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NCPA PLANT 1 TITLE V OPERATING PERMIT

ANNUAL COMPLIANCE CERTIFICATION REPORT

For the reporting period of July 18, 2018 thru July 17, 2019

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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			
PLANT 1			
		UNIT 1	
S-#	**Description**	**Capacity**	**Notes**
1	Steam Turbine	986,267 lb Steam/hr	**No Changes**
2	Generator	55 MW gross nameplate capacity	**No Changes**
3	Surface Condenser with Steam Operated 3 Stage Hybrid Gas Ejector/Vacuum Pump System	1,170,000,000 BTU/Hr	**No Changes**
4	Cooling Tower, Cross Flow Mechanical Draft Type with 0.002% rated drift eliminators and with 6x150 hp fans	63,000 gpm maximum	**No Changes**

Power Plant			
PLANT 1			
		UNIT 2	
S-#	**Description**	**Capacity**	
1	Steam Turbine	985,000 lb Steam/hr	**No Changes**
2	Generator	55 MW gross nameplate capacity	**No Changes**
3	Surface Condenser with Steam/Vacuum Pump Operated 3 Stage Hybrid Gas Ejector System	1,170,000,000 BTU/Hr	**No Changes**
4	Cooling Tower, Cross Flow Mechanical Draft Type with 0.002% rated drift eliminators and with 6x150 hp fans	63,000 gpm maximum	**No Changes**

Geothermal Steam Transmission Lines

POWER PLANT 1 STEAM TRANSMISSION LINE

S-#	Description	Make	Capacity	Notes
T-1	Transmission Line connected to 40 or more wells with individual rock catchers/separators, shut-in valves, root valves, and throttling valves	Custom	2.10 million lb steam/hr	**No Changes**
T-2	Transmission Line Drain Valves, Various Diameters at Various Pipeline Low Spots	Custom		**No Changes**
T-3	Main Separators, Particulate and Condensate	Custom		**No Changes**
T-4	Stacking Mufflers, Rock	Custom		**No Changes**
T-5	Waste Water Sump/Pond/ Injection Wells	Custom		**No Changes**
T-6	Central Computer Control with Power Back-Up	Custom		**Software and security updates on regular basis.**
T-7	Condensate Collection System and Storage Tanks	Custom		**No Changes**
T-8	Pipeline Rupture Discs	Custom		**No Changes**
T-9	Intertie to Power Plant 2 Steam Transmission Line	Custom		**No Changes**

Plant 1 - Individual Steam Wells				
S-#	**Well**	**Make**	**Capacity 8/27/2019**	**Notes**
W-1	A-1	Custom		Injection
W-2	A-3	Custom		Test
W-3	A-4	Custom	33,000 lb/hr @ 35 psig	Production
W-4	A-5	Custom	28,700 lb/hr @ 37 psig	Production
W-5	A-6	Custom	30,600 lb/hr @ 37 psig	Production
W-6	C-1	Custom	22,700 lb/hr @ 38 psig	Production
W-7	C-2	Custom	22,900 lb/hr @ 38 psig	Production
W-8	C-4	Custom	13,700 lb/hr @ 37 psig	Production
W-9	C-5	Custom	9,500 lb/hr @ 37 psig	Dual Use - Production & Injection
W-10	C-6	Custom	12,600 lb/hr @ 36 psig	Production
W-11	C-7	Custom	16,500 lb/hr @ 37 psig	Production
W-12	C-8	Custom	25,500 lb/hr @ 39 psig	Production
W-13	C-9	Custom	2,400 lb/hr @ 39 psig	Production
W-14	C-10	Custom	30,000 lb/hr @ 39 psig	Production
W-15	C-11	Custom		Shut – in
W-16	D-1	Custom	31,200 lb/hr @ 32 psig	Production
W-17	D-2	Custom	28,000 lb/hr @ 33 psig	Production
W-18	D-5	Custom		Abandoned - January 25, 2017
W-19	D-6	Custom	15,100 lb/hr @ 32 psig	Production
W-20	D-7	Custom	4,200 lb/hr @ 32 psig	Production
W-21	D-8	Custom	9,600 lb/hr @ 47 psig	Production (Plant 1 Aux Steam)
W-22	F-1	Custom	20,400 lb/hr @ 40 psig	Dual Use - Production & Injection
W-23	F-2	Custom	21,100 lb/hr @ 41 psig	Production
W-24	F-3	Custom	26,400 lb/hr @ 41 psig	Production
W-25	F-4	Custom		Shut-in
W-26	F-5	Custom	33,300 lb/hr @ 42 psig	Production

Plant 1 - Individual Steam Wells				
S-#	**Well**	**Make**	**Capacity 8/27/2019**	**Notes**
W-27	F-6	Custom	28,100 lb/hr @ 42 psig	Production
W-28	F-7	Custom	12,100 lb/hr @ 40 psig	Production
W-29	H-1	Custom	21,600 lb/hr @ 41 psig	Production
W-30	H-2	Custom	31,700 lb/hr @ 42 psig	Production
W-31	H-3	Custom	25,500 lb/hr @ 45 psig	Production
W-32	H-4	Custom		Injection
W-33	H-5	Custom	43,700 lb/hr @ 48 psig	Production
W-34	N-1	Custom	20,600 lb/hr @ 36 psig	Production
W-35	N-2	Custom		Test
W-36	N-3	Custom	36,000 lb/hr @ 37 psig	Production
W-37	N-4	Custom	28,400 lb/hr @ 37 psig	Production
W-38	N-5	Custom	23,000 lb/hr @ 36 psig	Production
W-39	N-6	Custom	23,800 lb/hr @ 36 psig	Production
W-40	N-7, N-8	Custom		Shut-in

