

## DOCKETED

<b>Docket Number:</b>	08-AFC-10C
<b>Project Title:</b>	Lodi Energy Center Project
<b>TN #:</b>	201598
<b>Document Title:</b>	Lodi Energy Center Annual Compliance Report #1
<b>Description:</b>	Compliance Submittal LEC Docket 08-AFC-10C COM-7: Annual Compliance Report #1
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<b>Organization:</b>	Grenier & Associates, Inc.
<b>Submitter Role:</b>	Applicant Consultant
<b>Submission Date:</b>	1/27/2014 10:43:34 AM
<b>Docketed Date:</b>	1/27/2014

# GRENIER & ASSOCIATES, INC.

ENVIRONMENTAL PLANNING • LICENSING & PERMITTING • REGULATORY COMPLIANCE

January 27, 2014

Ms. Christine Stora  
Compliance Project Manager  
California Energy Commission  
1516 Ninth Street, MS-2000  
Sacramento, CA 95814

Subject: Lodi Energy Center [Docket 08-AFC-10C]  
COM-7: Annual Compliance Report #1

Dear Christine:

In compliance with Condition of Certification COM-7 as set forth in the California Energy Commission's Final Decision for the Lodi Energy Center, enclosed is the first Annual Compliance Report which documents the Lodi Energy Center's compliance activities related to its operations during the period November 29, 2012 through December 31, 2013.

If you have any questions regarding this report, please contact me at (916) 780-1171.

Sincerely,



Andrea Grenier  
Compliance Consultant

cc: Michael DeBortoli, LEC Facility Manager  
Vinnie Venethongkham, LEC Compliance Manager  
Nancy Matthews, Sierra Research



# Lodi Energy Center



## Annual Compliance Report #1

Reporting Period  
November 29, 2012 through December 31, 2013

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# Lodi Energy Center Annual Compliance Report #1

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# Lodi Energy Center Annual Compliance Report #1

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## SECTION ONE | INTRODUCTION

On April 21, 2010, the California Energy Commission (CEC) issued a license to the Northern California Power Agency (NCPA) for the construction and operation of the Lodi Energy Center Project (LEC). The CEC Compliance Project Manager (CPM) issued an Authority to Construct letter to NCPA on July 14, 2010, allowing the start of construction activities for all power plant and related linear facilities. Construction was completed and the Lodi Energy Center began commercial operation on November 29, 2013.

This first Annual Compliance Report has been prepared pursuant to Condition of Certification COM-7, which requires NCPA to prepare and submit a report that documents compliance activities related to the operation of the Lodi Energy Center during its first year of operation. This report covers the reporting period of November 29, 2012 through December 31, 2013. Please note that all subsequent Annual Compliance Reports will report data for January 1 through December 31 of each year.

This report addresses the specific compliance information requirements as set forth in Condition of Certification COM-7. It also provides information related to other Conditions of Certification within the Final Decision that have annual reporting requirements, including BIO-2, HAZ-1, HAZ-6, S&W-8, TLSN-2, TLSN-4, VIS-3, VIS-5, AND WASTE-6.

## SECTION TWO | COM-7 REPORTING REQUIREMENTS

A list of the items required by COM-7 to be addressed in the Annual Compliance Report is provided below.

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.
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.
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 the status of any unresolved matters.

Information for each of these requirements and accompanying documentation is contained in Section Three of this report and in the appendices provided with this report.

## SECTION THREE | ANNUAL COMPLIANCE REQUIREMENTS

This section provides the required annual compliance reporting information for the Lodi Energy Center. The reporting period covered by this report is November 29, 2012 through December 31, 2013.

### 3.1 Compliance Matrix

Condition COM-7, Item 1, requires that an updated compliance matrix be included in the Annual Compliance Report. An updated compliance matrix for the reporting period is provided in Appendix A.

### 3.2 Summary of Operating Status

A summary of the LEC operations during the reporting period is provided in Table 3.2-1. The table shows the total number of hours the combustion turbine and the steam turbine operated each month of the reporting period. It also includes the total megawatt hours (MWH) produced each month by each unit. There were no significant changes to facility operations during the reporting period.

**Table 3.2-1: Plant Operations Summary  
November 2012 through December 2013**

GAS TURBINE			STEAM TURBINE		
MONTH-YEAR	OPERATING HOURS	GENERATOR GROSS OUTPUT (MWH)	MONTH/YEAR	OPERATING HOURS	GENERATOR GROSS OUTPUT (MWH)
Nov-2012	235	39,987	Nov-2012	166	17,415
Dec-2012	422	75,784	Dec-2012	344	36,084
Jan-2013	341	57,523	Jan-2013	284	27,515
Feb-2013	399	69,971	Feb-2013	353	34,681
Mar-2013	495	86,604	Mar-2013	465	44,983
Apr-2013	570	90,692	Apr-2013	517	47,532
May-2013	140	12,704	May-2013	120	6,627
Jun-2013	357	54,189	Jun-2013	311	28,423
Jul-2013	526	82,198	Jul-2013	475	44,024
Aug-2013	396	63,404	Aug-2013	391	34,002
Sep-2013	383	61,860	Sep-2013	351	33,019
Oct-2013	377	66,703	Oct-2013	361	34,950
Nov-2013	397	71,803	Nov-2013	368	36,332
Dec-2013	493	94,117	Dec-2013	481	47,630

### 3.3 Annual Compliance Reporting Required by Specific Conditions

Several conditions set forth in the CEC Final Decision for the Lodi Energy Center require that information be included in the Annual Compliance Report. Compliance information for Conditions of Certification BIO-2, HAZ-1, HAZ-6, S&W-8, TLSN-2, TLSN-4, VIS-3, VIS-5, AND WASTE-6 is provided below.

### 3.3.1 BIO-2

Condition of Certification BIO-2 requires the Designated Biologist to prepare and submit record summaries in the Annual Compliance Report documenting biological resource activities which occurred during the reporting period. This information, compiled by Designated Biologist Rick Crowe, is provided in Appendix B.

### 3.3.2 HAZ-1

Condition of Certification HAZ-1 requires the Project Owner to provide in the Annual Compliance Report a list of hazardous materials contained at the Lodi Energy Center. An updated list is provided in Table 3.3.2-1.

**Table 3.3.2-1: Hazardous Materials for Use at the LEC**

Material	CASE No.	Application	Hazardous Characteristics	Maximum Quantity on Site	CERCLA SARA RQ
Magnesium Sulfate	7487-18-5, 7732-18-5	Cold Lime Softener Silica Removal	Health: causes mild eye irritation, no known adverse effects to skin, causes nausea, vomiting, abdominal cramps, and diarrhea, no known chronic hazards.	600 gallons	NA
Nalco 3D Trasar 3DT191	Various	Cooling Tower Treatment	Health: may cause irritation with prolonged contact. Not flammable or combustible.	400 gallons	NA
Acetylene	47-86-2	Welding gas	Health: asphyxiant gas Physical: flammable	540 cubic feet	NA
Anhydrous Ammonia (99% NH3)	7664-41-7	Control oxides of nitrogen (NOx) emissions through selective catalytic reduction	Health: corrosive, irritation to permanent damage from inhalation, ingestion, and skin contact Physical: combustible, but difficult to burn	10,200 gallons	100 pounds
Antifoam NALCO 71-D5	64741-44-2 25322-69-4 Proprietary 8002-74-2 Proprietary	Cooling tower foam control	Health: causes irritation to skin and eyes Physical: slightly flammable	55 gallons	NA
Anti-scalant NALCO PC-191T	Various	Prevent scale in reverse osmosis membranes	Health: may cause slight irritation to the skin and moderate irritation to the eyes Physical: not flammable	400 gallons	NA
Biocide NALCO 73551	None	Cooling tower bio penetrant	Health: may cause irritation with prolonged contact Physical: slightly flammable	400 gallons	NA
Caustic NALCO 8735	1310-73-2 1310-58-3	pH stabilizer	Health: Corrosive. May cause tissue damage. Not flammable or combustible.	25 gallons	NA
Nalco PermaClean PC-98	64-02-8 Proprietary	Reverse osmosis cleaner	Health: Risk of serious damage to eyes. Not flammable or combustible.	750 gallons	NA

