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<b>Document Title:</b>	Annual Compliance Report 2019
<b>Description:</b>	Annual Compliance Report 2019
<b>Filer:</b>	Neftali Nevarez
<b>Organization:</b>	MRP San Joaquin Energy, LLC
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	4/29/2020 12:33:31 PM
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# *MRP San Joaquin Energy, LLC*

April 24, 2020

Mr. Anwar Ali, Compliance Project Manager  
California Energy Commission  
1516 9th Street  
Sacramento, CA 95814-5512

***RE: Tracy Peaker Plant (08-AFC-07) 2019 Annual Report of Operations***

Dear Mr. Ali,

In accordance with the Commission's Conditions of Certification for Tracy Combined Cycle Power Plant (08-AFC-07) Compliance-7, AltaGas San Joaquin Energy Inc. submits for your review and files the annual compliance reports for the period beginning on January 1, 2019 through December 31, 2019.

If you have any questions regarding the information provided in this report, please feel free to contact Mr. Neftali Nevarez at (925) 597-2905. E-mail: [nefatli.nevarez@naes.ca](mailto:nefatli.nevarez@naes.ca)  
Thank you for your time and consideration regarding this matter.

Respectfully,



John Archibald  
Plant Manager  
MRP San Joaquin Energy, LLC

**TRACY COMBINED CYCLE POWER PLANT (08-AFC-07)**  
**FACILITY INFORMATION AND DOCUMENT CERTIFICATION**

Owner: MRP San Joaquin Energy LLC.

Address: 14950 W. Schulte Road, Tracy, CA 95377

Primary Contact: Neftali Nevarez, Compliance Manager

Phone: 925.597.2905

Facility Address: 14950 W. Schulte Road, Tracy, CA 95377

Alternate Contact: John Archibald, Plant Manager

Phone: 209.248.6838

**STATEMENT OF FACT**

I certify under penalty of perjury that I have personally examined and am familiar with the information submitted in the Annual Report of Compliance; and based on my inquiry of those individuals immediately responsible for obtaining the information, I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



John Archibald  
Plant Manager  
MRP San Joaquin Energy LLC.



Date

***MRP San Joaquin Energy, LLC***

**Tracy Combined Cycle Power Plant Project  
(08-AFC-07)**

***2019***

**Annual Report on Compliance**

**Prepared by**

**MRP San Joaquin Energy LLC.**

**Tracy, California**

**April 24, 2020**



<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
<b>INTRODUCTION</b>	<b>1</b>
<b>SUMMARY OF CURRENT PROJECT</b>	<b>2</b>
<b>CONDITIONS OF CERTIFICATION COMPLIANCE MATRIX</b>	<b>2</b>
<b>POST CERTIFICATION CHANGES</b>	<b>2</b>
<b>PERMITS AND APPLICATIONS</b>	<b>2</b>
<b>COMPLIANCE ACTIVITIES SCHEDULED FOR 2019</b>	<b>3</b>
<b>ADDITIONS TO COMPLIANCE FILES</b>	<b>3</b>
<b>CONTINGENCY PLAN FOR UNPLANNED FACILITY CLOSURE EVALUATION</b>	<b>3</b>
<b>COMPLAINTS, NOTICES OF VIOLATION, OFFICIAL WARNINGS, AND CITATIONS</b>	<b>4</b>
<b>SPECIFIC CONDITIONS</b>	<b>4</b>
<b>APPENDIX A</b>	<b>8</b>
<b>APPENDIX B</b>	<b>9</b>
<b>APPENDIX C</b>	<b>10</b>
<b>APPENDIX D</b>	<b>11</b>
<b>APPENDIX E</b>	<b>12</b>
<b>APPENDIX F</b>	<b>13</b>
<b>APPENDIX G</b>	<b>14</b>
<b>APPENDIX H</b>	<b>15</b>

<b>APPENDIX I</b>	<b>16</b>
<b>APPENDIX J</b>	<b>17</b>
<b>APPENDIX K</b>	<b>18</b>
<b>APPENDIX L</b>	<b>19</b>
<b>APPENDIX M</b>	<b>20</b>
<b>APPENDIX N</b>	<b>21</b>

## **Report of Operations**

### **Introduction**

In accordance with the California Energy Commission requirements, condition compliance -7, MRP San Joaquin Energy LLC. (MRP) has prepared the 2019 Annual Compliance Report.

### **Project Description**

The Tracy Combined Cycle Power Plant is a nominal 344 MW combined cycle power plant that consist of two 88 MW nominally rated General Electric Model PG 7121 EA combustion turbine generator sets with Heat Recovery Steam Generators with 380 MMBTU duct burners and a 168 nominally rated steam turbine shared by the two combustion turbine generators and associated equipment necessary for combined-cycle operation. The facility is located at 14950 West Schulte Road, Tracy, California.

Tracy Peaker Plant was licensed by the California Energy Commission (CEC) on July 19 2002 under Adoption Docket No. 01-AFC-16 and began commercial operations on June 1, 2003. On June 30, 2008, GWF Energy LLC submitted an Application for Certification to the California Energy commission to modify the peaker plant by converting the facility into a combined cycle power plant. On March 24, 2010, the California Energy Commission (CEC) issued a license to GWF Energy LLC (GWF) for the construction and operation of the GWF Tracy Combined Cycle Power Plant (TCC) (08-AFC-7C). C. After conversion was completed, both units started commercial operation on November 1, 2012. The units currently operate under a power purchase agreement with Pacific Gas and Electric Company that commenced on November 1, 2012 and will expire on October 31, 2022. On November 2012, GWF Energy was acquired by Starwest, but continued to operate as GWF Energy LLC. On November of 2015, GWF Energy LLC was acquired by AltaGas and merged into the AltaGas San Joaquin Energy Inc. On November 2018, AltaGas San Joaquin Energy Inc. was acquired by Middle River Power and Merged into MRP San Joaquin Energy, LLC. (MRP)

This document constitutes the Annual Compliance Report (ACR) for the MRP Tracy Combined Cycle Power Plant (GWF Tracy project), as required by Condition of Certification (COC) General Compliance-7 (COMPL-7) in the CEC Final Decision. The information contained in this report covers all conditions applicable to the operations phase of this project. All construction related conditions were deemed complete.

## Summary of Current Project

The units continue to operate under the power purchase agreement with Pacific Gas and Electric Company that commenced on November 1, 2012. They operate as required by PG&E based on power demands. Below is the production summary for the years 2012 - 2019.

Year	Unit A		Unit B	
	Fired Hours	MWh(net)	Fired Hours	MWh(net)
2012	1217	130,741	1269	123,934
2013	2675	303,394	2703	307,147
2014	2802	309,522	2968	332,923
2015	3558	388,521	3403	374,823
2016	1626	101,862	1546	99,865
2017	4030	475,374	3728	403,960
2018	3851	268,299	3725	257,735
2019	4750	296,664	3574	307,396

No significant changes to facility operations occurred during this reporting period.

## Conditions of Certification Compliance Matrix

The COC compliance matrix is a tracking tool used by the CPM to assure compliance with all conditions assigned to the project. The compliance matrix was developed in September 2010. During site mobilization and construction phases, the matrix was used in the Monthly compliance report to satisfy condition Compliance-6. It has been modified to remove conditions of certification that were completed during mobilization, and construction phases and is now used to comply with the Annual reporting requirements of Compliance-7. A copy of the updated matrix for COC COMPL-5 is included in Appendix A.

## Post Certification Changes

No post-certification changes occurred during this reporting period.

## Permits and Applications

On May 14, 2013, Authority to construct permits (Permits # N-4597-1-7, N-4597-2-7, N-4597-5-0 and N-4597-6-0) issued by SJVAPCD for conversion from simple cycle to combined cycle were administratively amended to incorporate the Authority to Construct to Title V Operating permits # N-4597-1-7, N-4597-2-7, N-4597-5-0 and N-4597-6-0. The Title V permit also included permit # N=4597-4-3 to operate a diesel fired emergency IC engine as well as the facility wide permit # N-4597-0-2

On December 3, 2013, GWF submitted to SJVAPCD an application to renew the Title V operating permits for this facility. The new permits were received on February 17, 2015. The new Title V permits for facility permit # N-4597 are: Facility wide permit #N-4597-0-3, Permit unit #N-4597-1-8, N4597-2-8, N4597-4-4 and N4597-5-1 and N4597-6-1. Copies of the most recent permit is included in Appendix B. A permit renewal application was submitted on August 28, 2018 and a notice of complete application was received from the District on September 27, 2018. The SJVAPCD has finalized the permit renewal process. New permit numbers for facility permit # N-4597 are: Facility wide permit #N-4597-0-4, Permit unit #N-4597-1-9, N4597-2-9, N4597-4-5 and N4597-5-2 and N4597-6-2.

## **Compliance Activities Scheduled for 2020**

- CGA CEMS quarterly Audits, condition AQ-59 – To be scheduled for quarters 1<sup>st</sup>, 2<sup>nd</sup>, and 4<sup>th</sup> of 2020.
- CTG source test, conditions AQ-46 and AQ-247 – To be scheduled for 3<sup>rd</sup> quarter 2020
- CTG CEMS RATA, condition AQ-60 – To be scheduled for 3<sup>rd</sup> quarter 2020
- Facility inspection by designated biologist, condition Bio-2 - To be scheduled for December 2020

## **Additions to Compliance Files**

- CGA CEMS quarterly Audits, condition AQ-59 – Audits performed on January 2019, April 2019, , and October 2019.
- CTG source test, conditions AQ-46 and AQ-47 – Test performed on August 13 and August 14, 2019
- CTG CEMS RATA, condition AQ-60 – Test performed on August 13 and August 14, 2019.
- Facility inspection by designated biologist, condition Bio-2 - Performed on April 9, 2020.

## **Contingency Plan for Unplanned Facility Closure Evaluation**

Compliance-12 requires MRP to review the on-site contingency plan and recommend changes to bring the plan up to date. MRP has reviewed the plan and determined that the plan will require updates. The plan was revised to reflect new ownership by MRP San Joaquin Energy, LLC, new insurance and other minor changes to the facility. A Copy of the revised contingency plan are also included in Appendix C.

There were no unplanned temporary closures of the plant during the reporting period. If unplanned temporary closures or unplanned permanent closures were to occur, MRP will follow CEC notification requirements outlined in condition Compliance-12 and Compliance-13 and prepare a closure plan as required.

## **Complaints, Notices of Violation, Official Warnings, and Citations**

MRP Tracy Combined Cycle Power Plant did not receive any Notices of Violation (NOV), complaints, other notices or citations from any Regulatory agency in conjunction with the operations of the Tracy Combined Cycle Power Plant in 2019.

### **Specific Conditions**

- **AQ-SC9- Wet Surface Air Cooler PM10 Emissions**

This condition requires testing of the wet surface air cooler spray water for total dissolved solids (TDS) to determine compliance with an annual particulate matter emissions limit as PM10 of 110 lb/year.

The spray water was tested the third quarter of 2019 as required and the emissions demonstrating compliance with the limit were calculated. Copies of the analytical report as well as the PM10 calculation are included in Appendix E.

- **Bio-2 Biological Resources Mitigation Implementation and Monitoring Plan**

Ms. Molly Sandomire, designated Biologist, conducted a visual biological resources assessment of The Tracy Combined Cycle facility on April 9, 2020. The status report prepared by Ms. Molly Sandomire of TRC is provided in Appendix F.

- **Haz-1 - Hazardous Materials Inventory**

Condition Haz-1 requires submittal in the annual report of the list of hazardous materials.

An updated list of hazardous materials is included in Appendix G.

- **Haz-7 – Site Specific Operations Site Security Plan**

Condition Haz-7 requires the project owner to maintain on site a site-specific operations site security plan and make it available for review and

approval. A plan was prepared prior to the start of commissioning as required, reviewed in 2016 and is available at the site.

This condition also requires the project owner to include in the annual report a statement that all current project employee and appropriate contractor background investigations have been performed and that updated certification statements have been appended to the operations security plan. No new employees were hired in 2018. Documents are provided in Appendix H.

- **Land-1 – Mitigation for the Loss of Farmland**

This condition requires MRP to provide updates in the annual report on the status of farmland/easement purchase(s) and the continued implementation of the TCC's agricultural mitigation plan.

On December 15, 2010, GWF submitted to the CPM the mitigation agreement between the Central Valley Farmland Trust and GWF Energy LLC that provides for the mitigation of prime farmland associated with the GWF Combined Cycle Project construction. Payment of the mitigation fees associated with the agreement was made on December 17, 2010.

No changes have occurred since. The TCC agricultural mitigation plan that included the American Farmland Trust agreement (AFT) and a lease agreement between Kagehiro Ranches (Jepsen Webb Ranch, LLC) to continue the farming of the designated land are still in force.

- **Noise-2 – Noise Complaints**

This condition requires MRP throughout the operation of the project to document, investigate, evaluate and attempt to resolve all project-related noise complaints.

No complaints were received during the reporting period of 2019. See Appendix I.

- **Soil & Water-2 – Storm water BMP monitoring and maintenance activities.**

The new storm water Industrial General Permit (IGP) became effective July 1, 2015. Alta Gas Tracy Combined Cycle Power plant filed a Notice of Intent to comply with the new IGP. MRP discharges all its storm water to the on-site storm water basin. On 2019, The site filed for a NOT (Notice of Termination) with the Regional Water Board and was approved based on exceptions for Natural Gas fired power plants.

The site is equipped with storm water drains throughout the facility. The drains are covered with a fine steel mesh to keep any large materials from entering the drain system. In addition, the facility ground surfaces are either, asphalt (16.1%), concrete (28.2%), gravel (37.6%), soil (6.0%) and the basin

takes up 12.1%. The only areas with exposed dirt are around the stormwater basin and the basin is protected from the inside by rocks to minimize erosion.

The basin sediment level was calculated and no changes were detected. The results are included in Appendix J.

- **Soil & Water-4 - Annual Water Use Summary**

When metering devices are serviced, tested and calibrated, this condition requires the project owner to provide a report summarizing these activities in the next annual report. The metering device (flow meter) was calibrated in 2019 .

The condition also requires the project owner to provide a Water Use Summary that states the source and quantity of raw surface water used on a monthly basis and on an annual basis in units of acre-feet. In subsequent annual reports the project owner is required to provide prior annual water use including yearly range and yearly average.

The report for the water flow meter calibration performed in 2019 and Water use summaries for the 2013 thru 2019 years are included in Appendix K.

- **Soil & Water-6 – Industrial Wastewater and Contact Stormwater.**

This condition requires the owner provide evidence of industrial wastewater and contact stormwater disposal, via a licensed hauler, to an appropriately licensed facility in the annual compliance report.

MRP discharges all its stormwater to the on-site stormwater basin. No stormwater leaves the site. Wastewater generated by turbine washing is hauled off-site and disposed of as non-hazardous waste. Contact storm water is collected in the secondary containment areas built around equipment to catch stormwater. The water is checked for oil residue and either left to evaporate or sent to the oil/water separator. The water from the clean water side of the oil/water separator is recycled to the raw water storage tank for use in the facility's water systems. Refer to Appendix L.

- **Vis-4 – Landscape Maintenance**

This condition requires the project owner to report landscape maintenance activities, including replacement of dead vegetation, for the previous year of operation.

MRP has a contract with Golden Valley Nursery, located at 26701 S. Lammers Road in Tracy. The irrigation system is tested and repaired on a monthly basis or more often if required. Weed abatement is scheduled every two months. Tree trimming is on as required basis.



No trees were replaced in 2019. Weeds were removed during the spring to 3 to 8 ft. from base of trees as required.

- **Vis-6 – Surface Treatment Maintenance**

Condition Vis-6 requires MRP to provide a status report regarding surface treatment maintenance.

The report is provided in Appendix M.

- **Waste-6 – Hazardous Waste Disposal.**

Condition Waste-6, requires the project owner to document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year. It also requires the owner to provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.

The Waste Management Plan is included in Appendix N. The hazardous and non-hazardous waste tables have been revised and copies of the revised tables as well as copies of the hazardous waste manifests and a summary of all wastes shipped out for disposal are included in Appendix N.

## **Appendix A**

### **Compliance Matrix Compliance-7**

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

**CEC Compliance Project Manager: Anwar Ali**

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

**Reporting Period: January 1, 2019 - December 31, 2019**

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-SC8	Quarterly operation reports		Submit the quarterly operation reports that include operational and emissions information including incidences of non-compliance; (see AQ conditions) to the CPM and APCO .	No later than 30 days following the end of each calendar quarter.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-SC8	Quarterly Operation Reports Records		This information shall be maintained on site for a minimum of five years and shall be provided to the CPM and District personnel upon request.	Upon request	Upon request		Ongoing
AQ-SC9	Wet surface air cooler requirements		The wet surface air cooler spray water shall be tested for total dissolved solids and that data shall be used to determine and report the particulate matter emissions from the wet surface air cooler. The wet surface air cooler spray water shall be tested at least once annually during the anticipated summer operation peak period (July through September).	Sample - 3rd quarter operations	3rd quarter operations	Samples Tested on: August 19, 2019	Sample - 3rd Quarterly Report
AQ-SC9	Wet surface air cooler requirements		Provide water quality test results and emissions estimates as part of the 4th quarter's quarterly operational report (AQ-SC8).	4th quarter operational report	4th quarter operational report	Quarterly January 23 2020	Report Sample - 4th Quarterly Report
Equipment Description, Unit N-4597-1-8 Equipment Description, Unit N-4597-2-8							
Title V Permit conditon							
AQ-17	Particulate matter emissions - no exceed of 0.1 grains/dscf	Permit # 4597-1-8 and 2-8 condition # 1	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration.  Submit results of source test to CPM and Air District in accordance with AQ-50	Annual Test	Source testing data becomes available	Source Test completed on08/13/2019 and submitted on 10/03/2019	see AQ-50 for submittal
AQ-18	Air contaminate release	NA	No air contaminant shall be released into the atmosphere which causes a public nuisance.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-19	Air contaminate discharge	Permit # 4597-0-3 condition #22	No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20 percent opacity.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-20	Breakdown Conditions - Notify the District within 1 hour	Permit # 4597-1-8 and 2-8 condition # 2	Owner/operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Within an hour	Breakdown Conditions	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Ongoing and Quarterly Report (included in AQ-SC8)
AQ-21	Breakdown Conditions Reporting - Written Notification After Corrections are completed	Permit # 4597-1-8 and 2-8 condition # 3	The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Within 10 days	Breakdown Conditions Reporting	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Ongoing and Quarterly Report (included in AQ-SC8)
AQ-22	Equipment operation / maintenance.	Permit # 4597-1-8 and 2-8 condition # 4	All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-23	Equipment operation / maintenance.	Permit # 4597-1-8 and 2-8 condition # 5	The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-24	Equipment operation / maintenance.	Permit # 4597-1-8 and 2-8 condition # 6	Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5 percent or greater, except for up to three minutes in any hour.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-25	Equipment operation / maintenance.	Permit # 4597-1-8 and 2-8 condition # 7	A Selective Catalytic Reduction (SCR) system and an oxidation catalyst shall serve these gas turbines.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-26	Equipment operation / maintenance.	Permit # 4597-1-8 and 2-8 condition # 8	During all types of operation, including startup and shutdown periods, ammonia injection to SCR shall occur once the minimum temperature at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Ongoing, site is available for inspection upon request
AQ-27	Equipment operation / maintenance.	Permit # 4597-1-8 and 2-8 condition # 9	The SCR system shall be equipped with a continuous temperature monitoring system to measure and record the temperature at the catalyst face.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-29	CTG exhaust/emissions	Permit # 4597-1-8 and 2-8 condition # 10	The CTG shall only be fired on PUC-regulated natural gas with a sulfur content value not exceeding 0.66 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a daily basis and 0.25 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a 12-month rolling average basis.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-30	CTG exhaust/emissions	Permit # 4597-1-8 and 2-8 condition # 11	Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NOX (as NO <sub>2</sub> ) – 8.10 lb/hr and 2.0 ppmvd @ 15% O <sub>2</sub> ; CO – 3.90 lb/hr and 2.0 ppmvd @ 15% O <sub>2</sub> ; VOC (as methane) – 1.13 lb/hr and 1.5 ppmvd @ 15% O <sub>2</sub> ; PM <sub>10</sub> – 4.40 lb/hr; or SOX (as SO <sub>2</sub> ) 2.03 lb/hr. NOX (as NO <sub>2</sub> ) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-31	CTG exhaust/emissions	Permit # 4597-1-8 and 2-8 condition # 12	Emission rates from this CTG with the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NOX (as NO <sub>2</sub> ) – 10.30 lb/hr and 2.0 ppmvd @ 15% O <sub>2</sub> ; CO – 6.00 lb/hr and 2.0 ppmvd @ 15% O <sub>2</sub> ; VOC (as methane) – 3.22 lb/hr and 2.0 ppmvd @ 15% O <sub>2</sub> ; PM <sub>10</sub> – 5.80 lb/hr; or SOX (as SO <sub>2</sub> ) – 2.63 lb/hr. NOX (as NO <sub>2</sub> ) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages..  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-32	CTG exhaust/emissions	Permit # 4597-1-8 and 2-8 condition # 13	During start-up, CTG exhaust emission rates shall not exceed any of the following limits: NOX (as NO <sub>2</sub> ) – 390.5 lb/event; CO – 562.5 lb/event; VOC (as methane) – 10.5 lb/event; PM <sub>10</sub> – 11.0 lb/event; or SOX (as SO <sub>2</sub> ) – 4.1 lb/event.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-33	CTG exhaust/emissions	Permit # 4597-1-8 and 2-8 condition # 14	During shutdown, CTG exhaust emission rates shall not exceed any of the following limits: NOX (as NO <sub>2</sub> ) –104.0 lb/event; CO – 148.0 lb/event; VOC (as methane) – 2.6 lb/event; PM <sub>10</sub> – 3.0 lb/event; or SOX (as SO <sub>2</sub> ) – 1.1 lb/event.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-34	CTG exhaust/emissions	Permit # 4597-1-8 and 2-8 condition # 15	<p>A start up event is defined as the period beginning with the gas turbine initial firing until the unit meets the lb/hr and ppmvd emission limits in Condition 30 (AQ-30) or Condition 31 (AQ-31) depending on the operating conditions of the duct burners during the start up event. A shutdown event is defined as the period beginning with the turbine shutdown sequence and ending with the cessation of firing the gas turbine engine.</p> <p>A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-35	Startup emissions	Permit # 4597-1-8 and 2-8 condition # 16	<p>The duration of each startup shall not exceed three hours. Startup and shutdown emissions shall be counted toward all applicable emission limits.</p> <p>A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-36	Shutdown emissions	Permit # 4597-1-8 and 2-8 condition # 17	<p>The duration of each shutdown shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits.</p> <p>A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-37	Emissions	Permit # 4597-1-8 and 2-8 condition # 18	<p>The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown.</p> <p>The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.</p>	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-38	Ammonia emissions	Permit # 4597-1-8 and 2-8 condition # 19	<p>The ammonia (NH3) emissions shall not exceed 5 ppmvd @ 15% O2 or 9.40 lb/hr over a 24 hour rolling average.</p> <p>A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

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AQ-39	Ammonia emissions	Permit # 4597-1-8 and 2-8 condition # 20	Approved district calculation for the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) $= ((a - (b \times c / 1,000,000)) \times (1,000,000 / b)) \times d$ d is the correction factor; derived annually during compliance testing by comparing the measured and calculated ammonia slip.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Ongoing - Calculate Annually
AQ-40	CTG Daily Emissions Limits	Permit # 4597-1-8 and 2-8 condition # 21	Daily emissions from the CTG shall not exceed the following limits: NOX (as NO2) – 814.9 lb/day; CO – 1071.6 lb/day; VOC – 78.6 lb/day; 139 PM10 – 132.0 lb/day; or SOX (as SO2) – 58.7 lb/day.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-41	CTG Annual Emissions - Annual Compliance	Permit # 4597-1-8 and 2-8 condition # 22	Annual emissions from the CTG, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following limits: NOX (as NO2) – 88,881 lb/year; CO – 74,598 lb/year; VOC – 15,145 lb/year; PM10 – 32,250 lb/year; or SOX (as SO2) – 7,084 lb/year. Compliance with the annual NOx and CO emission limits shall be demonstrated using CEM data and compliance with the annual VOC, PM10 and SOx emission limits shall be demonstrated using the most recent source test results.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-42	Time	Permit # 4597-1-8 and 2-8 condition # 23	Each one hour period shall commence on the hour. Each one hour period in a three hour rolling average will commence on the hour. The three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour.  No verification necessary.	NA	NA		Ongoing



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AQ-43	Emissions Time	Permit # 4597-1-8 and 2-8 condition # 24	Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The twelve consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months.  No verification necessary.	NA	NA		Ongoing
AQ-44	Natural gas usage	Permit # 4597-1-8 and 2-8 condition # 25	The combined natural gas fuel usage for permit units N-4597-1 and N-45967-2 shall not exceed 20,454 scf/year. (District Rule 2550)  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-45	Collection of exhaust stack emissions	Permit # 4597-1-8 and 2-8 condition # 26	The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOX, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing.  Make site available for inspections by Air District, ARB, and CEC.	Upon request	Request for site access		Ongoing, site is available for inspection upon request
AQ-46	Source testing - steady state NOx, CO, VOC, and NH3 emission rates	Permit # 4597-1-8 and 2-8 condition # 31	The results and field data collected during source tests shall be submitted to the District and CPM within 60 days of testing and according to a pre-approved protocol (AQ-50).	Within 60 days after Source Testing	Completion of annual source testing	Source Test performance Dates: August 13-14, 2019;  Source Test report submittal date: October 03, 2019	Open Item - Annual Source Testing
AQ-47	Source testing - Annual PM10 emission rate	Permit # 4597-1-8 and 2-8 condition # 31	The results and field data collected during source tests shall be submitted to the District and CPM within 60 days of testing and according to a pre-approved protocol (AQ-50).	Within 60 days after Source Testing	Completion of annual source testing	Source Test performance Dates: August 13-14, 2019;  Source Test report submittal date: October 03, 2019	Open Item - Annual Source Testing