B. ABATEMENT DEVICE LIST

Hydrogen Sulfide Control System consisting of:			
POWER PLANT 1 STRETFORD SYSTEM			
A-#	**Description**	**Capacity**	**Notes**
1	**Stretford Air Pollution Control System consisting of:**		**No Changes**
A	Venturi Scrubber, 12" D	8,410 lb/hr gas 276,000 lb/hr liquid	**No Changes**
B	H_2S Absorber, 10' and 4' D x 59' H.	674,000 lb/hr liquid flow 4,900 gallon capacity 7,600 lb/hr gas flow 318,000 lb/hr liquid spray	**No Changes**
C	Two Oxidizer Tanks 15'D x 19'H, with oxidizer air blowers and spare, 150 HP each	2040 lb/hr air each 25,000 gallon capacity each	**No Changes**
D	Sulfur Slurry Tank 12"D x 14' H	9,900 gallon capacity	**No Changes**
E	Sulfur Filter, Vacuum Rotary Type, 5 ft^2, 1.5 HP	370 lb/hr wet cake ejected	**No Changes**
F	Pump Tank 11' D x 13' H	18,500 gallon capacity	**No Changes**
G	Pump Tank Evaporative Cooler with 3.0/0.75 HP fan and 0.002% Drift Eliminator	156 gpm maximum flow liquid	**No Changes**
H	Make-Up Tank 4' D x 5.5' Deep	450 gallon capacity	**No Changes**
I	Main Pumps consisting of		
a	Scrubbing Solution Circulating Pump and Spare, 100 HP each	1,320 gpm each	**No Changes**
b	Vacuum Pumps and Spare, 10 HP each	130 cfm each	**No Changes**
c	Make-Up Tank Transfer Pump, 5 HP	10 gpm	**No Changes**
d	Sulfur Slurry tank pump and Spare, 1.5 HP each	20 gpm	**No Changes**
2	**Circulating Water H_2S Abatement Solution Injection (For H_2S Control) System Consisting of:**		
A	Iron Chelate Injection/Storage System	7,000 gallon capacity 3 metering pumps, 16.7 gph each	**No Changes**
3	**Mercury Removal System Consisting of:**		

A	Vapor Liquid Separator Assembly	4’ D x 6” Demister	**No Changes**
B	Mercury Adsorption Vessel	Sulfur pastille and/or sulfur impregnated carbon filter media, 6’ minimum media depth	**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 PLANTS AND ABATEMENT SYSTEMS**		**Compliance?**	**Notes/Means/Methods**
I.	**Emission Limits**			
	Emission Limits for H_2S			
1.	The power plants and associated abatement systems shall comply with Regulation 1 Rule 455 (b)-Geothermal Emission Standards. In accordance with the Protocol Method specified in Rule 455(b) Note 8, total emissions of H_2S from Unit's 1and 2 shall not exceed 5.5 pounds per hour, respectively, averaged over any one hour period with Unit 3 curtailed or as specified in Appendix A of Units 1, 2, 3, and 4 Protocol Agreement. The maximum cumulative H_2S emissions from Unit's 1, 2, 3, and 4 shall not exceed 21.0 pounds per hour. Total H_2S emissions shall be the cumulative emissions to the atmosphere from the power plants and associated abatement equipment. *ref. Rule 455(b), PTO 79-26 Cond. 20.*	**F S L**	**Yes**	**Means: Quarterly compliance reports, including incident logs show that the Units are in compliance with this condition. Excursions and exceedances are documented in the quarterly compliance reports. Method: NSCAPCD Modified Method 102**
2.	The maximum cumulative H_2S emissions from Units 1, 2, 3 and 4 shall not exceed 21.0 pounds per hour. *ref. PSD SFB 82-05 Cond. IX.C.*	**F S L**	**Yes**	**As above** **Method: NSCAPCD Modified Method 102**
3.	The exit concentration in the process piping leading from the Stretford System shall not exceed 40 ppmv H_2S (dry) unless operating under a District approved Alternative Compliance Plan (ACP) such as the protocol agreement. *ref. PTO 79-26 Cond. 19.*	**F S L**	**Yes**	**As above** **Method: N/A**
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)*	**F S L**	**Yes**	**As above** **Method: N/A**
	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**	**Means: Calculation of the PM discharge rate is based upon monthly total solids analysis, cooling water flow rates and cooling tower drift eliminator design efficiencies. Calculation indicates compliance. Method: Calculation per Condition III.4.**
II.	**Operational Limits and Requirements**			
1.	The permit holder shall not operate the plants 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, and I.5. *ref. Rule 240.d, PTO 79-26 Cond. 19*	**F S L**	**Yes**	**Means: N/A Method: 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. Flowmeters shall be calibrated quarterly. Alarm systems shall be tested quarterly. *ref. PTO 79-26 Cond. 19.*	**F S L**	**Yes**	**Means: A review of operator level readings indicates compliance with this condition. A program is in place to verify tank levels, and to order and deliver chemicals prior to reaching the minimum level. Method: Flow meters and alarms are tested per permit conditions II.4.**
3.	Except for justifiable reasons during performance testing or under operation of an ACP, for which the permit holder has received prior District written approval, the circulating water shall be kept to the following specification: Circulating water iron chelate concentration shall be maintained at or above the ppmw recommended in the power plant operating guidelines as necessary to abate H_2S emissions from the power plant to the emission limit specified in Condition I.1. *ref. PTO 79-26 Cond. 20.*	**F S L**	**Yes**	**Means: A review of operator level readings indicates compliance with this condition. A program is in place to verify tank levels, and to order and deliver chemicals prior to reaching the minimum level. Method: Operating practices are in place to maintain circulating iron concentrations.**
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 79-26*	**F S L**	**Yes**	**Means: Maintenance practices are in place to ensure compliance with this condition. Alarms are tested as required and documentation of the alarm function is kept in the operator logs. Method: N/A**