Material	CASE No.	Application	Hazardous Characteristics	Maximum Quantity on Site	CERCLA SARA RQ
Cleaning Chemicals	Various	Cleaning	Health: refer to individual chemical labels Physical: refer to individual chemical labels	Varies (less than 25 gallons liquids or 100 pounds solids for each chemical)	NA
Cleaning Chemicals/ Detergents (Including PC-11, and PC 56)	None	Periodic cleaning of combustion turbine.	Health: refer to individual chemical labels Physical: refer to individual chemical labels	1000 gallons	NA
Corrosion Control NALCO 3DT-184	7664-38-2	Cooling water corrosion inhibitor	Health: corrosive, may cause irritation with prolonged contact, toxic to aquatic organisms Physical: non-flammable	1000 gallons	5000 pounds
Diesel No. 2c	68476-34-6	Small equipment refueling	Health: may be carcinogenic. Physical: flammable	55 gallons	NA
Dispersant NALCO 3DT-191	None	Cooling water mineral dispersant	Health: may cause irritation with prolonged contact. Physical: slightly flammable	2000 gallons	NA
EPA Protocol Gases	Various	Calibration gases	Health: refer to individual chemical labels. Physical: refer to individual chemical labels	1000 cubic feet	NA
Flocculent NALCO 7768	None	Cold lime softener turbidity removal	Health: may cause irritation with prolonged contact, toxic to aquatic organisms. Physical: slightly flammable	800 gallons	NA
Hydraulic Oil	None	High-pressure combustion turbine starting system, turbine control valve actuators	Health: hazardous if ingested. Physical: combustible	700 gallons	42 gallons
Hydrogen	1333-74-0	General or Miscellaneous	Health: asphyxiation by displacement of oxygen. Physical: flammable	1000 gallons	NA
Laboratory Reagents	Various	Water/wastewater laboratory analysis	Health: refer to individual chemical labels	10 gallons	NA
Lime	1305-62-0	Cold lime softener hardness removal	Health: irritation of eyes, respiratory or red "sunburn like" skin. Physical: non-flammable	53 tons	NA
Lubrication Oil	None	Lubricate rotating equipment (e.g., gas turbine and steam turbine bearings)	Health: hazardous if ingested. Physical: flammable	1,500 gallons	42 gallons
Magnesium Oxide	1309-48-4	Cold lime softener silica removal	Health: slowly absorbed, ingestion may cause rapid bowel evacuation, inhalation can cause a flu like illness (metal fume fever), this 24 to 48-hour illness is characterized by chills, fever, aching muscles, dryness in the mouth, and throat and headache. Physical: non-flammable	75 tons	NA

Material	CASE No.	Application	Hazardous Characteristics	Maximum Quantity on Site	CERCLA SARA RQ
Mineral Insulating Oil	8012-95-1	Transformers/ switchyard	Health: minor health hazard. Physical: may be combustible, depending on manufacturer	37,600 gallons	42 gallons
Nalco NALCLEAR 7763	None	Water treatment polymer	Health: may cause irritation with prolonged contact.	400 gallons	NA
Nalco BT-3400	1310-73-2	Aux Boiler internal boiler treatment	May cause tissue damage. Not flammable or combustible.	400 gallons	NA
Oxygen	7782-44-7	Welding gas, cycle water treatment	Health: therapeutic overdoses can cause convulsions, liquid oxygen is an irritant to skin Physical: oxidizing agent, actively supports combustion.	2340 cubic feet	NA
Nalco 1720	7631-90-5, 7773-03-7, 10124-43-3	Oxygen Scavenger	Health: harmful if swallowed. Contains sulfite. Causes asthmatic signs and symptoms in hyper-reactive individuals. Irritating to respiratory system. May cause cancer by inhalation.	400 gallons	NA
Paint	Various	Touchup of painted surfaces	Health: refer to individual container labels. Physical: refer to individual container labels.	Varies (less than 25 gallons liquids or 100 pounds solids for each type)	NA
Sodium Hydroxide (NaOH)	1310-73-2	Convert CO2 to alkalinity for removal by reverse osmosis	Health: causes eye and skin burns, hygroscopic, may cause severe respiratory tract irritation with possible burns, may cause severe digestive tract irritation with possible burns. Physical: non-flammable	40 gallons	1000 pounds
Propane	74-98-6	Torch gas	Health: asphyxiant gas causes frostbite to area of contact. Physical: flammable.	200 cubic feet	NA
Sodium Bisulfite (NaHSO3) NALCO PC-7408	7664-41-7 141-43-5	Reduce oxidizers in reverse osmosis feed to protect the RO membranes	Health: corrosive, irritation to eyes, skin, and lungs, may be harmful if digested. Physical: non-flammable	400 gallons	100 pounds
Sodium Hypochlorite	7681-52-9	Cooling tower biological control	Health: harmful by ingestion, inhalation, and through skin contact. Physical: non-flammable	10,000 gallons	100 pounds
Sodium Nitrite NALCO 2536 Plus	7632-00-0 6834-92-0 1330-43-4 7631-99-4 2492-26-4	Closed & chilled water loop Corrosion inhibitor	Health: very hazardous in case of eye contact irritant), of ingestion, of inhalation, hazardous in case of skin contact (irritant), slightly hazardous in case of skin contact (permeator), prolonged exposure may result in skin burns and ulcerations, over-exposure by inhalation may cause respiratory irritation, severe over-exposure can result in	30 gallons	100 pounds



Material	CASE No.	Application	Hazardous Characteristics	Maximum Quantity on Site	CERCLA SARA RQ
			death, inflammation of the eye is characterized by redness, watering, and itching. Physical: non-flammable		
Sulfur Hexafluoride	2551-62-4	230-KV breaker insulation medium	Health: hazardous if inhaled Physical: non-flammable	200 pounds	NA
Sulfuric Acid (93%)	7664-93-9	Cooling tower pH control	Health: causes severe skin burns, causes severe eye burns, causes burns of the mouth throat, and stomach Physical: non-flammable	6000 gallons	1000 pounds
Aqueous ammonia (19%)	1336-21-6	Boiler feedwater pH control	Corrosive liquid, fatal if swallowed, skin and eye burns, toxic and irritating vapor, limited vapor flammability.	600 gallons	1000 gallons

### 3.3.3 HAZ-6

Condition of Certification HAZ-6 requires the LEC prepare an Operations Security Plan. As part of this plan, LEC provided statements certifying that background investigations had been conducted on all current LEC project personnel. A statement was received by LEC certifying that the contractor has conducted appropriate vendor background investigations on contractors who regularly visit the project site. Lastly, the plan includes statements received by LEC that hazardous materials transport vendors regarding compliance with 49 CFR 172.802 and that they have conducted employee background investigations in accordance with 49 CFR Part 1572, subparts A and B.

As required by Condition HAZ-6, LEC has reviewed the LEC Operations Security Plan. As a result of that review, LEC confirms that all current LEC project employee background investigations have been performed and updated certification statements have been appended to the Operations Security Plan. LEC further confirms that all appropriate vendors have represented to LEC that employee background investigations have been performed and updated certification statements have been appended to the Operations Security Plan.

In addition, appropriate hazardous materials transport vendor certifications for security plans and vendor employee background investigations received by LEC have been included in the plan. LEC believes and is also informed that all of these background checks and investigations have been conducted consistent with applicable federal, state, and local laws, ordinances, regulations, and standards, including, but not limited to, applicable employment and privacy laws and regulations.

### 3.3.4 S&W-8

Condition of Certification S&W-8 requires the Project Owner provide a report on the servicing, testing, and calibration of the metering devices in the Annual Compliance Report. No service was required on the LEC water meters during the reporting period. The condition also requires preparation and submittal

of summary information on the use of potable and recycled water in terms of calculated monthly range, monthly average, and annual use by the project in both gallons per minute and acre-feet.

Table 3.3.4-1 has been prepared to address these reporting requirements and includes usage information for the cooling tower makeup, potable water usage, and recycled water data.

**Table 3.3.4-1: Annual Summary of Water Use at the LEC**

Month-Year	Cooling Tower Makeup (Gallons)	Potable Water (Gallons)	Recycled Water (Gallons)
Nov-2012	0	9,285.40	20,086,560
Dec-2012	0	20,504.30	27,542,648
Jan-2013	0	16,558.00	26,075,232
Feb-2013	0	14,619.30	26,783,484
Mar-2013	475,200	20,707.40	29,809,404
Apr-2013	0	39,696.80	36,786,320
May-2013	0	20,204.30	10,531,523
Jun-2013	0	32,823.10	26,538,813
Jul-2013	0	43,376.30	38,480,384
Aug-2013	0	34,816.50	27,195,512
Sep-2013	0	52,180.70	35,285,040
Oct-2013	0	80,587.00	24,874,240
Nov-2013	0	73,276.10	24,931,584
Dec-2013	0	65,238.80	29,570,816
<b>TOTAL</b>	<b>475,200</b>	<b>523,874.00</b>	<b>384,491,560</b>

### 3.3.5 TLSN-2

Condition of Certification TLSN-2 requires the Lodi Energy Center to summarize all project-related transmission line complaints in the Annual Compliance Report during the first five years of plant operation. No transmission line complaints were received during the reporting period.

