ref. PTO 79-23 Cond. 16.B.]	The project owner shall verify compliance by operating a continuous compliance monitor as required in **AQ-C9**.			Ongoing	Continuous monitoring is in service and maintained to verify compliance. An automatic alarm notifies the operator prior to exceeding the limit. Excursions and exceedances are documented in follow-up reports and in the quarterly compliance reports. No deviations to this condition occurred during the reporting period. Ref. Letters dated 4/2/2020: Calpine letter GPC 17-020 Alternative Compliance Protocol (ACP) and NSCAPCD approval allow operation of Unit 17 not to exceed 300 ppmv when Unit 11 is off line or curtailed and steam is shifted.
AQ	A4	Operations/ Ongoing	N/A	The project owner shall comply with Regulation 1 Rule 455 (a) -Geothermal Emission Standards; no person shall discharge into the atmosphere from any geothermal operation sulfur compounds, calculated as sulfur dioxide, in excess of 1,000 ppmv. [ref. Rule 455(a)]	The project owner shall verify compliance by adhering to all monitoring and testing requirements.			Ongoing	GPC is in compliance.
AQ	A5	Operations/ Ongoing	Records	The project owner shall operate the power plant and associated abatement systems in compliance with Regulation 1 Rule 420 (d) Non-Combustion Sources - Particulate Matter; no person shall discharge particulate matter into the atmosphere from a non-combustion source in excess of 0.2 grains per cubic foot of exhaust gas or in total quantities in excess of the amount shown in Table I. (40 lb/hr) whichever is the more restrictive condition. [ref. Rule 420(d)]	The project owner shall verify compliance according to AQ-C4. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Calculation of the PM discharge rate is based upon monthly total solids analyses and the cooling water flow rate. PM emission calculation is per Permit specified condition III.4. Calculations indicate that the plant was in compliance with this limit during the reporting period
AQ	AE1	Operations/ Ongoing	Records	Visible particulate emissions shall not exceed an opacity as to obscure an observer's view to a degree equal to or greater than Ringelmann 2.0 or 40 percent opacity for a period or periods exceeding 3 minutes in any one hour.	The project owner shall perform a Visible Emissions Evaluation to determine compliance as requested by the NSCAPCD or CPM. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	No request has been made to perform testing during the reporting period.
AQ	AE2	Operations/ Ongoing	Records	Particulate emissions shall not exceed an emission rate of 0.002 g/bhp-hr.	The project owner shall verify compliance according to Condition AQ-CE1. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Engine meets EPA Tier 4 emission standards and is rated below the permitted limits.

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AQ	AE3	Operations/ Ongoing	Records	Combined non-methane hydrocarbons and nitrogen oxide emissions shall not exceed an emission rate of 0.28 g/bhp-hr.	The project owner shall perform a source test to verify compliance with the emission rate upon request of the District or CPM. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Engine meets EPA Tier 4 emission standards and is rated below the permitted limits.
AQ	AE4	Operations/ Ongoing	Records	Carbon monoxide emissions shall not exceed an emission rate of 1.3 g/bhp-hr	The project owner shall perform a source test to verify compliance with the emission rate upon request of the District or CPM. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Engine meets EPA Tier 4 emission standards and is rated below the permitted limits.
AQ	B1	Operations/ Ongoing	Records	The project owner shall not operate the plant unless emissions are vented to the Stretford Air Pollution Control System. The condensate H2S abatement chemical feed system and the Stretford abatement system shall be kept in good working order and operated as necessary in order to limit H2S and particulate emissions on a continuous basis from the power plant as specified in conditions AQ-A1, AQ-A2, AQ-A3, AQ-A4, and AQ-A5. [ref. Rule 240.d, PTO 88-62 Cond. 18]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	The H2S abatement systems are operated and maintained in accordance with operating practices and a maintenance program described in the Title V application.
AQ	B10	Operations/ Ongoing	Records	The cooling tower shall be maintained in good operating condition. The project owner shall conduct an integrity inspection of the cooling tower during each scheduled plant overhaul and carry out any repairs necessary to correct all deficiencies encountered. [ref. Rule 240(d)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC is in compliance. Routine plant inspections by operators include the cooling tower to identify areas in need of repair. Plant maintenance makes repairs during plant overhauls. Records are available on request.
AQ	B11	Operations/ Ongoing	Records	The control technology utilized at Lake View (Unit 17) to achieve compliance with the H2S emission limitation specified in Condition AQ-A2 shall include a surface condenser/Stretford process system. [ref. PSD NC 79-01 Cond. VIII.B.]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Surface condenser/Stretford process is used to achieve compliance.
AQ	B2	Operations/ Ongoing	Records	The abatement solution storage tank shall have a minimum of 1,000 gallons of abatement solution at all times when the plant is in operation. All continuously operated abatement solution feed pumps shall have a standby spare available, a readily accessible flowmeter readable in appropriate units and equipped with alarms signaling no or low flow. Flowmeter accuracy shall be plus or minus 10% of flow. [ref. PTO 88-62 Cond. 18]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	A program is in place to verify tank levels and to order and deliver chemicals prior to reaching the minimum level. Flowmeters and alarms are tested quarterly per permit Title V condition II.4. Records available upon request.
AQ	B3	Operations/ Ongoing	Records	Except for justifiable reasons during performance testing or under operation of an ACP, for which the project owner has received prior District written approval, the circulating water shall be kept to the following specification: Circulating water iron chelate concentration shall be maintained at or above the ppmw concentration recommended in the power plant operating guidelines as necessary to abate H2S emissions from the power plant to the emission limit specified in Condition AQ-A1. [ref. PTO 88-62 Cond. 19]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC is in compliance. Operating practices are in place to maintain the circulating iron concentration when required. Records are available on request.
AQ	B4	Operations/ Ongoing	Records	All the abatement systems shall be properly winterized and maintained to ensure proper and reliable functioning. All primary pressure gauges and flow meters associated with abatement equipment shall be readily identified, maintained in good operating condition and calibrated on a quarterly basis. Alarm systems associated with abatement equipment shall be tested on a quarterly basis. Calibration and maintenance shall be performed according to manufacturer's recommendations or per the project owner's maintenance schedule as needed to maintain the equipment in good working order. [ref. PTO 79-23 Cond. 14]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Maintenance practices are in place to ensure compliance with this condition. Flowmeters and alarms were tested as required during this reporting period.
AQ	B5	Operations/ Ongoing	Records	Untreated vent gas shall be directed through the vent to the atmosphere only during upset/breakdown situations pursuant to Regulation 1 Rule 540. During periods of cold startups, the vent gas H2S treatment system shall be operated as necessary to preclude the release of untreated vent gases to the atmosphere above the permitted emission limits specified in Conditions AQ-A1 and AQ-A4. [ref. PTO 79-23 Cond. 15]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Plant design and operating practices preclude the release of untreated vent gas during startup operations. There were no untreated gas releases during this reporting period. Emergency gas release vents are equipped with automatic alarm systems that indicate if they are activated.
AQ	B6	Operations/ Ongoing	Records	All areas in the immediate vicinity and under the project owner's responsibility shall be properly treated to control fugitive dust. [ref. PTO 79-23 Cond. 17]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC complies with NSCAPCD Regulation 1 Rule 430. A fugitive dust control plan is in place

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	B7	Operations/ Ongoing	Records	Fugitive Leaks A.Non-condensable gas leaks: Valves, flanges, seals on pumps and compressors, piping and duct systems shall be inspected, maintained and repaired to prevent the emission of non-condensable gases to the atmosphere. Valves, flanges and seals shall be tightened, adjusted, or have gasket material added using the best modern practices for the purpose of stopping or reducing leakage to the atmosphere. Non-condensable gas leaks shall not (i) exceed (as measured within 1 cm of such leak) 1,000 ppmv H2S nor 10,000 ppmv methane nor (ii) exceed emission limits of Rule 455. Such leaks shall be repaired within 24 hours, unless the leak is from essential equipment. If the leak is from essential equipment, the leak must be minimized within 24 hours using best modern practices and eliminated at the next prolonged outage of the process unit unless an extension is approved by the APCO. Essential Equipment is defined as equipment which cannot be taken out of service without shutting down the process unit which it serves. Leak Minimization is defined as the tightening, adjusting, or addition of packing material which surrounds the leak, or the replacement of the valve or flange for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices. B.Steam and Condensate leaks: Valves, flanges, seals on pumps and compressors, piping and duct systems shall be inspected, maintained and repaired to prevent the emission of steam and condensate to the atmosphere. Valves, flanges and seals shall be tightened, adjusted, or have gasket material added using the best modern practices for the purpose of stopping or reducing leakage to the atmosphere. Valves, flanges, drip legs, threaded fittings and seals on pipelines shall be maintained to prevent or reduce the emission of steam and condensate to the atmosphere as noted below: Liquid leak rate in pressurized steam and condensate lines shall not exceed 20 ml in 3 minutes. Liquid leak rates in excess of 20 ml in 3 minutes shall be repaired within 15 calendar days, excepting those leaks from essential equipment. If the leak is from essential equipment, the leak must be minimized within 15 days using best modern practices and eliminated at the next prolonged outage of the process unit unless an extension is approved by the APCO. Essential Equipment is defined as equipment which cannot be taken out of service without shutting down the process unit which it serves. Leak Minimization is defined as the tightening, adjusting, or addition of packing material which surrounds the leak, or the replacement of the valve or flange for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices. The project owner shall check the power plant for fugitive leaks at least once per quarter. [ref. PTO 79-23 Cond. 17]	The project owner shall keep records according to Condition AQ-D5. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	A & B. Records of compliance in accordance to Condition AQ-D5 are available on request.
