DOCKETED	
Docket Number:	79-AFC-03C
Project Title:	Compliance - Application for Certification of PG&E Geysers Unit 18
TN #:	257429
Document Title:	2023 Annual Compliance Report - Socrates (U18)
Description:	N/A
Filer:	Haley DeLong
Organization:	Geysers Power Company, LLC
Submitter Role:	Applicant
Submission Date:	6/26/2024 1:38:07 PM
Docketed Date:	6/26/2024

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD

MIDDLETOWN, CA 95461

GPC-24-093

June 26, 2024

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

Subject: 2023 Annual Compliance Report – Unit 18 (Socrates) Power Plant (79-AFC-03C)

Dear Mr. Winstead:

In fulfillment of the Compliance Plan's annual reporting requirement, Geysers Power Company, LLC hereby submits the 2023 Annual Compliance Report (ACR) for Unit 18 (Socrates), Docket Number 79-AFC-03C, as required by Condition COM-5.

If you have any comments or questions, please contact me at (707) 431-6062.

Sincerely,

DocuSigned by:
Saima Baig
0F6F9758F4134D0...

Saima Baig
EHS Manager
Calpine Corporation

Geysers Socrates Plant (Unit 18)
79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023 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 April 5, 1979, PG&E filed an Application for Certification (AFC) for Geysers Power Plant Unit 18. In order for the AFC to be granted the CEC issued the "Final Commission Decision Document for Geysers Power Plant Unit 18". In November 1999, the CEC license was transferred from PG&E to GPC. The license requires Geysers Power Company LL (GPC or Project Owner) 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 18 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 December 10, 2018 the CEC Final Decision was amended to revise the Air Quality Conditions of Certification and approved the installation of the wet down system permanent diesel engine at Grant, Socrates and Quicksilver (TN#: 226128). The new Air Quality and Worker Safety Conditions of Certification requires on-going reporting of certain monitoring and other activities at Socrates. Second, on November 16, 2020, additional Compliance Conditions of Certification were adopted for Unit 19 (TN#: 235700): GEN-1, COM-1 through 11, 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 conditions with annual reporting requirements that are included as part of this ACR are summarized below:

Technical Area	Conditions with Annual Reporting Requirements
Air Quality	AQ-A5, AQ-A6, AQ-C8, AQ-DE1 AQ-E2, AQ-E3, AQ-F10, AQ-SC2, AQ-SC3
Compliance	COM-5
Cultural Resources	CR-4-4
Fire Protection	Fire Protection-3
Public Health	PH 2-1
Water Quality, Hydrology and Water Resources	WQ 6-3

In accordance with Condition Compliance-5 of the License, Geysers Socrates Plant (Socrates) 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 Socrates Plant (Unit 18)
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2. Summary of current project operating status and explanation of any significant changes to facility operating status during the year

Socrates is currently operational and was operational during the 2023 reporting period with the exception of the following outage periods:

Event	Summary	Start	Actual End
Planned Outage, Transmission supplier	Separated for PG&E 230 KV line outage	1/26/23 5:00	1/26/23 18:58
Planned Outage (BOP)	Planned outage (Spring Cleaning)	2/20/23 4:00	3/11/23 15:14
Forced Outage	Unit was forced out to repair cooling tower fan 18-6	6/19/23 3:59	6/20/23 21:59
Planned Outage, Transmission supplier	Unit Separated for PG&E 230kv line outage	12/11/23 4:00	12/17/23 19:28

3. Required Annual Compliance Report Documents

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

Condition of Certification	Submittal Title
AQ-A5/ AQ-A6 / AQ-C8/ AQ-E2/ AQ-DE1/ AQ-SC2	**Attachment AQ-E2a**: Annual Criteria Pollutant Report for 2023 **Attachment AQ-E2b**: Engine Operating Data Summary for 2023
AQ-E3	**Compliance Statement**: The Geysers greenhouse gas emissions report for 2023was submitted to CARB via the Cal-eGGRT reporting tool.
AQ-F10	**Attachment AQ-F10:** Annual Compliance Certification for 2023
AQ-SC3 / COM-5	**Attachment COM-5**: Compliance Matrix This Annual Compliance Report is being submitted to the CEC in accordance with AQ-SC3 and COM-5. An updated Compliance Matrix is attached in accordance with COM-5.
CR 4-4	**Compliance Statement:** In 2023, the existing fence around archaeological site CA-SON-793 was maintained and is intact.

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Condition of Certification	Submittal Title
PH 2-1	**Attachment PH 2-1:** Table of Quarterly Radon-222 Concentration Analysis in Non-Condensable Gases for 2023
FIRE PROTECTION - 3	Inspection, Testing, and Maintenance (ITM) reports are submitted to the CEC under confidential designation and annual reporting commenced in 2023. The annual 2023 confidential ITM report was submitted on March 20, 2024.
WQ 6-3	**Attachment WQ 6-3**: 2023 Geysers Power Plant Units Recycled Water Use Report. A copy of the report is attached.

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

- Order Approving Settlement, Order No. 20-1116-2– 11/16/2020 – CEC TN 235700
- Order Approving Petition to Amend the Facility license (install permanent emergency diesel engine for cooling tower wet-down system) – 12/10/2018 – CEC TN 226128
- Approval of Petition to Use Reclaimed Wastewater and Approval of Verification Changes – 3/12/2004 – CEC TN 31107
- Commissioner Order Approving Ownership Transfer– 4/14/1999 – CEC TN 11770

5. Submittal deadlines not met

All 2023 compliance submittals have been submitted and there are no outstanding compliance materials for the 2023 operating year.

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

- Alternative Compliance Plan (ACP) for Alternative Storage Limits for Iron Chelate submitted to NSCAPCD
- Title V Renewal Application submitted to the NSCAPCD
- Annual Asbestos Notification: 2024 Nonscheduled Maintenance Projects at Geysers Power Company LLC Facilities Located in Sonoma County submitted to NSCAPCD
- Quarterly Compliance Reports for Sonoma County Title V compliance to NSCAPCD
- Title V Operating Permit 2023 Annual Compliance Certification for the Power Plants submitted to NSCAPCD
- Sonoma County AB2588 Air Toxics "Hot Spots" Emission Inventory Report for the Inventory Year 2023 (electronic data submission) submitted to NSCAPCD
- Criteria Pollutant Year 2023 Emission Inventory for GPC Plants submitted to NSCAPCD
- Notification of CARB PERP Rental Engines for PSPS Backup Power in NSCAPCD
- Semi Annual Deviation Reports submitted to NSCAPCD
- 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 CARB

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7. Projection of Scheduled Compliance Activities for Next Year

- AQ-1: Perform monthly source test cooling tower H_2S
- Compliance-5: Evaluate Site Contingency Plan for unplanned facility closure
- Cultural Resources 4-4: Continued inspection, maintenance and repair of existing fencing around the archaeological site identified as CA-SON-793
- 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 non-condensable gases entering the power plant in the incoming steam line, or vent off-gas line, or H2S abatement off-gas line

8. Additions to the Compliance Record

- On-going logging of monitoring and calibration of H_2S 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.
- 2023 Geysers Power Plant Units Recycled Water Use Report to the State WRCB-Division of Drinking Water.

9. Evaluation of the Site Contingency Plan

No modifications were made to the Site Contingency Plan during the 2023 reporting period.

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

No complaints, notices of violations, official warnings or citations were received in the 2023 reporting period.

CONDITION OF CERTIFICATION
AQ-B8

Attachment AQ-B8: ACP for Iron Chelate Minimum Storage Levels and NSCAPCD Approval Letter

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CA 95461
707.431.6000

GPC-23-063

May 16, 2023 (revised May 31, 2023)

Craig Tallman
Air Quality Engineer
Northern Sonoma County
Air Pollution Control District
150 Matheson St.
Healdsburg CA, 95448

Subject: Alternative Compliance Plan (ACP) for Iron Chelate Minimum Storage Levels

Dear Mr. Tallman:

Geysers Power Company, LLC (GPC) is requesting approval of an Alternative Compliance Plan (ACP) for the abatement solution storage tank minimum of 1,000 gallons at Units 14, 17, 18, and 20 (Title V Permit Condition II.A.II.2 for all units) as allowed under Title V Permit Condition II.A.II.7 for Unit 20 and II.A.II.8 for Units 14, 17, and 18. Per the Title V permits, an ACP is allowed if compliance can still be demonstrated with the permitted H_2S emission limits. This ACP request only involves alternative limits associated with the minimum storage levels of abatement solution onsite and does not affect emissions. The alternative conditions GPC is proposing will allow GPC to have operational flexibility while still complying with the permitted H_2S emission limits which will continued to be demonstrated through the required source tests and continuous compliance monitoring system readings.