	Cond. 16.			
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 79-26 Cond. 17.*	**F** **S** **L**	**Yes**	**Means: Operating practices preclude the release of untreated vent gas during start-up conditions.**
6.	All areas in the immediate vicinity and under the permit holder's responsibility shall be properly treated to control fugitive dust. *ref. PTO 79-26 Cond. 21.*	**F** **S** **L**	**Yes**	**Means: Fugitive dust is controlled with general clean-up and housekeeping and mitigation procedures used during any construction activities.**
7.	Valves, flanges, seals on pumps and compressors, piping and duct systems shall be inspected, maintained and repaired to prevent the emission of steam and 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. Valves, flanges, drip legs, threaded fittings and seals on pipelines shall be maintained to prevent or reduce the emission of steam, non-condensable gases and condensate to the atmosphere as noted below: Liquid leak rate in pressurized steam and condensate lines shall not exceed 20 ml in 3 minute. Liquid leak rates in excess of 20 ml in 3 minutes shall be repaired within 15 calendar days, excepting those leaks from essential equipment. If the leak is from essential equipment, the leak must be minimized within 15 days using best modern practices and eliminated at the next prolonged outage of the process unit unless an extension is approved by the APCO. Non-condensable gas leaks shall not (i) exceed (as measured within 1 cm of such leak) 1000 ppm (vol) H_2S nor 10,000 ppm (vol) 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.	**F** **S** **L**	**Yes**	**Means: Daily inspection by operators ensures compliance. Repair orders are submitted when leaks occur and are repaired or minimized within 15 calendar days.**

	The permit holder shall check the power plant for fugitive leaks at least once per quarter. *ref. PTO 79-26 Cond. 21.*			
	Alternative Compliance Plan			
8.	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, I.3, 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.1, I.3, I.4, and I.5. The ACP shall list the specific operating conditions the ACP will supersede.	**F** **S** **L**	**Yes**	**Means: ACP dated 7/30/91 is followed for excursions above permitted limits of Condition I.3.**
	Facilities Operation	**F** **S** **L**	**Yes**	**Means: Daily O&M practices ensure all equipment is maintained and operated as efficiently as is possible.**
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 and be operated as efficiently as possible so as to minimize air pollutant emissions. *ref. PTO 79-26 Cond. 2.*			
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)*	**F** **S** **L**	**Yes**	**Means: Routine plant inspections by operators include the cooling tower to identify areas that need to be repaired. Plant maintenance determines needs and makes repairs during plant overhauls.**
11.	The permit holder shall, in any 12 month period, limit unscheduled outages at Units 1 and 2 to no more than a total of 110 hours for each unit. The following shall not be used in computing the total outages. a. Scheduled outages (defined as outages with 24 hour advance notice between the steam supplier and permit holder). b. steam supplier induced outages (such as pressure surge, strainer plugging, etc.). c. outages hours exceeding 4 hours where the steam supplier is violating Rule 455. d. Hydroelectric curtailment outages (if applicable or where it is shown that the levels of curtailment prevented distribution of cutbacks among the available geothermal units, and thereby, causing a curtailment related stacking event at Unit 1 and/or Unit 2).	**F** **S** **L**	**Yes**	**Means: Unscheduled (forced) outages where steam stacking is possible are avoided. Common ownership of power plants and steam field allows for shifting of steam between units and power plants and the throttling of wellhead valves, eliminating the need to stack. In the unlikely event stacking does occur, hours of stacking are reported quarterly. No steam stacking occurred during this period.**

e. outages which do not cause steam stacking. A violation of the above performance standards is considered a violation of this condition. The permit holder shall have on file with the District an approved operating protocol describing the methods that will be used to meet the 110 hour per year performance standard. The protocol must include a description of the operational procedures between the steam supplier and permit holder, permit holder's operational procedures, and equipment to meet the above standard. The terms and requirements of the protocol may be modified by the Control Officer for good cause upon written request from the permit holder. The permit holder shall allow the District to inspect all operating logs to verify the total outage hours. These requirements are in addition to the applicable requirements of Rule 540. In the event the permit holder is not able to meet the standards specified above, the following shall be required: The permit holder shall prepare and submit a revised "plan" to the Control Officer, within 30 days of the end of the month in which the outage limit was exceeded, to achieve the outage standards set forth in this permit condition. At a minimum, the measures to be considered in the "plan" shall include: improved coordination of the power plant and steam field operations, improved alarming and control systems, increased duration of manned operation of the power plant, improved preventative maintenance and design modifications, retrofit of a 100% of steam flow turbine bypass, and retrofit of a 50% of steam flow turbine bypass. In evaluating measures to be taken to prevent future exceedances of the outage standard, outages of less than 2 hours shall be counted. This plan" shall also be submitted to EPA for approval if the outage standard is exceeded. Within 30 days of receipt of the "plan" the Control Officer shall determine whether the "plan" is satisfactory and, if so, shall approve the "plan". Upon approval, the revised "plan" shall supersede the old plan and become a part of the terms and conditions of this permit. *ref. PT0 79-26 Cond.19.*			