AQ	B8	Operations/ Ongoing	Plan	Alternative Compliance Plan A.The project owner may propose an Alternative Compliance Plan (ACP) which allows for operating flexibility of the power plant while maintaining compliance with all applicable emission limits of Condition AQ-A5. The ACP shall list operating parameters such as power output (MW) and abatement solution concentration levels which shall be met in order to meet all applicable emission limits listed above. The ACP shall be submitted to the APCO for approval. The APCO shall approve, disapprove or modify the plan within 30 days of receipt of the ACP. An APCO-approved ACP shall consist of all parametric operating guidelines which shall be used to determine compliance with Condition AQ-A5. The ACP shall list the specific operating conditions the ACP will supersede. B.The project owner may propose an Alternative Compliance Plan (ACP) which allows for operating flexibility of the power plant while maintaining compliance with all applicable emission limits of Conditions AQ-A1, AQ-A3, and AQ-A4. The ACP shall list operating parameters such as power output (MW) and abatement solution concentration levels which shall be met in order to meet all applicable emission limits listed above. The ACP shall be submitted to the APCO for approval. The APCO shall approve, disapprove or modify the plan within 30 days of receipt of the ACP. An APCO approved ACP shall consist of all parametric operating guidelines which shall be used to determine compliance with Conditions AQ-A1, AQ-A3, and AQ-A4. The ACP shall list the specific operating conditions the ACP will supersede.	The project owner shall submit any ACP to the CPM for review at the time it is submitted to the District. The project owner shall submit the District's approval, disapproval or plan modification to the CPM in the quarterly report.			Ongoing	a. No ACP is currently in place as allowed under this condition. B. Ref. Letters dated 4/2/2020: Calpine letter GPC 17-020 Alternative Compliance Protocol (ACP) and NSCAPCD approval allow operation of Unit 17 not to exceed 300 ppmv when Unit 11 is off line or curtailed and steam is shifted. See attachment for approval letter
AQ	B9	Operations/ Ongoing	Records	All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this license shall at all times be maintained in good working order. The equipment shall be operated in a manner necessary to meet all emission limits of the permit. [Ref. Rule 240(d)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC verifies compliance by adhering to all testing, monitoring, and reporting requirements.
AQ	BE1	Operations/ Ongoing	Records	S-5, emergency standby wet-down pump diesel drive engine, shall only be used because of a failure or loss of all or part of normal electrical power service, except for testing and maintenance as defined in CA HSC 93115.4 (30).	The project owner shall maintain records according to Condition AQ-DE1. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	The generator is only used to provide emergency electrical power during failure or loss of all or part of normal electrical power service except for testing and maintenance
AQ	BE2	Operations/ Ongoing	Records	S-5, emergency standby wet-down pump diesel drive engine, shall be equipped with a non-resettable hour counting meter to indicate the number of hours the engine is operated.	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	The generator is equipped with a working nonresettable hour counting meter.
AQ	BE3	Operations/ Ongoing	Records	S-5, emergency standby wet-down pump diesel drive engine, shall be operated exclusively on California Air Resources Board (CARB) Diesel Fuel.	The project owner shall maintain records according to Condition AQ-DE1. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	The GPC purchasing department contracts with fuel vendors who only supply Ultra-low Sulfur Diesel

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	BE4	Operations/ Ongoing	Records	S-5, emergency standby wet-down pump diesel drive engine, shall be operated according to manufacturer specifications.	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Maintenance is a contracted service with the supplier of the generator performed at intervals per the manufacturer's recommendation
AQ	BE5	Operations/ Ongoing	Records	Total operating hours used for testing and maintenance of S-5, emergency standby wet-down pump diesel drive engine, shall not exceed 50 hours in any consecutive 12-month period. The total hours of operation do not include use during emergencies.	The project owner shall maintain records according to Condition AQ-DE1. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC logs and tracks the recorded hours to ensure testing and maintenance diesel engine run time does not exceed 50 hours in any consecutive 12- month period.
AQ	C1	Operations/ Ongoing	Test Results/ Plan	The project owner shall, on a monthly basis, conduct a source test of the cooling tower to determine the H2S emission rate to verify compliance with condition AQ-A1. District Method 102 shall be utilized to determine the H2S emission rate. The permit holder may propose an Alternative Compliance Plan (ACP) which allows for operating flexibility of the power plant, including periods when accessing the cooling tower is not possible, while maintaining compliance with all applicable emission limits of condition AQ-A1. The ACP shall list operating parameters such as power output (MW), target pH, abatement solution concentration levels, and burner/scrubber exit concentrations which shall be met in order to meet all applicable emission limits listed above. The ACP shall be submitted to the APCO for approval. The APCO shall approve, disapprove or modify the plan within 30 days of receipt of the ACP. An APCO-approved ACP shall consist of all parametric operating guidelines which shall be used to determine compliance with condition AQ-A1. The ACP shall list the specific operating conditions the ACP will supersede. [ref. PTO 88-62 Cond. 22.] The project owner shall, on an annual basis, conduct a source test of the cooling tower to determine the H2S emission rate to verify compliance with condition AQ-A2. District Method 102 shall be utilized to determine the H2S emission rate. [ref. PSD NC 79-01 Cond. VIII.C.]	The project owner shall submit source test results according to Condition AQ-E1. The project owner shall submit any ACP to the CPM for review. The project owner shall submit the District's approval, disapproval or modification of an ACP to the CPM in the following quarterly report.			Ongoing	NSCAPCD Approved version of Method 102 (Modified Method 102) Source tests were performed each month, and reported to the District in the quarterly reports. All test results and determinations indicated compliance with this condition.
AQ	C10	Operations/ Ongoing	Plan	Ambient Air Monitoring The project owner shall maintain and operate one H2S/meteorological monitoring station, PM10 high volume station, at a location approved in advance by the Air Pollution Control Officer for the life of the facility. The project owner shall install and operate additional monitoring stations, such as a PM2.5 monitoring station, if required by the Air Pollution Control Officer, Energy Commission, California Air Resources Board, or U.S. EPA. Participation by the project owner in a joint air monitoring program, such as the Geysers Air Quality Monitoring Program (GAMP), shall be deemed to satisfy all ambient air quality monitoring requirements of this license provided the term of monitoring is equivalent. The Air Pollution Control Officer can alter, suspend, or cancel this requirement provided no ambient air quality standard applicable to this facility is threatened or that sufficient other monitoring is available by the District, Lake County AQMD, or other third party. [ref. PTO 88-62 Cond. 22.]	If the project owner does not participate in GAMP, the project owner shall submit to the NSCAPCD, ARB, and CPM, for their review and approval, a detailed ambient monitoring plan.			Ongoing	GPC participates in GAMP
AQ	C2	Operations/ Ongoing	Records	The project owner shall provide platforms, electrical power, and safe access to sampling ports to enable representatives of the District, and ARB to collect samples from the main steam supply, treated and untreated condensate, circulating water upstream of the cooling tower, cooling tower stacks, untreated and treated non-condensable gas stream to and from the Stretford abatement facility, any off-gas bypass vents to the atmosphere and any Stretford tanks or evaporative coolers. [ref. PTO 79-23 Cond.11.]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Sample taps used by plant personnel for chemical sampling and analysis are also available for use by CARB and District personnel.
AQ	C3	Operations/ Ongoing	Test Results	The project owner, as requested by the Air Pollution Control Officer or CPM, shall conduct a requestor-approved performance test for particulate matter (PM), H2S, other species (i.e. benzene, mercury, arsenic, TRS, mercaptans, radon, other nitrogen compounds (amines) and compounds listed under NESHAPS and/or AB2588) from the power plant evaporative cooling tower and/or the Stretford evaporative cooling tower. Upon written request, the project owner shall submit to the requestor at least 45 days prior to testing a detailed performance test plan. The requestor shall approve, disapprove or modify the plan within 45 days of receipt of the plan. The project owner shall incorporate the requestor's comments or modifications to the plan which are required to assure compliance with the requestor's regulations. The Air Pollution Control Officer and CPM shall be notified 15 days prior to the test date in order to arrange for an observer to be present for the test. The test results shall be provided to the District and CPM within 45 days of the test date unless a different submittal schedule is approved in advance. [ref. PTO 88-62 Cond. 9 and 10]	The project owner shall conduct performance tests as requested by the Air Pollution Control Officer or CPM. The project owner shall submit results to the CPM within 45 days if the test was requested by the CPM or in the quarterly reports according to Condition AQ-E1 if the test was requested by the Air Pollution Control Officer.			Ongoing	No requests to perform testing were requested during the reporting period
AQ	C4	Operations/ Ongoing	Report/Recor ds	Compliance with the particulate mass emission limitation shall be estimated using calculations based on the evaporative cooling tower manufacturers design drift eliminator drift rate, 0.002 percent for the main cooling tower, multiplied by the circulating water rate and, total dissolved solids (TDS) and total suspended solids (TSS). A circulating water sample shall be collected and analyzed for TDS and TSS on a monthly basis. [ref. PTO 88-62 Cond. 21]	The project owner shall maintain records according to Conditions AQ-D6 and AQ-D7 and submit reports as indicated in Condition AQ-E2.			Ongoing	Calculations indicate that the plant was in compliance with this condition during the reporting period. Reports are submitted in accordance to AQ-E2
AQ	C5	Operations/ Ongoing	Records/Rep orts	Main steam supply H2S concentrations shall be determined minimally on a weekly basis and any additional times as required by the operating protocol or ACP. [ref. PTO 88-62 Cond. 19]	The project owner shall maintain records according to Conditions AQ-D6 and AQ-D7 and submit reports as indicated in Condition AQ-E1 and AQ-E2.			Ongoing	A protocol on file with the District describes the method used to determine H2S concentration. A review of the records indicates that the requirements of this condition were met during the reporting period.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	C6	Operations/ Ongoing	Records	The project owner shall perform an abatement solution concentration test of the cooling tower circulating water once per operating shift when abatement solution is necessary in order to achieve compliance with Condition AQ-A1. The testing equipment shall be kept calibrated per the manufacturer's specifications. [ref. PTO 88-62 Cond. 19]	The project owner shall maintain records according to Conditions AQ-D6 and AQ-D7 and submit reports as indicated in Conditions AQ-E1 and AQ-E2. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Operators perform tests required by this condition as a part of their daily routine plant compliance checks when applicable. During this reporting period, use of secondary condensate treatment was not necessary to comply with the emission limit
AQ	C7	Operations/ Ongoing	Records/Reports	Instruments used for the measurement of H2S or total organic gases to satisfy District permit conditions or regulations shall receive District approval prior to use. Test plans shall be submitted for District approval of instruments used for the measurement of H2S or Total Organic Gases to satisfy District permit conditions or regulations. [ref. Rule 240(d)]	The project owner shall submit any District approvals to the CPM in the quarterly reports. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	The NSCAPCD has approved the following instruments that are used to measure H2S: ASI Model; 102, Jerome Instruments Model 631, "Dräger" brand sampling and analysis tubes. Organic gases are analyzed utilizing an "Aglient" Model 3000C G.C.