### 3.3.6 TLSN-4

Condition of Certification TLSN-4 requires the Lodi Energy Center to provide a summary of inspection results and any fire prevention activities carried out along the right-of-way and provide such summaries in the Annual Compliance Report during the first five years of plant operation. The transmission line right of way for the Lodi Energy Center is located entirely within the project boundaries of the operating facility. Inspections of the transmission line facilities were conducted regularly as part of routine on-site walks by LEC personnel. The inspections did not identify any area along the right of way requiring modification or repair. No additional fire prevention activities were required beyond those incorporated into the facility's design and operations.

### **3.3.7 VIS-3**

Condition of Certification VIS-3 requires the Project Owner to provide the CPM written documentation in the Annual Compliance Report demonstrating that the cooling tower has consistently been operated to meet the specified fogging frequency curve (except as necessary to prevent damage to the cooling tower). The written certification required by this condition is provided in Appendix C.

### **3.3.8 VIS-5**

Condition of Certification VIS-5 requires the Project Owner to 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. As of December 31, 2013, the condition of all structures and building surfaces was in good condition. No surface treatment was required during the reporting period and no surface treatment activities are planned for 2014.

### **3.3.9 WASTE-6**

Condition of Certification Waste-6 requires that each Annual Compliance Report document the actual volume of wastes generated and the waste management methods used during the year; 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. Table 3.3.9-1 shows the volume of wastes generated during the reporting period.

**Table 3.3.9-1: Volume of Wastes Generated at LEC During Reporting Period**

Stream	Volume	Units
Non-RCRA Hazardous Waste, Liquids (Latex Paint)	54	gallons
Non-RCRA Hazardous Waste, Liquids (Oily Water)	105	gallons
Non-RCRA Hazardous Waste, Liquids (Use Oil)	950	gallons
Non-RCRA Hazardous Waste, Solid (Natural Gas Filters)	300	pounds
Non-RCRA Hazardous Waste, Solid (Oily Debris, Absorbent)	1650	pounds
Non-Hazardous Filter Press Cakes	2553	tons

All waste management methods used during the reporting period were consistent with the methods specified in the approved Operations Waste Management Plan. The only exception required an update to Section 2.1, Waste Generation, to include three waste streams: used oil, oily water, and natural gas filters. These waste streams were not addressed in the original Operations Waste Management Plan approved by the CEC Compliance Project Manager, but are typical streams found in power plants. Also, Section 2.2, Waste Disposal Sites, was updated to include other facilities used by LEC for waste disposal. A copy of the updated Operations Waste Management Plan is provided in Appendix D.

### **3.4 Cumulative Listing of Post-Certification Changes**

Condition of Certification COM-7 requires that the Annual Compliance Report include a cumulative list of post-certification changes approved by the Energy Commission or cleared by the Compliance Project Manager.

On April 14, 2013, NCPA filed a revised petition requesting to modify the April 21, 2010 California Energy Commission Final Decision for the Lodi Energy Center. Subsequent to filing the petition, Energy Commission staff discussions with NCPA and a clarifying letter during staff's review resulted in a request for changes to a total of twelve Air Quality conditions of certification. The requested changes included the following: (1) allowing increased CO emissions during combustion turbine startup, based on actual, as-measured performance, as opposed to the originally anticipated performance; (2) allowing gas turbine combustor tuning required for periodic maintenance and calibration; (3) ensuring proper record-keeping for tuning events; (4) establishing minimum temperatures at which the Selective Catalytic Reduction system starts ammonia injection; and (5) defining the type of volumetric fuel flow meter that is used to measure the amount of natural gas combusted.

Energy Commission staff reviewed the petition and found that it complies with the requirements of Title 20, section 1769(a) of the California Code of Regulations, and concluded that the proposed changes to conditions of certification would not result in any significant adverse direct, indirect, or cumulative impacts to public health or to the environment.

Staff recommended approval of the NCPA petition to modify the LEC Conditions of Certification AQ-22, AQ-23, AQ-25 through AQ-29, AQ-32, AQ-33, AQ-52, AQ-65, and AQ-66 and the Amendment was approved by the full Commission on August 27, 2013.

### **3.5 Submittal Deadlines Missed**

No submittal deadlines were missed during the reporting period.

### **3.6 Filings Made To or Permits Issued by Other Government Agencies**

Table 3.6-1 contains a list of filings made to other government agencies during the reporting period. Copies of issued permits are included in Appendix E.

### **3.7 Scheduled Compliance Activities**

A list of compliance activities anticipated to occur in 2014 is provided in Table 3.7-1.

**Table 3.6-1: List of Filings Made to Other Government Agencies During Reporting Period**

Agency	Type	Item/Action
SJVAPCD	Variance	CO Startup Variance Petition submitted CO Startup Interim and Regular Variance Orders issued CO Startup Variance Report submitted
SJVAPCD	Authority to Construct Permit	CO Startup Limit Modification Application submitted CO Startup Limit Modification issued (N-2697-5-1)
SJVAPCD	Title V Permit	CO Startup Limit Modification Application submitted <ul style="list-style-type: none"> <li>- Certificate of Conformity</li> <li>- Administrative Amendment</li> </ul> Title V Renewal Application submitted Title V Permits issued <ul style="list-style-type: none"> <li>- N-2697-5-0 (SJVAPCD)</li> <li>- N-2697-6-0 (SJVAPCD)</li> <li>- N-2697-7-0 (SJVAPCD)</li> <li>- N-2697-5-1 (SJVAPCD)</li> </ul>
SJVAPCD and/or EPA	Reports	Breakdown Deviation Report for 12/1/12 NOx excess emissions incident Breakdown Deviation Report for 12/12/12 CO startup excess emissions incident Breakdown Deviation Report for 12/27/12 CO startup excess emissions incident Breakdown Deviation Report for 1/1/13 CO startup excess emissions incident Breakdown Deviation Report for 1/11/13 CO startup excess emissions incident Breakdown Deviation Report for 1/13/13 CO startup excess emissions incident Q4 2013 CEMS Report Breakdown Deviation Report for 1/27/13 CO startup excess emissions incident Breakdown Deviation Report for 2/6/13 CO startup excess emissions incident Q1 2013 CEMS Report CO Startup Variance Report Q2 2013 CEMS Report Annual Source Test/RATA Protocol Amended Q2 2013 CEMS Report Q3 2013 CEMS Report Annual Source Test/RATA Report

**Table 3.7-1: Projected Compliance Activities in 2014**

Submittal Type	Item/Action	Submitted to
Report	Q4 2013 CEMS Report (January) Q4 2013 Quarterly Operations Report (January) 2 <sup>nd</sup> 2013 Report of Required Monitoring (January) 2013 Annual Compliance Certification (January) Startup Limit Proposal (February) Q1 2014 CEMS Report (April) Q1 2014 Quarterly Operations Report (April) Q2 2014 CEMS Report (July) Q2 2014 Quarterly Operations Report (July) 1 <sup>st</sup> 2014 Report of Required Monitoring (July) Q3 2014 CEMS Report (October) Q3 2014 Quarterly Operations Report (October) Annual Source Test/RATA Protocol (October) Annual Source Test/RATA (November) Annual Source Test/RATA Report (December)	SJVAPCD, EPA CEC SJVAPCD, EPA SJVAPCD, EPA SJVAPCD, CEC SJVAPCD, EPA CEC SJVAPCD, EPA CEC SJVAPCD, EPA CEC SJVAPCD, CEC SJVAPCD, CEC SJVAPCD, CEC

### 3.8 Additions to the On-Site Compliance File

All compliance submittals made during the reporting period have been added to the on-site compliance files. The Compliance Matrix in Appendix A identifies the submittals added to the compliance files.

### 3.9 On-Site Contingency Plan

Condition of Certification COM-12 required that the LEC On-Site Contingency Plan be reviewed annually and updated if necessary. The LEC On-Site Contingency Plan was reviewed on June 27, 2013 by Vinnie Venethongkham, LEC Compliance Manager. Section 3.2, Facility Contract, was updated to reflect Michael DeBortoli as the new Facility Manager. The plan is accurate and does not require any further changes at this time.

### 3.10 Listing of Complaints, Notices of Violation, Official Warnings, and Citations

Condition of Certification COM-7 requires that the Annual Compliance Report include information related to any complaints, notices of violation, official warnings, and citations receiving during the reporting period. In addition, a description of any resolved complaints and the status of any unresolved complaints must be addressed in the Annual Compliance Report.