III.	Monitoring, Testing and Analysis		Compliance?	Notes/Means/Methods
	Performance Tests			
1.	The permit holder shall, no less than every 30 days, conduct a source test of the cooling tower to determine the H_2S emission rate to verify compliance with condition I.1. and I.4. District Method 102 shall be utilized to determine the H_2S emission rate. *ref. PTO 79-26 Cond. 23.*	**F S L**	**Yes**	**Means: Quarterly compliance reports document that source tests were performed each month.** **Method: NSCAPCD Modified Method 102**
1a.	The permit holder shall conduct or cause to be conducted performance tests on the turbine exhaust system to determine the H_2S emission rate to verify compliance with condition I.2. Performance tests shall be conducted in accordance with Northern Sonoma County APCD Method 102, unless otherwise specified by EPA. The permit holder shall furnish the Northern Sonoma County APCD, the California Air Resources Board and the EPA (Attn: Air-5) 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 EPA. *ref. PSD SFB 82-05 Cond. IX.D.*	**F S L**	**Yes**	**Means: Performance tests are conducted monthly and reported quarterly.** **Method: NSCAPCD Modified Method 102**
2.	The permit holder shall provide platforms, electrical power and safe access to sampling ports to enable representatives of the District, ARB and EPA 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 79-26 Cond. 13, PSD SFB 82-05 Cond. IX D.3.*	**F S L**	**Yes**	**Means: N/A** **Method: N/A** **Note Sample taps used by plant personnel for chemical sampling and analysis are also available for use by ARB and District personnel.**
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	**F S L**	**Yes**	**Means: Sampling and analyses were performed in 2010 at the request of the District to satisfy AB2588 requirements. The results were submitted on May 13, 2010 and a copy of these analyses are available at the Geothermal facilities and are used to inventory the subject emission.**

	advance by the Control Officer. *ref. PTO 79-26 Cond 11 &12.*			
4.	Compliance with the particulate mass emission limitation shall be estimated using calculations based on the evaporative cooling tower manufacturers design drift eliminator drift rate, 0.002 percent for the main cooling tower and 0.002% 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 79-26 Cond. 21*	**F S L**	**Yes**	**Means: Calculation of the particulate emissions based upon monthly samples and analysis of the cooling tower water TSS & TDS. These calculations indicate that the units are in compliance with the condition. Method: Monthly analysis by the plant chemistry staff and calculations done in accordance with the condition.**
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. Rule 240(d).*	**F S L**	**Yes**	**Method: Main Steam H_2S determined weekly by titration.**
6.	The permit holder shall perform an abatement solution concentration test of the cooling tower circulating water at least once per operating shift or as required in the Protocol Agreement for Units 1, 2, 3 and 4 when use of abatement solution is necessary in order to achieve compliance with Condition I.1 and I.2. The testing equipment shall be kept calibrated per the manufacturer's specifications. *ref. PTO 79-26 Cond.20.*	**F S L**	**Yes**	**Means: Operators perform test each shift and log the results**
7.	Any type of instrument used for the measurement of H_2S or Total Organic Gases in order to satisfy District permit conditions or regulations shall be submitted for prior approval to the APCO. *ref. Rule 240(d)*	**F S L**	**Yes**	**Method: NSCAPCD Modified Method 102**
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)*	**F S L**	**Yes**	**Means: All protocols and feed charts are reviewed on a regular basis for currency to operating conditions, and are updated as necessary. Updates are submitted to the District for review and approval.**
	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.3. The monitoring system must alarm the operator when H_2S in the treated gas is in excess of 40 ppmv (dry basis). The permit holder shall respond to the alarm with appropriate mitigative measures. Mitigative measures taken shall be logged in the power plant abatement log book. In the event H_2S concentrations are in excess of 40 ppmv and the range of the CCM is exceeded, the permit holder shall test for H_2S using an approved alternative method (ex Draeger tester, wet chemical tests) once every load change during the excess. The monitor shall have a full range of at least 50 ppmv (dry basis). The monitor shall meet the following operational specifications: an accuracy of plus or minus 7.5 ppmv, 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%. A one point calibration shall be performed at least once per week. A three point calibration shall be performed at least once per quarter. The Control Officer may allow modifications to the above specifications under an ACP upon written request with justification by the permit holder as long as emissions from the power plant do not exceed the "total" 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. *ref. PTO 79-26 Cond. 22*	**F S L**	**Yes**	**Means: A review of the plant Quarterly compliance reports indicated that the limits specified in this condition are routinely met. Excursions and exceedances are documented in the quarterly compliance reports. A monitor meeting the requirements of this condition is in place and is operational.**
	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 79-26 Cond. 23*	**F S L**	**Yes**	**Means: NCPA participates in GAMP.**
IV.	**Recordkeeping**			
1.	All records and logs shall be retained for a period of at least 5 years from the date the	**F**	**Yes**	**Means: Files are stored for > 5 years.**