GPC's iron chelate manufacturer (Dow) has informed GPC that they are having difficulties sourcing enough raw material for manufacturing iron chelate to meet GPC's demand over the next couple of months based on current usage rates. GPC is working on securing one or two additional iron chelate suppliers to help supplement the additional iron chelate that is needed. However, as of now, an additional supplier will not be available until approximately late June.

The Stretford Power Plants have historically used much lower quantities of iron compared to the Burner Power Plants, and in most instances, no iron is needed to meet the H_2S emission limits. In addition, as the weather warms up, natural abatement in the cooling tower occurs and less iron is needed. GPC hopes that with the addition of one or two iron chelate suppliers and the decreased iron chelate feed rates we are expecting to see over the next couple of months that we will be able to maintain a minimum of 1,000 gallons of iron chelate onsite at each plant. However, since the Stretford units have much lower iron chelate feed rates, and unlike the burner plants that require the addition of excess iron during a burner trip, the Stretford plants do not require additional iron if the plant trips, so they do not need as much iron chelate on hand to comply with the H_2S emission requirements. As such, GPC is requesting this ACP as a contingency plan to allow for operational flexibility.

Aidlin Power Plant's permit states that the NSCAPCD shall be notified when the iron chelate storage tank has less than 500 gallons when the plant is in operation, and the APCO may grant authorization to continue plant operation based on the status of the iron chelate delivery to the tank. The plant cannot operate if the iron chelate is less than 200 gallons. We are requesting a similar permit condition for Units 14, 17, 18, and 20. We'd like to use 200 gallons as the lower limit under which the plants are not allowed to operate. To determine an appropriate notification limit, we used statistical analysis based on the past 6+ years of actual iron flow rates for Units 17, 18, and 20. The notification limits we produced are based on the number of days it would take Aidlin to use 300 gallons of iron chelate, which is the difference between the notification storage threshold and absolute minimum storage threshold while Aidlin is in operation. We determined the standard deviation and normalized the historical feed rate values for the Stretford plants to determine appropriate notification thresholds. The same analysis was done for Unit 14, but actual rates were weighted towards the higher usage months (from October 2021 through current).

We are proposing the following condition in lieu of the storage tank minimum of 1,000 gallons for Units 17, 18, and 20:

The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 300 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons.

We are proposing the following condition in lieu of the storage tank minimum of 1,000 gallons for Unit 14:

The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 400 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons.

We believe these conditions are still very conservative as the historical iron chelate average flow rates are as follows:

- U14 – 0.44 gph or ~11 gallons per day
- U17 – 0.13 gph or ~3 gallons per day
- U18 – 0.02 gph or ~0.4 gallons per day
- U20 – 0.04 gph or ~1 gallon per day

GPC is requesting these alternative abatement solution minimum storage limits will remain in effect until the expiration date of each current Title V permit at which time these limits will be re-evaluated by both GPC and NSCAPCD. The Title V expiration dates are as follows:

- U14 – April 27, 2024
- U17 – March 24, 2024
- U18 – March 24, 2024

- U20 – August 8, 2026

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

Sincerely,

Haley DeLong
Air Program Manager

NORTHERN SONOMA COUNTY
Air Pollution Control District
150 MATHESON STREET HEALDSBURG, CA 95448
P 707.433.5911 NOSOCOAIR.ORG

June 8, 2023

Ms. Haley DeLong
Air Program Manager
Calpine – The Geyesers
10350 Socrates Mine Rd.
Middletown, CA 95461
HaleyDeLong@calpine.com
Delivered via Email

RE: Request for Alternative Compliance Plan

Dear Ms. Delong,

I am writing to inform you that the District has reviewed your letter dated May 31st, 2023, requesting approval for an Alternative Compliance Plan (ACP) for Units 14, 17, 18, and 20 located at The Geysers. After careful consideration, I want to inform you that the District approves of your request for the proposed Alternative Compliance Plan (ACP).

The District concurs with your finding that the proposed changes to the applicable permits will not have any adverse impact on the emissions of air pollutants as the ACP is restricted to the quantity of abatement chemicals stored onsite and does not revise any other permit requirements. Pursuant to your letter, the basis for this ACP is an industry-wide reduction in the production of the abatement chemicals by their manufacturers, which limits the amount available for purchase and onsite storage. However; under the proposed ACP, and based on production data, Calpine is not expected to run out of abatement chemicals and there is no provision under the ACP to operate without them.

Based on the details provided in your letter, the following conditions outlined in the Alternative Compliance Plan (ACP) are approved:

1. *The District approves of your request and accepts your proposed language in lieu of the 1,000-gallon storage minimum for Units 17, 18, and 20.*

   The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 300 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons.

2. *The District approves of your request and accepts your proposed language in lieu of the 1,000-gallon storage minimum for Unit 14.*

   The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 400 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons.

These alternative abatement solution minimum storage limits shall remain in effect until the expiration dates of the respective Title V permits, at which time a re-evaluation will be required in consultation with the District, as outlined in your letter. The Title V permit expiration dates for the affected plants are as follows:

- U14 – April 27, 2024
- U17 – March 24, 2024
- U18 – March 24, 2024
- U20 – August 8, 2026

Please note that this approval is contingent upon continued compliance with the permitted H_2S emission limits, as demonstrated through process monitoring, recordkeeping, and continuous compliance monitoring system readings. Should you require any further clarification or assistance in the implementation of the Alternative Compliance Plan, please do not hesitate to contact the District.

Sincerely,

Robert Bamford, APCO /EO
Northern Sonoma County APCD

CONDITION OF CERTIFICATION

AQ-A5/ AQ-A6 / AQ-C8/ AQ-E2/ AQ-DE1/ AQ-SC2

Attachment AQ-E2a: Annual Criteria Pollutant Report for 2023

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission January 2023-December 2023

CALPINE

GEYSERS POWER COMPANY, LLC

10350 SOCRATES MINE ROAD
MIDDLETOWN, CA 95461
707.431.6000

GPC-24-016

February 13, 2024

Craig Tallman
Air Quality Engineer
Northern Sonoma County Air Pollution Control District
150 Matheson Street
Healdsburg, CA 95448
Submitted via email to Craig.Tallman@sonoma-county.org

Subject: Criteria Pollutants Inventory Report Year 2023, For NSCAPCD Plants

Dear Mr. Tallman:

Enclosed is the year 2023 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 3, 5/6, 7/8, 11, 12, 14, 17, 18, 20, Condition II.A.V.2.

Included in the table of pollutants is the information required annually for the Aidlin Power Plant Permits to Operate #19-16 and #19-17 Condition E.3. Not included in the table, but required by the Aidlin permit, is the average annual supplied steam ammonia concentration, which is 523 ppm $_{(w)}$. There were also no changes in the operating protocols used to determine plant chemical feed charts and targets or calibration and maintenance programs.

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

Sincerely,

Haley DeLong
Air Program Manager

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

cc: John Heiser, CEC Compliance Project Manager (electronic copy)
Keith Winstead, CEC Compliance Project Manager (electronic copy)

[1] Data are copied to the CEC compliance project managers 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 2023 Including Criteria Pollutants

Unit No.	FACID	Gross Generation (MWHrs)	Gross Steam Rate (Klbs / MWHr)	Unit Operating Hour (hrs)	Avg. Circ.Water Flowrate (Gal/Min)	Incinerator Availability (hrs)	[1] TSDS (ppm_w)	Cooling Tower Drift Rate	Cooling Tower PM: PM10 & PM2.5 (tons)	[2] TOG (Methane) Emissions (tons)	[3] SO_2 Emissions (tons)	NO_x Emissions (tons)	CO 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)	Incinerator PM (tons)	Total PM: PM10 & PM2.5 (tons)
17	100006014	519,046	15.7	8098.73	105,000		1421	0.00002	6.0	910.3				102	326	6.4	47313	1.0		7.0
18	100006015	410,174	15.6	8077.33	96,000		512	0.00001	1.2	100.1				81	64	14.5	5452	1.8		3.0
20	100006016	323,440	16.0	8406.22	96,000		765	0.00001	1.6	45.8				65	47	6.9	2898	6.4		7.9
3 (Sonoma)	100006021	499,119	15.4	8542.62	106,000		654	0.00001	1.5	203.4				96	79	5.7	9035			1.5

[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.