The San Joaquin Valley Air Pollution Control District issued three Notices of Violation (NOV) to the LEC during the reporting period. These NOVs were related to emission exceedances that resulted from violations that were documented in the Quarterly Compliance Reports submitted to the CEC pursuant to Condition of Certification AQ-SC8. Table 3.10-1 summarizes the NOVs as well as information on the status of their resolution. Copies of the NOVs and LEC's responses are included in Appendix F.

**Table 3.10-1: Notices of Violation Received During Reporting Period**

Issued By	Type	Description
SJVAPCD	Notice of Violation (NOV)	NOV #5010298 issued for 1/13/13 CO startup excess emissions incident NOV #5010433 issued for 10/24-25/12 PM <sub>10</sub> commissioning excess emissions incident NOV #5010414 issued for 2/16/13 failure to submit breakdown follow-up report within 10 days
SJVAPCD	Resolution of Deviations	Breakdown relief granted for: 12/1/12 NOx excess emissions incident 12/12/12 CO startup excess emissions incident 12/27/12 CO startup excess emissions incident 1/1/13 CO startup excess emissions incident 1/11/13 CO startup excess emissions incident Variance relief granted for: 1/27/13 CO startup excess emissions incident 2/6/13 CO startup excess emissions incident
SJVAPCD	Resolution of NOV	NOV #5010298 – NCPA accepted Settlement Offer NOV #5010433 – NCPA accepted Settlement Offer NOV #5010414 – NCPA accepted the Settlement Offer

No other complaints, notices of violation, official warnings, or citations were received during the reporting period.

# Lodi Energy Center Annual Compliance Report #1

## APPENDIX A: COM-7 COMPLIANCE MATRIX



**LODI ENERGY CENTER OPERATIONS COMPLIANCE MATRIX**  
**ANNUAL COMPLIANCE REPORT #1**

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-004	OPS	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 QOR (AQ SC8).	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-005	OPS	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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-006	OPS	No air contaminant shall be released into the atmosphere which causes a public nuisance.	Make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	As required	As required	
AQ-016	OPS	The duration of startup or shutdown period shall not exceed 3.0 hours per event for any type of startup event (hot, warm, or cold).	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-017	OPS	The combined startup and shutdown duration for all events shall not exceed 6.0 hours during any one day.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-018	OPS	Maintain records of the date, start-up time, downtime for gas turbine and the steam turbine prior to startup, startup type, minute-by-minute turbine load (MW), and NOx and CO concentrations (ppmvd @ 15% O2) measurement using CEMS, for each startup event in the first 12 months of operation following the end of the commissioning period.	Make the site available for inspection by representatives of the District, ARB, and the Commission upon request.	As required	As required	
AQ-019	OPS	Submit proposed new time limits for each type of startup that reflect the effect of "Flex Plant 30" fast start-up technology. The proposed time limits shall be based on the required data collected in the first 12 months of operation following the end of the commissioning period. The submittal must include all CEMS data.	Submit info to the District, the CARB and the EPA.	Within 15 months of end of commissioning period	2/2/14	
AQ-020	OPS	A margin of compliance of 60 minutes (or less) may be added to the longest startup to establish a startup limit for each type of startup event (hot, warm, or cold). Established startup limit shall not exceed 3.0 hours.	Submit info to the District, the CARB and the EPA.	Within 15 months of end of commissioning period	2/2/14	
AQ-021	OPS	The District shall administratively establish appropriate startup times for each startup mode (hot, warm, or cold), and associated recordkeeping requirements.	Submit info to the District, the CARB and the EPA.	Within 15 months of end of commissioning period	2/2/14	
AQ-025	OPS	During start-up and shutdown periods, the emissions shall not exceed any of the following limits: NOx (as NO2) - 160.00 lb/hr; CO - 900.00 lb/hr; VOC (as methane) - 16.00 lb/hr; PM10 - 9.00 lb/hr; SOx (as SO2) - 6.10 lb/hr; or Ammonia (NH3) - 28.76 lb/hr.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-028	OPS	The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown.	Submit to the District and CPM the startup and shutdown event duration data demonstrating compliance with this condition as part of the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-029	OPS	Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed any of the following limits: NOx (as NO2) - 15.54 lb/hr and 2.0 ppmvd @ 15% O2; CO - 9.46 lb/hr and 2.0 ppmvd @ 15% O2; VOC (as methane) - 3.79 lb/hr and 1.4 ppmvd @ 15% O2; PM10 - 9.0 lb/hr; or SOx (as SO2) - 6.10 lb/hr. NOx (as NO2) emission limits are based on 1-hour rolling average period. All other emission limits are based on 3-hour rolling average period.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-030	OPS	NH3 emissions shall not exceed any of the following limits: 10.0 ppmvd @ 15% O2 over a 24-hour rolling average period, and 28.76 lb/hr while gas turbine system operates.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-032	OPS	Emissions from the gas turbine system, on days when a startup and/or shutdown occurs, shall not exceed the following limits: NOx (as NO2) - 879.7 lb/day; CO - 5,570.3 lb/day; VOC - 164.2 lb/day; PM10 - 216.0 lb/day; SOx (as SO2) - 146.4 lb/day, or NH3 - 690.3 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-033	OPS	Emissions from the gas turbine system, on days when a startup and/or shutdown does not occur, shall not exceed the following: NOx (as NO2) - 373.0 lb/day; CO - 227.0 lb/day; VOC - 91.0 lb/day; PM10 - 216.0 lb/day; SOx (as SO2) - 146.4 lb/day, or NH3 - 690.3 lb/day. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-034	OPS	Gas turbine system shall be fired on PUC-regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds per 100 dscf of natural gas.	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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-035	OPS	NOx (as NO2) emissions from the gas turbine system shall not exceed any of the following: 1Q: 38,038 lb; 2Q: 38,411 lb; 3Q: 37,126 lb; 4Q: 37,840 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-036	OPS	CO emissions from the gas turbine system shall not exceed any of the following: 1Q: 142,312 lb; 2Q: 142,539 lb; 3Q: 86,374 lb; 4Q: 113,660 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-037	OPS	VOC emissions from the gas turbine system shall not exceed any of the following: 1Q: 8,086 lb; 2Q: 8,177 lb; 3Q: 8,417 lb; 4Q: 8,323 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-038	OPS	NH3 emissions from the SCR system shall not exceed any of the following: 1Q: 62,122 lb; 2Q: 62,812 lb; 3Q: 63,502 lb; 4Q: 63,502 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-039	OPS	PM10 emissions from the gas turbine system shall not exceed any of the following: 1Q: 19,440 lb; 2Q: 19,656 lb; 3Q: 19,872 lb; 4Q: 19,872 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-040	OPS	SOx (as SO2) emissions from the gas turbine system shall not exceed any of the following: 1Q: 13,176 lb; 2Q: 13,322 lb; 3Q: 13,469 lb; 4Q: 13,469 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-041	OPS	The total CO emissions from the gas turbine system (N-2697-5) and the auxiliary boiler (N-2697-7) shall not exceed 198,000 pounds in any 12-consecutive month rolling period.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR as required by AQSC-08.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-044c	OPS	Source testing shall be conducted using the methods and procedures approved by the District.	Submit source test results to the CEC CPM and District.	No later than 60 days following the source test	1/8/13	1/7/13