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AQ-48	Source testing Commissioning - startup and shutdown NOx, CO, and VOC -Certifiable data	Permit # 4597-1-8 and 2-8 condition # 29	Source testing to measure startup and shutdown NOx, CO, and VOC mass emission rates shall be conducted for one of the gas turbines (N-4597-1 or N-4597-2) within 60 days after the end of the commissioning period. CEM relative accuracy for NOx and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NOx and CO startup emission limits, then startup and shutdown NOx and CO testing shall be conducted every 12 months.  The results and field data collected during source tests shall be submitted to the District and CPM within 60 days of testing and according to a pre-approved protocol (AQ-50). Testing for startup and shutdown emissions shall be conducted upon initial operation and at least once every seven years.	Within 60 days	Commissioning  Completion of initial source testing	Initial Source Test performance Dates: October 31, 2012  Initial Source Test report submittal date: December 21, 2012 Most Recent Test performance Dates: August 13-14, 2019;  Source Test report submittal date: October 03, 2019	Ongoing - Every seven years. Next test during the 2019 source test
AQ-48	Source testing - startup and shutdown NOx, CO, and VOC -Non-Certifiable data	Permit # 4597-1-8 and 2-8 condition # 29	If CEM data is not certifiable to determine compliance with NOx and CO startup emission limits, then startup and shutdown NOx and CO testing shall be conducted every 12 months. If an annual startup and shutdown NOx and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NOx and CO testing frequency shall return to the once every seven years schedule.  The results and field data collected during source tests shall be submitted to the District and CPM within 60 days of testing and according to a pre-approved protocol (AQ-50). Testing for startup and shutdown emissions shall be conducted upon initial operation and at least once every seven years.	Within 60 days	Once every 12 months if Non-compliant	Test Data Certifiable - Initial RATA Test Date: October 31, 2012 Test Report Submittal Date: December 21, 2012	ongoing - Every seven years. Next test during the 2019 source test
AQ-49	Source testing- Gas Turbine and Aux Burner	Permit # 4597-1-8 and 2-8 condition # 30	Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with Condition AQ-50	N/A	Demonstrate Compliance during source testing	Source Test Protocol Submittal Dates July 9, 2019	Ongoing
AQ-50	Source testing Notification	Permit # 4597-1-8 and 2-8 condition # 31	The District must be notified 30 days prior to any compliance source test; Submit correspondence in the MCR	No less than 30 days prior	Source testing	Source Test Notification Dates for 2019: July 9, 2019	Performed Annually -

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

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AQ-50-52; (AQ-137)	Source test plan	Permit # 4597-1-8 and 2-8 condition # 31	Submit proposed source testing plans to CPM and ARCO prior to source testing for approval	No less than 15 days prior	Planned source testing	Source Test Plan submittal date: July 9, 2019	Submitted Annually
AQ-50	Source testing Results	Permit # 4597-1-8 and 2-8 condition # 31	Submit source test results no later than 60 days following the source test date to both the District and CPM	Within 60 days	Completion of annual source testing	Source Test performance Dates: August 13-14, 2019;  Source Test report submittal date: October 03, 2019	Submitted Annually
AQ-51	Source testing plan - Test Methods	Permit # 4597-1-8 and 2-8 condition # 32	<p>The following test methods shall be used: NOx - EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO - EPA Method 10 or 10B or ARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or ARB Method 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b).</p> <p>The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with Condition AQ-50.</p>	Include in the Annual Source Test Protocol	N/A	Source Test report submittal date: October 3, 2019	Submitted Annually
AQ-52	Sulfur content - fuel sulfur content limit within Compliance	Permit # 4597-1-8 and 2-8 condition # 33	Testing to demonstrate compliance with the short-term (daily) fuel sulfur content limit shall be conducted monthly.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	ongoing
AQ-52	Sulfur content - fuel sulfur content limit Non-Compliance	Permit # 4597-1-8 and 2-8 condition # 33	If a monthly test indicates that a violation of the daily fuel sulfur content limit has occurred then weekly testing shall commence and continue until eight consecutive tests show compliance. Once compliance with the daily fuel sulfur content is demonstrated on eight consecutive weekly tests, testing may return to the monthly schedule.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	ongoing

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AQ-52	Sulfur content - Unit is not Operating	Permit # 4597-1-8 and 2-8 condition # 33	If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	ongoing
AQ-52	Sulfur content	Permit # 4597-1-8 and 2-8 condition # 33	The result of the natural gas fuel sulfur monitoring data and other fuel sulfur content source data shall be submitted to the District and CPM in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-53	Sulfur content - Compliance with the rolling 12-month average fuel sulfur content limit	Permit # 4597-1-8 and 2-8 condition # 34	Compliance with the rolling 12-month average fuel sulfur content limit shall be demonstrated monthly. The 12-month rolling average fuel sulfur content shall be calculated as follows: 12-month rolling average fuel sulfur content = Sum of the monthly average fuel sulfur contents for the previous 12 months ÷ Total number of months the unit has operated in during the previous 12 months. The monthly average fuel sulfur content is the average fuel sulfur content of all tests conducted in a given month.  Owner/operator shall keep a monthly record of the rolling 12-month average fuel sulfur content.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-53	Sulfur content - Unit is not Operating	Permit # 4597-1-8 and 2-8 condition # 34	If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month.  Owner/operator shall keep a monthly record of the rolling 12-month average fuel sulfur content.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-53	Sulfur content - Compliance with the rolling 12-month average fuel sulfur content limit	Permit # 4597-1-8 and 2-8 condition # 34	The result of the natural gas fuel sulfur monitoring data and other fuel sulfur content source data shall be submitted to the District and CPM in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

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AQ-54	Sulfur content - Methods of Monitoring	Permit # 4597-1-8 and 2-8 condition # 35	Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377.  The result of the natural gas fuel sulfur monitoring data and other fuel sulfur content source data shall be submitted to the District and CPM in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-55	CTG fuel consumption	Permit # 4597-1-8 and 2-8 condition # 36	The CTG shall be equipped with a continuous monitoring system to measure and record fuel consumption.  Make site available for inspections by Air District ARB, and CEC. Equip CTG unit with continuous monitoring system to record fuel consumption	Upon request	Request for site access		Open item, site is available for inspection upon request
<u>AQ-59</u>	CEMS audit.	Permit # 4597-1-8 and 2-8 condition # 40	Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are both performed, in accordance with EPA guidelines.  Audits of continuous emission monitors shall be conducted quarterly. The District shall be notified prior to completion of the audits.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly. Except when RATA is performed.	CGA Performance dates January 10, 2019; April 9 and 10, 2019; July 10 and 11, 2019; October 9 and 10, 20189 RATA August 13-14, 2019	Quarterly Report
<u>AQ-59</u>	CEMS audit. Report in quarterly reports	Permit # 4597-1-8 and 2-8 condition # 40	The project owner shall submit to the CPM and APCO CEMS audits demonstrating compliance with this Condition as part of the quarterly operation report (AQ-SC8)	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

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AQ-60	Relative accuracy test audit (RATA)	Permit # 4597-1-8 and 2-8 condition # 41	<p>The owner/operator shall perform a relative accuracy test audit (RATA) for NOX, CO and O2 as specified by 40 CFR Part 60, Appendix F, 5.11, or 40 CFR Part 75 Appendix B, at least once every four calendar quarters. The owner/operator shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. If the RATA test is conducted as specified in 40 CFR Part 75 Appendix B, the RATA shall be conducted on a lb/MMBtu basis.</p> <p>The project owner shall submit to the CPM and APCO CEMS audits demonstrating compliance with this Condition as part of the quarterly operation report (AQ-SC8).</p>	RATA perform once every four calendar quarters;	Annual	<p>Source Test performance Dates: August 13-14, 2019;</p> <p>Source Test report submittal date: October 3, 2019</p>	Demonstrating compliance with this Condition as part of the quarterly operation report (AQ-SC8)
AQ-61	CEMS monitoring equipment / device inspections	Permit # 4597-1-8 and 2-8 condition # 42	<p>APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly.</p> <p>The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission to verify the monitoring devices are properly installed and operational.</p>	Upon request	Request for site access.		Open item, site is available for inspection upon request
AQ-62	CEMS monitoring quality control / assurance	NA	<p>The owner/operator shall develop and keep onsite a quality assurance plan for all the continuous monitoring equipment described in 40 CFR 60.4345(a), (c), and (d).</p> <p>The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission to verify the monitoring devices are properly installed and operational.</p>	Upon request	Request for site access.		Open item, site is available for inspection upon request
AQ-63	Continuous Emission Monitoring System (CEM)	Permit # 4597-1-8 and 2-8 condition # 43	<p>Results of the CEM system shall be averaged over a one hour period for NOX emissions and a three hour period for CO emissions using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 CFR 60.13.</p> <p>The project owner shall submit to the CPM and APCO CEMS audits demonstrating compliance with this Condition as part of the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	<p>Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;</p>	Quarterly Report

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AQ-64	Continuous Emission Monitoring System (CEM)	Permit # 4597-1-8 and 2-8 condition # 44	<p>The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO.</p> <p>The project owner shall submit to the District and CPM the report of CEM operations upon notice from the APCO.</p>	Upon notice from APCO	APCO Notification		Open Item- APCO Notification
AQ-65	Continuous Emission Monitoring System (CEM)	Permit # 4597-1-8 and 2-8 condition # 45	The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis.	available to the District's on a daily basis	CEM data available to the District's automated polling system on a daily basis		ongoing
AQ-66	CEM system is NOT providing polling data	Permit # 4597-1-8 and 2-8 condition # 46	<p>Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method.</p> <p>The project owner shall provide required non-pollled CEM data to the District by a District-approved alternative method.</p>	District-approved alternative method	CEM system is not providing polling data		ongoing
AQ-67	Excess NOx emissions - 30 day rolling average	Permit # 4597-1-8 and 2-8 condition # 47	Excess NOx emissions shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A 30 day rolling average NOx emission rate is the arithmetic average of all hourly NOx emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NOx emission rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours. A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both).	N/A - No verification Required	N/A		ongoing

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AQ-68	Continuous Emission Monitoring System (CEM) - NOx Emissions	Permit # 4597-1-8 and 2-8 condition # 48	For the purpose of determining excess NOx emissions, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NOx emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 of 40 CFR 60 Appendix A. For any hour in which the hourly O2 concentration exceeds 19.0% O2, a diluents cap value of 19% O2 may be used in the emission calculations.	N/A - No verification Required	N/A		ongoing
AQ-69	Continuous Emission Monitoring System (CEM) - SOx Emissions	Permit # 4597-1-8 and 2-8 condition # 49	Excess SOx emissions is each unit operating hour included in the period beginning on the date and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtime for SOx begins when a sample is not taken by its due date. A period of monitor downtime for SOx also begins on the date and hour of a required sample, if invalid results are obtained. A period of SOx monitoring downtime ends on the date and hour of the next valid sample.	N/A - No verification Required	N/A		ongoing
AQ-70	Continuous Emission Monitoring System (CEM)	Permit # 4597-1-8 and 2-8 condition # 50	<p>The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred.</p> <p>The project owner shall submit to the District and CPM the report of CEM operations, emission data, and monitor downtime data in the quarterly operation report (AQ-SC8) that follows the definitions of this Condition.</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report



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Tracy Combined Cycle Power Plant

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Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-71	NOx control system operating parameters	Permit # 4597-1-8 and 2-8 condition # 51	<p>The owner/operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit during times that the CEMS is not functioning properly.</p> <p>A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	<p>Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2019;</p> <p>The determination of compliance with NOx emission limits if the CEM system is demonstrated using operating parameters and SCR conversion calculations. Predicted stack NOx is determined using a Prediction Neural Net.</p> <p>A neural net is a non-linear regression generated from JMP statistical software using operating data. The net developed for predicting stack NOx conversion three (3) nodes. Each node is an equation which uses three (3) operating parameters.</p> <p>1.Ammonia Flow (lb/hr) 2.Stack Flow (kscfh) Stack Flow' = Fd*GCV*Gas Flow/1000000 * 20.9/(20.9-O2) 3.Total Gas Flow (kscfh) (Gas kscf/hr = CTG gas + DB Gas) The operating parameters fuel flow, engine NOx, SCR Temperature, ammonia flow and Stack O2 are used to provide inputs to the conversion equation.</p> <p>The Neural net formula for this determination is in column 5</p> <p>The predicted Stack Nox is then determined as follows: Stack Nox = Inlet Nox - (Inlet Nox * Nox Conversion)</p>	<p>Submitted when CEMS not functioning properly. A breakdown report would be submitted in these cases along with the correlation methodology. Additional Information: H1_1: TanH(0.5 * ((-5.32140825617981) + 0.322556668572793 * :NH3 + - 0.000144109788711927 * :Stk Flow + 0.00439854896669914 * :Total Gas)) H1_2: TanH(0.5 * ((-1.90686902055115) + - 0.0371990125630299 * :NH3 + - 0.0000164179601207946 * :Stk Flow + 0.00281388412898056 * :Total Gas)) H1_3: TanH(0.5 * ((-11.1980316912685) + 0.122250240321383 * :NH3 + - 0.0000082984388193251 * :Stk Flow + 0.00730780287949905 * :Total Gas)) Nox Conversion: 0.686072768611141 + 0.0350836766682709 * :H1_1 + - 0.208567171691691 * :H1_2 + - 0.0000464202272483742 * :H1_3</p>
AQ-72	Continuous Emission Monitoring System (CEM)	Permit # 4597-1-8 and 2-8 condition # 52	<p>The owner/operator shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor.</p> <p>A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).</p>	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	<p>Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;</p>	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

**CEC Compliance Project Manager: Anwar Ali**

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

**Reporting Period: January 1, 2019 - December 31, 2019**

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-73	Continuous Emission Monitoring System (CEM)	Permit # 4597-1-8 and 2-8 condition # 53	The owner/operator shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, calculated NOx and CO mass emission rates (lb/hr and lb/twelve month rolling period), and VOC, PM10 and SOx emission rates (lb/twelve month rolling period).  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-74	System operating log	Permit # 4597-1-8 and 2-8 condition # 54	The owner/operator shall maintain a system operating log, updated on a daily basis, which includes the following information: The actual local start-up time and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-75	SGT operation	Permit # 4597-1-8 and 2-8 condition # 55	The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Upon request	Request for site access.		Quarterly Report
<b>Facility-wide Conditions</b>							
<b>Emergency Standby Generator Engine</b>	<b>471 HP Caterpillar Model 3456 DI TA AA diesel-fired emergency IC engine powering a 300 kW electrical generator</b>						
AQ-104	Particulate Matter Emissions Limits (see AQ-111)	Permit # 4597-4-4 condition # 1	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]  The project owner shall submit the results of certification tests to both the District and CPM in accordance with AQ-111	NA	(see AQ-111)	No emissions testing required by SJVAPCD. Manufacturer Performance Specifications guarantee these levels of emissions. Manufacturers performance specifications available upon request	
AQ-105	No air contaminant - Released	NA	No air contaminant shall be released into the atmosphere which causes a public nuisance.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested	This condition was removed from the Title V operating Permit by the SJVAPCD on modification from Construction ATC to Title V operating permit	Open item, site is available for inspection upon request

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-106	No air contaminant - Discharged	NA	No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20 percent opacity.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested	This condition was removed from the Title V operating Permit by the SJVAPCD on modification from Construction ATC to Title V operating permit	Open item, site is available for inspection upon request
AQ-107	Exhaust stack shall vent vertically upward	Permit # 4597-4-4 condition # 6	The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested	This condition was changed from the Title V operating Permit by the SJVAPCD on modification from Construction ATC to Title V operating permit to read as follows: The exhaust stack(s) shall not be fitted with a fixed rain cap or any similar device...	Open item, site is available for inspection upon request
AQ-108	Engine - operational non-resettable elapsed time meter	Permit # 4597-4-4 condition # 5	This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-109	CARB certified diesel fuel - Sulfur Limit	Permit # 4597-4-4 condition # 12	Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-110	IC Engine Emissions Limits	Permit # 4597-4-4 conditions # 8, 9 and 10	Emissions from this IC engine shall not exceed any of the following limits: 4.69 g-NOx/bhp-hr, 0.12 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	upon request	when requested	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-111	IC Engine Emissions Limits - PM10	Permit # 4597-4-4 condition # 11	Emissions from this IC engine shall not exceed 0.029 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	upon request	when requested	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

**CEC Compliance Project Manager: Anwar Ali**

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

**Reporting Period: January 1, 2019 - December 31, 2019**

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-112	Engine	Permit # 4597-4-4 condition # 7	This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-113	Engine	Permit # 4597-4-4 condition # 4	During periods of operation for maintenance, testing, and required regulatory purposes, the owner/operator shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier).  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Report	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-114	Emergency Situation Definition	Permit # 4597-4-4 condition # 3	An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the owner/operator.	NA	NA		Open item
AQ-115	Engine	Permit # 4597-4-4 condition # 13	This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Report	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-116	Engine - Operating Duration Limits (50 hrs/calendar yr)	Permit # 4597-4-4 condition # 14	This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Report	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-117	Engine - Monthly records of emergency and non-emergency operation	Permit # 4597-4-4 condition # 15	The owner/operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Report	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-118	Engine - Records Retained Onsite	Permit # 4597-4-4 condition # 23	All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request.	upon request	when requested		Open item, Records are available for inspection upon request
AQ-118	Engine - Records Retained Onsite	NA	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8)	Quarterly Jan 30th; April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Report	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
<b>Equipment Description, Unit N-4597-5-1 39 MMBTU/HR natural gas-fired English and Tube Inc Model 28D375 Boiler with an Ultra-Low-NOx burner and Flue Gas Recirculation.</b>							
AQ-121	Particulate Matter Emissions Limits (see AQ-144)	Permit # 4597-5-1 condition # 1	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration.  The project owner shall submit the results of fuel tests to both the District and CPM in accordance with AQ-144.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	(see AQ-144)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	See AQ-144

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-122	No air contaminant - Released	NA	No air contaminant shall be released into the atmosphere which causes a public nuisance.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-123	No air contaminant - Discharged	NA	No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20 percent opacity.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-128	Equipment operation / maintenance	Permit # 4597-5-1 condition # 2	All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-129	Operations of equipment - Flue gas recirculation	Permit # 4597-5-1 condition # 3	The flue gas recirculation (FGR) system shall be operated properly and shall be maintained per the manufacturer's recommendations.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-130	Operations of equipment - Equipment Fuel Meter	Permit # 4597-5-1 condition # 4	A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. The fuel meter shall be calibrated per the fuel meter manufacturers recommendations.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		Open item, site is available for inspection upon request
AQ-131	Operations of equipment - Boiler Maximum Hrs- 4,000 hrs/yr	Permit # 4597-5-1 condition # 5	The boiler shall operate a maximum of 4,000 hours per calendar year.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.  
Tracy Combined Cycle Power Plant**

**CEC Compliance Project Manager: Anwar Ali**

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

**Reporting Period: January 1, 2019 - December 31, 2019**

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-132	Aux Boiler Sulfur Content	Permit # 4597-5-1 condition # 6	The boiler shall only be fired on PUC-regulated natural gas with a sulfur content value not exceeding 0.66 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a daily basis and 0.25 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a 12-month rolling average basis.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-133	Aux Boiler Emission rates	Permit # 4597-5-1 condition # 7	Emission rates from this unit shall not exceed any of the following limits: NOx (as NO2) – 6.0 ppmvd @ 3% O2 or 0.0073 lb/MMBtu; VOC (as methane) – 0.005 lb/MMBtu; CO - 50.0 ppmvd @ 3% O2 or 0.037 lb/MMBtu; PM10 - 0.007 lb/MMBtu; or SOx (as SO2) - 0.0019 lb/MMBtu.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Annual Source Test	Annual Source Test	Source Test performance Date: January 24, 2017 and January 31, 2020	Nox, CO and O2 are determined during source test. Compliance with SO2 is based on natural gas sulfur content and compliance with PM10 is demonstrated by calculation using AP42 Section 1.4.2 (particulate emission factor natural gas fired boilers). VOC has been demonstrated in practice by the use of Natural Gas as determined by SJVAPCD. See AQ-135.
AQ-135	Aux Boiler Source Testing	Permit # 4597-5-1 condition # 8	Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	once every twelve (12) months	Source Testing	Source Test performance Date: January 24, 2017 and January 31, 2020	Annually - +-30 days. Test demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-136	Aux Boiler	Permit # 4597-5-1 condition # 9	All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	NA	NA	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-137	Aux Boiler Source Testing Plan	Permit # 4597-5-1 condition # 10	Source testing shall be conducted using the methods and procedures approved by the District. A source test plan must be submitted for approval at least 15 days prior to testing.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	15 days prior	Aux Boiler Source Testing Plan	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-138	Aux Boiler Source Testing	Permit # 4597-5-1 condition # 11	The results of each source test shall be submitted to the District within 60 days thereafter.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with Condition AQ-50. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.	60 days following the source test	Source Testing - Aux Boiler	Source Test report submittal date: February 15, 2017 and February 18, 2020	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-139	Aux Boiler Source Testing Units	Permit # 4597-5-1 condition # 12	The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	NA	NA	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-140	Aux Boiler Emissions Source Testing	Permit # 4597-5-1 condition # 13	For emissions source testing, the arithmetic average of three 30- consecutive-minute (or longer periods as necessary) test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	NA	NA	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-141	Aux Boiler Source Testing - NOX emissions	Permit # 4597-5-0 condition # 14	NOX emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	NA	NA	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. Test demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-142	Aux Boiler Source Testing - CO emissions	Permit # 4597-5-1 condition # 15	CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	NA	NA	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.



**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-143	Aux Boiler Source Testing - Stack Gas O2	Permit # 4597-5-1 condition # 16	Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100.  The project owner shall submit the proposed protocol for the source tests to both the District and CPM for approval in accordance with condition AQ-50.	NA	NA	Source Test Protocol Submittal Dates December 13, 2016 and December 9, 2019	ongoing. est demonstrated compliance in 2013, 2014, 2017 and 2020. Next test to be scheduled in 2023.
AQ-144	Aux Boiler short-term (daily) fuel sulfur content limit	Permit # 4597-5-1 condition # 17	Testing to demonstrate compliance with the short-term (daily) fuel sulfur content limit shall be conducted monthly. If a monthly test indicates that a violation of the daily fuel sulfur content limit has occurred then weekly testing shall commence and continue until eight consecutive tests show compliance. Once compliance with the daily fuel sulfur content is demonstrated on eight consecutive weekly tests, testing may return to the monthly schedule. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-145	Sulfur content - Compliance with the rolling 12-month average fuel sulfur content limit	Permit # 4597-5-1 condition # 18	Compliance with the rolling 12-month average fuel sulfur content limit shall be demonstrated monthly. The 12-month rolling average fuel sulfur content shall be calculated as follows: 12-month rolling average fuel sulfur content = Sum of the monthly average fuel sulfur contents for the previous 12 months ÷ Total number of months the unit has operated in during the previous 12 months. The monthly average fuel sulfur content is the average fuel sulfur content of all tests conducted in a given month.  Owner/operator shall keep a monthly record of the rolling 12-month average fuel sulfur content.	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-145	Sulfur content - Compliance with the rolling 12-month average fuel sulfur content limit	NA	The result of the natural gas fuel sulfur monitoring data and other fuel sulfur content source data shall be submitted to the District and CPM in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

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ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-146	Sulfur Content - Monitoring	Permit # 4597-5-0 condition # 19	Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377.  The result of the natural gas fuel sulfur monitoring data and other fuel sulfur content source data shall be submitted to the District and CPM in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-147	CEMs protocol	NA	Provide Continuous Emission Monitoring System (CEM) protocol for approval by APCD and CPM at least 60 days prior to installation of CEM. Make site available for inspection.	at least 60 days prior and upon request	installation of CEM and upon request		MRP San Joaquin Energy is performing the Alternate monitoring scheme, A letter was submitted to the SJVAPCD and CPM and was approved on 6/7/12.
AQ-147	CEMs protocol	NA	Submit the chosen method of monitoring (either CEMS or chosen alternate monitoring scheme) at least 30 days prior to initial operation of this boiler. (District submittal number 29, not AQ-147)	at least 30 days prior	initial operation of this boiler		MRP San Joaquin Energy is performing the Alternate monitoring scheme, A letter was submitted to the SJVAPCD and CPM and was approved on 6/7/12.
AQ-147	CEMs protocol	NA	The project owner shall make the site available for inspection by representatives of the District, ARB and the Commission upon request.	upon request	when requested		MRP San Joaquin Energy is performing the Alternate monitoring scheme, A letter was submitted to the SJVAPCD and CPM and was approved on 6/7/12.
AQ-148	CEMs protocol	Permit # 4597-5-0 condition # 25	The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing.  The project owner shall make the site available for inspection by representatives of the District, ARB and the Commission upon request.	upon request	when requested		Site is available for inspection upon request
AQ-149	Daily Fuel Records	Permit # 4597-5-0 condition # 26	Owner/operator shall maintain daily records of the type and quantity of fuel combusted by the boiler.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report. Site is available for inspection upon request
AQ-150	Fuel Records	Permit # 4597-5-0 condition # 27	Owner/operator shall keep a record of the cumulative annual quantity of hours operated for this unit. The record shall be updated at least monthly.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-151	Records	Permit # 4597-5-0 condition # 28	All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report and site is available for inspection upon request
Equipment Description, Unit N-4597-6-0	<b>235 BHP Cummins Model CFP7E-50 TIER 3 diesel-fired emergency IC enginepowering a firewater pump or equivalent.</b>						
AQ-154	Particulate Matter Emissions Limits (see AQ-111)	Permit # 4597-6-0 condition # 1	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration.  The project owner shall submit the results of certification tests to both the District and CPM in accordance with AQ-167.	NA	(see AQ-167)	Compliance of District Rule 4201.3.1 is via a CAPCOA/CARB/EPA IX Title V periodic Monitoring Recommendations memo dated July 2001. The District's grain loading limit of 0.1 grain/dscf does not need to be source tested provided the following conditions are met and are contained in the PTO. 1) Engine usage is limited to maintenance, testing, and time of actual unforeseen emergencies (see condition 8 below), 2) usage for maintenance and testing is not to exceed 200 hours per year (Condition 8 limits operation to 50 hours per year), and 3) maintain records of all engine usage and maintenance (see condition 10 below).	
AQ-155	No air contaminant - Released	NA	No air contaminant shall be released into the atmosphere which causes a public nuisance.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		
AQ-156	No air contaminant - Discharged	NA	No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20 percent opacity.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	upon request	when requested		
AQ-161	Equipment operation / maintenance.	Permit # 4597-6-0 condition # 2	The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Site is available for inspection upon requestg