[3]Sulfur dioxide emissions from burner equipped units, 90% scrubbing assumed in cooling tower.

[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-A5/ AQ-A6 / AQ-C8/ AQ-E2/ AQ-DE1/ AQ-SC2

Attachment AQ-E2b: Engine Operating Data Summary for 2023

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023

Cooling Tower Wet-down Diesel Engine-Driven Pump Operating Data
Unit 18 – Socrates Power Plant
January 1, 2023 - December 31, 2023

Facility	*Ultra Low Sulfur Diesel Fuel Use (Gallons)[1]*	*Engine Use (Total Hours)*	*Engine Use by Category*	*Engine Use by Category (Hours)*
Socrates (Unit 18) License: 79-AFC-03C Condition: AQ-DE1 / AQ-E2	61.00	4.96	Testing/Maintenance	4.96
			Emergency Use	0.0

[1]Fuel use estimated using manufacturer's fuel consumption rating (12.3 gal/hr) x total hours of engine operation

CONDITION OF CERTIFICATION
AQ-F10

Attachment AQ-F10: Annual Compliance Certification for 2023

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023

ATTACHMENT

Geysers Power Company LLC,

Unit 18 Title V Operating Permit, Annual Compliance Certification Report

For The Period January 1, 2023 through December 31, 2023

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 18 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 18 Title V Operating Permit Annual Compliance Certification Report.

DocuSigned by:
Robert Parker
800FC4F0072C44B...

6/24/2024 | 11:57 AM CDT

Signature of Responsible Official **Date**

Robert Parker – VP Operations, Geysers

Geysers Power Company LLC, Unit 18 Title V Operating Permit
ANNUAL COMPLIANCE CERTIFICATION REPORT
01/01/23 through 12/31/23

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 18 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 Steam Operated 2 and 3 Stage Gas Ejector System	1,750,000,000 BTU/Hr Design Heat Load	***No Changes***
4	Cooling Tower, Cross Flow Mechanical Draft Type with 0.001% rated drift eliminators with 11 fans	165,000 gpm 200 hp each	***No Changes***
5	Gland Seal Leak Off System		***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:**	598 lb/hr H2S	***No Changes***
A	Two Venturi Scrubbers	1,120 gpm each	***No Changes***
B	H_2S Absorber, 5'6" D x 38' H.	560 gpm	***No Changes***
C	Two 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 12 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	Belt Wash Spray Collection Tank 9' D x 8' H	3,500 gallon	***No Changes***
J	Heat Exchangers consisting of		
a	Stretford Heater	3.0 MM BTU/hr	***No Changes***
b	Stretford Cooling Tower, 0.002% drift	5.3 MM BTU/hr	***No Changes***
L	Main Pumps Consisting of:		
a	3 Stretford Circulating Pumps	1560 gpm each	***No Changes***
b	2 Stretford Cooler Circulating Pumps	1100 gpm each	***No Changes***
c	Caustic Additive Pump	15-100 gpm	***No Changes***
M	Stretford Treated Gas Analyzer and Alarm System		
N	One Sulfur Vacuum Filter Belt		
2	**Circulating Water H2S Abatement Solution Injection (For H2S Control) System Consisting of:**		
A	Abatement Solution Storage Tank	5,400 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***
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 H_2S			
1. The Unit 18 power plant and associated abatement systems shall comply with Regulation 1 Rule 455 (b)-Geothermal Emission Standards. Total emissions of H_2S shall not exceed 5.2 kilograms averaged over any one hour. Total H_2S emissions shall be the cumulative emissions to the atmosphere from the power plant and associated abatement equipment. *ref. Rule 455(b),* ***PTO 79-25A Cond. 19.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 exit concentration in the process piping leading from the Stretford System shall not exceed 10 ppmv H_2S averaged over any consecutive 60 minute period unless operating under a District approved Alternative Compliance Plan (ACP). ***ref. PTO 79-25B Cond. 18.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 this reporting period.***
3. Annual emissions from the main cooling tower shall not exceed, on a calendar year basis, 24.4 tons per year of hydrogen sulfide (H2S). *ref. Rule 240 (d).*	**S** **L**	***Yes***	***Source tests are performed monthly as required by Condition III.1 to determine the H_2S emission rate. The monthly emission rates are averaged and multiplied by the annual hours of operation to calculate the annual emissions. Total 2023 H_2S emissions of 14.5 tons were reported in the CY 2023 criteria pollutant inventory report.***
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.***
6. Annual emissions from the main cooling tower shall not exceed, on a calendar year basis, 15.9 tons per year particulate matter less than 10 microns in diameter (PM-10) and 11.0 tons per year particulate matter less than 2.5 microns in diameter (PO-2.5). ***ref. Rule 240(d).***	**S L**	***Yes***	***Particulate emission rate determined as required by III.4. The results of that determination are used to determine the annual emission. Total 2023 PM_{10} & $PM_{2.5}$ was 3.0 Tons. This is less than both the $PM_{2.5}$ and PM_{10} limits.***
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 H_2S abatement chemical feed system and the Stretford abatement system shall be kept in good working order and operated as necessary in order to limit H_2S and particulate emissions on a continuous basis from the power plant as specified in condition I.1, I.2, I.3,I.4, I.5 and I.6., *ref. Rule 240.d,* ***PTO 79-25A 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 79-25A Cond. 18.***	**S L**	***Yes***	***A program is in place to verify tank levels and to order and deliver chemicals prior to reaching the minimum level. A review of chemical tank sounding records indicates compliance with this condition.*** ***Note an ACP requesting approval for an alternative limit for the abatement solution storage tank minimum of 1,000 gallons was submitted on May 16, 2023 (revised May 31, 2023) and subsequently approved by the NSCAPCD on June 8, 2023. The approved language states "The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 300 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The***

			plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons."
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 H_2S emissions from the power plant to the emission limit specified in Condition I.1. ***ref. PTO 79-25A Cond. 19.***	**S L**	***Yes***	***Operating practices are in place to maintain the circulating iron concentration when required. A review of the operator's compliance check-off sheets and logs indicates that the requirement is consistently met when iron chelate is used. Operators perform "Hach" Ferreover colorimetric tests required by this condition as a part of their daily routine plant compliance checks when applicable.***
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 maintain the equipment in good working order. ***ref. PTO 79-25A Cond. 14.***	**S L**	***Intermit tent***	***Maintenance practices are in place to ensure compliance with this condition. Flowmeters and alarms were tested as required during this reporting period. However, the quarterly calibration check of the iron tank level indicator was missed during the first and second quarters for 2023. This was an administrative oversight and GPC added a verification check in the Environmental Compliance and Monitoring System (ECMS) to ensure calibrations are completed prior to the end of the quarter. Note the subsequent quarterly tests demonstrated compliance with the +/-10% accuracy requirement.***
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 H_2S 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 79-25A 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 79-25A 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	**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.***

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.			***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 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. 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 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 79-25A Cond. 17.***	**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.***
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***	***An ACP requesting approval for an alternative limit for the abatement solution storage tank minimum of 1,000 gallons was submitted on May 16, 2023 (revised May 31, 2023) and subsequently approved by the NSCAPCD on June 8, 2023. The approved language states "The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 400 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons."***

			No other ACPs are currently in place as allowed under this 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.2. 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.2. The ACP shall list the specific operating conditions the ACP will supersede.	**S L**	***Yes***	***No ACPs are currently in place as allowed under this condition.***
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.***
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 H_2S 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	**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.***