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-046a	OPS	Source testing to measure start-up emission rates of NOx, CO and VOC shall be conducted before the end of commissioning period and at least once every seven years thereafter. 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.	Submit results and field data collected during source tests to the District and CPM.	Within 60 days of testing	1/8/13	1/7/13
AQ-046b	OPS	Testing for startup and shutdown emissions shall be conducted upon initial operation.	Submit source test results to the CEC CPM and District.	Upon initial operation and at least once every 7 years	1/8/13	1/7/13
AQ-046c	OPS	Testing for startup and shutdown emissions shall be conducted at least once every seven years.	Submit source test results to the CEC CPM and District.	At least once every 7 years	1/8/13	Submitted January 2013
AQ-047a	OPS	Source testing to determine compliance with the NOx, CO, VOC, and NH3 emission rates (lb/hr and ppmvd @ 15% O2) and PM10 emission rate (lb/hr) shall be conducted before the end of commissioning period and at least once every 12 months thereafter.	Submit results and field data collected during source tests to the District and CPM according to a pre-approved protocol (AQ-44). Testing for steady-state emissions shall be conducted upon initial operation and at least once every 12 months.	Within 60 days of testing	1/5/13	Submitted January 2013
AQ-047b	OPS	Testing for steady state emissions shall be conducted upon initial operation.	Submit source test results to the CEC CPM and District.	Upon initial operation	1/8/13	Submitted January 2013
AQ-047c	OPS	Testing for steady state emissions shall be conducted upon initial operation and at least once every seven years.	Submit source test results to the CEC CPM and District.	At least once every 7 years	1/8/13	Submitted January 2013
AQ-050	OPS	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.	Results 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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-051	OPS	The results of each source test shall be submitted to the District within 60 days thereafter.	Submit the source test report of results to both the CEC and District.	Within 60 days of testing	1/8/13	Submitted January 2013
AQ-054	OPS	The NOx and O2 CEMS shall be installed and certified in accordance with the requirements of 40 CFR Part 75. The CO CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 4A (PS 4A), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA.	Submit to the CPM and APCO CEMS audits demonstrating compliance with this condition as part of the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-055	OPS	The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA.	Submit to the CPM and APCO CEMS audits demonstrating compliance with this condition as part of the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-056	OPS	The CEMS data shall be reduced to hourly averages as specified in §60.13(h) and in accordance with §60.4350, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA.	Submit to the CPM and APCO the CEMS data reduced in compliance with this condition as part of the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-057	OPS	In accordance with 40 CFR Part 60, Appendix F, 5.1, each CO CEMS must be audited at least once each calendar quarter by conducting cylinder gas audits or relative accuracy audits. CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession.	Submit the CEMS audits demonstrating compliance with this condition as part of the QOR to the CPM and APCO.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-058	OPS	The owner or operator shall perform RATA for NOx, CO and O2 as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee 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.	Submit the CEMS audits demonstrating compliance with this condition as part of the QOR to the CPM and APCO.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-059	OPS	The NOx and O2 CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. Linearity reports shall be submitted along with QORs to the District.	Submit the CEMS audits demonstrating compliance with this condition as part of the QOR to the CPM and APCO.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-062	OPS	The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-064	OPS	Monitor Downtime is defined as any unit operating hour in which the data for NOx, CO2 or O2 concentrations is either missing or invalid.	No verification necessary.	None		
AQ-065	OPS	The owner or operator shall maintain records of the following items: 1) hourly and daily emissions, in pounds, for each pollutant listed in this permit on the days startup and or shutdown of the gas turbine system occurs, 2) hourly and daily emissions, in pounds, for each pollutant in this permit on the days startup and or shutdown of the gas turbine system does not occur, 3) quarterly emissions, in pounds, for each pollutant listed in this permit, and and 4) the combined CO emissions (12 consecutive month rolling total) in pounds, for permit unit N-2697-5 and N-2697-7.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-066	OPS	The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, total hours of operation, the type and quantity of fuel used, mode of start-up (cold, warm, or hot), duration of each start-up, and duration of each shutdown.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-068	OPS	Submit a written report of CEM operations for each calendar quarter to the District. (See condition for list of specific items that need to be included in the report.)	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.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-069	OPS	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 when the CEMS is not operating properly.	Submit to the District and CPM the report of CEM operations, emission data, and monitor downtime data in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-089	OPS	Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-091	OPS	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.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	
AQ-092	OPS	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.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	
AQ-093	OPS	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.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	
AQ-094	OPS	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.	No verification necessary.	None	None	
AQ-095	OPS	Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	
AQ-096	OPS	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.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-097	OPS	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.	No verification necessary.	None	None	
AQ-098	OPS	An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.	No verification necessary.	None	None	
AQ-099	OPS	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.	Submit to both the District and CPM the proposed offset plan as required by the federal rule.	As required	As required	
AQ-100	OPS	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.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	
AQ-101	OPS	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 superceded because of the submission of a new certificate of representation changing the designated representative.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	As required	
AQ-102	OPS	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.	Make the site available for inspection by representatives of the District, ARB, and the CEC upon request.	As required	Complete	3/30/12
AQ-103	OPS	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.	Submit the Acid Rain Program Application to both the District and CPM.	Prior to first fire	11/9/12	5/6/09
AQ-108	OPS	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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-109	OPS	Notify the District 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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-111	OPS	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration.	The results of water recirculation rate and total dissolved solids concentration analysis data shall be included in the quarterly operation report (AQ-SC8).	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-113	OPS	The drift rate shall not exceed 0.0005%.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-114	OPS	PM10 emissions shall not exceed 22.4 pounds per day.	The results of water recirculation rate and total dissolved solids concentration analysis data shall be included in the quarterly operation report (AQ-SC8).	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-115	OPS	Compliance with the PM10 emission limit (lb/day) shall be demonstrated by using the following equation: Water Recirculation Rate (gal/day) x 8.34 lb/gal x Total Dissolved Solids Concentration in the blowdown water (ppm x 10E-06) x Design Drift Rate (%).	The results of water recirculation rate and total dissolved solids concentration analysis data shall be included in the quarterly operation report (AQ-SC8).	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-116	OPS	Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory within 60 days after the end of commissioning period of the gas turbine system and at least once quarterly thereafter.	Use the results of water recirculation rate and total dissolved solids concentration analysis data to determine emissions (lb/day and grains/dscf) and the results shall be included in the quarterly operation report (AQ-SC8).	60 days after end of commissioning	1/28/13	10/30/12
AQ-123	OPS	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration.	Submit the results of fuel sulfur content analysis to both the District and CPM in accordance with AQ-48.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-124	OPS	The unit shall only be fired on PUC-regulated natural gas.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-127	OPS	The owner or operator shall keep records of the natural gas fuel combusted in the boiler on daily basis.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-128	OPS	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.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-129	OPS	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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-130	OPS	NOx (as NO2) emissions shall not exceed 7.0 ppmvd @ 3% O2.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-131	OPS	CO emissions shall not exceed 50 ppmvd @ 3% O2.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	5/15/13	January 2012, April 2013, July 2013, October 2013
AQ-132	OPS	VOC (as CH4) emissions shall not exceed 10.0 ppmvd @ 3% O2.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-133	OPS	PM10 emissions shall not exceed 0.0076 lb/MMBtu.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-134	OPS	SOx emissions shall not exceed 0.00285 lb/MMBtu.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-135	OPS	NOx (as NO2) emissions from this unit shall not exceed any of the following: 1Q: 310 lb; 2Q: 310 lb; 3Q: 310 lb; 4Q: 310 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-136	OPS	CO emissions from this unit shall not exceed any of the following: 1Q: 1,348 lb; 2Q: 1,348 lb; 3Q: 1,348 lb; 4Q: 1,348 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-137	OPS	VOC emissions from this unit shall not exceed any of the following: 1Q: 154 lb; 2Q: 154 lb; 3Q: 154 lb; 4Q: 154 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-138	OPS	PM10 emissions from this unit shall not exceed any of the following: 1Q: 277 lb; 2Q: 277 lb; 3Q: 277 lb; 4Q: 277 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-139	OPS	SOx (as SO2) emissions from this unit shall not exceed any of the following: 1Q: 104 lb; 2Q: 104 lb; 3Q: 104 lb; 4Q: 104 lb.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-140	OPS	The total CO emissions from the gas turbine system (N-2697-5) and the auxiliary boiler (N-2697-7) shall not exceed 198,000 pounds in any 12-consecutive month rolling period.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-143c	OPS	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.	Testing for steady-state emissions shall be conducted at least once every 12 months or every 36 months as specified by this condition.	Within 30 days of testing		Submitted January 2013
AQ-151	OPS	Submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel's sulfur content.	Results 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 QOR (AQ-SC8).	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-152	OPS	Fuel sulfur content shall be determined using EPA Method 11 or EPA Method 15 or District, CARB and EPA approved alternative methods.	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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-153	OPS	The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications given in District Policy SSP-1105. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last month.	The results of the boiler stack emission monitoring data shall be summarized and submitted to the District and CPM in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013



Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
AQ-154	OPS	If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than one hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after one hour of operation after detection, the permittee shall notify the District within the following one hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR. The results of the boiler stack emission monitoring data shall also be summarized and submitted to the District and CPM in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-155	OPS	All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period.	Provide a protocol for any alternate monitoring parameters at least 60 days prior to implementing alternate monitoring procedures. The results of the boiler stack emission monitoring data shall be summarized and submitted to the District and CPM in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-156	OPS	The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-157	OPS	The permittee 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 QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-158	OPS	The permittee shall maintain records of: (1) the date, (2) heat input rate, MMBtu/day, (3) daily emissions (lb/day) for each pollutant listed in this permit, and (4) quarterly emissions (lb) for each pollutant listed in this permit and the combined CO emissions (12 consecutive month rolling total) in pounds, for permit unit N-2697-5 and N-2697-7.	A summary of significant operation and maintenance events and monitoring records required shall be included in the QOR.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
AQ-SC08	OPS	Submit Quarterly Operation Reports (QOR) that include operational and emissions information as necessary to demonstrate compliance with the conditions of certification. The QOR shall specifically note or highlight incidences of noncompliance.	Submit QOR to the CPM and APCO. 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.	Include info in QOR	30 days after end of quarter	January 2012, April 2013, July 2013, October 2013
BIO-05d	OPS	Keep signed WEAP statements in project files.	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.	As required	As required	
COM-07	OPS	Submit an Annual Compliance Report which is due for each year of commercial operation and is due to the CPM each year at a date agreed to by the CPM. Annual Compliance Reports shall be submitted over the life of the project unless otherwise specified by the CPM. Each Annual Compliance Report shall include the AFC number, identify the reporting period and shall contain the items listed in the condition.	Submit to CPM on an annual basis	Annually		ACR#1 submitted 1/24/14
COM-10	OPS	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. 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).	Provide documentation to the CPM as required.	Within 10 days of receipt	As required	Reported in ACR #1

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
COM-11	OPS	Submit a proposed facility closure plan to the CEC for review and approval prior to commencement of closure activities. The plan shall discuss the items specified in the condition.	File 120 copies (or other number of copies agreed upon by the CPM) of a proposed facility closure plan with the CEC.	at least 12 months prior to start of closure activities	As required	
COM-12b	OPS	In the event of an unplanned temporary 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.	Notify the CPM and other agencies as required.	Within 24 hours of unplanned temporary closure	As required	
COM-12c	OPS	If the CPM determines that an 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.	Develop and submit the closure plan to the CPM.	Within 90 days of CPM's determination	As required	
COM-12c	OPS	As part of the ACR, 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.	Include any recommended changes to the contingency plan as part of the ACR.	Annually	Include in ACR	
COM-13a	OPS	The on-site contingency plan required for unplanned temporary closure shall also cover unplanned permanent facility closure. All of the requirements specified for unplanned temporary closure shall also apply to unplanned permanent closure. In addition, the on-site contingency plan shall address how the project owner will ensure that all required closure steps will be successfully undertaken in the event of abandonment.	In the event of an unplanned permanent closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the status of all closure activities.	Within 24 hours of unplanned permanent closure	As required	Updated and included in ACR #1
COM-13b	OPS	Prepare a closure plan, consistent with the requirements for a planned closure.	Submit the closure plan to the CPM.	Within 90 days of permanent closure	As required	
COM-14	OPS	Post-Certification Changes to the Decision--see Condition for detailed information on what constitutes and how to prepare a post-licensing change to the CEC Final Decision.	As required	As required	As required	
GEN-01c	OPS	Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance being performed on any portion(s) of the completed facility that requires CBO approval for compliance with the above codes. The CPM shall then determine if the CBO needs to approve the work.	The CPM shall then determine if the CBO needs to approve the work.	At least 30 days prior to such work	5/1/13	
HAZ-01	OPS	The project owner shall not use any hazardous materials not listed in ATTACHMENT A on page 183 of the condition, or in greater quantities or strengths than those identified by chemical name in ATTACHMENT A, unless approved in advance by the CPM.	Provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility.	Annually	Include in ACR	
HAZ-06b	OPS	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. Also include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.	Provide information for inclusion in the ACR.	Annually	Include in ACR	Addressed in ACR #1
NOISE-02	OPS	Throughout the construction and operation of the project, document, investigate, evaluate, and attempt to resolve all project-related noise complaints. Noise Complaint Resolution process will be used.	File a Noise Complaint Resolution Form with the City and the CPM documenting resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a three-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.	Within 5 days of receiving a noise complaint	As required	
NOISE-04b	OPS	Submit a summary report of the survey to the CPM. Included in the survey report shall be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limit, and a schedule, subject to CPM approval, for implementing these measures. When these measures are in place, the project owner shall repeat the noise survey.	Submit required info to the CPM.	Within 15 days after completing noise survey	3/14/13	3/13/13
NOISE-05	OPS	Conduct an occupational noise survey to identify the noise hazardous areas in the facility when plant reaches 85% of rated capacity or greater	Prepare a report of the survey results and, if necessary, identify proposed mitigation measures that will be employed to comply with the applicable California and federal regulations.	Within 30 days after completing survey	2/27/13	4/29/13
PAL-06	OPS	Through the designated PRS, ensure that all components of the PRMMP are adequately performed (see list of activities included in Condition).	Maintain in compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. Maintain these files for a period of three years after completion and approval of the CPM-approved PRR required by PAL-07.	As required	Annually	No activities conducted in 2013 requiring PRS activity

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Date sent to CEC, CBO or agency
SOIL & WATER-04	OPS	Comply with the requirements of the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Industrial Activity (WQO 97-03-DWQ).	Develop and submit an Industrial SWPPP for the operation of the LEC. submit copies to the CPM of all correspondence between the project owner and the Central Valley Regional Water Quality Control Board regarding the industrial SWPPP within 10 days of its receipt or submittal.	Prior to commercial ops	Complete	RWQCB granted NCPA application for Exemption on 7/3/12
SOIL & WATER-07f	OPS	Ensure compliance with all county water well standards and requirements for the life of the existing pumping well and any new pumping wells	Provide CPM with 2 copies of all monitoring or other reports required for compliance with the SJCEHD's water well standards and operation requirements, as well as any changes made to the operation of the well.	As required	As required	
SOIL & WATER-07g	OPS	The project owner shall not use potable water as an emergency backup supply for more than 14 calendar days of plant operation without CPM approval.	If potable water is needed as an emergency backup supply for more than 14 days, obtain CEC approval in advance.	As required	As required	
SOIL & WATER-08b	OPS	Metering devices shall be operation for life of project.	Submit a water use summary report to the CPM in the annual compliance report for the life of the project. Also provide a report on the servicing, testing, and calibration of the metering devices.	Annually	Include in ACR	Addressed in ACR #1
SOIL & WATER-9b	OPS	Provide the annual monitoring report summary required by the UIC Class I Permit and shall fully explain violations, exceedance, enforcement actions, or corrective actions related to permit compliance. Notify the CPM in writing of changes to the UIC Class I Permit that are instituted by either the project owner or USEPA Region IX including permit renewals.	Submit the required info to the CPM.	Ongoing	Ongoing	
TLSN-02	OPS	Every reasonable effort will be made to identify and correct, on a case-specific basis, any complaints of interference with radio or TV signals from operation of the proposed line and associated switchyard.	Reports of line-related complaints shall be summarized for the project-related line and included during the first five years of plant operation in the Annual Compliance Report.	Annually	Include in ACR	Addressed in ACR #1
TLSN-04	OPS	Ensure that the rights-of-way of the proposed transmission line are kept free of combustible material, as required under the provisions of Section 4292 of the Public Resources Code and Section 1250 of Title 14 of the California Code of Regulations.	During the first five years of operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the right-of-way and provide such summaries in the Annual Compliance Report.	Annually	Include in ACR	Addressed in ACR #1
VIS-03b	OPS	Demonstrate that the cooling tower has consistently been operated to meet above-specified fogging frequency curve (except as necessary to prevent damage to the cooling tower). If determined that the cooling tower has not operated within the specified design parameters, the project owner shall provide proposed remedial actions for CPM review and approval.	Provide the CPM written documentation in the project's ACR and at anytime as requested by the CPM. If requested by the CPM, the project owner shall provide the requested cooling tower operating data to the CPM at a date determined by the CPM.	Annually	Include in ACR	Addressed in ACR #1
VIS-04d	OPS	Notify the CPM of any complaints re: lighting.	Submit a complaint resolution form to the CPM record each lighting complaint and document resolution of that complaint.	Within 48 hours after receiving a complaint	As required	
VIS-05c	OPS	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.	Include the required documentation in the ACR.	Annually	Include in ACR	Addressed in ACR #1
WASTE-06b	OPS	Document in each ACR the actual volume of wastes generated and the waste management methods used during the year; 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.	Submit the required documentation as part of the ACR.	Annually	Include in ACR	Addressed in ACR #1
WASTE-07	OPS	Ensure that the cooling tower sludge is tested pursuant to Title 22, California Code of Regulations, Division 4.5, section 66262.10.	Report findings in a report to the CPM. If two consecutive tests show that the sludge is non-hazardous, the project owner may apply to the CPM to discontinue testing.	No less than 60 days after start of project operations	5/1/13	6/1/13

Lodi Energy Center  
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**APPENDIX B: BIO-2 DESIGNATED BIOLOGIST REPORT**

# Lodi Energy Center, California Energy Commission Annual Compliance Report, Biology Section, 2013

PREPARED FOR: NCPA LEC Compliance Manager  
Vinnie Venethongkham

COPY TO: Sarah Madams/CH2M HILL  
Project Manager

PREPARED BY: Rick Crowe/CH2M Hill  
Lodi Energy Center CEC Designated Biologist

DATE: January 24, 2014

## Introduction

This Northern California Power Agency (NCPA) Lodi Energy Center (LEC) Biological Annual Compliance Report, 2013 fulfills the California Energy Commission (CEC) requirement in the Verification for Condition of Certification (COC) BIO-2 Sub-section 8. "Designated Biologist Duties, BIO-2, Sub-section 8; The duties of the Designated Biologist are to maintain written records of the tasks specified above and those included in the Biological Resources Mitigation Implementation and Monitoring Plan, (BRMIMP). Summaries of these records shall be submitted in the monthly compliance report and the annual compliance report.