AQ	C8	Operations/ Ongoing	Reports	All sampling protocols, chemical feed charts, targets and operational guidelines for using said charts and targets, necessary to abate H2S emissions from the power plant to the emission limits specified in Conditions AQ-A1 and AQ-A2 must be developed using good engineering judgment and supporting data. The APCO or CPM may review such sampling protocols, chemical feed charts, targets and guidelines upon request. If the APCO or CPM determines that any of the protocols, feed charts, targets, or guidelines are not sufficient to maintain compliance with Conditions AQ-A1 and AQ-A2, the APCO or CPM shall require the project owner to develop revised protocols, feed charts, targets and guidelines. [ref. Rule 240(d)]	The project owner shall submit any revised protocol, feed charts, targets and guidelines or summary to the CPM in the annual reports required by Condition AQ-E2. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request. The CPM shall consult with the APCO and the project owner when developing revised protocols, feed charts, targets and guidelines.			Ongoing	Protocols related to this condition were submitted and approved by the District in the initial Title V application. Plant unit engineers specify targets and guidelines based on good engineering judgment and recent chemical analyses. Records are available upon request.
AQ	C9	Operations/ Ongoing	Summary	Continuous Compliance Monitoring (CCM) The project owner shall operate a continuous compliance monitor capable of measuring the concentrations of H2S in the exhaust stream from the Stretford absorber in order to verify compliance with Conditions AQ-A1 and AQ-A3. The monitoring system must alarm the operator when H2S in the treated gas is in excess of 135 ppmv. The project owner shall respond to the alarm with appropriate mitigation measures. Mitigation measures taken shall be logged in the power plant abatement log book. In the event H2S concentrations are in excess of 135 ppmv and the range of the CCM is exceeded, the project owner shall test for H2S using an approved alternative method (ex Draeger tester, wet chemical tests) once every hour during the excess. The monitor shall have a full range of at least 300 ppmv. The monitor shall meet the following operational specifications: an accuracy of plus or minus 10% of full scale, provide measurements at least every 3 minutes, provide a continuous strip chart record or a District-approved alternative, and provide monthly data capture of at least 90%. The District must be notified when the concentration of H2S exceeds the hourly average limit of 135 ppmv. A one-point calibration shall be performed at least once per week. A three-point calibration shall be performed at least once per quarter. The APCO may allow modifications to the above specifications under an ACP upon written request with justification by the project owner as long as emissions from the power plant do not exceed the "total" H2S emission limitations of Condition AQ-A1. Written notification from the APCO must be received by the project owner prior to any change in monitoring specifications. [ref. PTO 79-23 Cond. 19]	The project owner shall provide the District and CPM with a summary of the monitor's availability and any irregularities that occurred with the continuous monitor. The summary shall be provided to the CPM in the quarterly reports required by Condition AQ-E1.			Ongoing	The continuous compliance monitor meeting the requirements of this condition is in place and operational. Plant records indicate no deviations from this condition during the reporting period. Quarterly reports are submitted in accordance with AQ-E1.
AQ	CE1	Operations/ Ongoing	Records	At any time as specified by the Air Pollution Control Officer or CPM, the project owner shall conduct a requestor-approved source test to determine NOx and particulate emissions from the emergency standby wet-down pump diesel drive engine. The test results shall be provided to the District and CPM within 30 days of the test.	The project owner shall perform an approved source test upon request of the District or CPM. Test results shall be submitted to the District and CPM.			Ongoing	Tests for NOx and particulate emissions are performed at the request of the District or CPM utilizing District approved methods. No test requests by the District or CPM were made during the reporting period.
AQ	D1	Operations/ Ongoing	Records/Logs	All records and logs shall be retained for a period of at least 5 years from the date the record or log was made and shall be submitted to the NSCAPCD or CPM upon request.	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Records and logs are retained for a minimum of five years and available upon request.
AQ	D2	Operations/ Ongoing	Log	The project owner shall maintain a weekly abatement solution and caustic inventory log available for on-site inspection. [ref. Rule 240(d)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Operators conduct on-site inspections. Weekly chemical inventory files are kept and available for inspection.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	D3	Operations/ Ongoing	Records/Dat a/Report	The project owner shall maintain a strip chart or other District-approved data recording device of H2S readings measured by the CCM. All measurements, records, and data shall be maintained by the project owner for at least five (5) years. The project owner shall report all exceedances of Condition AQ-A3 in the quarterly report as required in AQ-E1. The report shall include a description of all measures taken to bring the Stretford system back into compliance with Condition AQ-A3. The project owner shall include in the report a copy of the output from the H2S CCM or alternative District-approved data during the upset condition. [ref. Rule 240(d)]	The project owner shall comply with all recordkeeping and reporting provisions. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	The District has approved Digital strip chart recorders to archive data in electronic format for later retrieval and review of CCM measurements per AQ-A2 and reported in the quarterly reports. There were no reportable exceedances during this reporting period. Records are available upon request.
AQ	D4	Operations/ Ongoing	Test Results	The project owner shall maintain copies of the source test results as required in Condition AQ-C1 for a minimum of 5 years. [ref. PTO 88-62 Cond. 22]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Records and logs are retained for a minimum of five years and submitted upon request.
AQ	D5	Operations/ Ongoing	Records	Fugitive Leak Records A.Any non-condensable gas leak in excess of the limitations of Condition AQ-B7 which has been detected by the project owner and is awaiting repair shall be identified in a manner which is readily verifiable by a District or Energy Commission inspector. Any leak in the above listed pieces of equipment exceeding the limitations of Condition AQ-B7 and not identified by the project owner and which is found by the District shall constitute a violation of this license. The project owner shall maintain a current listing of such leaks awaiting repair and shall make this list available to the District and CPM upon request. B.Any valve, flange, drip leg threaded fitting or seal on a pipeline, or condensate collection system with a leak in excess of the limitations of Condition AQ-B7, which has been detected by the project owner and is awaiting repair, shall be identified in a manner which is readily verifiable by a District or Energy Commission inspector. Any leak in the above listed pieces of equipment exceeding the limitations of Condition AQ-B7 and not identified by the project owner and which is found by the District shall constitute a violation of this license. The project owner shall maintain a current listing of such leaks awaiting repair and shall make this list available to the District and CPM upon request. [ref. PTO 88-62 Cond. 20]	The project owner shall comply with all recordkeeping and reporting provisions. The project owner shall report all deviations to the CPM as required in Condition AQ-G4. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request			Ongoing	A & B. The operator conducts daily rounds to inspect the plant which include identifying any leaks and entering the information into the plant log and submitting a work order requesting repair. A review of maintenance records indicate that the plant is in compliance. A review of daily compliance checklists indicated that the operators inspect the system for fugitive leaks. Records are available on request.
AQ	D6	Operations/ Ongoing	Records	The project owner shall maintain records detailing: a.Any periods of significant abatement equipment malfunction, reasons for malfunctions, and corrective action. b.The dates and hours in which the emission rates were in excess of the emission limitations specified in permit Conditions AQ-A2 and AQ-A5. c.Fugitive steam and non-condensable gas emission source inspections, leak rates, repairs, and maintenance. d.Total dissolved solids and total suspended solids in the circulating water. [ref. Rule 240 (d)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC is in compliance. Records satisfying A~D are available upon request.
AQ	D7	Operations/ Ongoing	Records	The project owner shall maintain records detailing: a.Hours of operation b.Types, concentrations, and amounts of chemicals used for Stretford absorbing solution and used for condensate treatment, including target levels for abatement solution concentration in the circulating water. c.A summary of any irregularities that occurred with a continuous compliance monitor. d.The dates and hours in which the emission rates were in excess of the emission limitations specified in permit Conditions AQ-A1, AQ-A3, and AQ-A4. e.Periods of scheduled and unscheduled outages and the cause of the outages. f.Time and date of all pump and flowmeter calibrations required by this permit. g.Time and date of all alarm system tests. h.Leaking equipment awaiting repair; time and date of detection and final repair. [ref. Rule 240(d)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC is in compliance. Records satisfying A~H are available upon request.