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 79-25A Cond. 22.***			
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 79-25A 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 CARB 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), H_2S, 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 79-25A Cond 9 &10.***	**S L**	***Yes***	***Tests for listed species are performed at the request of the District utilizing District approved methods and an 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 79-25A 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 H_2S concentrations shall be determined minimally on a weekly basis and any additional times as required by the operating protocol or ACP. *Ref.* ***PTO 79-25A 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 79-25A Cond.19.***	**S L**	***Yes***	***Operators perform tests required by this condition as a part of their daily routine. Iron concentration tests are validated by the plant chemistry staff using the "Hach" Ferreover colorimetric method. A review of the operating logs during this reporting period indicates compliance with this condition when circulating water abatement was in service.***
7. Instruments used for the measurement of H_2S 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)* ***Ref. PTO 79-25B Cond. 19.***	**S L**	***Yes***	***The NSCAPCD has approved the following instruments that are used to measure H_2S: ASI Model; 102, 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 H_2S 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)*	**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 H_2S in the exhaust stream from the Stretford absorber in order to verify compliance with conditions I.1 and I.2. The monitoring system must alarm the operator when H_2S in the treated gas is in excess of 10 ppmv. 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 H_2S concentrations are in excess of 10 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 50 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 H_2S exceeds the hourly average limit of 10 ppmv. A one point calibration shall be performed at least once per week. A three point	**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. Plant records indicate that calibrations are performed as required.***

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" H_2S 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.			
Ambient Air Monitoring			
10. The permit holder shall maintain and operate one H_2S/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 79-25A Cond. 22.***	**S** **L**	***Yes***	***Geysers Power Company, LLC participates in GAMP.***
Gland Seal Leak Off			
11. The permit holder shall test, on a monthly basis, the emissions from the Gland Steam Separator Exhauster. H_2S emissions from the Gland Leak Off Separator shall be included as part of the "total" H_2S emissions calculated from the plant. The permit holder may request that the monitoring frequency be changed based upon monitoring data gathered. Written approval from the District must be received by the permit holder prior to a change in testing frequency.	**S** **L**	***Yes***	**The *H_2S concentration of the gas from the GSLO is measured during the monthly source test using the Gland Steam Monitoring Protocol. Emissions are released into the cooling tower and are hence included in the overall H_2S emission rate from the plant. A NSCAPCD ACP, dated 1/4/2010 is in place defining the approved test method and frequency. However, please note the GSLO was out of service during the reporting period.***
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***	***Records and logs 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. Daily and monthly chemical inventory files are kept and available for inspection.***
3. The permit holder shall maintain a strip chart or other District approved data	**S**	***Yes***	***The District has approved Digital strip chart***

recording device of H_2S 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)*	**L**		***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.7 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 79-25A 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.***
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.7 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 79-25A 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. the dates and hours in which the emission rates were in excess of the emission limitations specified in permit conditions I.3 and I.4. 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 emission limitations specified in permit conditions I.1, and I.2. 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. i. total H_2S, PM-10/PM 2.5 calendar year annual emissions to date (month) R*ef. Rule 240(d)*	**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.*** ***e. Operator logs and EDNA.*** ***f. Plant operating logs and maintenance records.*** ***g. Plant operating logs and maintenance records.*** ***h. Plant maintenance records (Maximo).*** ***i. Plant Chemistry Lab data records.***
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 10 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-23-037, 1st Quarter - 4/24/23*** ***GPC-23-075, 2nd Quarter - 7/31/23*** ***GPC-23-086, 3rd Quarter - 10/10/23*** ***GPC-24-001, 4th Quarter - 1/16/24***
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	**S L**	***Yes***	***Geysers Power Company LLC submitted the required 2023 annual Criteria Pollutants Inventory Report to the NSCAPCD, on 2/13/2024 ref GPC letter GPC-24-016.***

i. annual CO2e emissions j. annual H2S, PM-10/PM-2.5 emissions The annual report shall be submitted to the District within 45 days of the end of each calendar year. *ref. Rule 240(d)*			
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 2023 report was submitted Cal e-GGRT to CARB, Facility ARB ID:101527. Verification by the independent third party is in progress.***
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. GPC23-058, dated 12/17/2023.*** ***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. The emergency standby diesel drive engine permitted under Authority to Construct/Temporary Permit to Operate 17-09 is subject to 40 CFR Part 63, Subpart ZZZZ. No notification requirements under 40 CFR 63 Subpart ZZZZ were applicable since the emergency engine was constructed after June 12, 2006 and the horsepower is less than 500 hp per §63.6590(c)(7). Note an ATC application for the engine was submitted to the NSCAPCD prior to constructing the engine. GPC submitted an engine Compliance and Maintenance Plan to the NSCAPCD on January 18, 2024, which summarizes all the***

			requirements under 40 CFR Part 63, Subpart ZZZZ and a plan for compliance. GPC is diligently working to implement the engine Compliance and Maintenance Plan.
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 2023-2024, GPC-23-032, dated 8/31/23. Federal Program Fees fiscal year 2023/2024: GPC-24-042, dated 6/6/24.***
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 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)*	**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.***
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, GPC-23-091, dated September 11, 2023, 6 months prior to expiration. A renewed Title V permit has not yet been issued.***
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. r*ef. Reg 5.610(f)(3)*	**F S L**	***Yes***	***No NOVs were issued to Unit 18 during this 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	**F S**	***Yes***	

	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. r*ef. Reg 5.610(f)(4)*	**L**		
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. r*ef. 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 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*	**F S L**	***Yes***	***There was a prior deviation discovered after the submittal of the January 1, 2023 through June 30, 2023 Semi-annual Deviation report that is reported herein. No excess emissions occurred.*** ***The Semi-annual Deviation Reports were submitted during the reporting period. Ref. Letter GPC-23-078, dated July 31, 2023 for the first half of 2023, and reference GPC-24-005, dated January 29, 2024, for the second half of 2023.***
	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 of the terms and conditions of this permit caused by conditions beyond permit holders 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*	**F S L**	***Yes***	***No variances are currently requested or in effect.***
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	**S L**	***Yes***	***Operators conduct on-site inspections. This permit is located in the Unit 18 control room and is available electronically to Operators in the control room.***

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)*			
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. r*ef. Reg 5.650*	**F S L**	***Yes***	***This submittal includes the required 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)*	**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
AQ-SC3 / COM-5

Attachment COM-5: Compliance Matrix

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023

Technical Area	No.	Facility Status	Condition of Certification	Compliance Verification	Status	2023 Annual Compliance Report
AQ	A1	Operations/Ongoing	The project and associated abatement systems shall comply with Regulation 1 Rule 455(b) –Geothermal Emission Standards. Total emissions of hydrogen sulfide (H2S) shall not exceed 5.2 kilograms averaged over any one-hour period. Total H2S emissions shall be the cumulative emissions to the atmosphere from the power plant and associated abatement equipment. [Ref. Rule 455(b), PTO 79-25A Cond. 19.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-C5, 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 and CEC in the quarterly compliance reports.
AQ	A2	Operations/Ongoing	The exit concentration in the process piping leading from the Stretford system shall not exceed 10 ppmv H2S, averaged over any consecutive 60-minute period, unless operating under a District approved Alternative Compliance Plan (ACP). [ref. PTO 79-25B Cond. 18.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.
AQ	A3	Operations/Ongoing	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	A4	Operations/Ongoing	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 perform a source test 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	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 confirm that the plant was in compliance with this limit during the reporting period.
AQ	A5	Operations/Ongoing	Annual emissions from the cooling tower shall not exceed, on a calendar year basis, 24.4 tons per year of H2S.	The project owner shall maintain records of total H2S as indicated in AQ-D7 and submit reports as indicated in AQ-E2. Records shall be based on required source testing in Condition AQ-C1, and an annual summation from January through the end of December.	Ongoing	GPC is in compliance. Source tests are performed monthly as required by AQ-A5 to determine the H2S emission rate. The monthly emission rates are averaged and multiplied by the annual hours of operation to calculate the annual emissions. Total 2023 H2S emissions were within the annual emission limits.
AQ	A6	Operations/Ongoing	Annual emissions from the cooling tower shall not exceed, on a calendar year basis, 15.9 tons per year particulate matter less than 10 microns in diameter (PM10) and 11.0 tons per year particulate matter less than 2.5 microns in diameter (PM-2.5).	The project owner shall verify compliance through monitoring as indicated in AQ-C4. The project owner shall maintain records according to AQ-D6 and AQ-D7 and submit reports as indicated in AQ-E2. Records shall be based on required sampling and an annual summation from January to December.	Ongoing	GPC is in compliance. Particulate emission rate determined as required by AC-C4. The results of that determination are used to determine the annual emission. Total 2023 PM10 & PM2.5 were 3.0 Tons. This is less than both the PM2.5 and PM10 limits.
AQ	AE1	Operations/Ongoing	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 [ref. PTO 17- 10 Cond. B1]	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 was made to perform testing during the reporting period.
AQ	AE2	Operations/Ongoing	Particulate emissions shall not exceed an emission rate of 0.15 g/bhp-hr. [ref. PTO 17-09 Cond. B2]	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 3 emission standards and is rated below the permitted limits.
AQ	AE3	Operations/Ongoing	Combined non-methane hydrocarbons and nitrogen oxide emissions shall not exceed an emission rate of 3.0 g/bhp-hr. [ref. PTO 17-09 Cond. B3]	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 3 emission standards and is rated below the permitted limits.
AQ	AE4	Operations/Ongoing	Carbon monoxide emissions shall not exceed an emission rate of 2.6 g/bhp-hr. [ref. PTO 17-09 Cond. B4]	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 3 emission standards and is rated below the permitted limits.