The LEC project was designed to avoid biological resources to the greatest extent feasible through development of mitigation and protection measures with informal consultation, discussions and participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJCMSCOSP) and the CEC.

The main construction phase of LEC occurred from August 2010 through February 2013. Restoration of the temporary laydown areas began in December 2012 and was completed during February 2013.

A Biological Resources Post-construction Compliance Monitoring Report (BIO-6, 7 and 8) was submitted to the CEC during April 2013. The report identified all construction impacted areas as being restored to their natural condition.

## Project Location

The LEC project site is on 4.4 acres of land owned and incorporated by the City of Lodi, 6 miles west of the Lodi City Center. The site is located adjacent to Interstate-5 approximately 1.7 miles south of State Route 12 (Figure 1). On the east side of the site is the City of Lodi's White Slough Water Pollution Control Facility (WPCF). The WPCF's treatment and holding ponds are located to the north. To the west is the 49-megawatt NCPA Combustion Turbine Project (STIG Plant), and further to the west is the Pacific Gas and Electric Company overhead 230 kilovolt electrical transmission line. The San Joaquin County Mosquito and Vector Control facility is located south of the project site.

## Monitored Activities and Wildlife Interaction

Since completion of the LEC project NCPA has followed the CEC COC s and had the Designated Biologist perform pre-disturbance surveys when necessary and contacted the Designated Biologist to indentify or capture and relocate wildlife that were in harm's way or wildlife that could harm facility employees.

All new employees and contract workers received Worker Environmental Awareness Training (WEAP) via video and lecture. The Designated Biologist (DB) remained on-call during the 2013 year. The monitoring and compliance efforts for the year 2013 are documented below along with the attached Site Photos 1 through 9.

**May 7<sup>th</sup>**, the DB received a phone call from LEC Compliance Manager Vinnie Venethongkham concerning the sighting of a gopher snake (*Pituophis melanoleucus*) observed near the LEC operations building. Mr. Venethongkham asked the DB for identification of the snake and then had one of the LEC employees capture and relocate the gopher snake off site, Photo 1.

**May 10<sup>th</sup>**, the DB was called to the site to perform a pre-disturbance survey of the WPCF parking area immediately east of the main entrance of the LEC facility. The parking area would be utilized during an upcoming planned outage. The DB surveyed the parking area and observed a single killdeer egg (*Charadrius vociferus*) and nest east of the proposed outage parking area, Photo 2. No adult killdeer were observed during this pre-disturbance survey. The DB informed LEC management about the killdeer nest and put up exclusion tape and "Keep Out Sensitive Resource" signage, Photos 4 and 5.

**May 13<sup>th</sup>**, the DB received a call from LEC Compliance Manager Vinnie Venethongkham concerning the sighting of two bird nests that were observed during routine maintenance of the STIG equipment. NCPA decided to treat these observed nests as if they were on the LEC site and erected "Keep Out" signage and informed their employees of the nests, Photos 5 and 6. Later in the day Mr. Venethongkham contacted the DB again and reported finding a dead house sparrow (*Passer domesticus*) on the ground near the LEC water treatment area, Photo 7. The DB advised Mr. Venethongkham to dispose of the carcass in the trash.

**August 7<sup>th</sup>**, the DB received a call from LEC Construction Manager Joe Bittner requesting a pre-disturbance survey of the LEC cooling tower and access road that runs just south of the LEC cooling tower. The DB performed a pre-disturbance survey of the cooling tower and access roads and found no nesting birds or other wildlife that would be harmed by the testing procedure, Photo 8.

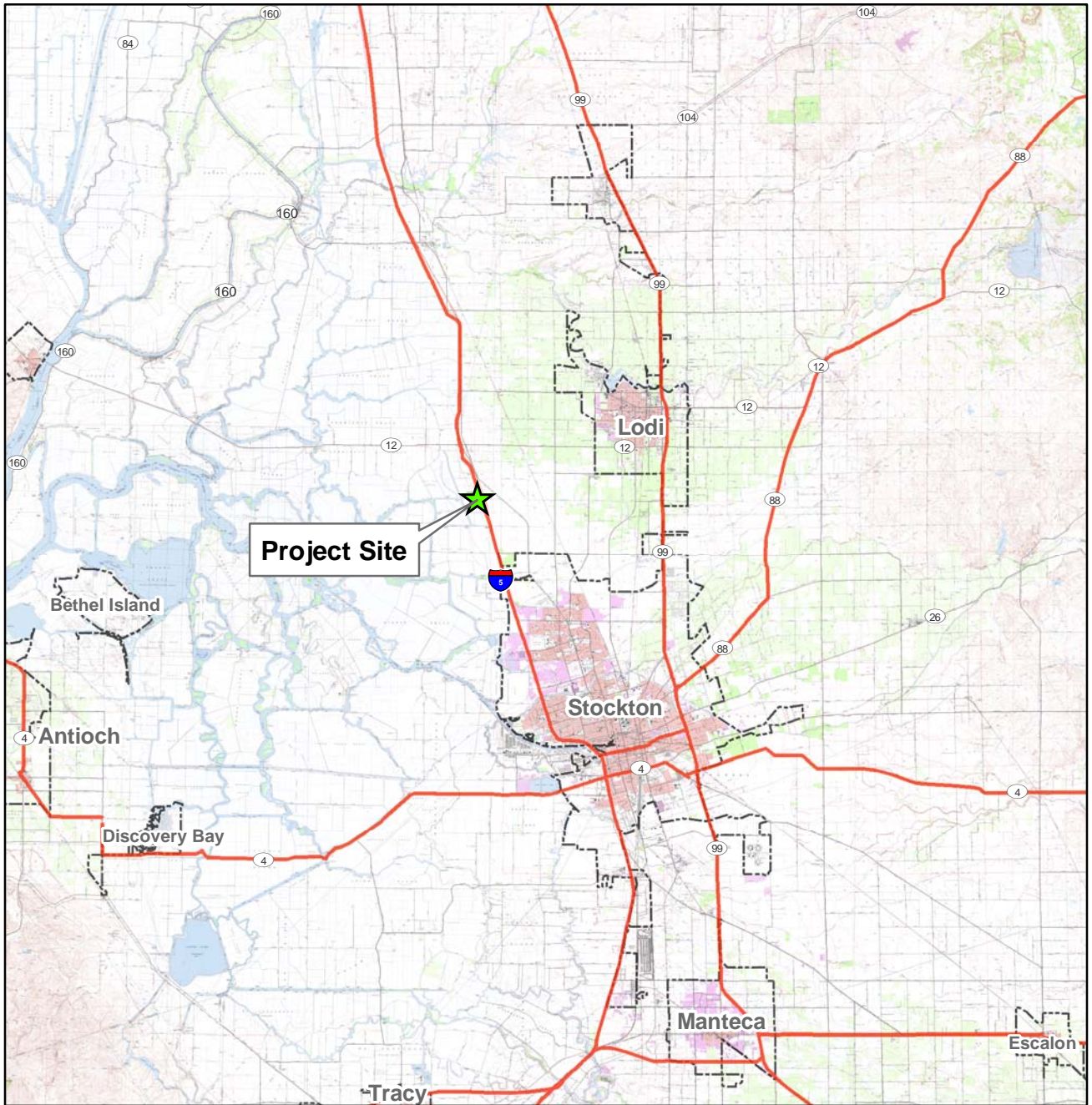
**August 8<sup>th</sup>**, the DB was on site and monitored the cooling tower performance testing throughout the 2-day testing cycle. All performance testing was conducted from a man lift utilizing an existing access road just south of the cooling tower as depicted in Photo 9. No wildlife was disturbed or displaced during this testing procedure.