	record or log was made and shall be submitted to the NSCAPCD upon request.	**S** **L**		**No requests for files have been made.**
2.	The permit holder shall maintain a weekly abatement solution inventory log available for on-site inspection. *ref. Rule 240(d)*	**F** **S** **L**	**Yes**	**Means: On-site inspection. The chemical inventory files are available for inspection.**
3.	The permit holder shall maintain a strip chart or other District approved data 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.3 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.3. The permit holder shall include in the report a copy of the output from the H_2S CCM or alternative District approved data during the upset condition. *ref. Rule 240(d)*	**F** **S** **L**	**Yes**	**Means: On-site inspection. The strip chart records are maintained for > 5 years and are available. All exceedances are reported in the Quarterly reports as required.**
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 79-26 Cond. 23.*	**F** **S** **L**	**Yes**	**Means: On-site inspection. The source test data is maintained for > 5 years and is available.**
5.	Any valve, flange, drip leg threaded fitting or seal on a pipeline or condensate collection system with a leak in excess of the limitations of condition II.12 which has been detected by the permit holder and is awaiting repair shall be identified in a manner which is readily verifiable by a District inspector. Any leak in the above listed pieces of equipment exceeding the limitations of II.12 and not identified by the permit holder and which is found by the District shall constitute a violation of this Permit. The permit holder shall maintain a current listing of such leaks awaiting repair and shall make this list available to the District upon request. *ref. PTO 79-26 Cond. 21.*	**F** **S** **L**	**Yes**	**Means: On-site inspection. Daily plant inspections by operators identify leaks described by this condition. Plant maintenance records are available for inspection.**
6.	The permit holder shall maintain records detailing: a. hours of operation. b. any periods of significant abatement equipment malfunction, reasons for malfunctions and corrective action. c. 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. d. a summary of any irregularities that occurred with a continuous compliance monitor. e. the dates and hours in which the emission rates were in excess of the emission limitations specified in permit conditions I.1, I.2, I.3, I.4, and I.5.	**F** **S** **L**	**Yes**	**Means: On-site inspection, a review of plant logs and chemical lab records indicate that these items are consistently recorded.**

	f. periods of scheduled and unscheduled outages and the cause of the outages. g. fugitive steam and non-condensable gas emission source inspections, leak rates, repairs and maintenance. h. time and date of all pump and flowmeter calibrations required by this permit. i. total dissolved solids and total suspended solids in the circulating water. j. time and date of all alarm system tests. k. leaking equipment awaiting repair; time and date of detection and final repair. *ref. Rule 240(d)*			
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 40 ppmv of H_2S. d. Source test results. e. Steam stacking events 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)*	**F** **S** **L**	**Yes**	**Means: The quarterly reports provide the requested information, and the quarterly reports have been submitted within 30 days of the end of the quarter.**
2.	An annual report shall be submitted to the District which contains the following information: a. Average mainsteam H_2S and ammonia concentrations. b. Average total dissolved and suspended solids and average flowrate of the cooling tower water. c. Gross megawatt hours generated. d. 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.	**F** **S** **L**	**Yes**	**Means: NCPA submitted the annual report for 2019 in January of 2020.**

	The annual report shall be submitted to the District within 45 days of the end of each calendar year. *ref. Rule 240(d)*			
3.	An initial report shall be submitted to the District within 30 days of issuance of the Title V Permit which contains the following information: a. Emission test methods, operating protocols for setting and optimizing chemical feed charts and targets, calibration and maintenance programs for test equipment and primary pressure gauges and flowmeters associated with abatement equipment.	**F** **S** **L**	**Yes**	**An initial report was submitted with the Annual Compliance Certification Report for the period July 17, 2000 thru July 16, 2001.**

B. STEAM TRANSMISSION LINE PERMIT CONDITIONS				
			Compliance?	**Notes/Means/Methods**
I.	**Emission Limits**			
	Emission Limits for H_2S			
1.	Stacking of steam to the atmosphere shall be limited to 33 pounds of H_2S per hour. *ref. PTO 79-21 Cond. 15.*	**F** **S** **L**	**Yes**	**Means: Operator logs and quarterly compliance reports indicate that there were no stacking events during this period.**
	Emission Limits for Particulate Matter			
2.	Particulate emissions from the transmission line shall not exceed the limitations of Rule 420 (d) or Rule 420 Table I, whichever is the most restrictive. *ref. Rule 420.*	**F** **S** **L**	**Yes**	**Means: Daily inspection by operators of valves and rock catchers insures compliance**
3.	Total particulate emissions during a calendar year shall not exceed 4400 pounds. This is based on a maximum emission rate of 40 lb/hr of particulate for 110 hours per year. *ref. Rule 420*	**F** **S** **L**	**Yes**	**Means: Daily inspection by operators of valves and rock catchers insures compliance.**
II.	**Operational Limits and Requirements**			
1.	Total hours of stacking shall not exceed 110 hours in any calendar year. *ref. PTO 79-21 Cond. 15.*	**F** **S** **L**	**Yes**	**Means: Operator logs and quarterly compliance reports indicate that there were no stacking events during this period.**