Technical Area	No.	Facility Status	Condition of Certification	Compliance Verification	Status	2023 Annual Compliance Report
AQ	B1	Operations/Ongoing	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, and AQ-A4. [ref. Rule 240.d, PTO 79-25A 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	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	B2	Operations/Ongoing	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 79-25A 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	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 79-25A 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	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	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 79-25A 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. However, the quarterly calibration check of the iron tank level indicator was missed during the first and second quarters for 2023. This was an administrative oversight and GPC added a verification check in the Environmental Compliance and Monitoring System (ECMS) to ensure calibrations are completed prior to the end of the quarter. Note the subsequent quarterly tests demonstrated compliance with the +/-10% accuracy requirement.
AQ	B5	Operations/Ongoing	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-A5. [ref. PTO 79-25A 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	All areas in the immediate vicinity and under the project owner's responsibility shall be properly treated to control fugitive dust. [ref. PTO 79-25A 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	Condition of Certification	Compliance Verification	Status	2023 Annual Compliance Report
AQ	B7	Operations/Ongoing	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 79-25A 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	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 Conditions AQ-A3 and 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 Conditions AQ-A3 and 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 and AQ-A2. 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 and AQ-A2. 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&B. An ACP requesting approval for an alternative limit for the abatement solution storage tank minimum of 1,000 gallons was submitted on May 16, 2023 (revised May 31, 2023) and subsequently approved by the NSCAPCD on June 8, 2023. The approved language states "The District shall be notified when the hydrogen sulfide abatement chemical storage tank has less than 400 gallons of abatement solution chemical when the plant is in operation. The APCO may grant authorization to continue plant operation based on the status of abatement solution delivery to the storage tank. The plant shall not operate if the hydrogen sulfide abatement chemical is less than 200 gallons." The ACP request letter and approval letter are included at Attachment AQ-B8. No other ACPs are currently in place as allowed under this condition.
AQ	B9	Operations/Ongoing	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	S-1, 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). [ref. PTO 17-09 Cond. B2]	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 engine 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	S-1, 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. [ref. PTO 17-09 Cond. C2]	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 engine is equipped with a working nonresettable hour counting meter.

Technical Area	No.	Facility Status	Condition of Certification	Compliance Verification	Status	2023 Annual Compliance Report
AQ	BE3	Operations/Ongoing	S-1, emergency standby wet-down pump diesel drive engine, shall be operated exclusively on California Air Resources Board (CARB) Diesel Fuel. [ref. PTO 17-09 Cond. C3]	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.
AQ	BE4	Operations/Ongoing	S-1, emergency standby wet-down pump diesel drive engine, shall be operated according to manufacturer specifications [ref. PTO 17-09 Cond. 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	The S-1 emergency standby wet-down pump diesel drive engine is operated in accordance with the manufacturer specifications.
AQ	BE5	Operations/Ongoing	Total operating hours used for testing and maintenance of S-1, 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. [ref. PTO 17-09 Cond. A1]	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	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 AQA1. District Method 102 shall be utilized to determine the H2S emission rate. The project owner 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 79-25A Cond. 22]	The project owner shall submit source test results according to Condition AQE1. The project owner shall submit any ACP to the CPM for review. The project owner shall submit the District's approval, disapproval, or plan modification 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 demonstrated compliance with this condition during the reporting period.
AQ	C10	Operations/Ongoing	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 79-25A 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	C11	Operations/Ongoing	Gland Seal Leak Off Air The project owner shall test, on a monthly basis, the emissions from the Gland Steam Separator Exhauster. H2S emissions from the Gland Leak Off Separator shall be included as part of the "total" H2S emissions calculated from the plant. The project owner may request that the monitoring frequency be changed based upon monitoring data gathered. Written approval from the District must be received by the project owner prior to a change in testing frequency.	The project owner shall submit any changes to the testing plan to the CPM with a copy of the approval from the NSCAPCD 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	GPC is in compliance. The H2S concentration of the gas from the GSLO is measured during the monthly source test using the Gland Steam Monitoring Protocol. Records are available on request. However, please note the GSLO was out of service during the reporting period.
AQ	C2	Operations/Ongoing	The project owner shall conduct or cause to be conducted performance tests on the turbine exhaust system to determine the H2S emission rate to verify compliance with Condition AQ-A2. Performance tests shall be conducted in accordance with Northern Sonoma County APCD Method 102, unless otherwise specified by the U.S. EPA. The project owner shall furnish the Northern Sonoma County APCD, the ARB, and the U.S EPA, a written report of such tests. All performance tests shall be conducted at the maximum operating capacity of the plant. Performance tests shall be conducted at least on a yearly basis and at such times as shall be specified by the U.S. EPA. [ref. PSD SFB 81-03 Cond. 1X.E]	The project owner shall submit source test results according to Condition AQE1.	Ongoing	GPC is in compliance. Results are submitted in the quarterly reports to the CPM at the time of submittal to the NSCAPCD.

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AQ	C3	Operations/Ongoing	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 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 79-25a 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	Compliance with the particulate mass emission limitation shall be based on the evaporative cooling tower manufacturers design drift eliminator drift rate, 0.001 percent for the main cooling tower and 0.005% for the Stretford 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 79-25A 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 confirm 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	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 79-25A 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.	Ongoing	A protocol on file with the District describes the method used to determine H2S concentration. A review of the records confirm that the requirements of this condition are being met during the reporting period.
AQ	C6	Operations/Ongoing	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 79-25A 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	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 "Agilent" Model 3000C G.C.
AQ	C8	Operations/Ongoing	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. A copy of the Annual Emissions Report required by AQ-E2 is provided to the CPM at the time of submittal to NSCAPCD, and is also provided as attachment AQ-E2a. Additional records are available upon request.

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AQ	C9	Operations/Ongoing	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 10 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 10 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 50 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 10 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 Air Pollution Control Officer 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 Air Pollution Control Officer must be received by the project owner prior to any change in monitoring specifications. [ref. PTO 79-25B 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 demonstrate no deviations from this condition during the reporting period. Quarterly reports are submitted in accordance with AQ-C9.
AQ	CE1	Operations/Ongoing	Emergency Engine At any time as specified by the Air Pollution Control Officer or CPM, the operator of this source shall conduct a requestor-approved source test to determine NOx and particulate emissions from the diesel powered generator. The test results shall be provided to the District and CPM within 30 days of the test [ref. PTO 17-09 Cond. D1]	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	No request has been made to perform emissions testing of the emergency engine during the reporting period.
AQ	D1	Operations/Ongoing	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	The project owner shall maintain a weekly abatement solution 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.
AQ	D3	Operations/Ongoing	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-A2 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-A2. 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-A3 and reported in the quarterly reports. There were no reportable exceedances during this reporting period. Records are available upon request.
AQ	D4	Operations/Ongoing	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	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 79-25A 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-F4. 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 show that the plant was in compliance during the reporting period. Records are available on request.
AQ	D6	Operations/Ongoing	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-A3 and AQ-A4. 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.