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

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ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-162	Equipment Meter	Permit # 4597-6-0 condition # 3	This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Site is available for inspection upon requestg
AQ-163	Equipment operation	NA	This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90 percent control efficiency.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Site is available for inspection upon requestg
AQ-164	Equipment operation / maintenance.	Permit # 4597-6-0 condition # 4	This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access		Site is available for inspection upon requestg
AQ-165	Equipment Fuel - Sulfur Content	Permit # 4597-6-0 condition # 5	Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used.  The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	Upon request	Request for site access	Invoices demonstrating type of CARB diesel kept in facility	Site is available for inspection upon requestg
AQ-166	Equipment Emission Limits	Permit # 4597-6-0 condition # 6	Emissions from this IC engine shall not exceed any of the following limits: 2.67 g-NOx/bhp-hr, 2.39 g-CO/bhp-hr, or 0.16 g-VOC/bhp-hr.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Upon request	Request for site access	Manufacturer Performance Specifications available upon request	Quarterly Report
AQ-167	Equipment Emission Limits for PM10	Permit # 4597-6-0 condition # 7	Emissions from this IC engine shall not exceed 0.12 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Upon request	Request for site access	Manufacturer Performance Specifications available upon request	Quarterly Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
AQ-168	Engine - Operating Duration Limits (50 hrs/calendar yr)	Permit # 4597-6-0 condition # 8	This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-169	Equipment operation / maintenance Records	Permit # 4597-6-0 condition # 9	The owner/operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, emergency firefighting, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Quarterly April 30th; July 30th; Oct 30th; Jan. 30th;	Quarterly Operations Reports -(Include in 4 quarterly reports from January 2019 to December 2019)	Quarterly April 18, 2019; July 26, 2019; October 25, 2019; January 23 2020;	Quarterly Report
AQ-170	Equipment Records	Permit # 4597-6-0 condition # 10	All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request.  A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Upon request	Request for site access		Quarterly Report
Bio-1			Submit temporary or permanent replacement request for Designated Biologist to CPM	10 Working days prior to replacement	Planned modification of Designated Biologist	Ms. Jacqueline Millband was approved as Designated Biologist and Molly Sandomire as Alternate Designated Biologist on November 16, 2017	Construction Completed
Bio-2	Designated Biologist Duties		The Designated Biologist shall maintain written records of the tasks specified above and those included in the biological resources mitigation implementation and monitoring plan (BRMIMP), with summaries of these records submitted in the annual report		Annual Report	Facility inspection by Ms. Molly Sandomire was conducted on April 9, 2020. Report is included in attachments	Annual Report
Bio-2	Designated Biologist Duties		Designated Biologist for site inspection and annual report. Bio Inspection in the 3rd quarter of the year.	3rd Quarter	Annual Inspection	Facility inspection by Ms. Molly Sandomire was conducted on April 9, 2020. Report is included in attachments	Annual Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
Bio-2	Designated Biologist Duties		During project operation, the Designated Biologist shall submit record summaries in the annual compliance report as discussed in Bio-2 unless their duties are ceased as approved by the CPM.	NA	Annual Report	Facility inspection by Ms. Molly Sandomire was conducted on April 9, 2020. Report is included in attachments	Annual Report
Bio-2	Designated Biologist Duties		Designated Biologist performs relevant duties discussed in Bio-2 for plant closure.		Plant Closure	NA	Not Started - Plant Closure
Bio-2	Designated Biologist Duties		Perform - Designated Biologist performs required duties during all phases of the project.	NA	NA	Designated Biologist is assigned and approved. See above.	Construction Completed
Bio-4	Designated Biologist and Biological Monitor Activities		<p>If required by the Designated Biologist and biological monitors, the operation managers shall halt site ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist.</p> <p>Designated Biologist shall:</p> <ul style="list-style-type: none"><li>• Require a halt to all activities in any area when there would be an unauthorized adverse impact to biological resources if the activities continued;</li><li>• Inform the project owner and the operation managers when to resume activities; and</li><li>• Notify the CPM if there is a halt of any activities, and advise the CPM of any corrective actions that have been taken, or shall be instituted, as a result of the work stoppage..</li></ul> <p>Submit notification to CMP of any non-compliance or ordered construction halt. Submit corrective actions</p>	Next working day	Non-compliance event or halt in construction	No incidents have occurred since the start of commercial operations of the combined cycle power plant to require halting operations.	Ongoing - operations
Bio-5			Implement a CPM-approved worker environmental awareness program (WEAP) in which each of its employees, as well as employees of contractors and subcontractors who work on the project site or any related facilities during site mobilization, ground disturbance, grading, construction, operation, and closure are informed about sensitive biological resources associated with the project.		Worker Environmental Awareness Training	Training records available upon request	Ongoing - operations
Bio-5			Maintenance and contractor will be trained in accordance with the WEAP video; plant manager to provide training.		Worker Environmental Awareness Training	Training records available upon request	Ongoing - operations
Bio-5			Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines.		Worker Environmental Awareness Training	Training records available upon request	Ongoing - operations
Bio-5			During project operation, signed statements for active project operational personnel shall be kept on file for six months following the termination of an individual's employment.	6 months after termination	operational personnel - termination of employment	Training records available upon request	Ongoing - operations

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
Compl-5	Compliance Matrix		Submit comprehensive compliance matrix (spreadsheet format) annually  1. The technical area; 2. The Condition number; 3. A brief description of the verification action or submittal required by the Condition; 4. The date the submittal is required; 5. The expected or actual submittal date; 6. The date a submittal or action was approved by the Chief Building Official (CBO), CPM, or delegate agency, if applicable; 7. The compliance status of each Condition, e.g., "not started," "in progress" or "completed" 8. If the Condition was amended, the date of the amendment.	Annual	Annual Reporting	Matrix Complete as per requirement.	Annual Report
Compl-7	Annual Compliance Report		Submit Annually after construction  1. An updated compliance matrix 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 operations during the year; 3. Documents required by specific Conditions to be submitted along with the Annual Compliance Report. Each of these items must be identified in the transmittal letter, with the Condition it satisfies, and submitted as attachments to the Annual Compliance Report; 4. A cumulative listing of all post-Certification changes approved by the Energy Commission or cleared by 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 file; 9. An evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to date [see Compliance Conditions for Facility Closure addressed later in this section]; and 10. A listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and <del>Submit payment of Annual energy Facility Compliance Fee, which is adjusted annually.</del>	Operations/Post Construction	On-line operations	Report completed April 25, 2020.	Annual Report
Compl-9	Annual Fees		<del>Submit payment of Annual energy Facility Compliance Fee, which is adjusted annually.</del>	Annual Fee	July 1 of each year during certification	Payment submitted on 5/16/2019	

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

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ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
Compl-10	Reporting of Complaints, Notices, and Citations		Report all notices, complaints, violations to CPM  The telephone number is posted at the project site and made easily visible to passersby during operation. This number is also posted on the Energy Commission's web page.	Operations	Receipt of any complaints, notices, or violations	No complaints were received during the reporting period.	On going
Compl-10	Reporting of Complaints, Notices, and Citations		GWF will report and provide copies to the CPM of all complaint forms, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the NOISE Conditions of Certification. All other complaints shall be recorded on the complaint form (Attachment A).	Within 10 days	Receipt of any complaints, notices, or violations	No complaints were received during the reporting period.	On going
Compl-11	Planned Facility Closure		Submit closure plan to CPM	12-month prior to start of closure	Planned closure	NA	Not Started - Facility Closure
Compl-12	Unplanned Temporary Facility Closure		Submit on-site contingency plan to CPM	time agreed to by the CPM) prior to	Planned temporary closure	8/3/2012 Revised 041/23/19 New owner and insurance carrier	APPROVED
Compl-12	Unplanned Temporary Facility Closure		In the annual compliance reports submitted to the Energy Commission, the project owner will review the on-site contingency plan, and recommend changes to bring the plan up to date. Any changes to the plan must be approved by the CPM.  The report includes the status of the insurance coverage and major equipment warranties must be updated in the annual compliance reports.	Annual	Annual Report	See above for changes	Annual Report
Compl-12	Unplanned Temporary Facility Closure		The project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the circumstances and expected duration of the closure.	24 - hours for notification	Unplanned Temporary Facility Closure	There were no unplanned temporary facility closure this year.	Not Started - Unplanned Facility Closure
Compl-12	Unplanned Temporary Facility Closure		Unplanned temporary closure is likely to be permanent, or for a duration of more than 12 months, a closure plan consistent with the requirements for a planned closure shall be developed and submitted to the CPM within 90 days of the CPM's determination (or other period of time agreed to by the CPM).	within 90 days	Unplanned Temporary Facility Closure	There were no unplanned temporary facility closure this year.	Not Started - Unplanned Facility Closure



**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

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ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
Compl-13	Unplanned Permanent Facility Closure		The project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the circumstances and expected duration of the closure.	24 - hours for notification	Unplanned Permanent Facility Closure	There were no unplanned temporary facility closure this year.	Not Started - Unplanned Facility Closure
Compl-13	Unplanned Permanent Facility Closure		A closure plan, consistent with the requirements for a planned closure, shall be developed and submitted to the CPM within 90 days of the permanent closure or another period of time agreed to by the CPM.	within 90 days	Unplanned Permanent Facility Closure	There is no unplanned permanent facility closure this year.	Not Started - Facility Closure
Waste-5	Waste Management enforcement actions		Notify CPM of any impending waste management-related enforcement action by any regulatory agencies.	Within 10 days	Issuance of a hazardous waste enforcement action	There are no impending waste management related inforcement action by any regulatory agency.	Ongoing - operations
Waste-6	Operation Waste Management Plan		Include in Annual Compliance Plan, actual volume of wastes generated, waste management methods, comparison of actual versus projects, and any Waste Management Plan updates.  Copies of all required waste management permits, notices, and/or authorizations shall be included in the plan and updated as necessary.	Annually	Annual Reporting	Volume of wastes generated is included in Appendix N. Also included waste management methods used as well as the plan updates that will be included in the revision of the waste management plan.	Annual Report
Haz-1	Haz Mat Business Plan Update		The project owner shall not use any hazardous materials not listed in Appendix B, below, or in greater quantities or strengths than those identified by chemical name in Appendix B, below, unless approved in advance by the Compliance Project Manager (CPM).  The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility.	Annual Reporting	Annual Reporting	A list of Hazardous materials used at the site is provided in Appendix I	Annual Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
Haz-7	Operation Site Security Plan		Verify updates and compliance with Site Security Plan as part of Annual Report  In the annual compliance report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.  The Operation Security Plan shall include the following: 1. Written standard procedures for employees, contractors, and vendors when encountering suspicious objects or packages on site or off site; 2. A statement (refer to sample, Attachment A), signed by the project owner certifying that background investigations have been conducted on all project personnel. B. A statement(s) (refer to sample, Attachment B), signed by the contractor or authorized representative(s) for any permanent contractors or other technical contractors 3. A statement(s) (refer to sample, Attachment C), signed by the owners or authorized representative of hazardous materials transport vendors.	Annually	Annual Compliance Report	Statements and certifications that background investigations have been performed are included in Appendix H	Annual Report
Land-1	Prime farmland mitigation ( 3.28 acres)		Provide updates to CMP in the Annual Compliance Report on the status of farmland/easement purchases and the continued implementation of the TPP's agricultural mitigation plan; farmland and/or easements have been purchased within three years of the start of operation.	annual update; purchase farmland or easements by 2015	Annual Reporting	The TPP agricultural mitigation plan that included the American Farmland Trust agreement (AFT) and a lease agreement between Kagehiro Ranches (Jepsen Webb Ranch, LLC) to continue the farming of the designated land are still in force.	Annual Report
Noise-2	Noise Complaint Resolution - Construction and Operation		Document and resolve noise complaints; file Noise Complaint Resolution Form or similar instrument with CPM and local jurisdiction	Within 5 days	Receipt of noise complaint	No complaints were received during the reporting period. See Appendix I	During operation
			If noise mitigation is required and not resolved within 3 days, submit Noise Complaint Resolution for with CPM when mitigation is completed	Within 3 days	Noise complaint resolved	No complaints were received during the reporting period. See Appendix I	During operation

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

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ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
S&W-2	Drainage, grading, and erosion & sediment control plans		<p>Once operational, submit to the CPM with an annual compliance reports regarding results of stormwater BMP monitoring and maintenance activities.</p> <p>This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in offsite flooding potential, meet local requirements, and identify all monitoring and maintenance activities.</p> <p>Monitoring activities shall include routine measurement of the volume of accumulated sediment in the stormwater retention basin. Maintenance activities must include removal of accumulated sediment from the retention basin when an average depth of 0.5 feet of sediment has accumulated in the retention basin.</p> <p>Civil-1: All maps shall be presented at a legible scale. <u>Verification:</u> Once operational, the project owner shall provide in the annual compliance report information on the results of stormwater BMP monitoring and maintenance activities.</p>	Annually - During Operations	Annual Compliance Report	<p>MRP San Joaquin Energy discharges all its storm water to the on-site storm water basin. The site is equipped with storm water drains throughout the facility. The drains are covered with a fine steel mesh to keep any large materials from entering the drain system. In addition, the facility ground surfaces are either asphalt (16.1%), concrete (28.2%), gravel (37.6%), soil (6.0%) and the basin takes up 12.1%. The only areas with exposed dirt are around the stormwater basin and the basin is protected from the inside by rocks to minimize erosion. The basin sediment level was calculated and no changes were detected. The results are included in Appendix J.</p> <p>On 2019, The site filed for a NOT (Notice of Termination) with the Regional Water Board and was approved based on exceptions for Natural Gas fired power plants.</p>	Annual Report
			The facility submitted a Notice of Intent as required under the new Industrial General Stormwater Permit.			The facility submitted a Notice of Intent as required under the new Industrial General Stormwater Permit.	
S&W-4	Annual Water Use Summary		<p>Provide monthly total water used, serviced, tested and calibrated, maintenance, and compliance activities to the CPM in the annual report, including a Water Use Summary.</p> <p>Water use shall not exceed the annual water-use limit of 54.4 acre-feet per year. The project owner shall monitor and record the total water used on a monthly basis. For calculating the annual water use, the term "year" will correspond to the date established for the annual compliance report submittal.</p>	Annually	Annual Report	The water use summaries as well as the water flow meter calibrations are included in Appendix K.	Annual Report

**San Joaquin Energy Inc.**  
**Tracy Combined Cycle Power Plant**

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

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S&W-4	Annual Water Use Summary		For the first year of operation, the project owner shall prepare an annual Water Use Summary, which will include the monthly range and monthly average of daily raw surface water usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet.	Annually; First year of operation	Annually; First year of operation	The water use reports are included in Appendix K.	Annual Report
S&W-4	Annual Water Use Summary		For subsequent years, the annual Water Use Summary shall also include the yearly range and yearly average water use by the project; the monthly range and monthly average of daily raw surface water usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet.	Annually	Annual Report	The water use reports are included in Appendix K.	Annual Report
S&W-6	Industrial wastewater and contact stormwater		Provide CPM evidence that industrial wastewater and contact stormwater disposal is being handled by a licensed disposal and transportation facility in the annual compliance report; Provide a copy of the manifest as evidence.	Annually	Annual Reporting	Refer to Appendix L	Annual Report
Visual-4	Revised Perimeter Landscaping Plan		Submit a report on landscape maintenance activities, including replacement of dead vegetation, for the previous year of operation.	Annual	Annual Reporting	Report provided in the annual compliance report	Annual Report
Visual-5	Lighting Mitigation Plan		Within 48 hours of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation.	Within 48 hours	Receipt of complaint	No complaints were received during the reporting period.	Open item
Visual-5	Lighting Mitigation Plan		The project owner shall notify the CPM within 48 hours after completing implementation of the proposal.	Within 48 hours	Receipt of complaint	No complaints were received during the reporting period.	Open item
Visual-5	Lighting Mitigation Plan		A copy of the complaint resolution form report shall be submitted to the CPM within 30 days	Within 30 days	Receipt of complaint	No complaints were received during the reporting period.	Open item

San Joaquin Energy Inc.  
Tracy Combined Cycle Power Plant

CEC Compliance Project Manager: Anwar Ali

ANNUAL COMPLIANCE MATRIX - PROJECT No. 08-AFC-07

Reporting Period: January 1, 2019 - December 31, 2019

COC No.	Condition Short Description		Verification Action	Submittal Timing	Submittal Trigger Event	Actual Submittal Date	Compliance Status
Visual-6	Surface Treatment Maintenance		The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify (a): the condition of the surfaces of all structures and buildings at the end of the reporting year; (b) maintenance activities that occurred during the reporting year; and (c) the schedule of maintenance activities for the next year.	Annual	Annual Reporting	Refer to Appendix M	Annual Report
WS-5	Automatic External Defibrillator (AED)		Submit documentation that verifies an automatic external defibrillator (AED) is located on-site during construction and operations	30 days prior to site mobilization	Site Mobilization	22-Nov-10 7-Dec-10	Submitted invoice 22-Nov-10 Submitted photo 7-Dec-10 APPROVED
			Submit copy of training and maintenance program for AED to CPM; implement training program	30 days prior to site mobilization	Site Mobilization	CPR, First Aid and AED training performed on 03/14/19 and 03/19/19 by the Red Cross. AED inspections are performed monthly and batteries are replaced prior to expiration dates.	Ongoing - operations

## **Appendix B**

### **Permits and Applications**



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



FEB 26 2020

Mr. John Archibald  
MRP San Joaquin Energy, LLC  
14950 W Schulte Rd  
Tracy, CA 95377

**Re: Notice of Final Action - Title V Permit Renewal**  
**Facility Number: N-4597**  
**Project Number: N-1183007**

Dear Mr. Archibald:

The District has issued the Final Renewed Title V Permit for MRP San Joaquin Energy, LLC (see enclosure). The preliminary decision for this project was made on January 8, 2020. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Title V Permit will be posted on the District's website ([www.valleyair.org](http://www.valleyair.org)).

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Sincerely,

  
Arnaud Marjollet  
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email  
cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

**Samir Sheikh**

Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



# Permit to Operate

**FACILITY:** N-4597

**EXPIRATION DATE:** 06/30/2024

**LEGAL OWNER OR OPERATOR:**

MRP SAN JOAQUIN ENERGY, LLC

**MAILING ADDRESS:**

14950 W SCHULTE RD  
TRACY COMBINED CYCLE POWER PLANT  
TRACY, CA 95377

**FACILITY LOCATION:**

14950 W SCHULTE RD  
TRACY COMBINED CYCLE POWER PLANT  
TRACY, CA 95377

**FACILITY DESCRIPTION:**

ELECTRIC POWER GENERATION

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

**Samir Sheikh**

Executive Director / APCO

**Arnaud Marjollet**

Director of Permit Services



# San Joaquin Valley Air Pollution Control District

**FACILITY:** N-4597-0-4

**EXPIRATION DATE:** 06/30/2024

## **FACILITY-WIDE REQUIREMENTS**

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1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: MRP SAN JOAQUIN ENERGY, LLC  
Location: 14950 W SCHULTE RD, TRACY COMBINED CYCLE POWER PLANT, TRACY, CA 95377  
N-4597-0-4 : Feb 25 2020 1:14PM -- BRARG



10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
43. All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall maintain records of the cumulative annual facility-wide NO<sub>x</sub>, VOC, and PM<sub>10</sub> emissions. The records shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
45. Should the facility, as defined in 40 CFR 68.3, become subject to part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 CFR 68.10. The facility shall certify compliance as part of the annual certification as required by 40 CFR Part 70. [40 CFR Part 68, Subpart G] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4597-1-9

**EXPIRATION DATE:** 06/30/2024

## **EQUIPMENT DESCRIPTION:**

88 MW NOMINALLY RATED COMBINED-CYCLE POWER GENERATING SYSTEM #1 CONSISTING OF A GENERAL ELECTRIC MODEL PG 7121 EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH AN INLET AIR FILTRATION AND COOLING SYSTEM (EVAPORATIVE AND FOGGING) DRY LOW NOX COMBUSTION, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, AN OXIDATION CATALYST, HEAT RECOVERY STEAM GENERATOR #1 (HRSG) WITH A 380 MMBTU/HR DUCT BURNER (MAXIMUM FIRING RATE 345 MMBTU/HR) AND A 168 MW NOMINALLY RATED STEAM TURBINE (SHARED WITH N-4597-2)

## **PERMIT UNIT REQUIREMENTS**

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Owner/operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1] Federally Enforceable Through Title V Permit
3. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0] Federally Enforceable Through Title V Permit
4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
6. Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater, except for up to three minutes in any hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
7. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve this gas turbine engine. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During all types of operation, including startup and shutdown periods, ammonia injection in to the SCR system shall occur once a minimum catalyst face temperature of 435 degrees Fahrenheit has been reached. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The SCR system shall be equipped with a continuous temperature monitoring system to measure and record the temperature at the catalyst face. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The CTG shall only be fired on PUC-regulated natural gas with a sulfur content value not exceeding 0.66 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a daily basis and 0.25 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a 12-month rolling average basis. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



11. Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 8.10 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO - 3.90 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) - 1.13 lb/hr and 1.5 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> - 4.40 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2.03 lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)] Federally Enforceable Through Title V Permit
12. Emission rates from this CTG with the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 10.30 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO - 6.00 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) - 3.22 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> - 5.80 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2.63 lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)] Federally Enforceable Through Title V Permit
13. During start-up, CTG exhaust emission rates shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 390.5 lb/event; CO - 562.5 lb/event; VOC (as methane) - 10.5 lb/event; PM<sub>10</sub> - 11.0 lb/event; or SO<sub>x</sub> (as SO<sub>2</sub>) - 4.1 lb/event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
14. During shutdown, CTG exhaust emission rates shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 104.0 lb/event; CO - 148.0 lb/event; VOC (as methane) - 2.6 lb/event; PM<sub>10</sub> - 3.0 lb/event; or SO<sub>x</sub> (as SO<sub>2</sub>) - 1.1 lb/event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
15. A start up event is defined as the period beginning with the gas turbine initial firing until the unit meets the steady state lb/hr and ppmvd emission limits of this permit. A shutdown event is defined as the period beginning with the turbine shutdown sequence and ending with the cessation of firing the gas turbine engine. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. The duration of each startup shall not exceed three hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
17. The duration of each shutdown shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
18. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 2201 and 40 CFR 60.4333(a)] Federally Enforceable Through Title V Permit
19. The ammonia (NH<sub>3</sub>) emissions shall not exceed 5 ppmvd @ 15% O<sub>2</sub> or 9.40 lb/hr over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
20. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation:  $(\text{ppmvd @ 15\% O}_2) = ((a - (b \times c / 1,000,000)) \times (1,000,000 / b)) \times d$ , where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO<sub>x</sub> concentration ppmvd @ 15% O<sub>2</sub> across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; or 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O<sub>2</sub>. If this option is chosen, the owner/operator shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
21. Daily emissions from the CTG shall not exceed the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 814.9 lb/day; CO - 1071.6 lb/day; VOC - 78.6 lb/day; PM<sub>10</sub> - 132.0 lb/day; or SO<sub>x</sub> (as SO<sub>2</sub>) - 58.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Annual emissions from the CTG, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 88,881 lb/year; CO - 74,598 lb/year; VOC - 15,145 lb/year; PM<sub>10</sub> - 32,250 lb/year; or SO<sub>x</sub> (as SO<sub>2</sub>) - 7,084 lb/year. Compliance with the annual NO<sub>x</sub> and CO emission limits shall be demonstrated using CEM data and compliance with the annual VOC, PM<sub>10</sub> and SO<sub>x</sub> emission limits shall be demonstrated using the most recent source test results. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. Each one hour period shall commence on the hour. Each one hour period in a three hour rolling average will commence on the hour. The three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The twelve consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit
25. The combined natural gas fuel usage for permit units N-4597-1 and N-4597-2 shall not exceed 20,454 MMscf/year. [District Rule 2550] Federally Enforceable Through Title V Permit
26. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Source testing to measure the steady state NO<sub>x</sub>, CO, VOC, and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) shall be conducted at least once every 12 months. [District Rules 1081, 2201 and 4703, and 40 CFR 60.4340, and 40 CFR 60.4400] Federally Enforceable Through Title V Permit
28. Source testing to measure the PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every twelve months. [District Rules 1081 and 2201, and 40 CFR 60.4400] Federally Enforceable Through Title V Permit
29. Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted for one of the gas turbines (N-4597-1 or N-4597-2) at least once every seven years. CEM relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emission limits, then startup and shutdown NO<sub>x</sub> and CO testing shall be conducted every 12 months. If an annual startup and shutdown NO<sub>x</sub> and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NO<sub>x</sub> and CO testing frequency shall return to the once every seven years schedule. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
30. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [District Rule 4703] Federally Enforceable Through Title V Permit
31. Source testing shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO - EPA Method 10 or 10B or ARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or ARB 100. NO<sub>x</sub> testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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33. Testing to demonstrate compliance with the short-term (daily) fuel sulfur content limit shall be conducted monthly. If a monthly test indicates that a violation of the daily fuel sulfur content limit has occurred then weekly testing shall commence and continue until eight consecutive tests show compliance. Once compliance with the daily fuel sulfur content is demonstrated on eight consecutive weekly tests, testing may return to the monthly schedule. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month. [District Rule 2201, and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
34. Compliance with the rolling 12-month average fuel sulfur content limit shall be demonstrated monthly. The 12-month rolling average fuel sulfur content shall be calculated as follows: 12-month rolling average fuel sulfur content = Sum of the monthly average fuel sulfur contents for the previous 12 months / total number of months the unit has operated in during the previous 12 months. The monthly average fuel sulfur content is the average fuel sulfur content of all tests conducted in a given month. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month. Owner/operator shall keep a monthly record of the rolling 12-month average fuel sulfur content. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
35. Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D5504, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4360 and 40 CFR 60.4415(a)(1)(ii)] Federally Enforceable Through Title V Permit
36. The CTG shall be equipped with a continuous monitoring system to measure and record fuel consumption. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
37. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Continuous emissions monitor(s) shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080 and 4703, and 40 CFR 60.4335(b)(1)] Federally Enforceable Through Title V Permit
38. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
39. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2, 3, and 4, and/or 40 CFR 75 Appendix A, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are both performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
41. The owner/operator shall perform a relative accuracy test audit (RATA) for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.11, or 40 CFR Part 75 Appendix B, at least once every four calendar quarters. The owner/operator shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. If the RATA test is conducted as specified in 40 CFR Part 75 Appendix B, the RATA shall be conducted on a lb/MMBtu basis. [District Rule 1080] Federally Enforceable Through Title V Permit
42. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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43. Results of the CEM system shall be averaged over a one hour period for NOx emissions and a three hour period for CO emissions using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 CFR 60.13. [District Rule 4703, and 40 CFR 60.13 and 40 CFR 60.4350(a)] Federally Enforceable Through Title V Permit
44. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
45. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
46. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
47. Excess NOx emissions shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A 30 day rolling average NOx emission rate is the arithmetic average of all hourly NOx emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NOx emission rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours. A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.4350(h) and 40 CFR 60.4380(b)(1)] Federally Enforceable Through Title V Permit
48. For the purpose of determining excess NOx emissions, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NOx emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 of 40 CFR 60 Appendix A. For any hour in which the hourly O2 concentration exceeds 19.0 percent O2, a diluent cap value of 19 percent O2 may be used in the emission calculations. [40 CFR 60.4350(b)] Federally Enforceable Through Title V Permit
49. Excess SOx emissions is each unit operating hour included in the period beginning on the date and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtime for SOx begins when a sample is not taken by its due date. A period of monitor downtime for SOx also begins on the date and hour of a required sample, if invalid results are obtained. A period of SOx monitoring downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385(a) and (c)] Federally Enforceable Through Title V Permit
50. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, and 40 CFR 60.4375(a) and 60.4395] Federally Enforceable Through Title V Permit
51. The owner/operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit during times that the CEMS is not functioning properly. [District Rule 4703] Federally Enforceable Through Title V Permit
52. The owner/operator shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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53. The owner/operator shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, calculated NOx and CO mass emission rates (lb/hr and lb/twelve month rolling period), and VOC, PM10 and SOx emission rates (lb/twelve month rolling period). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
54. The owner/operator shall maintain a system operating log, updated on a daily basis, which includes the following information: The actual local start-up time and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used. [District Rule 4703] Federally Enforceable Through Title V Permit
55. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
56. This unit shall be equipped with temperature measurement devices that continuously measure both the hot and cold oxidation catalyst temperatures. [40 CFR 64] Federally Enforceable Through Title V Permit
57. Except during periods of startup, shutdown, or when conducting combustor tuning activities, the measured hot oxidation catalyst temperature shall be equal to or greater than 950 degrees Fahrenheit and shall be less than or equal to 1100 degrees Fahrenheit. [40 CFR 64] Federally Enforceable Through Title V Permit
58. Except during periods of startup, shutdown, or when conducting combustor tuning activities, the measured cold oxidation catalyst temperature shall be equal to or greater than 450 degrees Fahrenheit and shall be less than or equal to 700 degrees Fahrenheit. [40 CFR 64] Federally Enforceable Through Title V Permit
59. Upon detecting any excursion from the acceptable hot and/or cold oxidation catalyst temperature ranges, the owner/operator shall investigate the excursion and take corrective action to minimize excessive emissions and prevent the recurrence of the excursion as expeditiously as possible. [40 CFR 64] Federally Enforceable Through Title V Permit
60. The owner/operator shall keep records of the hot and cold oxidation catalyst temperatures and any maintenance/repairs performed on the temperature monitoring system. [40 CFR 64] Federally Enforceable Through Title V Permit
61. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
62. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
63. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
64. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
65. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
66. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
67. The owners and operators of each source and each affected unit at the source shall: (i) hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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68. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77] Federally Enforceable Through Title V Permit
69. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72 and 40 CFR 75] Federally Enforceable Through Title V Permit
70. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
71. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
72. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72] Federally Enforceable Through Title V Permit
73. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72] Federally Enforceable Through Title V Permit
74. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
75. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
76. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) comply with the terms of an approved offset plan, as required by 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
77. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
78. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 72 and 40 CFR 75] Federally Enforceable Through Title V Permit
79. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4597-2-9