2.	Valves, flanges, drip legs, threaded fittings and seals on pipelines and condensate collection systems shall be maintained to prevent or reduce the emission of steam, non-condensable gases and condensate to the atmosphere as noted below: Liquid leak rate in pressurized steam and condensate lines shall not exceed 20 ml in 3 minute. Liquid leak rates in excess of 20 ml in 3 minutes shall be repaired within 15 calendar days, excepting those leaks from essential equipment. If the leak is from essential equipment, the leak must be minimized within 15 days using best modern practices and eliminated at the next prolonged outage of the process unit unless an extension is approved by the APCO. Non-condensable gas leaks shall not (i) exceed (as measured within 1 cm of such leak) 1000 ppm (vol) H_2S nor 10,000 ppm (vol) 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 The permit holder shall check the transmission lines for fugitive leaks at least once per quarter. *ref. PTO 79-21 Cond. 12.*	**F S L**	**Yes**	**Means: Daily inspections by operators ensure compliance. Repair orders are submitted when leaks occur and are repaired within 15 calendar days.**
3.	Fugitive steam and non-condensable gas sources shall be inspected, repaired, and maintained such that H_2S fugitive emissions comply with the emission limitations of Rule 455. The permit holder shall check the transmission lines for fugitive leaks at least once per quarter. *ref. PTO 79-21 Cond. 11.*	**F S L**	**Yes**	**Means: Daily inspections by operators ensure compliance. Maintenance is performed in a timely manner.**
4.	Condensate storage tanks shall be operated and maintained to prevent the release of H_2S in excess of the limitations of Rule 455. *ref. PTO 79-21 Cond. 14.*	**F S L**	**Yes**	**Means: Daily inspections by operators ensure compliance. Maintenance is performed in a timely manner.**
5.	Condensate bleeds shall be opened and utilized only as necessary during cold startup of the geothermal fluid transmission line. Other bleeds necessitated by continuous normal operation of this line shall not exceed the limitations of Rule 455. If necessary, condensate	**F S L**	**Yes**	**Means: Condensate bleeds are only opened as needed for start-up operations.**

	collection lines shall be installed to ensure fugitive H_2S emissions comply with Rule 455. *ref. PTO 79-21 Cond. 16.*			
6.	All areas in the immediate vicinity and under the permit holder's responsibility shall be properly treated to control fugitive dust. *ref. PTO 79-21 Cond. 11.*	**F** **S** **L**	**Yes**	**Means: Fugitive dust is controlled with general clean-up and housekeeping and mitigation procedures used during construction activities.**
III.	**Monitoring, Testing and Analysis**			
1.	At such times as specified by the Control officer, the permit holder shall conduct District approved source tests for particulate (including composition) emissions from the stacking muffler or other pipeline segments and for H_2S and other compounds (listed under NESHAPS, AB 2588) and furnish the District a written report of the results of such tests. The Control Officer shall be notified at least 5 days prior to such tests to allow time to arrange for an observer to be present at the test. *ref. PTO 79-21 Cond. 13.*	**F** **S** **L**	**Yes**	**Note: No such requests have been made.**
2.	Compliance with the particulate mass emission limitation shall be based on the particulate concentration in the steam measured as ppm (wt), the steam emission rate measured in lbs/hr, duration of the stacking event and total hours of steam stacking per year. The source test method used to determine the concentration of particulate in the steam shall be approved in advance by the Control Officer. *ref. PTO 79-21 Cond. 17.*	**F** **S** **L**	**Yes**	**Means: Calculation of PM based upon monthly total solids analysis, in cooling tower water.** **Method: Calculation per Condition.**
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**	**Means: Files are stored for at least 5 years. No requests for files have been made.**
2.	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.2 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.2 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 record of fugitive steam and non-condensable gas emission source inspections, leak rate determinations, repairs and maintenance and a current listing of leaks awaiting repair. These items shall be made available to the District upon request. *ref. PTO 79-21 Cond. 12.*	**F** **S** **L**	**Yes**	**Means: On-site inspection. Daily inspections by operators identify leaks described by this condition. Maintenance records are available for inspection.**
3.	The permit holder shall maintain a log of stacking events and shall allow the District to inspect the logs to verify the total number of stacking events.	**F** **S**	**Yes**	**Means: Operator logs and Quarterly compliance reports indicate no**

		L		**stacking events have been logged and may be inspected.**
V.	**Reporting**			
1.	A quarterly report shall be submitted to the District which contains the following information: a. Stacking event hours. b. Cause of stacking event. a. Balance of remaining allowable stacking hours. b. Emissions from pipeline bleeds, well pad bleeds (including maintenance venting). 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. PTO 79-21 Cond. 15.*	**F** **S** **L**	**Yes**	**Means: The quarterly reports provide the requested information**
2.	The permit holder shall notify the District when a stacking event is greater than 33 lbs of H_2S /hr per Rule 540. *ref. PTO 79-21 Cond. 15*	**F** **S** **L**	**Yes**	**Means: Operator logs and Quarterly compliance reports indicate stacking events have not exceeded this limit.**
C.	**STEAM WELL PERMIT CONDITIONS**		**Compliance?**	**Notes/Means/Methods**
I.	**Emission Limits**			
	Emission Limits for H_2S			
1.	Wellhead H_2S bleed emissions are not to exceed the limitations of Rule 455, except as allowed under II.1. *ref. PTO 90-09, Cond. A.1 and A.2.*	**F** **S** **L**	**Yes**	**Means: Operator logs and Quarterly compliance reports indicate wellhead H_2S bleed emissions are in compliance with this condition.**
	Emission Limits for Particulate Matter			
2.	Fugitive dust emissions from this well pad and access roads under the operator's responsibility are to be controlled to meet the requirements of Rule 430 and 410(a). *ref. PTO 90-09, Cond. A.3.*	**F** **S** **L**	**Yes**	**Means: Fugitive dust is controlled with regular maintenance and mitigation procedures used during construction activities.**
II.	**Operational Limits and Requirements**			
1.	The permit holder shall notify the District prior to initiating any planned venting of this geothermal well which is associated with testing, wellhead or wellbore maintenance. The operator shall also present to the Control Officer and receive approval of, an emissions	**F** **S** **L**	**Yes**	**Means: District is notified prior to each event, and each event is included in Quarterly Emissions report.**