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AQ	D7	Operations/Ongoing	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, and AQ-A2. 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. i. Total H2S, PM-10 and PM 2.5 annual emissions to date. [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-I are available upon request.
AQ	DE1	Operations/Ongoing	Emergency Engine In order to demonstrate compliance with the above permit 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. d. Type and amount of fuel purchased. [ref. PTO 17-09 Cond. E1]	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 quarterly reports required by Condition AQ-E1.	Ongoing	See attachment AQ-E2b for a summary of engine operating information is attached for the reporting period calendar year.
AQ	E1	Operations/Ongoing	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	Copies of the Quarterly Reports were submitted to the CPM at the time of submittal to NSCAPCD.
AQ	E2	Operations/Ongoing	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 carbon dioxide equivalent (CO_2e) emissions j. Annual H2S, PM-10 and PM-2.5 emissions. Additional requirement for reports submitted to the Energy Commission: k. 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 2023 annual Criteria Pollutants Inventory Report to the NSCAPCD, on 2/13/2024. See attachment AQ-E2a for Annual Criteria Pollutants Inventory Report. See attachment AQ-E2b for summary of engine operating hours.
AQ	E3	Operations/Ongoing	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 greenhouse gas emissions report for 2023 was submitted to CARB via the Cal-eGGRT reporting tool.
AQ	Equipment Description	Operations/Ongoing	The equipment and capacities listed are based on information provided by the permit holder to the Northern Sonoma Air Pollution Control District (District or NSCAPCD). 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 with the District. Replacement equipment that is within 5% of the listed capacity shall be considered equivalent for the purposes of the District permit(s). 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.		Ongoing	GPC is in compliance.
AQ	F1	Operations/Ongoing	Payment of Fees The operating permits shall remain valid as long as the annual renewal fees are paid in accordance with the District Rules and Regulations and permit conditions are met.	No verification needed.	Ongoing	GPC is in compliance. Annual permitting fees have been paid.

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AQ	F10	Operations/Ongoing	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 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 Rule 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 attachment for AQ-F10: Title V Annual Compliance Certification Report
AQ	F11	Operations/Ongoing	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	F2	Operations/Ongoing	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	GPC is in compliance.
AQ	F3	Operations/Ongoing	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 5. 610(f)(4)]	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-23- 091 dated September 11, 2023. The NSCAPCD is still working on issuing the renewed Title V permit.
AQ	F4	Operations/Ongoing	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 makes the site and records available for inspection by representatives of the District, ARB, and Energy Commission upon request.	Ongoing	The Semi-annual Deviation Reports were submitted during the reporting period. Ref. Letter GPC-23-078, dated July 31, 2023 for the first half of 2023, and reference GPC-24-005, dated January 29, 2024, for the second half of 2023. No excess emissions occurred.
AQ	F5	Operations/Ongoing	Severability Provisions of the operating permits are severable, and, if any provision of the operating permits is held invalid, the remainder of the operating permits shall not be affected. [ref. Reg 5.610]	No verification needed.	Ongoing	GPC is in compliance.
AQ	F6	Operations/Ongoing	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. [NSCAPCD Rule 240]	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	F7	Operations/Ongoing	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.

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AQ	F8	Operations/Ongoing	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). 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	F9	Operations/Ongoing	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]	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	G1	Operations/Ongoing	The project owner shall comply with the following District regulations: 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 6 Subpart M)-Asbestos e. Regulation 1 Rule 540- Equipment Breakdown f. Regulation 2- Open Burning g. 40 CFR Part 82- Chlorinated Fluorocarbons 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. 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 and CPM 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.	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 submit required reports to the CPM (see AQ-SC2).	Ongoing	GPC complies with applicable District and Federal Regulations. Note the emergency standby diesel drive engine permitted under Authority to Construct/Temporary Permit to Operate 17-09 is subject to 40 CFR Part 63, Subpart ZZZZ. No notification requirements under 40 CFR 63 Subpart ZZZZ were applicable since the emergency engine was constructed after June 12, 2006 and the horsepower is less than 500 hp per §63.6590(c)(7). Note an ATC application for the engine was submitted to the NSCAPCD prior to constructing the engine. GPC submitted an engine Compliance and Maintenance Plan to the NSCAPCD and CEC on January 18, 2024, which summarizes all the requirements under 40 CFR Part 63, Subpart ZZZZ and a plan for compliance. GPC is diligently working to implement the engine Compliance and Maintenance Plan.
AQ	SC1	Operations/Ongoing	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.	Ongoing	No modifications were proposed during the reporting period.
AQ	SC2	Operations/Ongoing	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 attachment AQ-E2a for the annual emissions report. The quarterly compliance reports are submitted to the CPM at the time of submittal to NSCAPCD.
AQ	SC3	Operations/Ongoing	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 with all the conditions of certification as required in the General Provisions of the Compliance Plan. The ACR due date agreed upon with the CPM is December 31st for the 2020 report and June 30th annually thereafter.
AQ	SC4	Operations/Ongoing	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

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COM	1	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	2	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	3	Operations/Ongoing	Compliance Verification Submittals 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	Ongoing	GPC is in compliance.
COM	4	Pre-con	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 on-site Compliance Record.	N/A	Ongoing	GPC is in compliance. Monthly compliance reports were submitted as part of the effort to recommission the fire protection systems. This effort concluded in November 2022.

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COM	5	Operations/Ongoing	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 on-site 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	Ongoing	GPC is in compliance. The ACR due date agreed upon with the CPM for the 2021 reporting year and thereafter is June 30th following the reporting year
COM	6	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	7	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	8	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	9	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	10	Operations/Ongoing	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	Ongoing	GPC is in compliance.
COM	11	Operations/ Closure	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	Ongoing	GPC is in compliance.
Cultural Resources	4-4	Operations/Ongoing	PGandE shall maintain the existing fence around archaeological site CA-SON-793.	PGandE shall provide a statement in the annual compliance report that the fence is being maintained.	Ongoing	In 2023, the existing fence around archaeological site CA-SON-793 was maintained and is intact.

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FIRE PROTECTION	1	Operations/Ongoing	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.	Ongoing	During 2023 there were no modifications to the fire protection or fire alarm systems.
FIRE PROTECTION	2	Operations/Ongoing	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.	Ongoing	The Basis of Design was approved by the CEC on December 5, 2022. There have been no modifications that required an update to the BOD.
FIRE PROTECTION	3	Operations/Ongoing	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.	Ongoing	ITM reports are submitted to the CEC under confidential designation and annual reporting commenced in 2023. The annual 2023 confidential ITM report was submitted on March 20, 2024.
FIRE PROTECTION	4	Operations/Ongoing	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.	Ongoing	The required information was submitted in the quarterly deficient reports which were submitted on March 7, 2024 for all quarters of 2023.
FIRE PROTECTION	5	Operations/Ongoing	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.	Ongoing	GPC prepared a reporting procedure document for the fire protection system impairment program in May 2022. GPC followed this procedure and provided the proper fire protection system impairment notifications to the CEC during the reporting period.
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.	Ongoing	No modifications were made to the facility during the reporting period apart from maintenance work that included in-kind replacement of the Stretford filtrate pump, which is used in the Stretford sulfur solids removal process to pump the Stretford Solution fluid. GPC submitted a Petition to Amend Screening Form on February 16, 2023 for this maintenance work and the CEC responded and stated that the work was an Operations and Maintenance repair and a PTA would not be required for ongoing O&M.