**EXPIRATION DATE:** 06/30/2024

## **EQUIPMENT DESCRIPTION:**

88 MW NOMINALLY RATED COMBINED-CYCLE POWER GENERATING SYSTEM #2 CONSISTING OF A GENERAL ELECTRIC MODEL PG 7121 EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH AN INLET AIR FILTRATION AND COOLING SYSTEM (EVAPORATIVE AND FOGGING) DRY LOW NOX COMBUSTION, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, AN OXIDATION CATALYST, HEAT RECOVERY STEAM GENERATOR #1 (HRSG) WITH A 380 MMBTU/HR DUCT BURNER (MAXIMUM FIRING RATE 345 MMBTU/HR) AND A 168 MW NOMINALLY RATED STEAM TURBINE (SHARED WITH N-4597-1)

## **PERMIT UNIT REQUIREMENTS**

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Owner/operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1] Federally Enforceable Through Title V Permit
3. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0] Federally Enforceable Through Title V Permit
4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
6. Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater, except for up to three minutes in any hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
7. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve this gas turbine engine. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During all types of operation, including startup and shutdown periods, ammonia injection in to the SCR system shall occur once a minimum catalyst face temperature of 435 degrees Fahrenheit has been reached. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The SCR system shall be equipped with a continuous temperature monitoring system to measure and record the temperature at the catalyst face. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The CTG shall only be fired on PUC-regulated natural gas with a sulfur content value not exceeding 0.66 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a daily basis and 0.25 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a 12-month rolling average basis. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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11. Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NOX (as NO<sub>2</sub>) - 8.10 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO - 3.90 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) - 1.13 lb/hr and 1.5 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> - 4.40 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2.03 lb/hr. NOX (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)] Federally Enforceable Through Title V Permit
12. Emission rates from this CTG with the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NOX (as NO<sub>2</sub>) - 10.30 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO - 6.00 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) - 3.22 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> - 5.80 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2.63 lb/hr. NOX (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)] Federally Enforceable Through Title V Permit
13. During start-up, CTG exhaust emission rates shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 390.5 lb/event; CO - 562.5 lb/event; VOC (as methane) - 10.5 lb/event; PM<sub>10</sub> - 11.0 lb/event; or SO<sub>x</sub> (as SO<sub>2</sub>) - 4.1 lb/event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
14. During shutdown, CTG exhaust emission rates shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 104.0 lb/event; CO - 148.0 lb/event; VOC (as methane) - 2.6 lb/event; PM<sub>10</sub> - 3.0 lb/event; or SO<sub>x</sub> (as SO<sub>2</sub>) - 1.1 lb/event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
15. A start up event is defined as the period beginning with the gas turbine initial firing until the unit meets the steady state lb/hr and ppmvd emission limits of this permit. A shutdown event is defined as the period beginning with the turbine shutdown sequence and ending with the cessation of firing the gas turbine engine. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. The duration of each startup shall not exceed three hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
17. The duration of each shutdown shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
18. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 2201 and 40 CFR 60.4333(a)] Federally Enforceable Through Title V Permit
19. The ammonia (NH<sub>3</sub>) emissions shall not exceed 5 ppmvd @ 15% O<sub>2</sub> or 9.40 lb/hr over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
20. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation:  $(\text{ppmvd @ 15\% O}_2) = ((a - (b \times c / 1,000,000)) \times (1,000,000 / b)) \times d$ , where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO<sub>x</sub> concentration ppmvd @ 15% O<sub>2</sub> across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; or 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O<sub>2</sub>. If this option is chosen, the owner/operator shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
21. Daily emissions from the CTG shall not exceed the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 814.9 lb/day; CO - 1071.6 lb/day; VOC - 78.6 lb/day; PM<sub>10</sub> - 132.0 lb/day; or SO<sub>x</sub> (as SO<sub>2</sub>) - 58.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Annual emissions from the CTG, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 88,881 lb/year; CO - 74,598 lb/year; VOC - 15,145 lb/year; PM<sub>10</sub> - 32,250 lb/year; or SO<sub>x</sub> (as SO<sub>2</sub>) - 7,084 lb/year. Compliance with the annual NO<sub>x</sub> and CO emission limits shall be demonstrated using CEM data and compliance with the annual VOC, PM<sub>10</sub> and SO<sub>x</sub> emission limits shall be demonstrated using the most recent source test results. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. Each one hour period shall commence on the hour. Each one hour period in a three hour rolling average will commence on the hour. The three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The twelve consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit
25. The combined natural gas fuel usage for permit units N-4597-1 and N-4597-2 shall not exceed 20,454 MMscf/year. [District Rule 2550] Federally Enforceable Through Title V Permit
26. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Source testing to measure the steady state NO<sub>x</sub>, CO, VOC, and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) shall be conducted at least once every twelve months. [District Rules 1081, 2201 and 4703, and 40 CFR 60.4400] Federally Enforceable Through Title V Permit
28. Source testing to measure the PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every twelve months. [District Rules 1081 and 2201, and 40 CFR 60.4400] Federally Enforceable Through Title V Permit
29. Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted for one of the gas turbines (N-4597-1 or N-4597-2) at least once every seven years. CEM relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emission limits, then startup and shutdown NO<sub>x</sub> and CO testing shall be conducted every 12 months. If an annual startup and shutdown NO<sub>x</sub> and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NO<sub>x</sub> and CO testing frequency shall return to the once every seven years schedule. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
30. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [District Rule 4703] Federally Enforceable Through Title V Permit
31. Source testing shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO - EPA Method 10 or 10B or ARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or ARB 100. NO<sub>x</sub> testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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33. Testing to demonstrate compliance with the short-term (daily) fuel sulfur content limit shall be conducted monthly. If a monthly test indicates that a violation of the daily fuel sulfur content limit has occurred then weekly testing shall commence and continue until eight consecutive tests show compliance. Once compliance with the daily fuel sulfur content is demonstrated on eight consecutive weekly tests, testing may return to the monthly schedule. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month. [District Rule 2201, and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
34. Compliance with the rolling 12-month average fuel sulfur content limit shall be demonstrated monthly. The 12-month rolling average fuel sulfur content shall be calculated as follows: 12-month rolling average fuel sulfur content = Sum of the monthly average fuel sulfur contents for the previous 12 months / total number of months the unit has operated in during the previous 12 months. The monthly average fuel sulfur content is the average fuel sulfur content of all tests conducted in a given month. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month. Owner/operator shall keep a monthly record of the rolling 12-month average fuel sulfur content. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
35. Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D5504, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4360 and 40 CFR 60.4415(a)(1)(ii)] Federally Enforceable Through Title V Permit
36. The CTG shall be equipped with a continuous monitoring system to measure and record fuel consumption. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
37. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Continuous emissions monitor(s) shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080 and 4703, and 40 CFR 60.4335(b)(1)] Federally Enforceable Through Title V Permit
38. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
39. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2, 3, and 4, and/or 40 CFR 75 Appendix A, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are both performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
41. The owner/operator shall perform a relative accuracy test audit (RATA) for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.11, or 40 CFR Part 75 Appendix B, at least once every four calendar quarters. The owner/operator shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. If the RATA test is conducted as specified in 40 CFR Part 75 Appendix B, the RATA shall be conducted on a lb/MMBtu basis. [District Rule 1080] Federally Enforceable Through Title V Permit
42. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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43. Results of the CEM system shall be averaged over a one hour period for NO<sub>x</sub> emissions and a three hour period for CO emissions using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 CFR 60.13. [District Rule 4703, and 40 CFR 60.13 and 40 CFR 60.4350(a)] Federally Enforceable Through Title V Permit
44. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
45. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
46. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
47. Excess NO<sub>x</sub> emissions shall be defined as any 30 day operating period in which the 30 day rolling average NO<sub>x</sub> concentration exceeds an applicable emissions limit. A 30 day rolling average NO<sub>x</sub> emission rate is the arithmetic average of all hourly NO<sub>x</sub> emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NO<sub>x</sub> emission rates for the preceding 30 unit operating days if a valid NO<sub>x</sub> emission rate is obtained for at least 75 percent of all operating hours. A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NO<sub>x</sub> or O<sub>2</sub> (or both). [40 CFR 60.4350(h) and 40 CFR 60.4380(b)(1)] Federally Enforceable Through Title V Permit
48. For the purpose of determining excess NO<sub>x</sub> emissions, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NO<sub>x</sub> emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 of 40 CFR 60 Appendix A. For any hour in which the hourly O<sub>2</sub> concentration exceeds 19.0 percent O<sub>2</sub>, a diluent cap value of 19 percent O<sub>2</sub> may be used in the emission calculations. [40 CFR 60.4350(b)] Federally Enforceable Through Title V Permit
49. Excess SO<sub>x</sub> emissions is each unit operating hour included in the period beginning on the date and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtime for SO<sub>x</sub> begins when a sample is not taken by its due date. A period of monitor downtime for SO<sub>x</sub> also begins on the date and hour of a required sample, if invalid results are obtained. A period of SO<sub>x</sub> monitoring downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385(a) and (c)] Federally Enforceable Through Title V Permit
50. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, and 40 CFR 60.4375(a) and 60.4395] Federally Enforceable Through Title V Permit
51. The owner/operator shall submit to the District information correlating the NO<sub>x</sub> control system operating parameters to the associated measured NO<sub>x</sub> output. The information must be sufficient to allow the District to determine compliance with the NO<sub>x</sub> emission limits of this permit during times that the CEMS is not functioning properly. [District Rule 4703] Federally Enforceable Through Title V Permit
52. The owner/operator shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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53. The owner/operator shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, calculated NOx and CO mass emission rates (lb/hr and lb/twelve month rolling period), and VOC, PM10 and SOx emission rates (lb/twelve month rolling period). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
54. The owner/operator shall maintain a system operating log, updated on a daily basis, which includes the following information: The actual local start-up time and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used. [District Rule 4703] Federally Enforceable Through Title V Permit
55. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
56. This unit shall be equipped with temperature measurement devices that continuously measure both the hot and cold oxidation catalyst temperatures. [40 CFR 64] Federally Enforceable Through Title V Permit
57. Except during periods of startup, shutdown, or when conducting combustor tuning activities, the measured hot oxidation catalyst temperature shall be equal to or greater than 950 degrees Fahrenheit and shall be less than or equal to 1100 degrees Fahrenheit. [40 CFR 64] Federally Enforceable Through Title V Permit
58. Except during periods of startup, shutdown, or when conducting combustor tuning activities, the measured cold oxidation catalyst temperature shall be equal to or greater than 450 degrees Fahrenheit and shall be less than or equal to 700 degrees Fahrenheit. [40 CFR 64] Federally Enforceable Through Title V Permit
59. Upon detecting any excursion from the acceptable hot and/or cold oxidation catalyst temperature ranges, the owner/operator shall investigate the excursion and take corrective action to minimize excessive emissions and prevent the recurrence of the excursion as expeditiously as possible. [40 CFR 64] Federally Enforceable Through Title V Permit
60. The owner/operator shall keep records of the hot and cold oxidation catalyst temperatures and any maintenance/repairs performed on the temperature monitoring system. [40 CFR 64] Federally Enforceable Through Title V Permit
61. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
62. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
63. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
64. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
65. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
66. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
67. The owners and operators of each source and each affected unit at the source shall: (i) hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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68. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77] Federally Enforceable Through Title V Permit
69. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72 and 40 CFR 75] Federally Enforceable Through Title V Permit
70. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
71. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
72. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72] Federally Enforceable Through Title V Permit
73. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72] Federally Enforceable Through Title V Permit
74. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
75. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
76. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) comply with the terms of an approved offset plan, as required by 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
77. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
78. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 72 and 40 CFR 75] Federally Enforceable Through Title V Permit
79. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4597-4-5

**EXPIRATION DATE:** 06/30/2024

**EQUIPMENT DESCRIPTION:**

471 HP CATERPILLAR MODEL 3456 DI TA AA DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING A 300 KW ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
3. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. NOx emissions shall not exceed 4.69 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CO emissions shall not exceed 0.12 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC emissions shall not exceed 0.04 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. PM10 emissions shall not exceed 0.029 g/bhp-hr based on U.S EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
11. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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14. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
17. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee must collect and submit an annual report including location, dates and times of operation if the engine operates for more than 15 hours and up to 100 hours per year for emergency demand response. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4597-5-2

**EXPIRATION DATE:** 06/30/2024

**EQUIPMENT DESCRIPTION:**

39 MMBTU/HR NATURAL GAS-FIRED ENGLISH BOILER AND TUBE INC MODEL 28D375 BOILER (S/N 31015) WITH AN ULTRA-LOW-NOX BURNER AND FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The flue gas recirculation (FGR) system shall be operated properly and shall be maintained per the manufacturer's recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. The fuel meter shall be calibrated per the fuel meter manufacturer's recommendations. [District Rule 2201 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit
5. The boiler shall operate a maximum of 4,000 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The boiler shall only be fired on PUC-regulated natural gas with a sulfur content value not exceeding 0.66 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a daily basis and 0.25 grains of sulfur compounds (as S) per 100 dry standard cubic feet on a 12-month rolling average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 6 .0 ppmvd @ 3% O<sub>2</sub> or 0.0073 lb/MMBtu; VOC (as methane) - 0.005 lb/MMBtu; CO - 50.0 ppmvd @ 3% O<sub>2</sub> or 0.037 lb/MMBtu; PM<sub>10</sub> - 0.007 lb/MMBtu; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0019 lb/MMBtu. [District Rules 2201, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
8. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. During the 36-month source testing interval, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4306 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
14. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute (or longer periods as necessary) test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Testing to demonstrate compliance with the short-term (daily) fuel sulfur content limit shall be conducted monthly. If a monthly test indicates that a violation of the daily fuel sulfur content limit has occurred then weekly testing shall commence and continue until eight consecutive tests show compliance. Once compliance with the daily fuel sulfur content is demonstrated on eight consecutive weekly tests, testing may return to the monthly schedule. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Compliance with the rolling 12-month average fuel sulfur content limit shall be demonstrated monthly. The 12-month rolling average fuel sulfur content shall be calculated as follows: 12-month rolling average fuel sulfur content = Sum of the monthly average fuel sulfur contents for the previous 12 months divided by the total number of months the unit has operated in during the previous 12 months. The monthly average fuel sulfur content is the average fuel sulfur content of all tests conducted in a given month. If the unit is not operated during an entire calendar month, fuel sulfur content testing shall not be required for that specific month. Owner/operator shall keep a monthly record of the rolling 12-month average fuel sulfur content. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
21. Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D5504, D6228, D6667 or Gas Processors Association Standard 2377. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The minimum flue gas recirculation rate shall be established by source testing the unit per Rules 4305, 4306, and 4320 at three firing rates (low, mid, and high). The normal range shall be no lower than the minimum flue gas recirculation rate that complies with the NOx and CO emission limits as demonstrated through source testing at a similar fire rate. The source test emission measurements shall be made with the unit operating at conditions representative of normal operations. No measurements shall be made within the first two hours after a continuous period in which fuel flow to the unit is shut off 30 minutes or longer, or within 30 minutes after a re-ignition as defined in District Rule 4306. A flow transmitter shall be calibrated prior to the source test. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



23. The normal flue gas recirculation rate or level shall be re-established during each source test required by the permit. The flow transmitter shall be calibrated prior to each source test. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. Permittee shall continuously monitor and record the flue gas recirculation rate using a flow transmitter and the plant's CEM DAHS during period when this boiler is in use. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
25. If the flue gas recirculation rate is less than the normal range during periods of normal operation, permittee shall return the flue gas recirculation rate to the normal range as soon as possible, but no later than 1 hour of operation after detection. If the flue gas recirculation rate is not returned to the normal range or level within 1 hour of operation after detection, permittee shall notify the District within the following 1 hour and shall conduct a source test within 60 days of the first exceedance, to demonstrate compliance with the auxiliary boiler emission limits at the new flue gas recirculation rate. A district-approved portable analyzer may be used in lieu of a source test to demonstrate compliance. In lieu of conducting a source test, permittee may stipulate that a violation has occurred and may be subject to enforcement action. Permittee shall correct the violation, demonstrate compliance has been re-established, and resume monitoring. If the deviations are the result of a qualifying breakdown condition pursuant to District Rule 1100, permittee may fully comply with District Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. Permittee shall keep records of the normal flue gas recirculation rate range established during source testing, the date and time of flue gas recirculation rate monitoring, and the measured flue gas recirculation rate and the firing rate at the time of the monitoring event. The records shall include a description of any corrective action taken to maintain the flue gas recirculation rate within the normal range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Owner/operator shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rule 2201 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit
29. Owner/operator shall keep a record of the cumulative annual quantity of hours operated for this unit. The record shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
30. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4597-6-2

**EXPIRATION DATE:** 06/30/2024

**EQUIPMENT DESCRIPTION:**

235 BHP CUMMINS MODEL CFP7E-50 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed any of the following limits: 2.475 g-NOx/bhp-hr, 1.193 g-CO/bhp-hr, or 0.062 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed 0.111 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems". Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

## **Appendix C**

# **Contingency Plan for Unplanned Facility Closure Compliance-12**

# On Site Contingency Plan for Unplanned Temporary and Permanent Closures

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MRP San Joaquin  
Energy, LLC. -  
Combined Cycle  
Power Plant.

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**14950 West Schulte Road  
Tracy, CA 95377**

## **Table of Contents**

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List of Tables .....	i
List of Figures .....	i
List of Attachments .....	i
1.0 Introduction .....	2
2.0 Responsibilities .....	2
3.0 Contingency Plan .....	2
3.1 Notification Procedures .....	2
3.2 Plant Shut down Procedure .....	4
3.3 Site Security and Emergency Response .....	4
3.4 Hazardous Material and Waste Removal .....	4
4.0 Insurance and Warranty Coverage .....	5
5.0 Unexpected Temporary Closure .....	6
5.1 Biological Resources .....	6
6.0 Permanent Closure .....	6
6.1 Facility Closure Plan .....	6
6.2 Agency Notification .....	7
6.3 Site Security .....	7
6.4 Removal of Hazardous Materials and Waste .....	7
6.5 Biological, Cultural and Paleontological Resources .....	7

## **List of Tables**

---

Table 1	Agencies to Notify
Table 2	Insurance Policies

## **List of Figures**

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Figure 1	Site Plot Plan
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## **List of Attachments**

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Attachment 1	Hazardous Materials and Petroleum Products at San Joaquin Energy Tracy Combined Cycle Power Plant
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## **1.0 Introduction**

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This On-Site Contingency Plan was prepared to support the Application for Certification submitted to the California Energy Commission (CEC) (CEC Docket No. 08-AFC-7) for the GWF Tracy Combined Cycle Power Plant (GWF Tracy) project. The plan fulfills the requirements for Conditions of Certification (COCs) Compliance-12 and Compliance-13 for managing unplanned temporary and unplanned permanent closures. The On-Site Contingency Plan will help to ensure that all necessary steps to mitigate public health and safety impacts and environmental impacts are taken in a timely manner during unexpected plant closures. The plan covers written procedures concerning site security, hazardous materials and waste removal, and insurance and warranty coverage. The plan was revised to reflect new ownership by MRP San Joaquin Energy, LLC, new insurance and other minor changes to the facility.

## **2.0 Responsibilities**

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**Plant Owner** - The Plant Owner has the overall responsibility for ensuring all provisions of this plan are administered and adhered to.

**Plant Manager** - The Plant Manager is responsible for overseeing the program, and notification to the CEC.

## **3.0 Contingency Plan**

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### **3.1 Notification Procedures**

In the event of an unexpected temporary or permanent closure, the Plant Manager or designee shall notify the CEC's Compliance Project Manager (CPM) and other responsible agencies within 24 hours, and take all necessary steps to implement this Plan. Notification shall be made by either telephone, fax, or e-mail (see Table 1). The Plant Manager shall keep the CPM informed of the circumstances and expected duration of the closure.

If it is determined that a temporary closure is likely to be permanent, or for a duration of more than twelve months, a closure plan consistent with CEC requirements for a planned closure shall be developed and submitted to the CPM within 90 days of such determination (or other period of time mutually agreed to by the owner and the CPM).