AQ	DE1	Operations/ Ongoing	Records	In order to demonstrate compliance with the engine conditions, records shall be maintained in a District-approved log, shall be kept on site, and made available for District inspection for a period of 5 years from the date on which a record is made. The records shall include the following information summarized on a monthly basis: a.Total engine operating hours b.Emergency use hours of operation c.Maintenance and testing hours of operation.	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request. The project owner shall report hours of operation, identifying the reason for operation, to the CPM in the annual reports required by Condition AQ-E2.			Ongoing	Reporting of engine hours will be included in the Annual Criteria Pollutant Inventory Report required by AQ-E2 for 2021 and beyond.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	E1	Operations/ Ongoing	Quarterly Report	A quarterly report shall be submitted to the District which contains the following information: a.CCM availability for the given quarter. b.Any periods of significant abatement equipment malfunction, reasons for malfunctions, and corrective action taken. c.Time and date of any monitor indicating an hourly average exceedance of 10 ppmv of H2S. d.Source test results. The quarterly report shall be submitted to the District and CPM within 30 days of the end of each quarter. The reports are due by May 1, August 1, November 1 and February 1 for each corresponding quarter. [ref. Rule 240(d)]	The project owner shall submit the quarterly reports to the CPM. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	Quarterly Reports were submitted as required or on a date agreed upon with NSCAPCD. Ref. GPC letters: GPC-20-037, 1st Quarter 4/30/20 GPC-20-075, 2nd Quarter 7/29/20 GPC-20-086, 3rd Quarter 10/28/20 GPC-21-002, 4th Quarter - 1/26/21 See attachment AQ-E1
AQ	E2	Operations/ Ongoing	Annual Report	An annual report shall be submitted to the District and CPM which contains the following information: a.Average main steam H2S and ammonia concentrations. b.Average total dissolved and suspended solids and average flowrate of the cooling tower water. c.Annual ammonia emissions. d.Gross megawatt hours generated. e.Steaming rate, gross average (gross steam flow; lb/ gross MW). f.Update to any changes in operating protocols used to determine plant chemical feed charts and targets; calibration and maintenance programs. g.Total organic gasses emitted as methane. h.Hours of plant operation. i.Annual CO2e emissions Additional requirement for reports submitted to the Energy Commission: j.Hours of operation for the emergency engine. The hours of operation shall be reported according to total use, emergency use, and maintenance and testing. The annual report shall be submitted to the District within 45 days of the end of each calendar year. [ref. Rule 240(d)]	The project owner shall submit the annual reports to the CPM within 45 days of the end of each calendar year or another timeframe approved by the CPM. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request.			Ongoing	GPC submitted the required 2020 annual Criteria Pollutants Inventory Report to the NSCAPCD, on 2/9/2021 ref GPC letter GPC-21-016. See attachment AQ-E2.
AQ	E3	Operations/ Ongoing	Statement of Compliance	The project owner shall submit reports to the California Air Resources Board in accordance with the provisions of CCR Title 17, Division 3, Chapter 1, Subchapter 10, Article 2, Regulation for Mandatory Reporting of Greenhouse Gas Emissions.	The project owner shall provide a statement of compliance in the annual report regarding the submittal of greenhouse gas emissions reporting to the ARB. The greenhouse gas emissions report is not required to be submitted to the CPM in the periodic compliance reports. The project owner shall make the reports available to the CPM upon request.			Ongoing	The 2020 report was submitted Cal e-GGRT to CARB, Facility ARB ID:101527 on 4/8/2021 verification by the independent third party has been completed.
AQ	F1	Operations/ Ongoing	Records	The project owner shall comply with the following District regulations. The text of the referenced regulations can be found in Appendix A of the Title V Operating Permit. a.Regulation 1 Rule 400-General Limitations b.Regulation 1 Rule 410-Visible Emissions c.Regulation 1 Rule 430-Fugitive Dust Emissions d.Regulation 1 Rule 492 (40 CFR part 61 Subpart M)-Asbestos e.Regulation 1 Rule 540-Equipment Breakdown f.Regulation 2-Open Burning g.If in the event this stationary source, as defined in 40 CFR part 68.3, becomes subject to part 68, the project owner shall submit a risk management plan (RMP) by the date specified in part 68.10. As specified in Parts 68, 70 and 71, the project owner shall certify compliance with the requirements of part 68 as part of the annual compliance certification required by 40 CFR part 70 or 71. h.40 CFR Part 82-Chlorinated Fluorocarbons i.If in the event the project owner, as defined in 40 CFR part 63, becomes subject to part 63, the project owner shall notify the District within 90 days of becoming subject to the regulation. The project owner shall identify all applicable requirements of part 63 and submit a plan for complying with all applicable requirements.	The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and Energy Commission upon request. The project owner shall provide a statement of compliance in the annual compliance reports. The project owner shall report all breakdowns to the CPM as required in Condition AQ-G8.			Ongoing	1-3 Reviewed Quarterly compliance reports and District Inspections. 4. Reviewed Asbestos Notification letters. Notifications were submitted as required during the reporting period. GPC20-058, dated 12/15/2020. 5. Reviewed Quarterly compliance records “Incidents Requiring Corrective Action”. 6. No open burning is performed at this location. 7. The Plant is exempt from the Risk Management Plan because quantities of flammable hydrocarbons are less than 67,000 lbs. Ref.: EPA notice dated March 13, 2000. 8. All work performed on appliances containing chlorinated fluorocarbons is performed by HVAC Technicians certified through EPA approved training programs in accordance with the Clean Air Act Section 608 and 40 CFR part 82, Subpart F. 9. Not currently applicable for this source.
AQ	G1	Operations/ Ongoing	N/A	Payment of Fees The operating permits shall remain valid during the 5-year term as long as the annual renewal fees are paid in accordance with Regulation 1 Rule 300 and Rule 360 of the District. Failure to pay these fees will result in forfeiture of this permit. Operation without a permit subjects the source to potential enforcement action by the District and the EPA pursuant to section 502(a) of the Clean Air Act. [ref. Reg 5.670]	No verification needed.			Ongoing	GPC is in compliance. Annual permitting fees have been paid.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	G10	Operations/ Ongoing	Reports/Certi fications/Writ ten Statement	Compliance Certification Compliance reports and certifications shall be submitted annually by the project owner of the facility to the Northern Sonoma County Air Pollution Control District, EPA, and CPM. Each compliance certification shall be accompanied by a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report. [ref. Regulation 5.650] Permits shall not authorize the emissions of air contaminants in excess of those allowed by the Health and Safety Code of the State of California or the Rules and Regulations of the Northern Sonoma County Air Pollution Control District. Permits shall not be considered as permissions to violate existing laws, ordinances, regulations or statutes of other governmental agencies. [Rule 240(d)]	The project owner shall submit the annual compliance reports and certification to the CPM.			Ongoing	GPC is compliance, see attached AQ-G10: Title V CEC report
AQ	G11	Operations/ Ongoing	N/A	Permit Modification The project owner shall comply with all applicable requirements in NSCAPCD Regulation 1 Chapter II - Permits and New Source Review. [ref. Regulation 1 Rule 200]	No verification needed.			Ongoing	There were no modifications during the reporting period.
AQ	G2	Operations/ Ongoing	Records	Right to Entry and Inspection The Air Pollution Control Officer, the Chairman of the California Air Resources Board, the Regional Administrator of U.S. EPA, the CPM, and/or their authorized representatives, upon the presentation of credentials, shall be permitted: a.To enter the premises where the source is located or in which any records are required to be kept under the terms and conditions of the operating permits; and b.At reasonable times to have access to and copy any records required to be kept under the terms and conditions of the operating permits; and c.To inspect any equipment, operation, or method required in the operating permits; and d.To sample emissions from the source. [NSCAPCD Rule 240.e and Reg. 5.610(e)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.			Ongoing	Agency representatives are admitted to the project upon presentation of credentials. After receiving a safety advisory no restrictions are placed on access to plant premises, sample locations and records.
AQ	G3	Operations/ Ongoing	Records	Compliance with Permit Conditions The project owner shall submit a complete application for renewal of the Title V operating permit in accordance with the District deadlines. [ref. Reg 5.660] The project owner shall comply with all conditions of the Title V operating permit. Any non-compliance with the terms and conditions of the Title V operating permit will constitute a violation of the law and may be grounds for enforcement action, including monetary civil penalties, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [ref. Reg 5.610(f)(3)] In the event any enforcement action is brought as a result of a violation of any term or condition of the Title V operating permit, the fact that it would have been necessary for the project owner to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. [ref. Reg 5. 610(f)(4)] The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. [ref. Reg 5. 610(f)(5)] The Title V operating permit does not convey any property rights of any sort, nor any exclusive privilege. [ref. Reg 5. 610(f)(2)] The project owner shall supply in writing within 30 days any information that the District requests to determine whether cause exists, per Regulation 5.570, for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. [ref. Reg 1, Rule 200, Reg 5.430]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.			Ongoing	GPC submitted the required application 6 months prior to expiration, ref. GPC-18- 052 dated June 20, 2018. The permit renewal was issued with an effective date of March 24, 2019. The next application is due by September 24, 2023.
AQ	G4	Operations/ Ongoing	Reports	Reporting All deviations from permit requirements, including those attributable to upset conditions (as defined in the permit) must be reported to the District and CPM at least once every six months. For emissions of a hazardous air pollutant (HAP) or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of the permit requirements, the report must be made within 24 hours of the occurrence. For emissions of any regulated air pollutant, excluding those HAP emission requirements listed above, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours. All reports of deviation from permit requirements shall include the probable cause of the deviation and any preventative or corrective action taken. A progress report shall be made on a compliance schedule at least semi-annually and shall include the date when compliance will be achieved, an explanation of why compliance was not, or will not be, achieved by the scheduled date, and a log of any preventative or corrective action taken. The reports shall be certified by the responsible official as true, accurate and complete. [ref. Reg 5.625]	The project owner shall submit deviation reports to the CPM according to the outlined timeframes. The project owner make the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.			Ongoing	There were no deviations to report during this reporting period. No excess emissions occurred during the reporting period.
AQ	G5	Operations/ Ongoing	N/A	Severability In the event that any provision of this permit is held invalid all remaining portions of the permit shall remain in full force and effect. [ref. Reg 5.610]	No verification needed.			Ongoing	GPC is in compliance.
AQ	G6	Operations/ Ongoing	Letter	Transfer of Ownership In the event of any changes in control or ownership of facilities to be modified and/or operated, the operating permits are transferable and shall be binding on all subsequent owners and operators. The project owner shall notify the succeeding owner and operator of the existence of the operating permits and the conditions by letter, a copy of which shall be forwarded to the Air Pollution Control Officer. [ref. Rule 240(j)]	The project owner shall provide a copy of the letter of notification to the CPM in the following quarterly report.			Ongoing	No ownership changes occurred during the reporting period.