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Noise	16-3	Operations/Ongoing	Within 90 days after the plant reaches its rated power generation capacity and construction is complete, PGandE 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 with results reported in terms of Lx (x = 10, 50, and 90), Leq, and Ldn levels. PGandE 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 further noise surveys of off-site operational noise are required unless the public registers complaints or the noise from the project is suspected of increasing due to a change in the operation of the facility.	Within 30 days of the noise survey, PGandE shall submit its report to the Sonoma County Planning Department. 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	Within 180 days after the start of commercial operation, PGandE shall prepare a noise survey report for the noise-hazardous areas in the facility. The survey shall be conducted by an acoustician in accordance with the provisions of 8 CAC, Article 105. The survey results will be used to determine the magnitude of employee noise exposure. If employee complaints of excessive noise arise during the life of the project, CAL/DOSH, Department of Industrial Relations, shall make a compliance determination.	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	PGandE shall conduct quarterly sampling and analysis of radon-222 concentrations in noncondensable gases entering the power plant in incoming steam or vent off-gas or H2S abatement in accordance with the most recent California Department of Health Services, Radiologic Health Service (CDHS/RHS) requirements for monitoring and reporting on radon-222. The radon-222 steam monitoring program will be conducted for at least the first two years of commercial operation. If monitoring results indicate that the radon-222 release from Unit 18 is well within applicable standards, the monitoring program may be modified, reduced in scope, or eliminated, provided PGandE obtains the permission of CDHS/RHS. With concurrence of the utility and CDHS/RHS, changes may be made to the program as new information and techniques become available.	PGandE will provide annual reports to CDHS/RHS (with an informational copy to the CEC) 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	If the radon-222 concentration exceeds 3.0 pCi/liter in the cooling tower exhaust, PGandE must inform the CDHS/RHS with an advisory report.	PGandE shall provide a written report to CDHS/RHS of sample results within 30 days of confirmation of an exceedance of 3.0 pCi/liter radon-222 in the cooling tower exhaust.	Ongoing	See the attached table referenced in Public Health 2-1. There were no exceedances of the 3.0 pCi/l limit during the reporting period.
Public Health	2-3	Operations/Ongoing	If the radon-222 concentrations exceed 6.0 pCi/liter in the cooling tower exhaust, PGandE shall notify the CDHS/RHS and the CEC by tele-gram or telephone upon confirmation of the sample result. Confirmation includes the re-analysis, of the sample by PGandE or another qualified laboratory. The confirmation procedures used shall be the same as the normal analysis, but may include sending samples to CDHS/RHS or other qualified laboratories for analysis. Confirmation of sample results must be accomplished in the most expedient manner possible and should take less than five calendar days.	PGandE shall notify CDHS/RHS and the CEC within 24 hours of the confirmation of the sample. PGandE shall provide an advisory report to CDHS/RHS and the CEC within 30 days outlining corrective actions taken.	Ongoing	See the attached table referenced in Public Health 2-1. There were no exceedances of 6.0 pCi/l during the reporting period.
Public Health	2-5	Operations/Ongoing	PGandE shall prepare and implement an ambient monitoring program or participate in developing and implementing a generic program for monitoring ambient baseline concentrations of mercury (vapor and particulate state), arsenic, ammonia and vanadium at the populated areas of Whispering Pines and Anderson Springs. PGandE hall consult the CARB, CDHS and the NSCAPCD if they develop their own monitoring program and shall submit the program to those agencies for review. Baseline ambient monitoring for mercury (vapor and particulate), arsenic, ammonia and vanadium should occur for one quarter (3rd quarter) of the year prior to commercial operation. Monitoring may be extended up to one year if ambient concentrations are considered significant per 2-4.	If PGandE does not participate in a generic monitoring program PGandE shall submit their monitoring program for approval to the CARB, CDHS and NSCAPCD 90 days prior to the initiation of the monitoring program. After the CARB, CDHS and NSCAPCD review the program, PGandE shall inform the CEC of the program's status. The NSCAPCD and the ARB shall determine if any quality assurance program associated with the ambient monitoring program is necessary. PGandE shall submit documentation to the CEC containing the NSCAPCD and the ARB decision in this regard within 30 days prior to the initiation of the monitoring program. PGandE shall submit a quarterly report, or if monitoring occurs for one year, PGandE shall submit quarterly reports containing the results of the ambient monitoring to the CARB, CDHS, NSCAPCD and CEC regardless if PGandE participates in a generic monitoring program or undertakes their own monitoring program.	Ongoing	GPC is in compliance and participates in GAMP.
Public Health	2-6	Operations/Ongoing	PGandE shall perform a quarterly steam analysis for ammonia, arsenic, mercury, and boron. The quarterly steam analysis program shall commence within 45 days after commercial operation of Unit 18 and shall run for 1 year. PGandE shall perform annual steam analysis for ammonia, arsenic, mercury, and boron for the second and third year after commercial operation of Unit 18. Thereafter tests to determine the content of these steam components shall occur upon written request of the NSCAPCD.	PGandE shall submit quarterly and annual steam reports and analysis to the CEC, NSCAPCD and the CDHS. All reports shall be submitted within 30 days after sampling.	As Requested	No request for testing has been made during the reporting period.

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Public Health	2-7	Operations/Ongoing	If results of the quarterly steam analyses indicate significant concentrations of ammonia, arsenic, mercury, and boron, and/or if results of the baseline ambient monitoring indicate significant concentrations of ammonia, arsenic, mercury, and vanadium, then PGandE shall monitor or participate in operational ambient monitoring of pollutants in question in populated areas of Whispering Pines and Anderson Springs during the second year following commercial operation.	If an operational ambient monitoring program is required, PGandE shall provide the CEC, CDHS, NSCAPCD, and CARB, awritten report describing the operational ambient monitoring program. This report shall be received by the above parties within 60 days from the last quarterly steam analysis results. The NSCAPCD and the ARB shall determine if any quality assurance program associated with the operational ambient monitoring program is necessary. PGandE shall submit documentation to the CEC containing the NSCAPCD and the ARB decision in this regard within 60 days prior to the initiation of the monitoring program.	Ongoing	GPC is in compliance and participates in GAMP.
Safety	12-2	Operations/Ongoing	PGandE shall implement an accident prevention program in accordance with the provisions of Section 3203 et seq. of Title 8. CAC. (These sections include chemical handling and storage and provisions for hazardous materials and airborne contaminant exposure based on Section 5155, Title 8, CEC.) PGandE shall request Cal/OSHA consultation service to review this accident prevention program.	PGandE shall obtain a letter from the Cal/OSHA consultation service verifying compliance with the requirements of Section 3203, Title 8, CAC. Notification of this verification shall be filed with the CEC not later than 150 days prior to commencement of operation of Unit 18.	Ongoing	No Cal/OSHA inspections were performed during the reporting period on GPC policies/procedures.
Safety	12-3	Operations/Ongoing	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 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.	PGandE shall note any Cal/DOSH inspections in its periodic compliance reports.	Ongoing	No Cal/OSHA inspections were performed during the reporting period.
Safety	12-4	Operations/Ongoing	To prevent exposure of workers to H2S gas above the levels set in Cal/OSHA regulations, PGandE shall: a.Post warnings in areas where levels of H2S gas could possibly exceed the limits set in the Cal/OSHA regulations; b.Require employees to secure entry permits and the approval of the operating foreman before entering a restricted area; c.Set alarms to ring when H2S gas levels exceed 10 ppm; d.Discontinue work unless approved breathing apparatus is worn; and e.Instruct employees about the hazards of H2S.	PGandE shall note the compliance with the above H2S gas precautionary measures in its periodic compliance reports.	Ongoing	GPC is in compliance.
Safety	12-8	Operations/Ongoing	PGandE shall provide all persons handling H2S abatement materials with eye protection, rubber gloves, and rubber aprons and shall install emergency eyewash and shower stations adjacent to chemical work stations. PGandE shall also post labels and warnings on pipe systems and tanks to store chemicals.	PGandE shall report compliance of the above measures in its periodic compliance reports.	Ongoing	GPC is in compliance.
Solid Waste Management	11-1	Operations/Ongoing	The Stretford process wastes include elemental sulfur and the Stretford purge stream. PGandE shall ensure that elemental sulfur is stored and removed periodically to be disposed of at a site approved for such wastes. Any sludge which accumulates in the cooling tower will be vacuumed off and hauled by a registered hazardous waste hauler to an approved disposal site.	PGandE shall each month 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	PGandE shall ensure that hazardous wastes are taken to a facility permitted by the Regional Water Quality Control Board to accept such wastes. (PGandE has indicated its intention to dispose of wastes generated by Geysers Unit 18 at either the Middletown or Kelseyville approved sites.)	PGandE shall notify the CEC, DOHS, and State Solid Waste Management Board of the selected disposal site. Any notice of change in disposal sites will be submitted to these agencies as changes occur.	Ongoing	GPC is in compliance. No update to changes in approved disposal sites.
Solid Waste Management	11-3	Operations/Ongoing	If hazardous wastes, including Stretford sulfur effluent, are stored on site for more than 90 days, PGandE shall obtain either a Hazardous Waste Facility Permit from DOHS or a waiver of such permit.	PGandE shall notify the CEC if it files an application with DOHS for the operation of a Hazardous Waste Facility.	Ongoing	GPC abides by DTSC Guidance for GPC's generator status.
Transmission Line Safety and Nuisance	13-4	Operations/Ongoing	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.	PGandE shall note any Cal/DOSH inspections in its periodic compliance reports.	Ongoing	No injuries were reported during the reporting period.
Water Quality/ Hydrology/ Water Resources	6-1	Operations/Ongoing	PGandE shall comply with the requirements of NCRWQCB Order No. 78-150, to develop and file a contingency plan for cleanup, abatement, and monitoring of accidental spills.	Prior to commercial operation, PGandE shall file the contingency plan with the NCRWQCB and the Sonoma County Chief Building Officer (CBO). The plan will remain in file for the lifetime of the project and will be available for CEC review. NCRWQCB will verify acceptability of the plan.	Ongoing	The Emergency Response Plan (ERP) is updated on an annual basis. In addition, the Spill, Prevention, Control, and Countermeasure (SPCC) is updated on an annual basis. The ERP and SPCC are available electronically.