**Table 1. Agencies to Notify**

<b>California Energy Commission</b>	
Craig Hoffman Compliance Project Manager California Energy Commission 1516 9th St., MS 2000 Sacramento, CA 95814-5512	Tel: 916-654-4781 Fax: 916-654-3882 e-mail: <a href="mailto:Anwar.ali@energy.ca.gov">Anwar.ali@energy.ca.gov</a>
<b>County of San Joaquin Office of Emergency Services</b>	
Michael R. Cockrell Director of Emergency Operations 2101 E. Earhart Ave., Suite 300 Stockton, CA 95206	Tel: 209-953-6200 Fax: 209-953-6268 e-mail: <a href="mailto:sjcoes@sjgov.org">sjcoes@sjgov.org</a>
<b>City of Tracy Fire Department</b>	
Fire Department Administration 835 Central Avenue Tracy, CA 95376	Tel: (209) 831-6700 Fax: (209) 831-6703 e-mail: <a href="mailto:firedept@ci.tracy.ca.us">firedept@ci.tracy.ca.us</a>
<b>San Joaquin County Environmental Health Department</b>	
Dennis Fields 1868 E. Hazelton Ave. Stockton, CA 95205	Tel: 209- 468-3420 Fax: (209) 944-9015 e-mail: <a href="mailto:hsaeed@co.san-joaquin.ca.us">hsaeed@co.san-joaquin.ca.us</a>
<b>Central Valley Regional Water Quality Control Board</b>	
Greg Vaughn 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670-6114	Tel: 916 -464-3291 Fax: 916- 464-4645 e-mail: <a href="mailto:VaughnG@rb5s.swrcb.ca.gov">VaughnG@rb5s.swrcb.ca.gov</a>
<b>Byron-Bethany Irrigation District</b>	
Rick Gilmore General Manager 7995 Bruns Road Byron, CA 94514	Tel: (209)835-0375 ext. 12 Fax: (209)835-2869 e-mail: <a href="mailto:r.gilmore@bbid.org">r.gilmore@bbid.org</a>
<b>San Joaquin Valley Air Pollution Control District</b>	
Rupi Gill Northern Region Office 4800 Enterprise Way Modesto, CA 95356	Tel: (209) 557-6400 Fax: (209) 557-6475 e-mail: <a href="mailto:rupi.gill@valleyair.org">rupi.gill@valleyair.org</a>
<b>PG&amp;E</b>	
Michael Steele Account Executive, Generation Specialist Energy Solutions & Service 4040 West Lane, Stockton, Ca 95204	Tel: (209) 825-6985 e-mail: <a href="mailto:mfs4@pge.com">mfs4@pge.com</a>
<b>CAISO</b>	
Ronni Reese Senior Contracts Analyst 250 Outcropping Way Folsom, CA 95630	Tel: (916) 608-7027 Fax: (916) 608-7279 e-mail: <a href="mailto:RReese@caiso.com">RReese@caiso.com</a>
<b>USEPA Region 9</b>	
Laura Yannayon US EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901	Tel: 415-972-3534 e-mail: <a href="mailto:yannayon.laura@epa.gov">yannayon.laura@epa.gov</a>

### **3.2 Plant Shut down Procedure**

In the event of a plant closure, personnel will shut down all operating equipment that is not necessary to respond to an emergency, in accordance with plant operating procedures. In the event of an emergency shutdown (e.g., fire, earthquake, sabotage, etc.), MRP San Joaquin Energy, LLC Tracy Combined Cycle Power Plant (SJE) personnel should consult the SJE Emergency Action Plan (EAP). The purpose of the EAP is to provide emergency response guidelines so that SJE operations and management personnel can adequately evaluate the situation and respond in the interests of protecting personnel, company resources, and the environment.

The EAP provides guidelines for emergencies, including accidental release of toxic gases, chemical spills, fires, explosions, bomb threats, civil disobedience, and personnel injuries. There are several situations that may require emergency response by site personnel. The response required for each situation may vary, and each requires a separate course of action. Personnel should reference the EAP for proper response.

### **3.3 Site Security and Emergency Response**

In the event of an unexpected closure, SJE will follow all procedures in the Operations Site Security Plan (COC HAZ-7) and the Emergency Action Plan (COC Worker Safety 2). A Plant Operator is on site 24 hours per day and will direct emergency vehicles through the facility gate if necessary.

### **3.4 Hazardous Material and Waste Removal**

Handling and disposal of all hazardous materials and wastes shall be in accordance with all applicable laws, ordinances, regulations, and standards. The table in Attachment 1 identifies all hazardous materials in reportable quantities that are located at SJE. In the event of an unexpected temporary closure, not all hazardous materials will require removal. If such an event occurs, SJE will conduct visual inspections of all hazardous material storage vessels on a daily basis to assess container condition. SJE has implemented a HMBP to assist with identification and handling of all hazardous materials.

Whenever practical, hazardous materials will be returned to the vendor or transferred to a certified disposal facility. Qualified transporters will be used if it is deemed necessary to remove any hazardous material(s).

If the unexpected temporary closure also results in a release of hazardous materials or waste, plant personnel will consult the Emergency Action Plan, HMBP, and/or Risk Management Plan. These plans address accidental release prevention and emergency policies, a hazardous materials inventory, employee training, location of safety equipment, main utility shutoffs, notification methods, and accident investigation procedures. In addition, the Storm Water Pollution Prevention Plan (SWPP) and the Spill Prevention Control and Countermeasure Plan (SPCC) describe the necessary actions in the event of a spill that might threaten off site locations. Both structural and non-structural Best Management Practices (BMPs) are utilized at the site to reduce pollutants in storm water discharge. Structural BMPs include such measures as valves, berms, curbs, and containment structures that are used to hold or divert storm water. Non-structural

BMPs include such measures as regular inspections; good housekeeping practices; employee training; and special procedures for storing/loading hazardous materials and wastes. Plant personnel shall consult all of these plans prior to proceeding with any hazardous material or waste removal.

## 4.0 Insurance and Warranty Coverage

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SJE is insured under the insurance policies listed in Table 2 below.

**Table 2. Insurance Policies**

<b>INSURANCE</b>			
<b>Insurance Type</b>	<b>Vendor</b>	<b>Description</b>	<b>Date of Policy</b>
<b>Property &amp; Business Interruption</b>			
	FM Global	Real & Personal Property, Earth Movement, Flood, Expediting Expense, Machinery Breakdown & Time Element	11/13/2018-04/07/2020
<b>General Liability</b>			
	Chubb Insurance Co.	Premises & Operations	11/13/2018-04/07/2020
<b>Business Automobile</b>			
	Chubb Insurance Co.	Liability, Physical Damage & Hired Car Physical Damage	11/13/2018-04/07/2020
<b>Umbrella Liability</b>			
	Chubb Insurance Co.	Bodily Injury, Property Damage, Personal Injury	11/13/2018-04/07/2020
<b>Excess Liability</b>			
	Commerce & Industry Insurance Co	Bodily Injury, Property Damage, Personal Injury	11/13/2018-04/07/2020



<b>Pollution Legal Liability</b>			
	Chartis Specialty Insurance Co.	On-site cleanup, Third party Claims for off-site cleanup and bodily injury and property, Emergency Response Costs	11/13/2018-04/07/2020

## **5.0 Unexpected Temporary Closure**

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In the event the facility is closed temporarily and there are additional tasks to be performed or notifications beyond those items addressed in this plan, SJE will coordinate to ensure proper notification of other impacted parties are notified such as project neighbors and local governments.

### **5.1 Biological Resources**

In the case of temporary closure, measures to protect biological resources would be needed only if there were a potential to disturb the ground surfaces or release harmful materials. If such an event occurs, SJE will consult with responsible agencies to plan clean up and mitigation of impacts to biological resources.

## **6.0 Permanent Closure**

---

In the event the facility is closed permanently, there are additional tasks that need to be performed, including preparing a facility closure plan, notifying agencies, ensuring site security, removing hazardous materials and waste.

### **6.1 Facility Closure Plan**

In order to ensure that the permanent closure does not create adverse impacts, a closure process will be undertaken by SJE that provides for careful consideration of available options, applicable laws, ordinances, regulations, standards, and local plans in existence at the time of closure. SJE will meet with the CEC and other agencies as necessary prior to the development of the closure plan to establish the elements of the plan. In accordance with CEC Conditions of Certification, the plan will include the following:

1. Identify and discuss any impacts and mitigation to address significant adverse impacts associated with proposed closure activities and to address facilities, equipment or other project related remnants that will remain at the site;

2. Identify a schedule of activities for closure of the power plant site, transmission line corridor, and all other appurtenant facilities constructed as part of the project;
3. Identify any facilities or equipment intended to remain on site after closure, the reason, and any future use; and
4. Address conformance of the plan with all applicable laws, ordinances, regulations, standards, and local/regional plans in existence at the time of facility closure and applicable Conditions of Certification.

In the event of an unplanned permanent closure, the plan will be submitted to the CPM within 90 days following the CPM's determination that an unplanned temporary closure is likely to be permanent.

## **6.2 Agency Notification**

Additional notification may be necessary in the event of a permanent closure, including re-notifying each of the agencies listed in Table 1. The Closure Plan will also be sent to those appropriate agencies with which SJE has a current permit.

## **6.3 Site Security**

Prior to permanent closure, the Plant Manager or designee will notify the Tracy Fire Department and San Joaquin County Sheriff Department, giving the notice that the existing level of site surveillance will not be in effect. This will enable these agencies to respond appropriately in the event of a disturbance or fire. It may be necessary for SJE to provide site security for a period of time following permanent closure, the Plant Manager or designee will determine the need for such interim security and will address it in the Closure Plan, if necessary.

## **6.4 Removal of Hazardous Materials and Waste**

As required by the CEC's Commission Decision, SJE is responsible for removing all hazardous materials from the site as part of permanent site closure. If SJE intends to redevelop the site, other plans may be made to either remove or store materials in different locations. The details of the removal will be covered in the Closure Plan.

## **6.5 Biological, Cultural and Paleontological Resources**

When a permanent Closure Plan is prepared, it will include the take avoidance and mitigation requirements in effect at the time for the species that would be impacted. The plan may also include reclamation of areas where facilities would be removed. This may include ripping of soil, contouring of disturbed areas, implementation of erosion control, revegetation, and other measures deemed appropriate at the time the Closure Plan is developed.

Biological resources compliance reporting for closure activities would likely include pre-activity survey reports, environmental monitoring reports during reclamation, and a final report describing the closure activities and any follow-on reclamation work that would be required.

The permanent Closure Plan will include a description regarding the potential of the closure activities to impact cultural and paleontological resources. The closure requirements are to be based upon the Cultural Resources and Paleontological Resources Final Report. If no activities are proposed that would potentially impact either of these resources, no mitigation measures will be required.

*Figure 1: Map of Hazardous Materials and Petroleum Products at Tracy Combined Cycle Power Plant*



Significant Material	Location	Secondary Containment	Maximum Daily Amounts	Application
Aqueous Ammonia	ammonia storage tank.	Concrete secondary containment surrounding the tank and equipment and underground spill containment tank.	9,000 gallons	CTG NOx control
Aqueous Ammonia	Boiler Chemistry tote feeding area	Concrete secondary containment	990 gallons	Boiler chemistry control.
Lubrication Oil	Oil reservoir tanks on Boiler Feed water pump #1 skid serving HRSG on CTG unit #1.	Steel skid with containment lip.	185 gallons	Lubricate rotating pump bearings and other rotating pump parts.
Lubrication Oil tank under	Oil reservoir tanks on Boiler Feed water pump #1 skid serving HRSG on CTG unit #1.	Steel skid with	185 gallons	Lubricate rotating pump bearings and other rotating pump parts.
Lubrication Oil tank under	Oil reservoir tanks on Boiler Feed water pump #2 skid serving HRSG on CTG unit #2.	containment lip.	185 gallons	Lubricate rotating pump bearings and other rotating pump parts.
Lubrication Oil tank under	Oil reservoir tanks on Boiler Feed water pump #1 skid serving HRSG on CTG unit #1.	Steel skid with containment lip.	185 gallons	Lubricate rotating pump bearings and other rotating pump parts.
Lubrication Oil tank under	belly tank under CTG Unit#1	system in metal enclosure with bermed perimeter.	3,300 gallons	Lubricate rotating equipment (e.g., gas turbine turbine bearings)
Lubrication Oil tank under	belly tank under CTG Unit#2	system in metal enclosure with bermed perimeter.	3,300 gallons	Lubricate rotating equipment (e.g., gas turbine bearings)
Lubrication Oil tank under	tank under STG	system in metal enclosure with bermed perimeter.	4,750 gallons	Lubricate rotating equipment (e.g., steam turbine bearings)
Diesel Fuel #2	Located in fire pump shed	Fire pump: Double-walled tank	500 gallons	fuel to power fire pump
Diesel Fuel #2	Located in and the belly tank of the emergency diesel generator	Generator: Single-walled steel tank within a formed concrete structure with a concrete pad	400 gallons	Fuel to power emergency diesel generator
Biocide Sodium hypochlorite (10%), sodium bromide(85%), sodium hydroxide(5%)	Closed loop cooling water system Porta feed staging area	Porta Feed Secondary containment	110 gallons	Biocide for closed loop cooling water system serving STG
TRAC 108 Sodium Nitrate	Closed loop cooling water system Porta feed staging area	Secondary containment for reservoir, pump and pipes	110 gallons	Corrosion inhibitor for closed loop cooling water system serving STG
Dilute Propylene Glycol (Antifreeze)	Closed loop water cooling system serving CTG #1	Secondary containment for reservoir, pump and pipes	751 gallons	To cool CTG #1 lubrication oil
Dilute Propylene Glycol (Antifreeze)	Closed loop water cooling system serving CTG #2	Secondary containment at circ pump skid, WSAC and Fin Fan AC	751 gallons	To cool CTG #2 lubrication oil

Significant Material	Location	Secondary Containment	Maximum Daily Amounts	Application
Calcium Hypochlorite	Water treatment shed	Secondary containment	100 pounds Solid material.	Water Treatment – Tablets diluted in water
ZOK (cleaning fluid)	Concentrated in water treatment shed	Secondary containment	110 gallons concentrated liquid in chemical storage shed.	Gas turbine compressor cleaning fluid
Transformer Oil/Mineral Insulating Oil – Diala Oil AXOil/Mineral	Switchyard south of CTG#1	Secondary containment	12,885 gallons	Cooling and electrical insulation in Electrical Transformer
Transformer Oil/Mineral Insulating Oil – Diala Oil AX	Switchyard south of CTG#2	Secondary containment	12,885 gallons	Cooling and electrical insulation in Electrical Transformer
Transformer Oil/Mineral Insulating Oil – Diala Oil AX	Area between HRSG #1 and HRSG #2	Secondary containment	572 gallons	Cooling and electrical insulation in Electrical Transformer
Transformer Oil/Mineral Insulating Oil – Diala Oil AX	Area between HRSG #1 and HRSG #2	Secondary containment	572 gallons	Cooling and electrical insulation in Electrical Transformer
Transformer Oil/Mineral Insulating Oil – Diala Oil AX	South of STG	Secondary containment	9,847 gallons	Cooling and electrical insulation in Electrical Transformer
Transformer Oil/Mineral Insulating Oil – Diala Oil AX	Southeast of STG	Secondary containment	1,139 gallons	Cooling and electrical insulation in Electrical Transformer
Used Oil	Water treatment shed.	Drums are stored on self-contained pallets for transport to other locations.	100 gallons	Waste
Waste Oil and Oily Debris	Water treatment shed	Drums are stored on self-contained pallets for transport to other locations.	500 pounds	Waste
Coagulant	Water Treatment Area	Secondary containment	110 gallons	Coagulant for clarifier
Flocculent	Water Treatment Area	Secondary containment	110 gallons	Flocculent for Clarifier
Argon, Compressed	CEMS Shack Unit 1	Secondary containment	250 Pounds	Welding gas
Oxygen, Compressed	CEMS Shack Unit 1	Secondary containment	250 Pounds	Welding Gas
Calcium hypochlorite	Potable water Treatment Skid	Secondary containment for reservoir, pump and pipes	100 Pounds	Biocide for potable Water System
Oxalic Acid, Dihydrate 99.6%	Hazardous Materials Storage Area	Secondary containment	400 pounds	Chemical cleaning of Ultrafiltration unit membranes
Monoethanolamine	Boiler Chemistry tote feeding area	Secondary containment for reservoir, pump and pipes	990 gallons	Control of Steam Boiler chemistry

## **Appendix D**

### **Complaints, Notices of Violation, Official Warnings and Citations**

MRP Tracy Combined Cycle Power Plant did not receive any Notices of Violation (NOV), complaints, other notices or citations from any Regulatory agency in conjunction with the operations of the Tracy Combined Cycle Power Plant in 2019. Therefore, no such documents are included in this section.

## **Appendix E**

### **Wet Surface Air Cooler PM10 Emissions AQ-SC9**





# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1908A14

**Report Created for:** MRP San Joaquin Energy, LLC

14950 W. Schulte Road  
Tracy, CA 95377

**Project Contact:** Gary Bishop

**Project P.O.:** TCY-19-11970

**Project:** WSAC Reservoir 2019 H2O sample-PTO

**Project Received:** 08/19/2019

Analytical Report reviewed & approved for release on 08/26/2019 by:

Yen Cao

Project Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** MRP San Joaquin Energy, LLC  
**Project:** WSAC Reservoir 2019 H2O sample-PTO  
**WorkOrder:** 1908A14

### Glossary Abbreviation

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



## Analytical Report

**Client:** MRP San Joaquin Energy, LLC  
**Date Received:** 8/19/19 16:20  
**Date Prepared:** 8/19/19  
**Project:** WSAC Reservoir 2019 H2O sample-PTO

**WorkOrder:** 1908A14  
**Extraction Method:** SM2540 C-1997  
**Analytical Method:** SM2540 C-1997  
**Unit:** mg/L

### Total Dissolved Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
1-WASC-SA 2019	1908A14-001A	Water	08/19/2019 11:15	WetChem	183760

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Total Dissolved Solids	201	10.0	1	08/20/2019 12:30

Analyst(s): AL



## Quality Control Report

**Client:** MRP San Joaquin Energy, LLC  
**Date Prepared:** 8/19/19  
**Date Analyzed:** 8/20/19  
**Instrument:** WetChem  
**Matrix:** Water  
**Project:** WSAC Reservoir 2019 H2O sample-PTO

**WorkOrder:** 1908A14  
**BatchID:** 183760  
**Extraction Method:** SM2540 C-1997  
**Analytical Method:** SM2540 C-1997  
**Unit:** mg/L  
**Sample ID:** MB-183760

### QC Summary Report for Total Dissolved Solids

Analyte	MB Result	MDL	RL			
Total Dissolved Solids	ND	10.0	10.0	-	-	-



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1908A14

ClientCode: GWFT

☐ WaterTrax☐ WriteOn☐ EDF☐ Excel☒ EQulS☐ Email☐ HardCopy☐ ThirdParty☐ J-flag☒ Detection Summary☒ Dry-Weight**Report to:**

Gary Bishop  
MRP San Joaquin Energy, LLC  
14950 W. Schulte Road  
Tracy, CA 95377  
(925) 457-5406 FAX:

Email: gary.bishop@naes.com  
cc/3rd Party: wayne.toumbs@naes.com; Neftali.Nevarez  
PO: TCY-18-11715  
Project: WSAC Reservoir 2019 H2O sample-PTO

**Bill to:**

Accounts Payable  
MRP San Joaquin Energy, LLC  
14950 W. Schulte Road  
Tracy, CA 95377  
sanjoaquinAP@mrpgenco.com

**Requested TAT: 5 days;****Date Received: 08/19/2019****Date Logged: 08/19/2019**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1908A14-001	1-WASC-SA 2019	Water	8/19/2019 11:15	<input type="checkbox"/>	A											

**Test Legend:**

1	TDS_W
5	
9	

2	
6	
10	

3	
7	
11	

4	
8	
12	

**Project Manager: Jennifer Lagerbom****Prepared by: Nancy Palacios****Comments:**

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



McC Campbell Analytical, Inc.

"When Quality Counts"

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

## WORK ORDER SUMMARY

**Client Name:** MRP SAN JOAQUIN ENERGY, LLC

**Client Contact:** Gary Bishop

**Contact's Email:** gary.bishop@naes.com

**Project:** WSAC Reservoir 2019 H2O sample-PTO

**Comments:**

**Work Order:** 1908A14

**QC Level:** LEVEL 2

**Date Logged:** 8/19/2019

☐ WaterTrax

☐ WriteOn

☐ EDF

☐ Excel

☒ EQUIS

☐ Email

☐ HardCopy

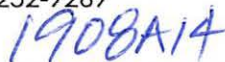
☐ ThirdParty

☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1908A14-001A	1-WASC-SA 2019	Water	SM2540C (TDS)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	8/19/2019 11:15	5 days	Present	<input type="checkbox"/>	

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

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

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #\_\_\_\_\_

Sampler Signature: 

## Total Dissolved Solids (TDS)

ICE/° \_\_\_\_\_  
GOOD CONDITION \_\_\_\_\_  
HEAD SPACE ABSENT \_\_\_\_\_  
DECHLORINATED IN LAB \_\_\_\_\_  
APPROPRIATE CONTAINERS \_\_\_\_\_  
PRESERVED IN LAB \_\_\_\_\_

1.0 WET

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS  
PRESERVATION pH<2



## Sample Receipt Checklist

Client Name: **MRP San Joaquin Energy, LLC**  
Project: **WSAC Reservoir 2019 H2O sample-PTO**  
WorkOrder No: **1908A14** Matrix: Water  
Carrier: Patrick Johnson (MAI Courier)

Date and Time Received: **8/19/2019 16:20**  
Date Logged: **8/19/2019**  
Received by: Nancy Palacios  
Logged by: Nancy Palacios

### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE )

Sample/Temp Blank temperature	Temp: 1°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

### UCMR Samples:

pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:



**WET SURFACE AIR COOLER (WSAC)  
PM10 ANNUAL CALCULATION**

Start Date 10/1/2018  
End Date 10/1/2019  
Hours in Year 8760

Design Drift Ratio: 0.001%  
PM10 limit: 110 lb/yr  
Sample date: 8/19/2019

		WSAC		WSAC		WSAC		output per pump		Recirc Rate		PM10
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
10/1/2018	10/2/2018	0.10	1656.1	0.10	1656.1	0.00	0.0	273	201	3312.2	27590	0.00006
10/2/2018	10/3/2018	0.00	0.0	0.12	1979.2	0.12	1979.2	273	201	3958.5	32974	0.00007
10/3/2018	10/4/2018	0.18	2962.1	0.09	1524.4	0.09	1437.8	273	201	5924.2	49349	0.00010
10/4/2018	10/5/2018	0.00	0.0	0.07	1133.1	0.07	1133.1	273	201	2266.1	18877	0.00004
10/5/2018	10/6/2018	0.17	2780.0	0.09	1410.4	0.08	1369.5	273	201	5560.0	46314	0.00009
10/6/2018	10/7/2018	0.08	1319.4	0.08	1251.1	0.16	2570.5	273	201	5140.9	42824	0.00009
10/7/2018	10/8/2018	0.24	3953.9	0.24	3981.2	0.15	2475.0	273	201	10410.1	86716	0.00017
10/8/2018	10/9/2018	0.00	0.0	0.10	1592.4	0.10	1592.4	273	201	3184.8	26529	0.00005
10/9/2018	10/10/2018	0.88	14491.5	0.78	12785.4	0.70	11397.4	273	201	38674.3	322157	0.00065
10/10/2018	10/11/2018	0.09	1483.2	0.09	1437.8	0.18	2921.0	273	201	5842.1	48665	0.00010
10/11/2018	10/12/2018	0.13	2065.7	0.17	2793.7	0.13	2138.5	273	201	6997.9	58293	0.00012
10/12/2018	10/13/2018	0.90	14769.0	0.89	14600.5	0.82	13399.3	273	201	42768.7	356263	0.00072
10/13/2018	10/14/2018	0.61	10032.5	0.61	10046.1	0.68	11115.5	273	201	31194.2	259848	0.00052
10/14/2018	10/15/2018	0.07	1228.4	0.15	2497.9	0.08	1269.4	273	201	4995.7	41614	0.00008
10/15/2018	10/16/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/16/2018	10/17/2018	0.20	3280.4	0.22	3567.1	0.20	3298.6	273	201	10146.1	84517	0.00017
10/17/2018	10/18/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/18/2018	10/19/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/19/2018	10/20/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/20/2018	10/21/2018	0.23	3703.7	0.26	4272.5	0.23	3744.7	273	201	11720.9	97635	0.00020
10/21/2018	10/22/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/22/2018	10/23/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/23/2018	10/24/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
10/24/2018	10/25/2018	0.13	2202.1	0.15	2406.8	0.14	2252.1	273	201	6861.1	57153	0.00011
10/25/2018	10/26/2018	0.17	2729.8	0.18	2957.3	0.17	2820.8	273	201	8507.9	70871	0.00014
10/26/2018	10/27/2018	0.17	2843.6	0.19	3048.3	0.17	2843.8	273	201	8735.7	72769	0.00015
10/27/2018	10/28/2018	0.78	12743.9	0.65	10646.8	0.62	10118.7	273	201	33509.4	279134	0.00056
10/28/2018	10/29/2018	0.58	9533.4	0.63	10364.9	0.59	9742.5	273	201	29640.9	246908	0.00050
10/29/2018	10/30/2018	0.09	1415.0	0.00	0.0	0.09	1415.0	273	201	2830.0	23574	0.00005
10/30/2018	10/31/2018	0.09	1455.8	0.09	1455.8	0.00	0.0	273	201	2911.6	24254	0.00005
10/31/2018	11/1/2018	0.00	0.0	0.08	1365.0	0.08	1365.0	273	201	2730.0	22741	0.00005
11/1/2018	11/2/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/2/2018	11/3/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/3/2018	11/4/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/4/2018	11/5/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/5/2018	11/6/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/6/2018	11/7/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/7/2018	11/8/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/8/2018	11/9/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/9/2018	11/10/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/10/2018	11/11/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/11/2018	11/12/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/12/2018	11/13/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/13/2018	11/14/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/14/2018	11/15/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000