AQ	G7	Operations/ Ongoing	Records	Records Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry and shall include: date, place, and time of sampling, operating conditions at the time of sampling, date, place, and method of analysis and the results of the analysis. [ref. Reg 5.615]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.			Ongoing	Records and logs are retained for a minimum of five years and available upon request.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
AQ	G8	Operations/ Ongoing	Reports	Emergency Provisions The project owner may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1 Rule 540 of the District's Rules and Regulations, by following the procedures contained in Regulation 1, rule 540 (b). The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1, Rule 540 (b)(3). [ref. Reg 5.670] The project owner may seek relief from enforcement action for a violation of any of the terms and conditions of this permit caused by conditions beyond the project owner's reasonable control by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. [ref. Reg 1 Rule 600] Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Title V Operating Permit has been modified pursuant to Regulation 5 or other EPA-approved process. [ref. Reg 1 Rule 600]	The project owner shall notify the CPM of any breakdown, as defined by Regulation 1 Rule 540 of the District's Rules and Regulations, within the timeframes outlined in Regulation 1 Rule 540 of the District's Rules and Regulations. The project owner shall submit the required breakdown reports and report any variance to the CPM in the next quarterly report. The project owner shall make the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.			Ongoing	GPC is in compliance.
AQ	G9	Operations/ Ongoing	Records	Permit Posting Operations under the operating permits must be conducted in compliance with all data and specifications included in the application which attest to the operator's ability to comply with District Rules and Regulations. The permits must be posted in such a manner as to be clearly visible and accessible at a location near the source. In the event that the permits cannot be so placed, the permits shall be maintained readily available at all times on the operating premises. [ref. Rule 240(i)]	The project owner shall make the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.			Ongoing	GPC is in compliance. Permit is posted in the Operator control room and available electronically.
AQ	SC1	Operations/ Ongoing	Air permits	The project owner shall provide the compliance project manager (CPM) copies of any Northern Sonoma County Air Pollution Control District (NSCAPCD or District) issued project air permit for the facility. The project owner shall submit any request or application for a new project air permit or project air permit modification to the CPM.	The project owner shall submit any request or application for a new project air permit or project air permit modification to the CPM at the time of its submittal to the permitting agency. The project owner shall provide the CPM a copy of all issued air permits, including all modified air permits, to the CPM within 30 days of finalization.	N/A	Provide to CPM concurrent with submittal to air district	Ongoing	No modifications were proposed during the reporting period.
AQ	SC2	Operations/ Ongoing	Quarterly/ann ual reports	The project owner shall provide the CPM with copies or summaries of the quarterly and annual reports submitted to the District, U.S. EPA, or ARB. The project owner shall submit to the CPM in the required quarterly reports a summary of any notices of violation and reports, and complaints relating to the project.	The project owner shall provide the reports to the CPM within the timeframes required in the conditions of certification.			Ongoing	See quarterly reports attached as part of AQ-E1.
AQ	SC3	Operations/ Ongoing	Report	The project owner shall provide the CPM with an Annual Compliance Report demonstrating compliance with all the conditions of certification as required in the General Provisions of the Compliance Plan for the facility.	The project owner shall provide the Annual Compliance Report to the CPM within 45 calendar days after the end of the reporting period or a later date as approved by the CPM.			Ongoing	GPC is in compliance
AQ	SC4	Operations/ Ongoing	Report/Recor ds	The project owner shall maintain a current equipment list for the facility.	The project owner shall provide the CPM with the equipment list upon request.			Ongoing	GPC is in compliance
Biological Resources	5-4	Complete - report only for 2020	Report	PGandE will submit to the CEC an annual statement on mitigation and monitoring progress. This statement will indicate compliance upon implementation of a mitigation measures. PGandE will submit to the CEC, two copies of each of the annual reports on the drift, wildlife, and aquatic monitoring studies. Two copies of a final report upon the conclusion of each study will also be submitted to the CEC. One copy of each of the wildlife and aquatic monitoring reports will be submitted to the CDFG. One copy of the sedimentation study on trout spawning beds will be submitted to the CEC by KGRA-ARM. If, however, this program is abandoned, PGandE will conduct an equivalent program as specified in the Unit 17 NOI, Appendix C.	All reports submitted by PGandE will be reviewed by CEC and the appropriate designated agency. Complaints submitted by any agency on noncompliance will be reviewed. On-site inspections, as necessary, will be allowed.			Ongoing	Condition is complete and will not be included in subsequent ACR's
COM	1	Operations/ Ongoing	N/A	Unrestricted Access The project owner shall ensure that the CPM, responsible staff, and delegate agencies are granted unrestricted access to the facility site, related facilities, project-related staff, and the records maintained on-site for the purpose of conducting facility audits, surveys, inspections, or general or closure-related site visits. Although the CPM will normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time, whether such visits are by the CPM in person or through representatives from staff, delegated agencies, or consultants.	N/A	N/A	N/A	Ongoing	GPC is in compliance.
COM	2	Operations/ Ongoing	ACR	Compliance Record The project owner shall maintain electronic copies of all project files and submittals on-site, or at an alternative site approved by the CPM for the operational life and closure of the project. The files shall also contain at least: 1.the facility's Application for Certification, if available; 2.all amendment petitions, staff approvals and CEC orders; 3.all site-related environmental impact and survey documentation; 4.all appraisals, assessments, and studies for the project; 5.all finalized original and amended design plans and "as-built" drawings for the entire project; 6.all citations, warnings, violations, or corrective actions applicable to the project, and 7.the most current versions of any plans, manuals, and training documentation required by the conditions of certification or applicable LORS. Staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files maintained pursuant to this condition.	N/A	Update as needed throughout year, and report on additions in ACR	Update list of documents in Compliance Record in ACR	Ongoing	GPC is in compliance.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
COM	3	Operations/ Ongoing	N/A	A cover letter or email from the project owner or an authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter or email's subject line shall identify the project by the docket number for the compliance phase, cite the appropriate condition of certification number(s), and give a brief description of the subject of the submittal. When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal and the condition(s) of certification applicable. All reports and plans required by the project's conditions of certification shall be submitted in a searchable electronic format (.pdf, MS Word or Excel, etc.) and include standard formatting elements such as a table of contents identifying by title and page number each section, table, graphic, exhibit, or addendum. All report and/or plan graphics and maps shall be adequately scaled and shall include a key with descriptive labels, directional headings, a distance scale, and the most recent revision date. The project owner is responsible for the content and delivery of all verification submittals to the CPM and notification that the actions required by the verification were satisfied by the project owner or an agent of the project owner. All submittals shall be accompanied by an electronic copy on an electronic storage medium, or by e-mail, as agreed upon by the CPM. If hard copy submittals are required, they should be addressed as follows: Compliance Project Manager Geysers Energy Project (Docket Number) California Energy Commission 1516 Ninth Street (MS-2000)	N/A	N/A	N/A	Ongoing	GPC is in compliance
COM	4	Pre-con	N/A	Monthly Compliance Report During the construction of approved project modifications requiring construction of 6 months or more, the project owner or authorized agent shall submit an electronic searchable version of the MCR to the CPM within ten (10) business days after the end of each reporting month. No MCR shall be required for maintenance and repair activities, regardless of duration. MCRs shall be submitted each month until construction is complete, and the final certificate of occupancy is issued by the DCBO. MCRs shall be clearly identified for the month being reported. The MCR shall contain, at a minimum: 1.A summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule; 2.Construction submittals pending approval, including those under review, and comments issued, and those approved since last MCR; 3.A projection of project compliance activities (compliance submittals, etc.) scheduled during the next (2) two months; the project owner shall notify the CPM as soon as any changes are made to the project construction schedule that would affect compliance with conditions of certification; 4.A listing of incidents (safety, etc.), complaints, inspections (status and those requested),notices of violation, official warnings, trainings administered, and citations received during the month; a list of any incidents that occurred during the month, a description of the actions, taken to date to resolve the issues; and the status of any unresolved actions noted in the previous MCRs; 5.Documents required by specific conditions (if any) to be submitted along with each MCR. Each of these items shall be identified in the transmittal letter, as well as the conditions they satisfy, and submitted as attachments to the MCR; 6.A list of conditions (if any) that have been satisfied during the reporting period, and a description or reference to the actions that satisfied the condition; and 7.A listing of the month's additions to the Compliance Record.	N/A	10 busine ss days	After end of each reporting month	Ongoing	GPC is in compliance. Monthly compliance reports are sent to the CEC.
COM	5	Operations/ Ongoing	ACR PCR	Periodic and Annual Compliance Reports The project owner shall continue to submit searchable electronic ACRs to the CPM, as well as other PCRs required by the various technical disciplines. ACRs shall be completed for each year of commercial operation and are due each year on a date agreed to by the CPM. Other PCRs (e.g. quarterly reports), may be specified by the CPM. The searchable electronic copies may be filed on an electronic storage medium or by e-mail, subject to CPM approval. Each ACR must include the AFC number, identify the reporting period, and contain the following: 1.an updated list showing the status of all conditions of certification (fully satisfied conditions do not need to be included in the matrix after they have been reported as completed); 2.a summary of the current project operating status and an explanation of any significant changes to facility operating status during the year; 3.documents required by specific conditions to be submitted along with the ACR; each of these items shall be identified in the transmittal letter with the conditions it satisfies, and submitted as an attachment to the ACR; 4.a cumulative list of all known post-certification changes approved by the CEC or the CPM; 5.an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided; 6.a listing of filings submitted to, or permits issued by, other governmental agencies during the year; 7.a projection of project compliance activities scheduled during the next year; 8.a listing of the year's additions to the Compliance Record; 9.an evaluation of the Site Contingency Plan, including amendments and plan updates; and 10.a listing of complaints, incidents, notices of violation, official warnings, and citations received during the year, a description of how the issues were resolved, and the status of any unresolved complaints.	N/A	Date or time specifi ed by CPM or COC	ACR or PCR	Ongoing	The Compliance Plan has been updated for all applicable verification items for the applicable time frame in 2020.