Technical Area	No.	Facility Status	Condition of Certification	Compliance Verification	Status	2023 Annual Compliance Report
Water Quality/ Hydrology/ Water Resources	6-3	Operations/Ongoing	In the event of an accidental spill, PGandE shall implement procedures outlined in the spill contingency plan. PGandE will report a spill to the NCRWQCB by telephone within 24 hours and by written report within 2 weeks of the spill occurrence.	The NCRWQCB shall notify the CEC of any spill and/or of any required enforcement action. 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	There were no spills at the plant during 2023. 398,534,313 gallons of recycled water were used for steamfield injection at this facility during the reporting period. See attachment WQ:6-3 for Recycled Water Use Report sent to SWQCB during the reporting period.
Water Quality/ Hydrology/ Water Resources	6-4	Operations/Ongoing	If PGandE disposes of domestic waste via a septic tank--leach field system--it will comply with all applicable standards and laws. If PGandE injects the domestic waste effluent from Unit 18 into the steam supplier's reinjection line, as presently proposed, these same standards will not apply. PGandE will provide the Sonoma County CBO with "as-built" drawings, signed by a registered civil engineer showing the domestic waste disposal system. Any changes to the domestic waste disposal system will be submitted to NCRWQCB for approval.	NCRWQCB will verify compliance with applicable laws or standards. NCRWQCB will notify the CEC and the Sonoma County CBO of any changes to the domestic waste disposal system.	Ongoing	GPC is in compliance. There were no changes to the domestic waste disposal system during the reporting year.

CONDITION OF CERTIFICATION
PUBLIC HEALTH 2-1

Attachment PH 2-1: Table of Quarterly Radon-222 Concentration Analysis in Non-Condensable Gases for 2023

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023

	4Q23	3Q23	2Q23	1Q23	Socrates 18
Date	12/04/23	07/19/23	6/22/23	3/22/23	
Unit	**18**	**18**	**18**	**18**	18
[Rn-222] Main Steam Sample (pCi/Kg)	**32762**	**24199**	**25625**	**27155**	
Unit gross load (MW)	**57.3**	**50.09**	**47.2**	**48**	
Supply steam flow rate (klb/hr)	**880**	**806**	**751**	**731**	
Supply Steam Flow Rate (Mg/hr)	399	366	341	332	
Steam Rate (lb/kwhr)	**15.36**	**16.09**	**15.90**	**15.20**	
Steam Rate Derived Supply Steam Flow Rate (Mg/hr)	399	366	340	331	
100% Service Cool. Tower Air flow Rate, S.T.P. (GL/hr)	20.70	20.70	20.70	20.70	
Number of Fans in Service	**11**	**11**	**11**	**9**	
Number of Fans	11	11	11	11	
Cool. Tower fract. (cells oper. /cells design)	1.00	1.00	1.00	0.82	
Cooling Tower air flow rate, S.T.P. (GL/hr)	20.70	20.70	20.70	16.94	
Unit daily Cooling Tower air flow (L/day)	4.968E+11	4.968E+11	4.968E+11	4.06473E+11	
Unit Rn222 Release Rate (Ci/day)	0.31	0.21	0.21	0.22	
Unit Rn222, Emission Concentration (pCi/L)	**0.63**	**0.43**	**0.42**	**0.53**	
Notes on Color Codes:					
Data from Sample Collection Sheet					
Data from Analytical Laboratory Results					
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					

CONDITION OF CERTIFICATION
WQ 6-3

Attachment WQ 6-3: 2023 Geysers Power Plant Units Recycled Water Use Report

Geysers Socrates Plant (Unit 18) 79-AFC-03C
2023 Annual Compliance Report to the California Energy Commission
January 2023-December 2023

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

GWQ-24-015

January 17, 2024

Email to:
ddwsantarosa@waterboards.ca.gov
District Engineer
State WRCB – Division of Drinking Water
50 D Street, Suite 200
Santa Rosa, CA 95404

Subject: 2023 Recycled Water Use Report System No. 4991030

District Engineer:

The report requirement as noted in correspondence from the Department of Health Services (now known as Division of Drinking Water) on December 5, 2003 requires that:

Section 3.2 of the Engineering Report describes additional potential uses of the recycled water. Annually, Calpine must submit a letter report describing those uses and use areas which are incorporated under this section.

The referenced Engineering Report (Report) is associated with the use of Santa Rosa Geysers Recharge Project recycled water specifically at the Geysers power plant units. Section 3.1 of the Report states that recycled water will be used as make-up water in cooling towers. This report includes use in Cooling Towers at power plants (Report Section 3.1) and other potential uses including for flushing toilets, priming drain taps, industrial process water, firefighting, industrial boiler feedwater, construction uses, and landscape irrigation (Report Section 3.2).

Attachment 1 provides data associated with cooling tower usage. During 2023 the following injection wells received recycled SRGRP water:

- Unit 1 Aidlin injection wells include Aidlin 11, Aidlin 12, and Aidlin 13.
- Unit 3 Sonoma injection wells include CA1862-4, CA1862-13, CA1862-16 and CA1862-27. CA1862-1 and CA1862-6 are shut in but could be placed back into service.
- Unit 17 Lakeview injection wells include DX46, DX88, and NEGU13. DX45, DX47, DX52, DX72, GDH2 are shut in but could be put back in service.
- Unit 20 Grant injection wells include BEF8728, GDC33, GDCF36A28, BGL4, and GDCF6529

Minor amounts of recycled water were used for incidental purposes as identified in Section 3.2 of the Engineering Report. These uses may consist of dust control, construction, fire-fighting and industrial process water.

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

Sincerely,

Peggie King
Calpine-Geysers EHS

TABLE 1 SRGRP WATER TO COOLING TOWERS (CT)						
Date	U3 CT SRGRP Gallons	U17 CT SRGRP Gallons*	U20 CT SRGRP Gallons	Aidlin Tower 1	Aidlin Tower 2	2023 SRGRP to CT total Gallons
January	23,189,259	4,295,555	9,284,989	4,905,742	4,905,742	46,581,286
February	24,488,862	1,918,923	14,772,541	4,585,633	4,585,633	50,351,592
March	23,387,289	810,974	22,808,131	2,655,198	2,655,198	52,316,790
April	24,396,444	1,970,859	19,086,694	2,425,574	2,425,574	50,305,145
May	16,965,466	2,163,566	30,000,488	1,466,332	1,466,332	52,062,184
June	25,219,575	0	19,783,909	3,623,271	3,623,271	52,250,025
July	26,346,450	**0**	16,350,375	3,032,379	3,032,379	48,761,583
August	29,236,545	0	14,476,256	3,185,434	3,185,434	50,083,669
September	29,987,218	0	19,737,847	1,993,319	1,993,319	53,711,703
October	27,015,365	0	22,500,681	1,160,595	1,160,595	51,837,235
November	25,052,209	0	22,035,360	1,586,725	1,586,725	50,261,018
December	20,064,652	0	15,413,365	2,419,324	2,419,324	40,316,664
2023 Totals	295,349,334	11,159,876	226,250,634	33,039,525	33,039,525	598,838,894

*Metering problems affected measurement of the flow rate in columns with 0