		WSAC		Hours Online WSAC		WSAC		output per pump		Recirc Rate		PM10
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
11/15/2018	11/16/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/16/2018	11/17/2018	0.12	1956.4	0.13	2093.2	0.12	1956.6	273	201	6006.2	50031	0.00010
11/17/2018	11/18/2018	0.29	4727.6	0.21	3458.0	0.30	4909.4	273	201	13095.0	109082	0.00022
11/18/2018	11/19/2018	0.15	2452.3	0.12	2001.8	0.13	2133.8	273	201	6587.9	54877	0.00011
11/19/2018	11/20/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/20/2018	11/21/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/21/2018	11/22/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/22/2018	11/23/2018	0.06	955.6	0.06	955.6	0.00	0.0	273	201	1911.1	15920	0.00003
11/23/2018	11/24/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/24/2018	11/25/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/25/2018	11/26/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
11/26/2018	11/27/2018	0.71	11625.1	0.57	9277.5	0.53	8617.7	273	201	29520.2	245903	0.00049
11/27/2018	11/28/2018	0.00	0.0	0.06	932.6	0.06	932.6	273	201	1865.2	15537	0.00003
11/28/2018	11/29/2018	0.16	2616.2	0.29	4827.4	0.28	4531.8	273	201	11975.4	99755	0.00020
11/29/2018	11/30/2018	0.06	910.0	0.00	0.0	0.06	910.0	273	201	1819.9	15160	0.00003
11/30/2018	12/1/2018	0.10	1706.3	0.10	1706.3	0.00	0.0	273	201	3412.5	28426	0.00006
12/1/2018	12/2/2018	0.00	0.0	0.11	1756.3	0.11	1756.3	273	201	3512.6	29260	0.00006
12/2/2018	12/3/2018	0.08	1365.0	0.00	0.0	0.08	1365.0	273	201	2730.0	22741	0.00005
12/3/2018	12/4/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/4/2018	12/5/2018	0.20	3207.8	0.25	4054.2	0.15	2484.3	273	201	9746.3	81187	0.00016
12/5/2018	12/6/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/6/2018	12/7/2018	0.10	1678.8	0.00	0.0	0.10	1678.8	273	201	3357.5	27968	0.00006
12/7/2018	12/8/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/8/2018	12/9/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/9/2018	12/10/2018	0.31	5118.5	0.25	4072.1	0.37	6051.3	273	201	15242.0	126966	0.00026
12/10/2018	12/11/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/11/2018	12/12/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/12/2018	12/13/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/13/2018	12/14/2018	0.06	932.9	0.09	1524.3	0.04	591.4	273	201	3048.7	25396	0.00005
12/14/2018	12/15/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/15/2018	12/16/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/16/2018	12/17/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/17/2018	12/18/2018	0.18	2889.2	0.09	1455.9	0.09	1433.3	273	201	5778.4	48134	0.00010
12/18/2018	12/19/2018	0.06	1028.3	0.04	732.6	0.11	1760.8	273	201	3521.7	29335	0.00006
12/19/2018	12/20/2018	0.17	2730.8	0.15	2415.8	0.19	3099.4	273	201	8246.0	68689	0.00014
12/20/2018	12/21/2018	0.26	4213.3	0.21	3389.8	0.21	3417.0	273	201	11020.1	91797	0.00018
12/21/2018	12/22/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/22/2018	12/23/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/23/2018	12/24/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/24/2018	12/25/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/25/2018	12/26/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/26/2018	12/27/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/27/2018	12/28/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/28/2018	12/29/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/29/2018	12/30/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/30/2018	12/31/2018	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
12/31/2018	1/1/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/1/2019	1/2/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/2/2019	1/3/2019	0.08	1342.3	0.05	864.5	0.13	2206.8	273	201	4413.5	36765	0.00007
1/3/2019	1/4/2019	0.39	6357.1	0.40	6543.1	0.40	6584.3	273	201	19484.5	162306	0.00033
1/4/2019	1/5/2019	0.06	1046.5	0.15	2406.9	0.08	1360.4	273	201	4813.9	40100	0.00008
1/5/2019	1/6/2019	0.06	974.2	0.00	0.0	0.06	974.2	273	201	1948.5	16231	0.00003

		WSAC		Hours Online WSAC		WSAC		output per pump		Recirc Rate		PM10
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
1/6/2019	1/7/2019	0.21	3394.3	0.29	4759.1	0.12	2047.4	273	201	10200.8	84973	0.00017
1/7/2019	1/8/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/8/2019	1/9/2019	0.00	0.0	0.08	1273.9	0.08	1273.9	273	201	2547.8	21223	0.00004
1/9/2019	1/10/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/10/2019	1/11/2019	0.08	1392.2	0.00	0.0	0.08	1392.2	273	201	2784.4	23194	0.00005
1/11/2019	1/12/2019	0.09	1433.1	0.17	2729.7	0.08	1296.6	273	201	5459.4	45477	0.00009
1/12/2019	1/13/2019	0.35	5664.5	0.25	4158.5	0.27	4363.4	273	201	14186.4	118173	0.00024
1/13/2019	1/14/2019	0.03	454.9	0.03	454.9	0.00	0.0	273	201	909.8	7579	0.00002
1/14/2019	1/15/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/15/2019	1/16/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/16/2019	1/17/2019	0.00	0.0	0.06	932.9	0.06	932.9	273	201	1865.8	15542	0.00003
1/17/2019	1/18/2019	0.15	2457.1	0.09	1478.8	0.06	978.4	273	201	4914.2	40936	0.00008
1/18/2019	1/19/2019	0.42	6825.2	0.66	10780.5	0.54	8869.5	273	201	26475.1	220538	0.00044
1/19/2019	1/20/2019	0.11	1774.3	0.08	1299.5	0.11	1754.6	273	201	4828.4	40221	0.00008
1/20/2019	1/21/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/21/2019	1/22/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/22/2019	1/23/2019	0.06	932.7	0.09	1456.1	0.15	2388.8	273	201	4777.6	39798	0.00008
1/23/2019	1/24/2019	0.23	3844.8	0.21	3412.4	0.14	2297.6	273	201	9554.8	79591	0.00016
1/24/2019	1/25/2019	0.08	1365.0	0.09	1410.5	0.17	2775.4	273	201	5550.9	46239	0.00009
1/25/2019	1/26/2019	0.25	4104.2	0.23	3781.2	0.14	2234.2	273	201	10119.5	84296	0.00017
1/26/2019	1/27/2019	0.00	0.0	0.08	1301.4	0.08	1301.4	273	201	2602.8	21681	0.00004
1/27/2019	1/28/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/28/2019	1/29/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/29/2019	1/30/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
1/30/2019	1/31/2019	0.05	841.8	0.00	0.0	0.05	841.8	273	201	1683.6	14024	0.00003
1/31/2019	2/1/2019	0.05	796.3	0.05	796.3	0.00	0.0	273	201	1592.6	13267	0.00003
2/1/2019	2/2/2019	0.43	7093.1	0.41	6752.0	0.30	4845.4	273	201	18690.5	155692	0.00031
2/2/2019	2/3/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/3/2019	2/4/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/4/2019	2/5/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/5/2019	2/6/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/6/2019	2/7/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/7/2019	2/8/2019	0.10	1637.8	0.09	1478.8	0.11	1797.1	273	201	4913.7	40931	0.00008
2/8/2019	2/9/2019	0.07	1092.0	0.06	935.0	0.12	2027.0	273	201	4054.1	33770	0.00007
2/9/2019	2/10/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/10/2019	2/11/2019	0.06	932.8	0.06	932.8	0.00	0.0	273	201	1865.5	15540	0.00003
2/11/2019	2/12/2019	0.05	818.9	0.05	864.5	0.10	1683.3	273	201	3366.7	28044	0.00006
2/12/2019	2/13/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/13/2019	2/14/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/14/2019	2/15/2019	0.13	2138.5	0.13	2138.5	0.00	0.0	273	201	4277.0	35627	0.00007
2/15/2019	2/16/2019	0.00	0.0	0.06	1046.5	0.06	1046.5	273	201	2093.0	17435	0.00004
2/16/2019	2/17/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/17/2019	2/18/2019	0.49	8035.0	0.39	6442.8	0.46	7461.9	273	201	21939.7	182757	0.00037
2/18/2019	2/19/2019	0.00	0.0	0.06	950.9	0.06	950.9	273	201	1901.7	15841	0.00003
2/19/2019	2/20/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/20/2019	2/21/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/21/2019	2/22/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/22/2019	2/23/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
2/23/2019	2/24/2019	0.05	841.7	0.00	0.0	0.05	841.7	273	201	1683.3	14022	0.00003
2/24/2019	2/25/2019	0.22	3617.3	0.22	3526.3	0.13	2138.4	273	201	9281.9	77318	0.00016
2/25/2019	2/26/2019	0.35	5669.1	0.34	5555.6	0.34	5491.6	273	201	16716.4	139247	0.00028
2/26/2019	2/27/2019	0.17	2798.4	0.16	2684.5	0.15	2525.1	273	201	8008.1	66707	0.00013

		WSAC	Hours Online WSAC		WSAC	output per pump			Recirc Rate		PM10	
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
2/27/2019	2/28/2019	0.00	0.0	0.07	1183.1	0.07	1183.1	273	201	2366.2	19710	0.00004
2/28/2019	3/1/2019	0.25	4163.1	0.15	2434.0	0.24	4003.8	273	201	10600.9	88306	0.00018
3/1/2019	3/2/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/2/2019	3/3/2019	0.06	1000.9	0.14	2320.4	0.08	1319.5	273	201	4640.9	38659	0.00008
3/3/2019	3/4/2019	0.31	5068.5	0.22	3667.1	0.25	4131.3	273	201	12867.0	107182	0.00022
3/4/2019	3/5/2019	0.15	2456.9	0.16	2666.5	0.15	2484.4	273	201	7607.8	63373	0.00013
3/5/2019	3/6/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/6/2019	3/7/2019	0.16	2547.9	0.25	4031.2	0.23	3758.2	273	201	10337.4	86110	0.00017
3/7/2019	3/8/2019	0.08	1273.9	0.00	0.0	0.08	1273.9	273	201	2547.8	21223	0.00004
3/8/2019	3/9/2019	0.06	1028.2	0.06	1028.2	0.00	0.0	273	201	2056.5	17131	0.00003
3/9/2019	3/10/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/10/2019	3/11/2019	0.06	955.4	0.05	864.5	0.11	1819.9	273	201	3639.8	30319	0.00006
3/11/2019	3/12/2019	0.06	980.4	0.06	980.4	0.00	0.0	273	201	1960.8	16334	0.00003
3/12/2019	3/13/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/13/2019	3/14/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/14/2019	3/15/2019	0.13	2074.6	0.12	2020.2	0.11	1865.5	273	201	5960.3	49650	0.00010
3/15/2019	3/16/2019	0.34	5619.2	0.41	6715.7	0.38	6274.3	273	201	18609.2	155014	0.00031
3/16/2019	3/17/2019	0.52	8562.8	0.39	6465.4	0.58	9422.9	273	201	24451.1	203678	0.00041
3/17/2019	3/18/2019	0.35	5682.8	0.34	5637.3	0.33	5460.1	273	201	16780.2	139779	0.00028
3/18/2019	3/19/2019	0.35	5806.0	0.35	5732.9	0.35	5714.6	273	201	17253.5	143722	0.00029
3/19/2019	3/20/2019	0.25	4158.5	0.25	4117.8	0.17	2770.8	273	201	11047.1	92022	0.00018
3/20/2019	3/21/2019	0.00	0.0	0.06	978.2	0.06	978.2	273	201	1956.5	16298	0.00003
3/21/2019	3/22/2019	0.24	3917.6	0.16	2593.5	0.25	4144.9	273	201	10656.0	88765	0.00018
3/22/2019	3/23/2019	0.33	5455.1	0.33	5387.5	0.32	5209.8	273	201	16052.4	133716	0.00027
3/23/2019	3/24/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/24/2019	3/25/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/25/2019	3/26/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/26/2019	3/27/2019	0.06	1023.7	0.06	1023.7	0.00	0.0	273	201	2047.4	17055	0.00003
3/27/2019	3/28/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/28/2019	3/29/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/29/2019	3/30/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/30/2019	3/31/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
3/31/2019	4/1/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
4/1/2019	4/2/2019	0.28	4618.1	0.38	6205.9	0.26	4226.8	273	201	15050.9	125374	0.00025
4/2/2019	4/3/2019	0.34	5642.0	0.35	5710.1	0.33	5482.8	273	201	16834.9	140235	0.00028
4/3/2019	4/4/2019	0.39	6469.8	0.36	5846.5	0.42	6893.2	273	201	19209.6	160016	0.00032
4/4/2019	4/5/2019	0.08	1319.4	0.16	2661.7	0.08	1342.3	273	201	5323.4	44344	0.00009
4/5/2019	4/6/2019	0.06	1046.5	0.00	0.0	0.06	1046.5	273	201	2093.0	17435	0.00004
4/6/2019	4/7/2019	0.33	5364.5	0.32	5250.3	0.34	5574.0	273	201	16188.9	134853	0.00027
4/7/2019	4/8/2019	0.35	5741.9	0.36	5824.0	0.36	5960.4	273	201	17526.3	145994	0.00029
4/8/2019	4/9/2019	0.74	12193.8	0.62	10096.3	0.59	9604.7	273	201	31894.8	265684	0.00053
4/9/2019	4/10/2019	0.25	4026.8	0.25	4140.7	0.33	5391.6	273	201	13559.1	112948	0.00023
4/10/2019	4/11/2019	0.07	1183.2	0.07	1183.2	0.00	0.0	273	201	2366.4	19712	0.00004
4/11/2019	4/12/2019	0.18	2916.6	0.15	2507.1	0.15	2420.6	273	201	7844.3	65343	0.00013
4/12/2019	4/13/2019	0.08	1365.0	0.06	1042.0	0.15	2407.0	273	201	4813.9	40100	0.00008
4/13/2019	4/14/2019	0.43	7125.0	0.49	8075.7	0.41	6683.6	273	201	21884.3	182296	0.00037
4/14/2019	4/15/2019	0.08	1315.0	0.00	0.0	0.08	1315.0	273	201	2630.1	21908	0.00004
4/15/2019	4/16/2019	0.05	887.3	0.05	887.3	0.00	0.0	273	201	1774.6	14782	0.00003
4/16/2019	4/17/2019	0.25	4051.5	0.23	3751.2	0.30	4886.2	273	201	12688.9	105699	0.00021
4/17/2019	4/18/2019	0.18	2962.2	0.17	2775.3	0.19	3052.9	273	201	8790.4	73224	0.00015
4/18/2019	4/19/2019	0.22	3526.2	0.18	2911.9	0.21	3489.7	273	201	9927.8	82698	0.00017
4/19/2019	4/20/2019	0.87	14270.1	0.96	15703.1	0.79	12885.3	273	201	42858.4	357011	0.00072

		WSAC		Hours Online WSAC		WSAC		output per pump		Recirc Rate		PM10
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
4/20/2019	4/21/2019	0.25	4094.9	0.22	3621.5	0.31	5068.5	273	201	12784.9	106498	0.00021
4/21/2019	4/22/2019	0.08	1274.0	0.08	1274.0	0.00	0.0	273	201	2548.1	21225	0.00004
4/22/2019	4/23/2019	0.97	15943.0	0.94	15456.3	1.03	16939.4	273	201	48338.7	402661	0.00081
4/23/2019	4/24/2019	0.80	13162.8	0.89	14504.9	0.80	13090.2	273	201	40757.9	339514	0.00068
4/24/2019	4/25/2019	1.94	31844.6	5.14	84202.7	5.31	86964.5	273	201	203011.8	1691088	0.00340
4/25/2019	4/26/2019	3.52	57649.1	3.03	49709.6	1.90	31153.4	273	201	138512.1	1153806	0.00232
4/26/2019	4/27/2019	1.44	23668.8	1.26	20638.3	1.27	20820.5	273	201	65127.6	542513	0.00109
4/27/2019	4/28/2019	0.52	8567.5	0.65	10615.0	0.64	10501.0	273	201	29683.4	247263	0.00050
4/28/2019	4/29/2019	0.52	8526.8	0.43	7002.5	0.43	6984.1	273	201	22513.3	187536	0.00038
4/29/2019	4/30/2019	0.00	0.0	0.06	1028.3	0.06	1028.3	273	201	2056.5	17131	0.00003
4/30/2019	5/1/2019	0.24	3849.5	0.15	2525.4	0.24	4008.7	273	201	10383.5	86495	0.00017
5/1/2019	5/2/2019	0.30	4964.0	0.50	8189.9	0.38	6183.2	273	201	19337.2	161079	0.00032
5/2/2019	5/3/2019	0.33	5437.2	0.25	4049.4	0.25	4072.2	273	201	13558.8	112944	0.00023
5/3/2019	5/4/2019	0.34	5592.0	0.41	6711.2	0.40	6615.7	273	201	18918.8	157594	0.00032
5/4/2019	5/5/2019	0.33	5441.6	0.26	4208.9	0.25	4099.5	273	201	13750.0	114537	0.00023
5/5/2019	5/6/2019	0.00	0.0	0.07	1092.0	0.07	1092.0	273	201	2184.0	18192	0.00004
5/6/2019	5/7/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/7/2019	5/8/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/8/2019	5/9/2019	0.24	3876.7	0.17	2843.6	0.24	3990.3	273	201	10710.6	89219	0.00018
5/9/2019	5/10/2019	0.26	4276.9	0.37	6005.8	0.27	4504.2	273	201	14786.9	123175	0.00025
5/10/2019	5/11/2019	0.34	5601.0	0.36	5846.6	0.35	5714.7	273	201	17162.2	142961	0.00029
5/11/2019	5/12/2019	0.52	8526.5	0.57	9322.5	0.58	9486.3	273	201	27335.4	227704	0.00046
5/12/2019	5/13/2019	0.61	9918.5	0.52	8571.7	0.61	9991.4	273	201	28481.6	237252	0.00048
5/13/2019	5/14/2019	0.43	7079.7	0.51	8372.5	0.43	7025.4	273	201	22477.6	187238	0.00038
5/14/2019	5/15/2019	0.00	0.0	0.00	0.0	0.22	3544.3	273	201	3544.3	29524	0.00006
5/15/2019	5/16/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/16/2019	5/17/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/17/2019	5/18/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/18/2019	5/19/2019	0.38	6297.1	0.30	4895.7	0.42	6870.5	273	201	18063.3	150467	0.00030
5/19/2019	5/20/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/20/2019	5/21/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/21/2019	5/22/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/22/2019	5/23/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/23/2019	5/24/2019	0.08	1337.6	0.06	978.4	0.14	2316.0	273	201	4632.0	38584	0.00008
5/24/2019	5/25/2019	0.42	6911.2	0.42	6829.3	0.35	5742.2	273	201	19482.7	162291	0.00033
5/25/2019	5/26/2019	0.17	2743.7	0.16	2543.5	0.16	2566.3	273	201	7853.5	65420	0.00013
5/26/2019	5/27/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/27/2019	5/28/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
5/28/2019	5/29/2019	0.24	3890.4	0.24	3881.3	0.30	4914.2	273	201	12685.9	105673	0.00021
5/29/2019	5/30/2019	0.37	6101.1	0.37	6028.5	0.38	6206.0	273	201	18335.5	152735	0.00031
5/30/2019	5/31/2019	0.43	7125.3	0.43	7029.8	0.35	5682.9	273	201	19837.9	165250	0.00033
5/31/2019	6/1/2019	1.48	24205.4	1.41	23032.4	1.51	24661.2	273	201	71899.0	598918	0.00120
6/1/2019	6/2/2019	4.19	68550.5	0.99	16215.8	4.20	68786.8	273	201	153553.1	1279097	0.00257
6/2/2019	6/3/2019	0.73	11927.2	0.65	10583.1	0.64	10544.3	273	201	33054.6	275345	0.00055
6/3/2019	6/4/2019	1.72	28145.1	1.45	23814.2	1.83	29992.9	273	201	81952.2	682662	0.00137
6/4/2019	6/5/2019	5.72	93739.9	9.11	149255.3	4.58	75084.3	273	201	318079.5	2649602	0.00533
6/5/2019	6/6/2019	7.77	127349.4	7.78	127363.3	1.15	18758.7	273	201	273471.4	2278017	0.00458
6/6/2019	6/7/2019	0.26	4245.0	0.34	5516.2	0.25	4092.2	273	201	13853.4	115398	0.00023
6/7/2019	6/8/2019	0.00	0.0	0.00	0.0	0.00	0.0	273	201	0.0	0	0.00000
6/8/2019	6/9/2019	0.58	9550.6	0.52	8549.3	0.59	9600.1	273	201	27700.0	230741	0.00046
6/9/2019	6/10/2019	6.31	103394.6	6.37	104301.4	2.89	47403.5	273	201	255099.5	2124979	0.00427
6/10/2019	6/11/2019	2.06	33683.5	17.52	286904.1	17.22	282086.4	273	201	602674.0	5020274	0.01009

		WSAC		Hours Online WSAC		WSAC		output per pump		Recirc Rate		PM10
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
6/11/2019	6/12/2019	17.57	287784.4	2.78	45516.6	17.16	281116.9	273	201	614417.9	5118101	0.01029
6/12/2019	6/13/2019	3.65	59746.4	16.85	276067.9	18.23	298550.5	273	201	634364.8	5284259	0.01062
6/13/2019	6/14/2019	2.01	32880.2	5.32	87159.0	5.69	93271.1	273	201	213310.4	1776875	0.00357
6/14/2019	6/15/2019	1.23	20188.2	3.67	60113.5	3.64	59635.3	273	201	139937.1	1165676	0.00234
6/15/2019	6/16/2019	0.17	2775.6	0.17	2843.9	0.17	2843.9	273	201	8463.3	70499	0.00014
6/16/2019	6/17/2019	1.72	28136.4	1.71	28027.0	1.88	30720.5	273	201	86883.9	723743	0.00145
6/17/2019	6/18/2019	9.09	148907.8	8.89	145563.4	0.99	16138.6	273	201	310609.9	2587380	0.00520
6/18/2019	6/19/2019	11.89	194800.2	7.82	128078.0	6.98	114268.8	273	201	437146.9	3641434	0.00732
6/19/2019	6/20/2019	3.93	64431.0	1.62	26521.4	4.34	71033.1	273	201	161985.4	1349339	0.00271
6/20/2019	6/21/2019	2.98	48733.7	2.98	48829.4	2.20	36003.2	273	201	133566.4	1112608	0.00224
6/21/2019	6/22/2019	0.00	0.0	0.10	1615.3	0.10	1615.3	273	201	3230.6	26911	0.00005
6/22/2019	6/23/2019	1.43	23427.1	1.41	23054.2	1.39	22794.4	273	201	69275.7	577066	0.00116
6/23/2019	6/24/2019	7.22	118256.1	1.78	29187.8	7.08	116049.5	273	201	263493.4	2194900	0.00441
6/24/2019	6/25/2019	1.53	25121.5	7.13	116746.7	7.29	119370.4	273	201	261238.6	2176118	0.00437
6/25/2019	6/26/2019	1.30	21256.8	1.45	23812.9	1.50	24504.2	273	201	69573.8	579550	0.00116
6/26/2019	6/27/2019	0.18	2912.0	0.18	2866.5	0.17	2775.5	273	201	8554.0	71255	0.00014
6/27/2019	6/28/2019	0.18	2980.0	0.15	2479.6	0.17	2775.3	273	201	8235.0	68597	0.00014
6/28/2019	6/29/2019	1.24	20392.3	1.27	20783.8	1.32	21647.8	273	201	62823.9	523323	0.00105
6/29/2019	6/30/2019	1.84	30161.3	1.79	29387.7	1.80	29474.5	273	201	89023.5	741566	0.00149
6/30/2019	7/1/2019	1.03	16803.1	0.99	16265.9	0.90	14741.9	273	201	47810.9	398265	0.00080
7/1/2019	7/2/2019	0.35	5692.0	0.44	7141.2	0.43	7100.4	273	201	19933.5	166046	0.00033
7/2/2019	7/3/2019	0.47	7639.4	0.34	5619.1	0.46	7616.6	273	201	20875.0	173889	0.00035
7/3/2019	7/4/2019	1.47	24091.5	1.48	24225.9	1.57	25659.2	273	201	73976.5	616224	0.00124
7/4/2019	7/5/2019	1.82	29786.1	3.16	51733.9	3.17	51918.7	273	201	133438.7	1111544	0.00223
7/5/2019	7/6/2019	1.23	20073.4	1.34	21912.5	1.22	20019.8	273	201	62005.7	516507	0.00104
7/6/2019	7/7/2019	0.91	14937.1	0.91	14914.4	0.91	14928.0	273	201	44779.4	373013	0.00075
7/7/2019	7/8/2019	0.53	8690.3	0.54	8849.4	0.54	8803.8	273	201	26343.5	219441	0.00044
7/8/2019	7/9/2019	0.53	8654.5	0.53	8631.1	0.54	8768.1	273	201	26053.7	217027	0.00044
7/9/2019	7/10/2019	0.54	8822.5	0.53	8690.7	0.54	8868.0	273	201	26381.2	219756	0.00044
7/10/2019	7/11/2019	0.84	13713.5	0.84	13720.1	0.76	12373.5	273	201	39807.0	331593	0.00067
7/11/2019	7/12/2019	7.63	125019.8	7.66	125475.0	1.39	22712.9	273	201	273207.7	2275820	0.00457
7/12/2019	7/13/2019	11.57	189596.2	11.53	188918.6	0.99	16283.7	273	201	394798.5	3288671	0.00661
7/13/2019	7/14/2019	1.91	31363.3	7.03	115153.2	7.12	116633.1	273	201	263149.6	2192036	0.00441
7/14/2019	7/15/2019	1.40	22935.8	6.37	104358.7	6.31	103316.9	273	201	230611.3	1920992	0.00386
7/15/2019	7/16/2019	7.41	121351.2	7.50	122917.5	1.43	23450.9	273	201	267719.6	2230104	0.00448
7/16/2019	7/17/2019	2.45	40126.0	2.41	39510.9	1.16	19032.2	273	201	98669.1	821914	0.00165
7/17/2019	7/18/2019	0.56	9168.8	4.41	72161.1	4.48	73367.3	273	201	154697.1	1288627	0.00259
7/18/2019	7/19/2019	2.57	42104.1	0.76	12394.1	2.53	41494.5	273	201	95992.7	799619	0.00161
7/19/2019	7/20/2019	1.38	22603.8	1.23	20097.0	1.28	21034.1	273	201	63734.9	530912	0.00107
7/20/2019	7/21/2019	0.75	12225.4	0.78	12776.8	0.77	12672.2	273	201	37674.4	313828	0.00063
7/21/2019	7/22/2019	6.73	110292.0	6.07	99466.1	2.42	39579.9	273	201	249338.0	2076986	0.00417
7/22/2019	7/23/2019	11.41	186837.9	2.15	35239.1	11.44	187379.5	273	201	409456.5	3410773	0.00686
7/23/2019	7/24/2019	10.78	176538.4	2.82	46135.3	10.70	175301.0	273	201	397974.7	3315129	0.00666
7/24/2019	7/25/2019	10.45	171118.4	1.41	23129.8	10.47	171547.6	273	201	365795.8	3047079	0.00612
7/25/2019	7/26/2019	12.22	200135.1	12.19	199652.6	1.66	27153.6	273	201	426941.3	3556421	0.00715
7/26/2019	7/27/2019	9.55	156360.3	0.68	11188.3	9.74	159540.7	273	201	327089.3	2724654	0.00548
7/27/2019	7/28/2019	0.15	2411.9	14.16	231868.7	14.01	229456.8	273	201	463737.4	3862933	0.00776
7/28/2019	7/29/2019	0.39	6369.9	16.65	272722.4	16.70	273495.8	273	201	552588.1	4603059	0.00925
7/29/2019	7/30/2019	1.84	30111.1	10.66	174556.2	10.48	171735.4	273	201	376402.7	3135435	0.00630
7/30/2019	7/31/2019	0.63	10331.2	7.55	123647.7	7.48	122558.3	273	201	256537.2	2136955	0.00430
7/31/2019	8/1/2019	8.34	136587.1	1.31	21496.8	8.15	133523.8	273	201	291607.7	2429092	0.00488
8/1/2019	8/2/2019	1.68	27513.3	1.83	30014.5	1.80	29518.5	273	201	87046.3	725096	0.00146