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COM	6	Operations/ Ongoing	N/A	Confidential Information Any information that the project owner designates as confidential shall be submitted to the CEC's Executive Director with an application for confidentiality, pursuant to Title 20, California Code of Regulations, section 2505(a).	N/A	N/A	Application for Confidential Designation	Ongoing	GPC is in compliance.
COM	7	Operations/ Ongoing	N/A	Annual Energy Facility Compliance Fee Pursuant to the provisions of section 25806 (b) of the Public Resources Code, the project owner shall continue paying an annual compliance fee which is adjusted annually, due by July 1 of each year in which the facility retains its certification.	N/A	Annuall y on July 1st	N/A	Ongoing	GPC is in compliance.
COM	8	Operations/ Ongoing	N/A	Amendments and Staff Approved Project Modifications The project owner shall petition the CEC, pursuant to Title 20, California Code of Regulations, section 1769, to modify the design, operation, or performance requirements of the project or linear facilities, or to transfer ownership or operational control of the facility. Section 1769 details the required contents for a Petition to Amend a CEC Decision. A project owner is required to submit a five thousand ($5,000) dollar fee for every Petition to Amend a previously certified facility, pursuant to Public Resources Code section 25806(e). If the actual amendment processing costs exceed $5,000.00, the total Petition to Amend reimbursement fees owed by a project owner will not exceed seven hundred fifty thousand dollars ($750,000), adjusted annually.	N/A	N/A	N/A	Ongoing	GPC is in compliance.
COM	9	Operations/ Ongoing	Written Report	Incident-Reporting Requirements Within 24 hours of its occurrence, the project owner shall report to the CPM any safety-related incident. Such reporting shall include any incident that has resulted in death to a person; an injury or illness to a person requiring overnight hospitalization; a report to Cal/OSHA, OSHA, or other regulatory agency; or damage to the property of the project owner or another person of more than $50,000. If not initially provided, a written report also will be submitted to the CPM within five business days of the incident. The report will include copies of any reports concerning the incident that have been submitted to other governmental agencies.	N/A	24 hours	within occurrence of incident	Ongoing	GPC is in compliance.
COM	10	Operations/ Ongoing	notice	Non-Operation and Restoration Plans If the facility ceases operation temporarily because it is physically unable to operate (excluding maintenance or repair) for longer than three (3) months (or other CPM-approved date), the project owner shall notify the CPM. Notice of planned non-operation, excluding maintenance or repair, shall be given at least two (2) weeks prior to the scheduled date. Notice of unplanned non-operation shall be provided no later than one (1) week after non-operation begins.	N/A	2 weeks	prior to scheduled date of non-operations.	Ongoing	GPC is in compliance.
COM	11	Operations/ Closure	Closure Plan	Facility Closure Planning The project owner shall coordinate with the CEC to plan and prepare for eventual permanent closure and license termination by filing a Facility Closure Plan. The Facility Closure Plan shall be filed 90 days before the commencement of closure activities or at such other time agreed to between the CPM and the project owner. The Facility Closure Plan shall include the information set forth in Title 20, California Code of Regulations, section 1769, but shall not be subject to the fee set forth in Public Resources Code section 25806(e).	N/A	90	days before commencem ent of closure activities	Ongoing	GPC is in compliance.
FIRE PREVENTION	1	Operations/ Ongoing	Annual test results	After commissioning of the non-NFPA cooling tower wet down system, the project owner shall annually conduct the inspection, testing, and maintenance protocol designated in the Basis of Design Document for the wet down system.	The project owner shall submit the test results of the annual inspection, testing, and maintenance protocol in the Basis of Design Document 30 days after completion of the test.	30 days	provide to CPM after completion of annual inspection.	Ongoing	Once Basis of Design is completed and approved by CEC, an inspection program will be implemented.
FIRE PROTECTION	1	Operations/ Ongoing	Drawings	The project owner shall notify and submit design drawings to the compliance project manager (CPM) for any planned modifications that would materially change the design, operation, or performance of the fire protection or fire alarm systems.	At least 15 business days before the start of any construction that materially changes the design, operation or performance made to the fire protection or fire alarm systems, the project owner shall submit a complete set of design drawings to the CPM for review and approval, and to the DCBO for plan check against the applicable LORS and construction inspection.	15 busine ss days	start of construction for material change to fire protection/ fire alarm system	Ongoing	There were no modifications made during this reporting period.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
FIRE PROTECTION	2	Operations/ Ongoing	BOD	The project owner shall maintain and update, as appropriate, the fire protection Basis of Design documents and appendices to ensure that the fire protection and fire alarm systems are documented and accurately depicted on drawings for the project site.	The project owner shall provide the CPM with an updated Basis of Design document within 30 days of completing any changes to fire protection or fire alarm systems that result in changes to the Basis of Design.	30 days	after completing changes to fire protection or fire alarm systems resulting in BOD changes	Ongoing	Once Basis of Design is completed and approved by CEC, an inspection program will be implemented.
FIRE PROTECTION	3	Operations/ Ongoing	ITM Reports	The project owner shall ensure that all required inspections, testing, and maintenance (ITM) are performed on the project's fire protection systems as specified and in the frequencies set forth in Title 19, California Code of Regulations, section 904(a) and on the project's fire alarm systems as specified in the applicable edition of the National Fire Protection Association (NFPA) 72 National Fire Alarm and Signaling Code.	The project owner shall provide to the CPM copies of the completed ITM reports for the project's fire protection systems and fire alarm systems within 15 days of receiving the ITM reports. The ITM reports shall be submitted quarterly for the first two years following approval of this condition, then all ITM reports shall be submitted annually thereafter.	15 days	after receiving ITM reports. Beginning in 2023, ITM reports can be submitted annually.	Ongoing	ITMs were completed and reported per December 2020 Recommissioning report dated 1/8/21, TN# 240529.
FIRE PROTECTION	4	Operations/ Ongoing	Summary	Whenever deficiencies or failures are identified in any of the ITM reports for the project's fire protection or fire alarm systems, the project owner shall provide the CPM with a summary of the following information from the ITM reports required by FIRE SAFETY-3: (a)A summary of all deficiencies or failures identified; (b)The corrective action the project owner has taken, or plans to take, to address each identified deficiency or failure; and (c)The completion date or an estimated completion date to implement the corrective action.	The project owner shall provide the CPM with the information from (a)-(c) within 15 days of receiving the ITM reports.	15 days	after receiving ITM reports.	Ongoing	GPC is in compliance
FIRE PROTECTION	5	Operations/ Ongoing	Information/ Summary	In the case of a fire protection system impairment, as defined in the latest applicable edition of NFPA-25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, California Edition, that would prevent the proper functioning of any portion of the fire protection or fire alarms systems during a fire event, the project owner shall inform the CPM of the impairment along with the following information: (a)The date discovered; (b)The location of the impairment; (c)A short description, including a photograph (if applicable), of the impairment and its cause (if known), and a description of the actions to be taken to protect life and safety until the impairment is corrected; (d)The corrective action outlining how the impairment was repaired, including any engineering drawings or inspections, not already provided to the CPM or the DCBO; (e)The date the impairment was repaired; and (f)Before and after photographs (if applicable) showing the completed impairment repair.	The project owner shall provide the CPM with information from (a)-(c) within two business days of the discovery of an impairment, or within a time as approved by the CPM. The project owner shall provide the CPM with information from (d)-(f) within 5 days of correction of the impairment.	2 business days	provide initial information after discovery of impairment. Provide remaining information within 5 days of correction of the impairment.	Ongoing	No impairments were discovered during the reporting period.
Geotechnical/Seismic Hazards	7-5	Operations/ Ongoing	Survey	PG&E will install survey markers to monitor lateral and/or vertical movements (including the shear zone area) when excavations reach plant grade and also in major structural foundations (including the cooling tower). PG&E will survey the markers according to the following schedule: a) Once a week during first month after reaching plant grade; b) Once a month thereafter until start of foundation construction; c) Every three months thereafter until completion of facility construction; and d) Once a year thereafter. Only at their own risk may PG&E proceed with earthwork, construction (other than that required for safety), or any other implementation of an unapproved mitigation plan prior to notification by the CEC. Should the CEC find PG&E's new or revised plan to be unacceptable, PG&E may be required to dismantle any such work before proceeding with the approved mitigation plan; and PG&E may petition the CEC to conduct a hearing to determine an acceptable mitigation plan. PG&E's civil engineer or geotechnical engineer will notify CEC of the proposed survey marker locations at least seven days prior to completion of final grading. If significant adverse foundation conditions are encountered during site preparation for the cooling tower, PG&E will notify CEC and submit new geotechnical information. As soon as possible after evaluating foundation conditions in the shear zone materials and developing specific plans for mitigation of any potential adverse conditions, PG&E will submit such plans and the geotechnical information on which they are based to the CEC and SCBD.	CEC and SCBD will review proposed survey marker locations within seven working days and will notify PG&E of the network's acceptability. CEC will review the adequacy of proposed revised mitigation measures. If revised mitigation measures are unacceptable, PG&E will cease (in the affected area only) earthwork and construction (other than that required for safety) (or any other implementation of the unapproved mitigation plan) pending determination of an acceptable plan by CEC; and if agreement cannot be reached on an acceptable mitigation, Dispute Resolution Procedures may be instituted.		Annually	Ongoing	GPC will perform the survey and will provide results in the 2021 Annual Compliance Report.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
GEN	1	Operations/ Ongoing		Whenever material modifications to the facility are planned, the project owner shall design, construct, and inspect project modifications in accordance with the applicable version of the California Building Standards Code (CBSC), also known as Title 24, California Code of Regulations, which encompasses the California Building Code (CBC), California Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering laws, ordinances, regulations and standards (LORS) in effect at the time initial design plans are submitted to the chief building official (CBO) for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The project owner shall ensure that the provisions of the above applicable codes are enforced during the construction, addition, alteration, or demolition of the modifications. Where, in any specific case, different applicable sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. The project owner shall ensure that all contracts with contractors, subcontractors, and suppliers clearly specify that all work performed, and materials supplied comply with the codes listed above.	Within 30 days following receipt of the certificate of occupancy (if one is required by the CBO) for any material project modification completed after the effective date of this condition, the project owner shall submit to the compliance project manager (CPM) a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the CEC's decision have been met in the area of facility design. The project owner shall also provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO. Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, or demolition to be performed on any portion(s) of the completed facility that requires CBO approval for compliance with the above codes. The CPM will then determine if the CBO needs to approve the work.	30	days following receipt of certificate of occupancy	Ongoing	On January 29, 2020, the CEC approved the installation of a stationary permanent emergency diesel-driven engine for the cooling tower wet-down system to aid in fire prevention, per order #20-0122-4. Documents were submitted by the DCBO to the CEC.