	release protocol governing emissions and notifications for such operations. Until such time as this protocol is approved the Operator shall obtain permission from the District for each event at least 24 hours prior to starting the venting operation. Operations resulting in an excess of 15 pounds per hour of H_2S shall be subject to a meteorological forecast, by a meteorological consultant acceptable to the District, and shall only proceed after approval by the Control Officer. *ref. PTO 90-09 Cond. B.1.*			
2.	The permit holder shall apply for and receive an Authority to Construct/Temporary Permit to Operate for an air pollution control device prior to reworking or redrilling this well, unless a valid well maintenance permit is held by the permit holder. *ref. PTO 90-09 Cond. B.2.*	**F** **S** **L**	**Yes**	**Well P-9 was plugged and abandoned** **Wells P-4, P-5, P-6 were cleaned out** **Well Q-10 received a new liner** **Well Q-4 was cleaned out**
3.	The permit holder shall properly maintain the wellhead, its associated valves, flanges, threaded fittings, liquid lines and other components including the wellhead muffler so as to eliminate leakage of steam, condensate and non-condensable gases as noted below: Liquid leak rate shall not exceed 20 ml in 3 min. Liquid leak rates in excess of 20 ml in 3 min. shall be repaired or replaced within 15 calendar days. Non-condensable gas leaks shall not (i) exceed (as measured within 1 cm of such leak) 1000 ppm (vol) H_2S nor 10,000 ppm (vol) methane nor (ii) exceed emission limits of Rule 455. Non-condensable gas leak rates in excess of 1000 ppm (vol) H_2S or 10,000 ppm (vol) TOG shall be repaired with 24 hrs. *ref. PTO 90-09 Cond. B.3.*	**F** **S** **L**	**Yes**	**Means: Daily inspections by operators ensure compliance. Repair orders are submitted when leaks occur and are repaired within 15 calendar days.**
4.	All wells shall be identified in a manner acceptable to the Control Officer. *ref. PTO 90-09 Cond. B.4.*	**F** **S** **L**	**Yes**	**Means: All wells have permanent identification on associated well guards.**
III.	**Monitoring, Testing and Analysis**			
1.	At the request of the Control Officer and per Rule 240, the Operator will perform, or have performed, source test(s) for air contaminants as specified. District concurrence with test procedure and method(s) is to be obtained prior to testing. The operator shall provide the District 48 hours notification prior to any sampling requested by the Control Officer. The Operator shall provide adequate facilities for District sampling. *ref. PTO 90-09 Cond. C.1.*	**F** **S** **L**	**Yes**	**Means: NCPA's State approved lab (ELAP # 2806) performs annual analysis on each steam well. Results are kept on file.**
2 .	If this well employs an aspirator as allowed under rule 455(aa) it shall be source tested annually to determine H_2S mass emissions and exit concentration. If an aspirator is utilized for less than 24 consecutive hours the well shall be source tested for H_2S once every 5 years. *ref. PTO 90-09 Cond. C.2.*	**F** **S** **L**	**Yes**	**Means: NCPA's State approved lab (ELAP # 2806) performs annual analysis on each steam well (sampled at well head). Results are kept on file.**

3.	Any instrument used for the measurement of H_2S or Total Organic Gases shall be approved by the Control Officer. *ref. PTO 90-09 Cond. C.3.*	**F S L**	**Yes**	**Means: NCPA's State approved lab (ELAP # 2806) performs annual analysis on each steam well. Results are kept on file.**
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**	**Means: Files are stored for >5 years. No requests for files have been made.**
2.	The permit holder shall maintain a record of information needed to provide the District under Condition V.1.	**F S L**	**Yes**	**Means: Files are maintained and stored for >5 years.**
V.	**Reporting**			
1. 2.	A quarterly report shall be submitted to the District which contains the following information: *Well Bleeds* a. Source name. b. Hours of bleed emissions. c. Amount of H_2S, ammonia and total organic gases, expressed as methane, released during bleeding. d. Reason for bleeding. e. *Wells employing an aspirator* f. Hours of bleeding through aspirator, if applicable. g. H_2S emission rate expressed as lb/hr, H_2S exit concentration and date tested. *Wellbore maintenance* h. Emissions event associated with wellbore maintenance (blowdown). i. Time and date of event. j. Duration of event. k. Emissions rate during event, steam and H_2S, expressed as pounds per hour. l. Total mass of H_2S, ammonia and TOG, expressed as methane, released during event. m. Reason for event. 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. PTO 79-21 Cond. D.1.*	**F S L**	**Yes**	**Means: The quarterly reports provide the requested information, and the quarterly reports have been submitted within 30 days of the end of the quarter.**