		WSAC	Hours Online WSAC		WSAC	output per pump			Recirc Rate	PM10		
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
8/2/2019	8/3/2019	7.02	114999.6	1.98	32371.9	6.87	112507.8	273	201	259879.2	2164794	0.00435
8/3/2019	8/4/2019	10.70	175311.8	2.63	43066.4	12.61	206584.7	273	201	424963.0	3539941	0.00712
8/4/2019	8/5/2019	8.69	142391.6	8.96	146764.0	1.89	30888.9	273	201	320044.6	2665972	0.00536
8/5/2019	8/6/2019	9.94	162784.1	1.13	18525.2	9.85	161354.0	273	201	342663.3	2854385	0.00574
8/6/2019	8/7/2019	10.97	179683.2	10.86	177955.9	1.30	21249.5	273	201	378888.6	3156142	0.00634
8/7/2019	8/8/2019	6.85	112268.5	6.94	113704.0	1.01	16541.1	273	201	242513.7	2020139	0.00406
8/8/2019	8/9/2019	0.63	10310.0	0.63	10260.0	0.71	11688.1	273	201	32258.2	268711	0.00054
8/9/2019	8/10/2019	0.54	8786.0	0.54	8804.1	0.54	8899.4	273	201	26489.6	220658	0.00044
8/10/2019	8/11/2019	0.56	9218.0	0.56	9218.1	0.57	9290.8	273	201	27726.9	230965	0.00046
8/11/2019	8/12/2019	0.56	9172.7	0.56	9254.6	0.57	9318.3	273	201	27745.5	231120	0.00046
8/12/2019	8/13/2019	1.53	25142.6	5.17	84626.6	5.33	87338.4	273	201	197107.5	1641906	0.00330
8/13/2019	8/14/2019	12.57	205880.8	1.67	27396.2	12.13	198613.6	273	201	431890.6	3597648	0.00723
8/14/2019	8/15/2019	16.09	263631.7	16.01	262239.1	1.62	26562.5	273	201	552433.3	4601769	0.00925
8/15/2019	8/16/2019	17.89	293002.3	17.87	292701.5	1.09	17909.0	273	201	603612.7	5028094	0.01011
8/16/2019	8/17/2019	14.91	244191.1	1.95	32010.3	14.10	231017.9	273	201	507219.3	4225137	0.00849
8/17/2019	8/18/2019	1.24	20388.2	1.26	20679.2	1.35	22057.7	273	201	63125.1	525832	0.00106
8/18/2019	8/19/2019	0.66	10833.5	0.75	12271.6	0.65	10710.6	273	201	33815.7	281684	0.00057
8/19/2019	8/20/2019	0.62	10088.1	0.53	8744.7	0.46	7553.9	273	201	26386.7	219801	0.00044
8/20/2019	8/21/2019	0.56	9181.7	0.47	7671.2	0.46	7552.8	273	201	24405.7	203300	0.00041
8/21/2019	8/22/2019	3.09	50682.7	5.79	94800.1	7.58	124226.1	273	201	269708.9	2246675	0.00452
8/22/2019	8/23/2019	7.33	120139.6	7.73	126682.4	1.69	27654.0	273	201	274476.0	2286385	0.00460
8/23/2019	8/24/2019	6.47	105947.1	6.54	107093.8	1.31	21430.1	273	201	234471.0	1953143	0.00393
8/24/2019	8/25/2019	6.17	101121.1	1.12	18418.1	6.16	100839.3	273	201	220378.4	1835752	0.00369
8/25/2019	8/26/2019	3.71	60715.6	2.27	37147.3	3.84	62851.8	273	201	160714.7	1338753	0.00269
8/26/2019	8/27/2019	13.06	213843.2	13.91	227897.9	1.32	21698.7	273	201	463439.8	3860454	0.00776
8/27/2019	8/28/2019	0.38	6165.2	12.72	208411.7	12.71	208252.2	273	201	422829.0	3522166	0.00708
8/28/2019	8/29/2019	9.56	156551.0	9.88	161836.1	3.41	55824.8	273	201	374211.9	3117185	0.00627
8/29/2019	8/30/2019	5.88	96339.4	1.50	24519.4	6.01	98482.5	273	201	219341.3	1827113	0.00367
8/30/2019	8/31/2019	1.69	27706.7	5.29	86616.2	5.31	86932.5	273	201	201255.4	1676457	0.00337
8/31/2019	9/1/2019	1.93	31553.4	9.39	153820.9	9.03	147883.5	273	201	333257.8	2776037	0.00558
9/1/2019	9/2/2019	2.31	37818.7	7.65	125343.3	7.88	129083.3	273	201	292245.3	2434403	0.00489
9/2/2019	9/3/2019	7.08	116025.2	1.88	30739.8	6.68	109492.0	273	201	256257.0	2134621	0.00429
9/3/2019	9/4/2019	10.20	167102.0	10.20	167149.6	1.62	26573.0	273	201	360824.6	3005669	0.00604
9/4/2019	9/5/2019	1.94	31823.4	9.36	153237.3	9.50	155529.0	273	201	340589.6	2837112	0.00570
9/5/2019	9/6/2019	7.01	114760.4	7.06	115667.9	0.71	11699.9	273	201	242128.2	2016928	0.00405
9/6/2019	9/7/2019	0.76	12466.8	6.79	111270.8	6.80	111407.0	273	201	235144.6	1958754	0.00394
9/7/2019	9/8/2019	0.47	7689.3	0.48	7816.5	0.37	6051.3	273	201	21557.2	179571	0.00036
9/8/2019	9/9/2019	0.18	2980.2	0.26	4276.7	0.26	4254.1	273	201	11511.0	95886	0.00019
9/9/2019	9/10/2019	0.17	2820.9	0.18	2957.4	0.17	2820.9	273	201	8599.2	71632	0.00014
9/10/2019	9/11/2019	0.17	2748.8	0.17	2798.8	0.16	2679.9	273	201	8227.5	68535	0.00014
9/11/2019	9/12/2019	0.36	5874.5	0.36	5951.5	0.36	5865.6	273	201	17691.6	147371	0.00030
9/12/2019	9/13/2019	1.78	29092.6	6.56	107521.0	6.81	111542.7	273	201	248156.3	2067142	0.00415
9/13/2019	9/14/2019	8.56	140180.5	8.69	142287.2	1.27	20857.1	273	201	303324.8	2526696	0.00508
9/14/2019	9/15/2019	2.10	34425.0	10.35	169580.7	10.29	168498.1	273	201	372503.8	3102956	0.00624
9/15/2019	9/16/2019	1.00	16461.9	0.96	15738.0	1.05	17267.1	273	201	49467.0	412060	0.00083
9/16/2019	9/17/2019	0.09	1411.2	0.17	2781.2	0.08	1370.0	274	201	5562.4	46334	0.00009
9/17/2019	9/18/2019	0.17	2750.0	0.18	2892.0	0.17	2800.4	275	201	8442.3	70325	0.00014
9/18/2019	9/19/2019	0.08	1356.9	0.00	0.0	0.08	1356.9	276	201	2713.8	22606	0.00005
9/19/2019	9/20/2019	0.08	1246.6	0.08	1246.6	0.00	0.0	277	201	2493.1	20768	0.00004
9/20/2019	9/21/2019	0.18	2919.0	0.25	4244.1	0.25	4244.1	278	201	11407.3	95023	0.00019
9/21/2019	9/22/2019	1.42	23753.6	1.30	21791.0	1.33	22246.2	279	201	67790.8	564697	0.00114
9/22/2019	9/23/2019	3.57	60019.2	2.10	35353.8	4.02	67550.7	280	201	162923.6	1357154	0.00273



		WSAC		WSAC		WSAC		output per pump		Recirc Rate		PM10
		PUMP A	gallons	PUMP B	gallons	PUMP C	gallons	gpm	TDS (ppm)	Total gallons per day	(lb/day)	lb/day
9/23/2019	9/24/2019	3.05	51482.4	3.89	65539.3	3.86	65064.8	281	201	182086.5	1516781	0.00305
9/24/2019	9/25/2019	8.69	147001.7	8.92	150854.9	2.43	41170.7	282	201	339027.4	2824098	0.00568
9/25/2019	9/26/2019	10.46	177572.3	10.46	177658.3	2.75	46761.8	283	201	401992.5	3348597	0.00673
9/26/2019	9/27/2019	6.74	114852.3	6.69	113957.3	0.91	15435.6	284	201	244245.3	2034563	0.00409
9/27/2019	9/28/2019	0.38	6510.1	0.47	7987.4	0.46	7889.8	285	201	22387.3	186486	0.00037
9/28/2019	9/29/2019	0.00	0.0	0.00	0.0	0.00	0.0	286	201	0.0	0	0.00000
9/29/2019	9/30/2019	0.00	0.0	0.00	0.0	0.00	0.0	287	201	0.0	0	0.00000
9/30/2019	10/1/2019	0.00	0.0	0.00	0.0	0.00	0.0	288	201	0.0	0	0.00000
		521.2		555.0		502.5						0.42928
		Hours		Hours		Hours						Total Lbs per year

## **Appendix F**

# **Biological Resources Mitigation Implementation and Monitoring Plan Bio-2**



505 Sansome St., Suite 1600  
San Francisco, CA 94111

T 415.434.2600  
TRCcompanies.com

April 10, 2020

*Submitted electronically*

Neftali Nevarez  
San Joaquin Energy Inc.  
14950 W. Schulte Road  
Tracy, CA 95377

**Subject: Tracy Combined Cycle Power Plant Project Condition Bio-2, 2020  
Annual Biological Report, PO # TCY-20-12458**

Dear Neftali:

On April 9, 2020, I visited the Tracy Combined Cycle Power Plant to conduct the annual biological resources inspection as required by Condition Number Bio-2 of the Final Commission Decision for 08-AFC-07. In addition to my visual inspection of the plant, I interviewed you regarding on-site activities since the last annual inspection. Wayne Toumbs accompanied me on my inspection of the plant. Below is a summary of my findings.

#### **Activities/Tasks Accomplished**

Typical operational and maintenance activities took place within the plant. No construction or demolition has occurred since the last inspection. Plant staff continued to inspect and maintain the perimeter fence to help prevent rodents and other wildlife from entering the plant. The fence appeared to be in good condition upon my inspection. Regularly placed bait stations installed in previous years inside and outside the plant continue to be maintained and monitored by a licensed pest control contractor.

The interior of the plant is maintained mostly free of vegetation. Perimeter landscaping between the plant and the annuals grasslands southwest of the plant forms a narrow band less than 50 feet in width, and shrubs and small trees (such as Lombardy poplar (*Populus nigra* 'Italica') and Italian cypress (*Cupressus sempervirens*)) that do not provide perching habitat for raptors are clustered close to the fence line. The landscaping is regularly maintained. The annual grassland vegetation in the mitigation area to the southwest of the plant was undisturbed during the year.

#### **Pre-Activity Surveys**

Due to the lack of construction activities performed by San Joaquin Energy, no biological surveys were warranted.

#### **Mitigation/Minimization Measures Implemented**

Construction-related minimization measures for the protection of special-status species were not required. As part of plant operations, all workers employed general housekeeping measures and were observant of any wildlife within the plant.

At the time of this inspection, a female great horned owl (*Bubo virginianus*) was brooding a nest built on a protected beam under the upper walkway of Unit 1, approximately 75 feet above ground. Plant workers noted the female on the nest and maintain their distance so as not to flush her from the nest in the course of their regular safety inspections.

Great horned owls are common and found across North America. They are not especially sensitive to disturbance. Given the overall low level of disturbance of regular plant operations and the precautionary methods in place by plant staff, the nest is adequately buffered from disturbance. No additional avoidance or mitigation is recommended.

### **Worker Training**

San Joaquin Energy provided an annual course of the Worker Environmental Awareness Training to the work force in the summer of 2019. In addition, all visitors to the plant view a safety video which includes a brief discussion of sensitive wildlife species and instructs visitors to alert plant staff of any sensitive wildlife sightings.

### **Sensitive Wildlife Observed within the Plant and Mitigation Area**

Ground cover at the site is predominantly gravel. Plant workers observe both hawks and owls around the cooling system where rock doves (*Columba livia*) continue to nest (in spite of netting placed to prevent it). Killdeer (*Charadrius vociferous*) were observed flying over the Stormwater pond.

Outside of the plant, wildlife observed included black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), and California ground squirrel (*Otospermophilus beecheyi*). Ground squirrel burrows are present throughout the annual grasslands southwest of the plant, particularly along the toe of the Delta Mendota levee.

Four animal carcasses were found outside of the plant: two raptors, one raccoon (*Procyon lotor*), and one skunk (*Mephitidae* sp.). All carcasses were leathery and well decayed, and--in the case of one of the raptors--dismembered and its parts either consumed or distributed. Based on the size of the carcasses and the remaining plumage, the raptors appear to have been red-tailed hawks. All carcasses were left in place. Locations are shown in Figure 1.

### **Agency Visits**

There were no visits from the agencies.

### **Incidents and Reported Takes/Harassments of Sensitive Wildlife**

On January 15, 2019, plant workers found the carcass of a red-tailed hawk, within the facility. San Joaquin Energy Compliance Manager Neftali Nevarez notified Anwar Ali of the California Energy Commission ([anwar.ali@energy.ca.gov](mailto:anwar.ali@energy.ca.gov)), Carrie Battistone, CDFW Statewide Raptor Conservation Coordinator ([carrie.battistone@wildlife.ca.gov](mailto:carrie.battistone@wildlife.ca.gov)), and Krysta Rogers, Avian Specialist with the CDFW Wildlife Investigations Laboratory ([Krysta.rogers@wildlife.ca.gov](mailto:Krysta.rogers@wildlife.ca.gov)), who indicated that the Laboratory would only require the carcass if there was suspicion that the bird died under unusual circumstances. As the cause of death was unknown, information about the hawk's death was submitted to the California Department of Public Health West Nile website

(<http://westnile.ca.gov>) and January 25, 2019 by TRC personnel. Per the advice of Anwar Ali, the carcass was then disposed of safely in the trash, tightly double bagged.

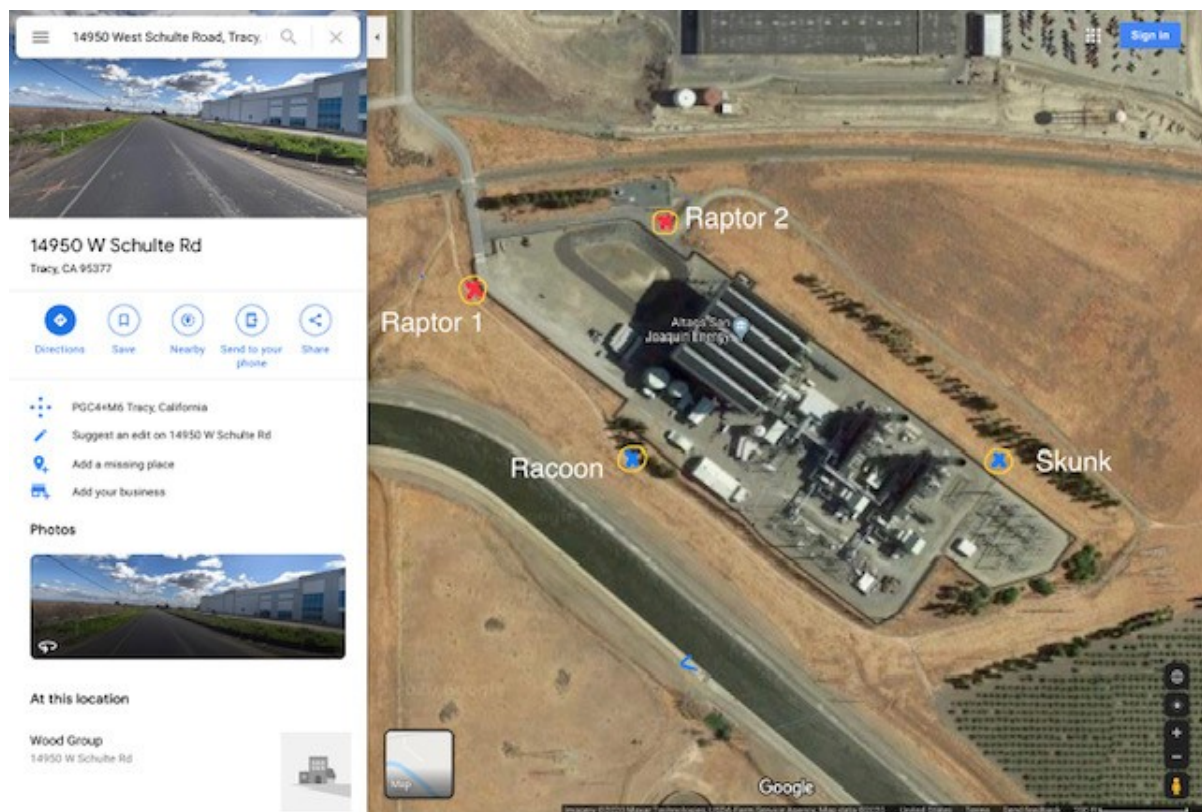
Please feel free to contact me if you have any questions or require additional information.

Sincerely,

Molly Sandomire

CEC-Designated Biologist

**Figure 1. Carcass locations**



## **Appendix G**

### **Hazardous Materials Inventory Haz-1**

## Hazardous Materials

### On- Site during 2019 - 2020

Material	CAS No.	Application	Hazardous Characteristics	Maximum Quantity On Site
Aqueous Ammonia (29.5% NH3 by weight)	7664-41-7	Control oxides of nitrogen (NOx) emissions through selective catalytic reduction	Health: irritation to permanent damage from inhalation, ingestion, and skin contact Physical: reactive, vapor is combustible	67,000 pounds
Carbon Monoxide (Balance Nitrogen)	630-08-0	CEMS Calibration Std.	Health: headaches, dizziness, convulsions, loss of consciousness, death Physical: flammable	1,600 ft3
Citric Acid	77-92-9	Cleaning Ultrafiltration unit membranes	Health: none Physical: non-flammable	100 pounds
Cleaning chemicals/detergents for Turbine Wash	None	Periodic cleaning of combustion turbine	Health: refer to individual chemical labels Physical: refer to individual chemical labels	Varies as needed (approx 100 gallons)
Diesel No. 2	None	Fuel for fire pump engine/off-road vehicles	Health: may be carcinogenic Physical: flammable	550 gallons
Hydraulic Oil	None	High-pressure combustion turbine starting system, turbine control valve actuators	Health: hazardous if ingested Physical: combustible	500 gallons
Hydrochloric Acid	7647-01-0	Cleaning Ultrafiltration unit membranes	Health: strongly corrosive and toxic, toxic by ingestion, strong irritant to eyes and skin Physical: non-flammable	200 gallons
Laboratory Reagents	None	Water/wastewater laboratory analysis	Health: refer to individual chemical labels Physical: refer to individual chemical labels	10 gallons liquids 100 pounds solids



Lubrication Oil	None	Lubricate rotating equipment (e.g., gas turbine and steam turbine bearings)	Health: hazardous if ingested Physical: flammable	40,000 gallons
Mineral Insulating Oil	8012-95-1	Transformers/switch yard	Health: hazardous if ingested Physical: may be flammable/combustible	80,000 gallons
Nitric Oxide (balance Nitrogen)	10102-43-9	CEMS Calibration Std.	Health: irritating to eyes and respiratory system, cyanosis, inhalation may result in chemical pneumonitis and pulmonary edema Physical: non-flammable	2,200 ft3
Propylene Glycol	57-55-6	Antifreeze	Health: causes irritation Physical: combustible	2,000 gallons
Powerfilm 1000	NA	Steam Line Corrosion Inhibitor	Not a hazardous substance or mixture	110 gallons
Sodium Hypochlorite	7681-52-9	Cleaning Ultrafiltration unit membranes	Health: corrosive and toxic, toxic by ingestion, strong irritant to tissue Physical: fire risk when in contact with organic materials	120 gallons
Sulfur Hexafluoride	2551-62-4	Switchyard/ switchgear devices	Health: hazardous if inhaled Physical: non-flammable	200 pounds
Sulfuric Acid (Lead-Acid Batteries)	7664-93-9	Battery Electrolyte	Health: strongly corrosive, strong irritant to all tissue, minor burns to permanent damage to tissue Physical: non-flammable	3,000 pounds
Coagulant	12042-91-0	Coagulant for clarifier	Health: Eye Irritant, respiratory irritant.	110 gallons
Flocculent	64742-47-8	Flocculent for Clarifier	Health: Eye Irritant, respiratory irritant.	110 gallons
Argon, Compressed	7440-37-1	Welding gas	Health: Asphyxiant, Contact with rapidly expanding gas may cause burns or frostbite. Contact with cryogenic liquid can cause frostbite and cryogenic burns. Physical: Flammable	250 Pounds

Oxygen, Compressed	7782-44-7	Welding Gas	Health: May cause eye, skin, or respiratory irritation. Contact with rapidly expanding gas may cause burns or frostbite. Contact with cryogenic liquid can cause frostbite and cryogenic burns. Physical: Oxidizing agent	250 Pounds
Calcium hypochlorite	7778-54-3	Biocide for potable Water System	Health: Eye, skin, and Respiratory irritant. Physical: Chemically reactive, strong oxidizing agent.	100 Pounds
Oxalic Acid, Dihydrate 99.6%	6153-56-6	Chemical cleaning of Ultrafiltration unit membranes	Health: Irritant, corrosive, inhalation hazard. Physical: Corrosive Solid	400 pounds
Aqueous Ammonia (18.9% NH3 by weight)	7664-41-7	Control of Steam Boiler chemistry	Health: irritation to permanent damage from inhalation, ingestion, and skin contact Physical: reactive, vapor is combustible	990 gallons

## **Appendix H**

### **Site Specific Operations on-site Security Plan Haz-7**



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# Security Policy

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AltaGas San Joaquin  
Energy Inc

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Tracy  
14950 W. Schulte Rd.,  
Tracy, CA 95377  
Hanford  
10596 Idaho Avenue  
Hanford, CA 93230  
Henrietta  
10550 Idaho Ave  
Hanford, CA 93230

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**Contents**

**1.0 DOCUMENT HISTORY .....33**

**2.0 PURPOSE .....44**

**3.0 APPLICABILITY .....4**

**4.0 ROLES AND RESPONSIBILITIES .....4**

**5.0 SECURITY PERIMETER .....5**

**6.0 PERSONEL RISK ASSESSMENTS .....5**

**7.0 ACCESS CONTROL .....6**

**8.0 SUSPICIOUS PACKAGES.....6**

**9.0 AWARENESS AND TRAINING.....7**

## 1.0 DOCUMENT HISTORY

# Review and Approval

This revision of the Security Program is hereby approved and effective on this date.

 Plant Engineer 04/29/16

**Submitted by** **Title** **Date**

 OPERATIONS MANAGER 4/29/16

**Approved By** **Title** **Date**

## Revision Tracking

Revision Date	Changes	Revised By

## 2.0 PURPOSE

This policy details ASJE management's commitment to the security and protection of their Personnel and their Generation, Generation Control and Protection, and Support assets.

## 3.0 APPLICABILITY

This policy applies to all ASJE facilities;

- A. Hanford Energy Park Peaker (HEPP)
- B. Henrietta Peaker Plant (HPP)
- C. Tracy Combined Cycle Power Plant (TCCPP)

## 4.0 ROLES AND RESPONSIBILITIES

### Role:

Title: Operations Manager

Phone: (925) 766-7492

Date Of Designation: ASJE Security Policy effective date

**Responsibilities:** The ASJE Director of Operation and Maintenance will serve as the senior manager with overall responsibility for the implementation and adherence to the ASJE Security Policy.

As such, the Senior Manager's responsibilities include;

- Implementing the security plan
- Making this plan available to all employees and ensure that they are informed of and comply with the site security requirements.
- Ensuring that employees know and understand their roles, responsibilities and managements expectation in complying with the security plan.
- Authorize designated "ASJE Restricted Access" areas within the facility.  
Authorize ASJE personnel for access to "ASJE Restricted Areas".

### Role:

Title: Plant Engineer

Phone: (925) 760-7492

Date of Designation: ASJE Security Policy effective date

### **Responsibilities:**

- Review the security plan annually
- Revise the plan as needed to comply with the current approved Federal Energy Regulatory Commission (FERC) reliability standards and California Public Utilities Commission (CPUC) maintenance and operation standards.
- Annual California Energy Commission (CEC) compliance report.



- Review of authorized access list and update as needed.

## 5.0 SECURITY PERIMETER

ASJE facilities will employ a “layered” approach to perimeter security. The perimeter will be enclosed by a security fence, backed by motion sensors with alarms and monitored via video cameras. The video feeds will be fed to a digital recording device and monitored in the control room. Access will be controlled from the control room via a remotely operated gate (Main Gate). Personnel and vehicle gates other than the main gate shall remain locked. Access through these locked gates shall be logged in the control room log. The log entry shall include:

- Time of opening
- Name of person(s) accessing gate
- Reason for access
- Time of closure

## 6.0 PERSONNEL RISK ASSESSMENTS

A personnel risk assessment shall be conducted pursuant to the current FERC approved Critical Infrastructure Protection (CIP) standard(s) prior to such personnel being granted access except in specified circumstances such as an emergency.

The ASJE personnel risk assessment program includes:

- Identity verification such as Social Security Number verification.
- A seven year criminal check
- ASJE may conduct more detailed reviews as permitted by law and the criticality of the position at the discretion of management
- ASJE will update each personnel risk assessment at least every seven years after the initial assessment or for cause
- ASJE will document the results of personnel risk assessments of its personnel having authorized access to Generation, Generation Control, Protection and Support Assets and that personnel risk assessments of contractor and service vendor personnel with such access are conducted pursuant to the current FERC approved CIP Standard(s).