Noise	16-3	Operations/ Ongoing	Report	Within 90 days after the plant reaches its rated power generation capacity and construction is complete, Project Owner shall conduct a noise survey at the nearest sensitive receptor and at 500 feet from the generating station. The survey will cover a 24-hour period during normal power plant operations with results reported in terms of Lx (1=10, 50, and 90), Leq and Ldn levels. Project Owner shall prepare a report of the survey that will be used to determine the plant's conformance with county standards. In the event that county standards are being exceeded, the report shall also contain a mitigation plan and a schedule to correct the noncompliance. No future noise surveys of off-site operational noise are required unless the public registers complaints or the noise form the project is suspected of increasing due to a change in the operation of the facility.	Within 30 days of the noise survey, Project Owner shall submit its report to the Sonoma County Planning Department and CEC. Sonoma County will advise the CEC of the receipt and acceptability of the report..			Ongoing	No complaints were received during the reporting period.
Noise	16-4	Operations/ Ongoing	Survey	Within 180 day of the time the facility has attained its anticipated capacity factor, PGandE shall prepare a noise survey report for the noise-hazardous areas in the facility. The survey shall be conducted in accordance with the provisions of Title 8 CAC, Article 105. The survey results will be used to verify compliance with standards for the protection of employees from noise impacts.	PGandE shall notify Cal/DOSH and the CEC of the availability of the report.			Ongoing	No complaints were received during the reporting period.
Public Health	2-1	Operations/ Ongoing	Sample/ Report	Project owner shall conduct quarterly sampling and analysis of radon-222 concentrations in noncondensable radon-222 gases in accordance with the most recent California Department of Health Services, Radiologic Health Service (CDHS/RHS) requirements for monitoring and reporting on radon-222 at the time of reporting. The radon-222 steam-monitoring program will be conducted for at least the first three years of commercial operation. If monitoring results indicate that the radon-222 release from unit 17 and the overall radon-222 release from the geothermal power plant units at The Geysers are well within applicable standards, the monitoring program may be modified, reduced in scope, or eliminated, provided Project Owner obtains the permission of CDSH/RHS. As new information and techniques become available, with concurrence of the utility and CDHS/RHS, changes may be made to the program.	Project Owner shall provide annual reports to the CDHS/RHS which will comply in format and content with the most recent CDHS./RHS reporting requirements.			Ongoing	See attachment Public Health 2-1 for table of quarterly analysis.
Public Health	2-2	Operations/ Ongoing	Report	If the radon-222 concentration exceeds 3.0 pCi/liter in the cooling tower exhaust, Project Owner must inform the CDHS/RHS with an advisory report.	Project Owner shall provide a written report to CDHS/RHS of sample results within 30 days of confirming levels in excess of 3.0 pCi/Liter radon-222 in the cooling tower exhaust.	30 days	after confirming exceedance of 3.0 (pCi/l) radon-222	Ongoing	See the attached table referenced in Public Health 2-1. There was no exceedance of 3.0 pCi/l during the reporting period.
Public Health	2-3	Operations/ Ongoing	Notice/Repor t	If the radon-222 concentrations exceed 6.0 pCi/liter in the cooling tower exhaust, Project Owner shall notify the CDHS/RHS within 24 hours of confirmation of the sample result.	Project Owner shall notify CDHS/RHS within 24 hours of the confirmation of the sample	24 hours	after confirming exceedance of 6.0 (pCi/l) radon-222	Ongoing	See the attached table referenced in Public Health 2-1. There was no exceedance of 6.0 pCi/l during the reporting period.

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
Public Health	2-4	Operations/ Ongoing	Report	Project Owner shall submit to the CEC an ambient monitoring program for ammonia, mercury, and arsenic to be conducted during Unit 17 operation. Project Owner will initiate an ambient monitoring program or participate in a generic ambient monitoring program for any pollutant if plant emissions are great enough to cause significant ambient concentrations. Significant ambient concentrations would be 33 percent of any standard or 50 percent of any standard within the plant contribution is added to existing background. The CEC shall arrange meetings with Project Owner, CARB, CDHS, APCO, and other interested parties for determining significant ambient and/or emission concentrations of mercury, arsenic, and ammonia (for which ambient standards have not been adopted). The following tasks will be performed prior to making the determination of significant ambient concentrations: a.Project Owner will consider the emissions of all its present and currently planned geothermal power plants and predict maximum ground level impacts in Cobb Valley. b.Project Owner will evaluate existing baseline concentrations of mercury, arsenic and ammonia in ambient air in the vicinity of The Geysers power plant. This evaluation for mercury and arsenic will include: 1.Review of previous ambient monitoring results; 2.Analysis of several of the most recent hi-vol samples collected in The Geysers area; and 3.Conduct of vapor phase ambient monitoring at locations representative of population exposure. Final details will be agreed upon by the Applicant and CEC staff. Monitoring will be completed not later than 120 days prior to commencement of Unit 17 operation. This evaluation for ammonia will include: 1.Review of previous ambient monitoring results; 2.Ambient ammonia concentrations will be extrapolated using the emission ratio of hydrogen sulfide and ammonia, and ambient H2S data. Spot field measurements will be used to confirm this methodology not later than 120 days prior to commencement of Unit 17 operation.	No later than 120 days prior to commercial operation, Project Owner and CEC staff will agree upon an ambient monitoring program. Disputes will be resolved as described in Public Health General Finding 5 of the AFC Decision (p. 68)			Ongoing	GPC continues to fully participate in the Geysers Air Monitoring Program (GAMP).
Public Health	2-5	Operations/ Ongoing	Report	Project Owner shall perform a quarterly steam analysis for ammonia, arsenic, mercury, and boron. The quarterly steam analysis program shall commence within 345 days after commercial operation of Unit 17 and shall run for 1 year. Continuation of the quarterly steam analysis beyond one year will be based on the following factors: 1.The variation to the concentration for each pollutant in the steam; 2.The rate of emission of each pollutant, and 3.The development of status of ambient or emission regulations for each pollutant. Project Owner and CEC agree that if pollutant concentrations do not vary more then 20 percent, and rates of emission are low, monitoring will be terminated for specific pollutants unless new regulations have been adopted requiring monitoring.	Project Owner shall submit to the CEC and APCO quarterly steam reports and analysis within 30 days of the quarterly sampling.			Ongoing	GPC conducts steam sampling at the request of the NSCAPCD. NSCAPCD Permits to Operate PTO-88- 62 and PTO-79-23 Condition 10 and Rule 455 c requires testing as prescribed by the Control Officer.
Safety	12-2	Operations/ Ongoing	Report	On-site worker safety inspections shall be conducted by the California Division of Occupational Safety and Health (DOSH) during construction and operation of the facility or when an employee complaint has been received. Cal/DOSH shall notify the CEC in writing in the event of a violation that could involve DOSH action affecting the construction or operation schedule.	Project owner shall note any CAL/DOSH inspections in its periodic compliance reports.			Ongoing	No Cal/OSHA inspections were performed during the reporting period.
Safety	12-3	Operations/ Ongoing	Letter	Project Owner shall provide automatic sprinkler systems for the cooling tower, lube oil reservoir and purifier, seal oil tank, and the main transformer. A manual spray wetting system shall be installed on the cooling tower to be operated during shutdown periods to reduce the flammability of wooden members. Additional mitigation measures are specified in The Geysers 17 Final Decision.	Project Owner shall submit a letter signed by a registered Fire Protection Engineers familiar with the design and construction of Unit 17, verifying that the above requirement has been met.			Ongoing	Once BOD is approved, this condition will be completed.
Solid Waste Management	11-1	Operations/ Ongoing	Records	Project Owner shall ensure that all hazardous wastes are transported in accordance with applicable laws and ordinances.	Each month Project Owner shall submit completed hazardous waste manifests to DOHS in compliance with Section 66475 of Title 22, CAC.			Ongoing	GPC is in compliance.
Solid Waste Management	11-2	Operations/ Ongoing	N/A	Project Owner shall ensure that hazardous wastes are disposed of at a facility permitted by DOHS to accept such wastes. (Project Owner proposes to contract with the I.T. Corporation at Kelseyville.)	Project Owner shall notify the CEC, DOHS, and Solid Waste Management Board of the selected disposal site. Any notice of change in disposal sites will be submitted as changes occur.			Ongoing	GPC is in compliance. No update to changes in approved disposal sites
Solid Waste Management	11-3	Operations/ Ongoing	Notice	If hazardous wastes are stored on site for more than 90 days, Project Owner shall apply to DOSH for either 1.a hazardous waste facility permit or 2.a waiver from such permit depending upon the nature of the waste and conditions of storage. In addition, Project Owner must obtain an amendment to their certification and monitoring program from the CEC.	Project Owner shall notify the CEC if it files an in-lieu application with DOHS for the operation of a hazardous waste facility. Upon filing, Project Owner shall supply the CEC with the necessary information to amend the certification and monitoring program.			Ongoing	GPC abides by DTSC Guidance for GPC's generator status.