D.	STEAM WELL REWORK PERMIT CONDITIONS		Compliance?	Notes/Means/Methods
I.	**Emission Limits**			
	Emission Limits for H_2S			
1.	Emissions of H_2S from the blooie line shall not exceed 5.5 pounds per hour. *ref. Rule 455(b).*	**S L**	**Yes**	**All well workovers did not exceed this requirement**
	Emission Limits for Particulate Matter			
2.	Particulate emissions from the blooie line shall not exceed the limitations of Rule 420 (e). *ref. Rule 420(e).*	**S L**	**Yes**	**All well workovers did not exceed this requirement**
II.	**Operational Limits and Requirements**			
1.	Total combined engine and compressor hours of operation shall not exceed 6,015 hours for total steamfield rework activities in any calendar year. *ref. Rule 240.*	**F S L**	**Yes**	**All well workovers did not exceed this requirement.**
III.	**Monitoring, Testing and Analysis**			
1.	The permit holder shall measure the H_2S concentration and emissions rate in the effluent well steam using wet chemistry methods outlined in the Abatement Plan submitted with the well redrill permit application. *ref. Rule 240.*	**S L**	**Yes**	**Well workover emissions were monitored and did not exceed limits**
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**	**Means: Files are maintained and stored for >5 years.**
2.	The permit holder shall maintain a record of information needed to provide the District under Condition V.1.	**S L**	**Yes**	**Means: Files are maintained and stored for >5 years.**
V.	**Reporting**			
1.	A quarterly report shall be submitted to the District which contains the following information:	**F S L**	**Yes**	**The local air district was kept informed of all well workover activity**

a. Steam well rework activities, if any. b. Final production H_2S concentration in ppmw and steam flow rate in lb/hr. c. Total engine hours. d. Total compressor hours. e. Balance of remaining engine and compressor hours available for calendar year. f. Total pounds of total organic gas, including methane, emitted during rig operations, including flow test. g. An estimate of the total H_2S, NOx and particulate matter released during the redrilling or workover operations. 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. PTO 79-21 Cond. 15.*			

E. PLANT WIDE PERMIT CONDITIONS	**F S L**	**Compliance?**	**Notes/Means/Methods**
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 parts 70 or 71.		**Yes**	**Means and Notes:** **1-3. Quarterly compliance reports and District Inspections.** **4. No notifications were required during the reporting period** **5. Reviewed Quarterly compliance records** **6. No burn permit was requested or issued during this period for brush control. The Konocti Conservation Camp and Cal Fire did not burn any brush.** **7. This plant is exempted from a Risk Management Plan because quantities of flammable hydrocarbons are less than 67,000 lbs.**

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.			**8. This plant does not perform work using chlorinated fluorocarbons.** **9. N/A**

F. ADMINISTRATIVE REQUIREMENTS		**Compliance?**	**Notes/Means/Methods**
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**	**Means: Rule 300 Annual Permit to Operate Fees will be paid for the period July 1, 2016 to June 30, 2017 by check submitted by June 1, 2016.** **Means: Rule 360 Federal Program Fees will be paid for the period July 1, 2016 to June 30, 2017 by check submitted by June 30, 2017.**
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**	**N/A**
Compliance with Permit Conditions 3. This Title V Operating Permit expires on July 17, 2015. 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 July 16, 2015. *ref Reg 5.660*	**F** **S** **L**	**Yes**	**The current Permit was issued July 17, 2015.** **Note: the 5 year renewal application for TitleV was submitted on 1/15/2020**

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**	**N/A**
5. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permit holder to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. R*ef. Reg 5.610(f)(4)*	**F S L**	**Yes**	**N/A**
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**	**N/A**
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**	**N/A**
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**	**Note: There were 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. 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**	**Note: There were no deviations from the permit requirements.**
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**	**N/A**

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**	**N/A**
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**	**Means: NCPA plant policy requires that files be maintained for at least five years 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**	**N/A**
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 holder'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*	**F** **S** **L**	**Yes**	**N/A**
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**	**N/A**
Malfunction	**F** **S**	**Yes**	**N/A**

16. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above allowable emissions limit stated in Condition I.2. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Condition I.2, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulations which such malfunction may cause. *ref. PSD SFB 82-05 Cond. IV.*	**L**		
Permit Posting 17. Operation under this permit must be conducted in compliance with all data specifications included in the application which attest to the operator's ability to comply with District rules and regulations. This permit must be posted in such a manner as to be clearly visible and accessible at a location near the source. In the event that the permit cannot be so placed, the permit shall be maintained readily available at all times on the operating premises. *ref. Rule 240(i)*	**F** **S** **L**	**Yes**	**Note: Permit is maintained and is readily available in the Geothermal Facility Administration Building.**
Compliance Certification 18. 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 who certifies the truth, accuracy, and completeness of the report. r*ef. Reg 5.650*	**F** **S** **L**	**Yes**	**Means: This report constitutes compliance with this condition for the period July 18, 2018 through July 17, 2019.**
19. This Permit does not authorize the emission of air contaminants in excess of those allowed by the Health & Safety Code of the State of California or the Rules and Regulations of the Northern Sonoma County Air Pollution Control District. This Permit cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other governmental agencies. *ref. Rule 240(d)*	**F** **S** **L**	**Yes**	**N/A**
Permit Modification 20. 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**	**Note: No applications for facility modifications or permit modifications were requested during this reporting period.**