ASJE maintains a list of personnel with authorized access to Generation, Generation Control, Protection and Support Assets including their specific access rights to Generation, Generation Control, Protection and Support Assets. This list shall be maintained following these guidelines:

- The list is reviewed quarterly
- Updated within seven calendar days of any change of personnel with such access to Generation, Generation Control, Protection and Support Assets

- Updated with any change in the access rights of personnel
- Ensure the list for contractors and service vendors are properly maintained
- ASJE revokes access to Generation, Generation Control, Protection and Support Assets within 24 hours for personnel terminated for cause and within seven calendar days for personnel who no longer require such access to Generation, Generation Control, Protection and Support Assets

## **7.0 ACCESS CONTROL**

Essential to the protection of ASJE personnel, generation, generation control and protection, and support assets is careful control of access to those assets. ASJE has identified areas within the security perimeter which require additional security measures. These areas are designated "ASJE Restricted Areas". ASJE Restricted Areas are posted with signage and remain locked unless manned by authorized ASJE personnel.

All personnel are required to sign in when entering the facility and sign out when exiting. Visitors must sign in when entering the facility in the visitor log. This log is kept in the administration building reception area. Visitors are allowed unescorted access to administrative areas of the admin building. Visitors requiring access to ASJE restricted areas shall be escorted by authorized ASJE personnel at all times.

Any access to a restricted area must be documented in accordance with the current enforced FERC CIP standard(s). Documentation will be done in control room log. Log entry will include:

- Time of Entry
- Name(s) of entrant(s)
- Reason for entry
- Name of restricted space
- Time of Exit

## **8.0 SUSPICIOUS PACKAGES**

ASJE standard operating procedure "Sabotage Reporting" provides guidelines for identifying and handling suspicious packages. This procedure is compliant with the current enforced FERC reliability standard CIP-001.

## **9.0 AWARENESS AND TRAINING**

The protection of Personnel, Generation, Generation Control and Protection and Support Assets can be fostered through proper education and security awareness. Both training and awareness activities shall emphasize the importance of protecting and securing Assets.

Personnel granted unescorted access is required to complete the annual training on the applicable security policies and procedures, physical and electronic access controls.

**Mike Baty**

Operations Supervisor

**Airgas NCN**

3970 Wilcox Rd

Stockton, Ca. 95215

(209) 931-2470 Fax (209) 931-2479

Cell: (209) 993-8653

<http://www.airgas.com>[mike.baty@airgas.com](mailto:mike.baty@airgas.com)

Vendor Name: Airgas NCN  
Address: 3970 Wilcox Rd  
City: Stockton, State: CA Zip: 95215  
Number: 290-931-2470  
Fax: 209-931-2479

GWF Tracy  
Combined Cycle Project  
14950 West Schulte Road  
Tracy, CA 95377

Subject: Hazardous Material Delivery to the GWF Tracy Combined Cycle  
Project per California Energy Commissioner, Conditions of Certification HAZ-5

Dear GWF,

Airgas NCN, Stockton, will abide by the California Energy Commissioner approved trucking route for the delivery of hazardous material to the project site. We will be delivering the following hazardous material(s) listed below.

Hazardous Material(s):

Gases;

Oxygen Compressed, Argon Compressed, Nitrogen Compressed, Argon/Carbon  
Dioxide Mix, Acetylene Dissolved,

Welding Rod:

7018 welding electrodes,

We will follow the CEC approved hazardous material delivery trucking route:

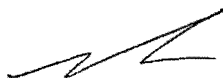
- I-580 to Patterson Pass Road to West Schulte Road to the plant site  
or
- I-205 to Mountain House Road to West Schulte Road to the plant site.

Respectfully,

Mike Baty

Operations Supervisor

Airgas NCN, Stockton

 6/2/11

## **Appendix I**

### **Noise Complaint Resolution Noise-2**

# Memo

**To:** Neftali Nevarez, Compliance Manager

**From:** Rick Vogler, Operations Supervisor

**CC:**

**Date:** March 20, 2020

**Re:** Tracy Combined Cycle Power Plant – 08-AFC-07 – Noise Complaints

- 
- ❖ Condition Noise-2 requires MRPSJE to document, investigate, evaluate and attempt to resolve all project-related noise complaints throughout the operation of the project.

No complaints were received during the 2019 year.

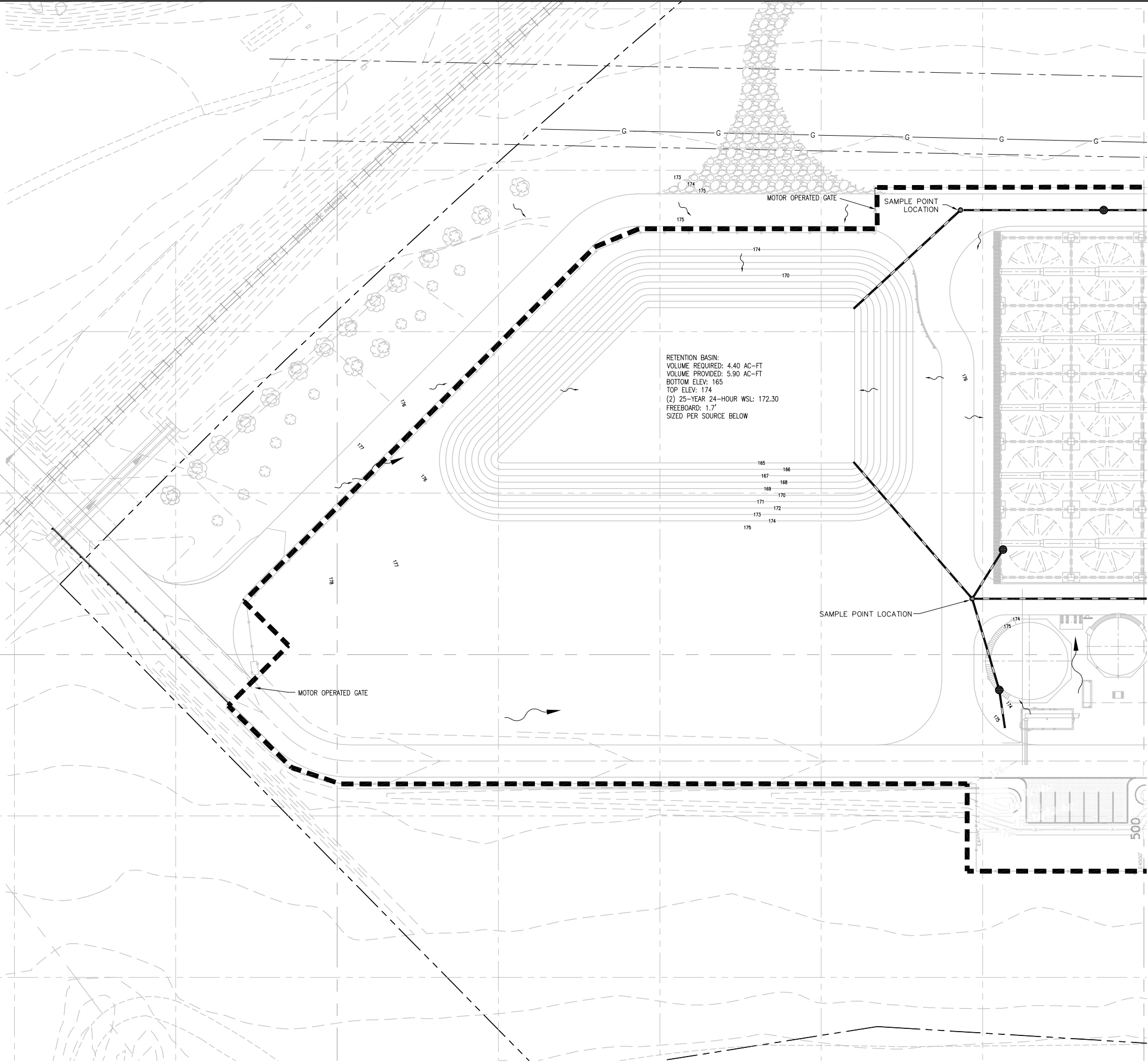
## **Appendix J**

### **Storm Water BMP monitoring and maintenance activities**

#### **Soil & Water-2**



SOURCE:  
EROSION AND SEDIMENT CONTROL PLAN, GWF COMBINED CYCLE POWER  
PLANT, KIMLEY-HORN AND ASSOCIATES, INC., NOVEMBER, 2010.

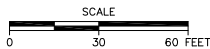


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- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- PROPERTY LINE
- LIMITS OF SITE
- NEW FENCE
- SURFACE DRAINAGE FLOW INDICATOR
- PERSONNEL GATE
- CATCH BASIN
- MANHOLE
- CULVERT
- EXISTING OVERHEAD POWER LINES
- EXISTING UNDERGROUND GAS LINES
- EXISTING POWER LINE TRANSMISSION TOWER
- INLET
- EXISTING TREES



SITE NORTH



**Shaw** Shaw Environmental, Inc.

GWF ENERGY, LLC.  
SWPPP

FIGURE 2.2  
GRADING AND DRAINAGE PLAN  
(WESTERN SECTION)  
GWF COMBINED CYCLE POWER PLANT

**SOIL & WATER-2:** Prior to site mobilization, the project owner shall obtain CPM

approval for a site-specific Drainage, Erosion, and Sedimentation Control Plan (DESCP) that ensures protection of water quality and soil resources of the project site and all linear facilities for both the construction and operation phases of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in offsite flooding potential, meet local requirements, and identify all monitoring and maintenance activities. Additionally, the plan shall incorporate the construction sequence of taking the existing retention basin offline, installing a modified drainage network, and constructing the new retention basin. Monitoring activities shall include routine measurement of the volume of accumulated sediment in the stormwater retention basin. Maintenance activities must include removal of accumulated sediment from the retention basin when an average depth of 0.5 feet of sediment has accumulated in the retention basin. The plan shall be consistent with the grading and drainage plan as required by Condition of Certification

The capacity of the storm water basin is 5.90 ac-ft. The original depth of the storm water basin was 10 feet and 1.7'.

# Memo

**To:** Neftali Nevarez, Environmental, Health and Safety Manager  
**From:** Gary Bishop, GWF Project Engineer  
**CC:**  
**Date:** March 17, 2020  
**Re:** Tracy Combined Cycle Power Plant – 08-AFC-07 – Stormwater BMP and maintenance activities. Soil & Water-2

---

The capacity of the storm water basin is 5.90 ac-ft. The original depth of the storm water basin was 10 feet and 1.7'. The current depth of the storm water basin is 10 feet and 1.7'.

No erosion has been observed during this reporting period (2019-2020).

## **Appendix K**

### **Annual Water Use Summary**

#### **Soil & Water-4**

**Water Usage Summary:**    *All Units in Ac-Ft*

	2013	2014	2015	2016	2017	2018	2019
January	1.1	2.6	1.4	0.7	0.8	2.0	1.7
February	0.1	1.7	0.5	1.1	1.2	1.0	2.4
March	0.8	1.2	2.2	3.0	1.7	2.4	3.1
April	1.7	2.0	3.8	1.9	2.2	2.5	2.5
May	0.9	1.8	2.9	1.3	2.0	1.3	1.6
June	1.7	2.8	10.6	2.3	3.7	2.2	4.0
July	5.6	3.4	4.2	2.7	5.9	7.4	3.0
August	3.8	0.5	0.3	2.5	4.1	5.1	5.3
September	5.5	2.5	1.4	1.3	5.2	3.1	4.0
October	2.0	3.8	2.9	1.4	4.5	3.9	3.1
November	1.9	1.5	2.2	0.7	2.6	3.9	3.5
December	2.7	0.4	2.6	0.9	3.0	1.9	1.9

**Annual Water Usage**

Year	Total	Monthly Min	Monthly Max
2012	17.3	0.0	4.5
2013	27.7	0.1	5.6
2014	24.2	0.4	3.8
2015	35.1	0.3	10.6
2016	19.7	0.7	3.0
2017	36.8	0.8	5.9
2018	36.6	1.0	7.4
2019	36.0	1.6	5.3

\* All water is surface water, sourced from the Delta-Mendota Canal

## Production Flow Facility Calibration Data

Ave. Miguel de Cervantes 111, Complejo Industrial Chihuahua, Chihuahua, Mexico 31109

Model number: **8705PSA060C1W0N0**

Serial Number: **0242063**

Trace Number: **471982001**

Sales Order: **3563922**

Calibration Date: **Apr 18, 2013**

Calibration Number: **0867605608535005**

Run #	Flow rate % FS <sup>1</sup>	Velocity ft/s	Velocity m/s	Flow rate US gpm	Flow rate m <sup>3</sup> /hr	Deviation % rate
1	99.1%	9.9	3.02	892	203	<b>0.08%</b>
2	98.9%	9.9	3.02	891	202	<b>0.08%</b>
3	98.9%	9.9	3.02	891	202	<b>0.09%</b>
4	30.3%	3.0	0.92	273	62.0	<b>0.17%</b>
5	30.2%	3.0	0.92	272	61.8	<b>0.13%</b>
6	30.2%	3.0	0.92	272	61.8	<b>0.17%</b>
7	11.9%	1.2	0.36	107	24.3	<b>0.07%</b>
8	11.9%	1.2	0.36	107	24.3	<b>0.09%</b>
9	11.9%	1.2	0.36	107	24.3	<b>0.15%</b>

### Calibration conditions:

Water temperature = 82.3 °F ( 27.9 °C )      Water conductivity > 200 µMho

<sup>1</sup>100% flow rate = 10 ft/sec ( 3.05 m/s ) in schedule 40 pipe.

Measuring and test equipment used in the manufacture and inspection of the above flowmeter are directly traceable to the National Institute of Standards and Technology to meet the intent of ANSI Z540-1-1994.



## Rosemount Service

8200 Market Blvd.  
Chanhassen, MN 55317  
T: 800-654-7768  
F: 952-906-8844

Revised: 9/7/2017

### Main Menu / Calibration Data Sheet

#### Contact Information

<b>Purchase Order:</b>	TCY-19-12056	<b>Service Request:</b>	1787888
<b>Customer Name:</b>	MRP San Joaquin Energy LLC	<b>Quote#:</b>	U26 ES8082
<b>Location/Project:</b>	Tracy Ca	<b>Sales Representative:</b>	Cathy Ershen
<b>Address 1:</b>	14950 W Schulte RD	<b>Phone:</b>	916-849-0591
<b>Address 2:</b>	Tracy CA 95377	<b>Email:</b>	Cathy.Ershen@Emerson.com
<b>Customer Contact:</b>	Kevin Kelly	<b>Service Representative:</b>	David James
<b>Phone:</b>	925-766-7319	<b>Phone:</b>	209-597-0378
<b>Email:</b>	kevin.kelly@naes.com	<b>Email:</b>	David.James@Emerson.com

# of Sheets 2
------------------

#### Note:

For full functionality these sheets should be run in Excel 2010 or higher  
There could be some loss of functionality in lower versions.

*David James*

David James  
Rosemount Service Technician  
Phone: 209-597-0378

May 15, 2019

Date



May 15, 2019

**CALIBRATION DATA SHEET**

Consistent with ISO 10474 2.1 or EN 10204 2.1

**Contact Information**

<b>Purchase Order:</b> TCY-19-12056	<b>Service Request:</b> 1787888
<b>Customer Name:</b> MRP San Joaquin Energy LLC	<b>Quote#:</b> U26 ES8082
<b>Location/Project:</b> Tracy Ca	<b>Sales Representative:</b> Cathy Ershen
<b>Address 1:</b> 14950 W Schulte RD	<b>Phone:</b> 916-849-0591
<b>Address 2:</b> Tracy CA 95377	<b>Email:</b> Cathy.Ershen@Emerson.com
<b>Customer Contact:</b> Kevin Kelly	<b>Service Representative:</b> David James
<b>Phone:</b> 925-766-7319	<b>Phone:</b> 209-597-0378
<b>Email:</b> kevin.kelly@naes.com	<b>Email:</b> David.James@Emerson.com

**Device Information**

<b>Device Type:</b> Magnetic Flow Meter	<b>Serial Number:</b> 0371750
<b>Device Tag:</b> Mag Meter	<b>Range:</b> 0 To 30 f/s
<b>Model:</b> 8712ESR1A1N0M4	<b>Calibration #</b> 086705608535005

**Test Equipment Used**

Asset #	Description	Calibration Due
ES-01444	FLUKE 754 Documenting Calibrator	3/12/20
PS-01222	700PD3 Pressure Module	3/12/20
PS-01443	700PA5 Pressure Module	3/12/20
PS-01001	700P27 Pressure Module	3/12/20

**As Found Calibration Data**

Specified Range f/s	Applied % Of Span	Applied f/s	Specified Output In mA	Output Tolerance +/- mA	Indicated Digital/Hart Output In f/s	Measured Analog Output In mA	Pass/Fail
0.000	0.00	0.00	4.0000	0.0100	0.000	4.001	Pass
3.000	10.00	3.00	5.6000	0.0140	3.000	5.601	Pass
10.000	33.33	10.00	9.3333	0.0233	10.000	9.334	Pass
30.000	100.00	30.00	20.0000	0.0500	30.000	19.999	Pass

**As Left Calibration Data**

0.000	0.00	0.00	4.0000	0.0100	0.000	4.001	Pass
3.000	10.00	3.00	5.6000	0.0140	3.000	5.601	Pass
10.000	33.33	10.00	9.3333	0.0233	10.000	9.334	Pass
30.000	100.00	30.00	20.0000	0.0500	30.000	19.999	Pass

**Certification**

This is to validate that the listed product performs within the acceptable performance variation of the test equipment. Measuring and test equipment used in the inspection and validation of the listed product are traceable to the National Institute of Standards and Technology.

*Rocky Jones*

David James  
Rosemount Service Representative  
PH: 209-597-0378

May 15, 2019

Date



## May 15, 2019

<b>Purchase Order:</b>	TCY-19-12056	<b>Service Request:</b>	1787888
<b>Customer Name:</b>	MRP San Joaquin Energy LLC	<b>Quote#:</b>	U26 ES8082
<b>Location/Project:</b>	Tracy Ca	<b>Sales Representative:</b>	Cathy Ershen
<b>Address 1:</b>	14950 W Schulte RD	<b>Phone:</b>	916-849-0591
<b>Address 2:</b>	Tracy CA 95377	<b>Email:</b>	Cathy.Ershen@Emerson.com
<b>Customer Contact:</b>	Kevin Kelly	<b>Service Representative:</b>	David James
<b>Phone:</b>	925-766-7319	<b>Phone:</b>	209-597-0378
<b>Email:</b>	kevin.kelly@naes.com	<b>Email:</b>	David.James@Emerson.com

[illegible]

This is to validate that the listed product performs within the acceptable performance variation of the test equipment. Measuring and test equipment used in the inspection and validation of the listed product are traceable to the National Institute of Standards and Technology.

David James  
Rosemount Service Technician  
Phone: 209-597-0378

May 15, 2019  
Date

## **Appendix L**

### **Industrial Wastewater and Contact Storm Water Soil & Water-6**

# Memo

**To:** Neftali Nevarez, Compliance Manager

**From:** Rick Vogler, Operations Supervisor

**CC:**

**Date:** March 17, 2020

**Re:** Tracy Combined Cycle Power Plant – 08-AFC-07 – Industrial Wastewater and  
Contact Storm Water Disposal. Soil & Water-6

- 
- ❖ Condition Soil & Water-6 prohibits discharges other than non-contact stormwater.

MRPSJE discharges all its stormwater to the on-site stormwater basin. No stormwater leaves the site. Wastewater generated by turbine washing is hauled off-site and disposed of as non-hazardous waste. Contact storm water is collected in the secondary containment areas built around equipment to catch stormwater. The water is checked for oil residue and either left to evaporate or sent to the oil/water separator. The water from the clean water side of the oil/water separator is recycled to the raw water storage tank for use in the water systems.

No stormwater discharges have ever taken place from the stormwater pond to date.

## **Appendix M**

### **Surface Treatment Maintenance Vis-6**

# Memo

**To:** Neftali Nevarez, Compliance Manager

**From:** Rick Vogler, Operations Supervisor

**CC:**

**Date:** March 20, 2020

**Re:** Tracy Combined Cycle Power Plant – 08-AFC-07 – Surface Treatment Maintenance (Painting)

- 
- ❖ Condition Vis-6 requires ASJE to provide a status report regarding surface treatment maintenance.

The plant has been inspected and did not find any major painted surfaces in need of maintenance. Touch up painting throughout the facility occurred during the 2018 reporting period.

No major painting or other major surface treatment maintenance is planned for 2020.

## **Appendix N**

### **Hazardous Waste Disposal Waste-6**

**Table 1. Estimated Non-Hazardous Wastes Generated During Operations and Maintenance**

<b>Material Type</b>	<b>Disposal Method (onsite reuse, salvage for future use, recycling or landfill disposal)</b>	<b>Final Destination (company name and location)</b>	<b>Estimated Quantity (cubic yards [cy] unless stated otherwise)</b>
Bottles and Cans (glass, aluminum and plastic California Redemption Value containers)	Recycling	Tracy Materials Recovery Facility	<1 cy
Cardboard	Recycling	Tracy Materials Recovery Facility	<5 cy
Electronics (computers, monitors, other)	Recycling and/or proper disposal	Consolidated at GWF Power Systems, Pittsburg, CA	<1 cy
Metals and Metal Scrap	Recycling	Tracy Materials Recovery Facility	<5 cy
Pallets	Recycling	Tracy Materials Recovery Facility	<5 cy
Paper (white and colored)	Recycling	Tracy Materials Recovery Facility	<2 cy
Plastics (non- beverage, non- hazardous containers, film, other)	Landfill Disposal (except certain containers and some film)	Tracy Materials Recovery Facility	<2 cy
Wood (clean)	Recycling	Tracy Materials Recovery Facility	40 cy
Garbage, Solid Waste, Debris, Trash or Rubbish	Landfill Disposal	Tracy Materials Recovery Facility and Transfer Station	10 cy
Water Quality Control filters (sock or cartridge)	Water sediment and particulate filtration media	Tracy Materials Recovery Facility	Less than 500 pounds/year
Combustion Turbine Generator Wash Water (detergent solution)	Collected and held in onsite wastewater holding tank. Trucked offsite for recycling at a wastewater processing facility.	Evergreen Oil in Newark, CA	6,000 gallons/year
Oily water from oil/water separator	Onsite re-use after carbon filtration. Filtered water enters raw water tank	N/A	5,000 gallons /year
Clarifier sludge	Landfill Disposal	Tracy Delta Disposal Service	<1 cubic yard



**Table 2. Estimated Hazardous Wastes Generated During Operations and Maintenance**

<b>Waste</b>	<b>Origin</b>	<b>Composition</b>	<b>Estimated Quantity (pounds per year [lb/yr] or gallons per year [gal/yr] unless stated otherwise)</b>	<b>Classification</b>	<b>Disposal</b>
Oily debris	Parts and equipment maintenance, minor leaks and spills	Absorbents, rags, soil, hydrocarbons	1,300 lb/yr	H11azardous	Recycle or dispose at a permitted TSDF
Drained used oil filters	Gas turbine lubricating oil system	Filter media, metals, and hydrocarbons	1,000 lb/yr	Nonhazardous	Recycle at an approved metal reclamation facility or TSDF
Used oil	Lubrication systems	Hydrocarbons	500 lb/yr	Hazardous	Recycle at authorized used oil collection center or TSDF
Solvents, paints, adhesives	Maintenance	Varies	200 lb/yr	Hazardous	Recycle or dispose at a permitted TSDF
Turbine wash	Water and Detergent solution turbine washes	Detergent solution	6,000 gal/yr	Hazardous or Nonhazardous	Dispose at a permitted TSDF or nonhazardous wastewater processing facility
Laboratory waste	Water treatment lab analyses	Spent reagents/ laboratory wastes	50 gals/yr	Hazardous	Dispose at a permitted TSDF
SCR catalyst units	SCR system (Warranty is 3 years-use tends to be 3 to 5 years)	Metal and heavy metals, including vanadium	60 to 70 tons every 3 to 5 yrs	Hazardous	Recycled by SCR manufacturer or disposed of in Class I landfill

**Table 2. Estimated Hazardous Wastes Generated During Operations and Maintenance**

Carbon monoxide (CO) catalyst units	Heat recovery steam generator (HRSG) (Use tends to be 3 to 5 years)	Metal and heavy metals, including vanadium	6 to 7 tons every 3 to 5 yrs	Hazardous	Recycled by manufacturer
Spent lead acid batteries	Electrical room, equipment	Heavy metals, corrosive acid	5 batteries/yr	Hazardous	Recycle at a permitted TSDF
Spent alkaline batteries	Electronic equipment	Metals, corrosives	50 lb/yr	Universal waste solids	Recycle at an authorized recycling facility
Fluorescent and H.I.D. lamps	Lighting	Heavy metals	50 lb/yr	Universal Waste	Recycle at an authorized recycling facility
Chemical feed area drainage	Spillage, tank overflow, area washdown water	Water with water treatment chemicals	Minimal	May be hazardous if corrosive	Dispose at a permitted TSDF
Aerosol cans	Non-empty aerosol can waste	Varies; flammable gas	120 lb/yr	Universal Waste	Recycle at a permitted TSDF

**Uniform Hazardous Waste Manifest  
2019**

Date	Doc #	Manifest	Weight		Material	code	Designated Facility	To DTSC	iTrack
3/6/19		012800736FLE	159	p	oily debris	352	Yuma YES,LLC	3/6/19	
			23	p	waste solid (chrome,nickel)	181	Yuma YES,LLC		
3/6/19	D234603		1040	p	blast media		Yuma YES,LLC		non haz
3/6/19	D234601		69	p	lamps 4' tubes		Santa Fe Springs		univer waste
			17	p	lamps bulbs		Santa Fe Springs		univer waste
			28	p	alkaline batteries		Econdido		univer waste
			21	p	nicad batteries		Econdido		univer waste
			14	p	lithium ion batteries		Econdido		univer waste
6/23/19	175153		160	g	used oil	221	Ceres		recycle
6/23/19	175154			p	used oil filters		Livingston		recycle
7/8/19		012795016FLE	253	p	oily debris	352	Yuma YES,LLC	7/10/19	