Transmission Line Safety and Nuisance	13-1	Operations/ Ongoing		Project Owner shall ensure that the design, construction, operation, and decommissioning of the transmission line satisfies or exceeds both the requirements of PRC Sections 4292 - 4296 and PRC Title 14, Sections 1250 - 1258 of the CAC, PUC General Order 95 (GO 95) the terms and conditions of CEC certification, and all applicable laws, ordinances, standards, and practices. Project Owner shall receive CEC approval for the following significant changes in transmission line design. a.Number, type, and configuration of towers. b.Voltage (phase to phase). c.Number of circuits. d.Size, number, and type of conductor (including static wires). e.Normal and emergency rating of conductors (MVA and MW). f.Route, route length, and right-of-way width. g.CEC grounding criteria	Within 30 days following completion of transmission line, Project Owner shall submit to the CEC a statement signed by a registered electrical engineer which verifies compliance with the requirements of PUC General Order 95 and with the terms and conditions of CEC certification.			Ongoing	GPC is in compliance, no construction has occurred during the reporting period

Technical Area	No.	Facility Status	Report	Condition of Certification	Compliance Verification	Timefr ame	Submittal Required	Status	2020 Annual Compliance Report
Transmission Line Safety and Nuisance	13-3	Operations/ Ongoing	Records	Project Owner shall inspect and maintain the transmission line in accordance with GO 95, the terms and conditions of the CEC approval, and all applicable laws, ordinances, standards, and practices.	Project Owner shall maintain a record of noncompliance and maintenance inspections. These records shall be made available to authorized staff upon request.			Ongoing	GPC maintains a maintenance and inspection program in compliance with GO 95
Transmission Line Safety and Nuisance	13-4	Operations/ Ongoing	Reports	On-site worker safety inspections shall be conducted by the California Division of Occupational Safety and Health (Cal/DOSH) during construction and operation of the transmission line or when an employee complaint has been received. Cal/DOSH shall notify the CEC in writing in the event of a violation that could involve DOSH actions affecting the transmission line construction or operation schedule.	Project Owner shall note any Cal/DOSH inspections in its periodic compliance reports.			Ongoing	No Cal/OSHA complaints have been received
Transmission Line Safety and Nuisance	13-6	Operations/ Ongoing	Reports	Project Owner shall make every reasonable effort to locate and correct, on a case-by-case basis, all causes of radio and television interference attributed to the transmission line facilities, including, if necessary, the modification of receivers and/or the furnishing and installation of antennas. In addition, Project Owner shall take reasonable care to prevent the conductors from being scratched or abraded.	Project Owner shall identify the number and type of RI/TVI complaints and corrective actions taken in the first annual compliance report to the CEC. Subsequent reports are not required unless requested by the CEC.			Ongoing	No complaints were received concerning induced currents from the GPC plants during the reporting period
Transmission Line Safety and Nuisance	13-8	Operations/ Ongoing	Statement of Compliance	In the event of complaints regarding induced currents From vehicles, portable objects, large metallic roofs, fences, gutters, or other objects, Project Owner shall investigate and take all reasonable measures at its own expense to correct the problem for valid complaints, provided that: (a) the object is located outside the right-of-way, or (b) the object is within the right-of-way and existed prior to right-of-way acquisition. For objects constructed, installed, or otherwise placed within the right-of-way after right-of-way acquisition, Project Owner shall notify the owner of the object that it should be grounded. In this case, grounding is the responsibility of the property owner. Project Owner shall advise the property owner of this responsibility in writing prior to signing the right-of-way agreement.	Project Owner shall provide a statement in the first annual compliance report verifying compliance.			Ongoing	GPC is in compliance
Water Quality/ Hydrology/ Water Resources	6-1	Operations/ Ongoing	Records	In the event of an accidental spill of condensate to a surface stream, Project Owner, under NCRWQCB Orders No. 78-16 and 78-150, will implement the following monitoring program: ConstituentsLocationUnitsType of Sample Electrical Conductivity001, 002, 003mmhosgrab Boron001, 002, 003mg/1grab Sulfate001, 002, 003mg/1grab Nitrate001, 002, 003mg/1grab Ammonia001, 002, 003mg/1grab Nitrite001, 002, 003mg/1grab ph001, 002, 003pH unitsgrab Turbidity002, 003FTUgrab Settleable Matter002, 003Ml/lgrab Fish Bioassay001, 002, 003LC-50grab Sampling location 001 shall be at the source of the spill and shall be representative of the material spilled. It shall be sampled once as soon after the spill as possible. Sampling location 002 shall be in the affected surface water stream at a point upstream from the area influenced by the spill and shall be sampled once as soon after the spill as possible. Sampling location 003 shall be in the affected surface water stream within the zone influenced by the spill and shall be relocated as that influenced zone proceeds downstream. It shall be sampled once each six hours beginning as soon after the spill as possible and continuing for as long as the spill can be traced, but not to exceed four samples unless directed to continue by the Executive Officer of the NCRWQCB. PG&E will report a spill by telephone to the NCRWQCB as soon as possible and submit a detailed written report within two weeks after the spill has occurred. Pg&E shall implement a monitoring program similar to those implied in their "Condensate Spill Mitigation," "Emergency Accidental Spills and Discharges Control Procedures," and their "Joint Operational Guidelines." This information and the monitoring reports will be available to CEC staff upon request.	Reports of spills are to be filed with the NCRWQCB by Project Owner. These files are open to the public. The NCRWQCB shall notify the CEC of any potential enforcement actions. The NCRWQCB is responsible for enforcing Order No. 78-150. (The enforcement may range from administrative to criminal action, depending on the severity of the spill and other factors.)			Ongoing	GPC is in compliance.
Water Quality/ Hydrology/ Water Resources	6-2	Operations/ Ongoing	Records	Project Owner shall participate in the cooperative water quality program initiated by the CEC and designated as The Geysers KGRA-ARM. If this program shall fail to be maintained, Project Owner will conduct the water quality monitoring program identified in Environmental Impact Inquiry G17-161. One station, located 100 feet below the Unit 11 road crossing, will be sampled monthly for flow, temperature, pH, dissolved oxygen, color, turbidity, settleable solids, specific conductance, ammonia, nitrate, sulfate, and boron. This station was added to an existing monitoring program in Big Sulphur Creek in November 1977. Project Owner will submit the monitoring reports to the NCRWQCB as part of the Big Sulphur Creek program.	Files are available to the CEC and the Public. The NCRWQCB will bring any failure to submit monitoring reports to the CEC's attention. The program may be changed from time-to-time or discontinued depending on the results of the monitoring. Such changes will be mutually agreed upon by Project Owner, CEC, and NCRWQCB. The project owner shall provide the Compliance Project Manager with copies of all local and state water quality permits related to the use and disposal of reclaimed municipal wastewater within thirty (30) days of receipt. In the annual compliance reports, the project owner shall provide the CPM with data on the annual quantity of water reinjected at the facility. and a copy of the report submitted to the California Department of Health Services on the additional uses of recycled water per Provision #2 of the December 5, 2003 California Department of Health Services approval letter.·			Ongoing	GPC in compliance with the Waste Discharge Requirements in the prevailing NCRWQCB Order R1-2009-0103

CONDITION OF CERTIFICATION
PUBLIC HEALTH 2-1

Geysers Lake View Plant (Unit 17) 79-AFC-01
2020 Annual Compliance Report to the California Energy Commission
January 2020-December 2020

	1Q20	2Q20	3Q20	4Q20	Lake View 17	
Date	03/10/20	06/30/20	07/28/20	12/2/20		
Unit	17	17	17	17	17	
[Rn-222] Main Steam Sample (pCi/Kg)	**49652**	**47093**	**53919**	**57486**		
Unit gross load (MW)	**66**	**66**	**67**	**45**		
Supply steam flow rate (klb/hr)	**1065**	**1095**	**1098**	**1000**		
Supply Steam Flow Rate (Mg/hr)	483	497	498	454		
Steam Rate (lb/kwhr)	**15.92**	**16.00**	**17.86**	**16.77**		
Steam Rate Derived Supply Steam Flow Rate (Mg/hr)	477	479	543	342		
100% Service Cool. Tower Air flow Rate, S.T.P. (GL/hr)	19.90	19.90	19.90	19.90		
Number of Fans in Service	**10**	**10**	**11**	**11**		
Number of Fans	11	11	11	11		
Cool. Tower fract. (cells oper. /cells design)	0.91	0.91	1.00	1.00		
Cooling Tower air flow rate, S.T.P. (GL/hr)	18.09	18.09	19.90	19.90		
Unit daily Cooling Tower air flow (L/day)	4.34182E+11	4.34182E+11	4.776E+11	4.776E+11		
Unit Rn222 Release Rate (Ci/day)	0.57	0.54	0.70	0.47		
Unit Rn222, Emission Concentration (pCi/L)	**1.31**	**1.25**	**1.47**	**0.99**		
Notes on Color Codes:						
Data from Sample Collection Sheet						
Data from Analytical Laboratory Results						
Data From Annual Criteria Pollutant Inventory (see *updated Generation Summary* tab)						
Data Result						
Data Entry Or Import From Other Source Required						
Maxiumum Value Substiututed in lieu of corrupt data						
Anomolous Source Data Corrupt And Not Used						
Data is Constant or Calculated						
Conversion Const. Mg/klb =						
0.4535924						