No other activities for the remainder of 2013 required monitoring.

## Conclusion

The Lodi Energy Center was in compliance with all biological mitigation and protection measures covered in the BRMIMP that are applicable to this operating facility during the year 2013.

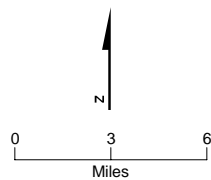




VICINITY MAP

# **LEGEND**

 Project Site



**FIGURE 1**  
**PROJECT VICINITY MAP**  
 LODI ENERGY CENTER  
 LODI, CALIFORNIA

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.



## Site Photos

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Photo 1, gopher snake observed near LEC operations building, 5/7/13.



Photo 2, killdeer nest with single egg observed east of outage parking area, 5/10/13.





Photo 3, exclusion area for nesting killdeer, 5/10/13.



Photo 4, exclusion area for nesting killdeer, 5/10/13.





Photo 5, active bird nest on a pipe support on the STIG site, note Keep Out signage for employees, 5/13/13.



Photo 6, of 2<sup>nd</sup> nest observed on STIG HRZG with typical exclusion signage and tape, 5/13/13.





Photo 7, of dead house sparrow observed on ground near LEC water treatment area, 5/13/13.



Photo 8, cooling tower access road during pre-disturbance survey, 8/7/13.





Photo 9, of cooling tower performance testing, 8/8/13.

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APPENDIX C: VIS-3 WRITTEN CERTIFICATION





January 14, 2014

PO Box 1478  
12745 N. Thornton Road  
Lodi, CA 95241  
(209) 333-6370  
[www.ncpa.com](http://www.ncpa.com)

Ms. Christine Stora  
Compliance Project Manager  
Siting, Transmission and Environmental Protection (STEP) Division  
California Energy Commission  
1516 Ninth Street, MS 2000  
Sacramento, CA 95814

Subject: Condition of Certification VIS-3  
Written Certification Regarding Operations of LEC Cooling Tower

Dear Ms. Stora,

Condition of Certification VIS-3 requires that a written certification for operation of the cooling tower be provided in the Annual Compliance Report. The certification is to demonstrate that the cooling tower has consistently been operated to meet the fogging frequency curve specified in VIS-3.

This is to certify that no changes have been made to the cooling tower design, which would preclude the cooling tower from operating within the original design parameters, including the fogging frequency curve.

Please do not hesitate to call me at (209) 210-5000 if you have any questions or comments.

Sincerely,

Michael DeBortoli  
Facility Manager


Lodi Energy Center  
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APPENDIX D: WASTE-6 UPDATED OPERATIONS WASTE  
MANAGEMENT PLAN



# Lodi Energy Center Unplanned Temporary/ Permanent Closure / On-Site Contingency Plan



	<b>Lodi Energy Center</b>
Rev. 00	Unplanned Temporary and Permanent Closure/On-Site Contingency Plan (COMPLIANCE-12, COMPLIANCE-13)
Date Approved:	Date First Issued: 06/14/2012
By: Vinnie Venethongkham	Date Revised: 6/27/2013

## 1.0 Introduction

Unexpected temporary, or short-term cessation of operations, can result from a number of unforeseen circumstances. Conditions such as a lack of fuel, oversupply of electricity, mechanical failure, or other factors, may force Lodi Energy Center (LEC) to be shut down temporarily. Natural disasters such as earthquake or severe winter storms may also result in temporary shutdowns.

For short-term, unexpected temporary cessation of operations of periods less than 12 months that does not involve facility damage, LEC generating facility would be maintained in an operational state until the unexpected condition or event ceases to restrict operations.

In order to ensure that public health and safety and the environment are protected in the event of an unplanned temporary facility closure, it is essential to have an on-site contingency plan established. This on-site contingency plan will be used to ensure that all necessary steps to mitigate health, safety, and environmental impacts are addressed according to local, state, and federal regulations, in a timely manner.

## 2.0 Purpose

The purpose of this Facility Unplanned Temporary Closure Contingency Plan is to provide general and specific instructions for safely shutting down power generating equipment, short-term lay-up of critical equipment, removal of hazardous materials from the site, and for short-term monitoring and security of the facility. Prior to facility commercial operations, this plan shall be submitted to the California Energy Commission (CEC) Compliance Program Manager (CPM) for review and approval. This Plan shall be kept at the site at all times.

## 3.0 General Facility Identification Information

### 3.1 Facility Name:

Lodi Energy Center

### 3.2 Owner

Northern California Power Agency  
651 Commerce Drive  
Roseville, CA 95678

### 3.2 Physical Address

12745 N. Thornton Road  
Lodi, CA 95242

### 3.3 Mailing Address

P.O. Box 1478  
Lodi, CA 95241

### 3.4 Facility Key Contacts

Mike DeBortoli, Facility Manager	(209) 210-5000
Scott Sexton, Operations Manager	(209) 210-5010
Rafael Santana, Maintenance Manager	(209) 327-6004
Vinnie Venethongkham, EH&S Manager	(209) 210-5009
Jeremy Lawson, Plant Engineer	(916) 765-3225

### 3.5 Facility phone numbers

Administration Building Office	(209) 333-6370
Control Room	(209) 333-6373
Fax Number	(209) 333-6374

## 4.0 Plant Location and Description

The site for the Lodi Energy Center (LEC) project is 4.4 acres of land in the city of Lodi, 6 miles west of the Lodi city center, located near Interstate-5 (I-5) approximately 1.7 miles south of State Route 12. The facility is owned and managed by Northern California Power Agency (NCPA).

On the east side of the site is the city of Lodi's White Slough Water Pollution Control Facility (WPCF). The WPCF's treatment and holding ponds are located to the north; an existing generating plant (49-MW NCPA Combustion Turbine Project (STIG) is located to the west with a 230-kV Pacific Gas and Electric overhead electrical transmission line aligned further to the west, and the San Joaquin County Mosquito and Vector Control facility is to the south. The project is also located near the city of Stockton, which is approximately 2 miles south.

The LEC is a natural gas-fired, combined-cycle nominal 296 megawatt (MW) power generation facility consisting of the following components:

- (1) One natural gas-fired Siemens STGS-5000F combustion turbine-generator (CTG), with an evaporative cooling system and dry low-NOx combustors to control air emissions;
- (2) One 3-pressure heat recovery steam generator (HRSG);
- (3) A selective catalytic reduction (SCR) and carbon monoxide (CO) catalyst to further control NOx and CO emissions, respectively;
- (4) One Siemens SST-900RH condensing steam turbine generator (STG);
- (5) One natural gas-fired auxiliary boiler;
- (6) One 7-cell draft evaporative cooling tower;
- (7) Associated support balance of plant equipment.

## **5.0 Communication with Responsible Agencies**

In the event of an unplanned temporary closure of the LEC facility, NCPA shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours. NCPA will take all necessary steps to implement this plan for the specified duration. NCPA shall keep the CPM informed of the circumstances and expected duration of the closure.

If NCPA determines that an unplanned temporary closure of the facility is likely to be permanent or for duration of more than 12 months, a closure plan consistent with the requirements of a long term planned closure shall be developed. For purposes of this Facility Temporary Closure Contingency Plan, only periods of site closure of less than 12 months duration are addressed.

In the event of an unplanned permanent closure, NCPA shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all the necessary steps to implement this plan. NCPA shall keep the CPM informed of the circumstances and expected duration of the closure.

## **6.0 Equipment Shutdown and De-Energization, <= 90 days**

For periods of facility closure of up to 90 days duration, NCPA will take the following non-inclusive steps to safely shutdown and de-energize the LEC facility power generating equipment:

- ☐ Back feed electrical power will be maintained to the facility to ensure power to critical control equipment, circulating water systems, communication, and security systems.
- ☐ Fuel gas systems will be isolated to the facility and all in plant systems de-pressurized.

- ☐ Gas Turbine generators will be prepared for layup per Siemens SGT6-5000F(3) (501F) gas turbine OEM manual.
- ☐ Heat Recovery Steam Generator (HRSG) will be prepared for layup per Nooter Erikson OEM instruction manual.
- ☐ Auxiliary Boiler will be prepared for layup per OEM instruction manual.
- ☐ Steam Turbine will be on turning gear per Siemens steam turbine OEM manual.
- ☐ Cooling systems will be circulated once/week by NCPA personnel. Chemistry of water cooling systems will be maintained during the 90 day period of facility closure.
- ☐ Waste water treatment equipment will be drained, flushed, and placed in normal short-term lay-up condition. Wastes from this cleaning will be handled in accordance with the NCPA Hazardous Waste Management procedure NCPA-GSC-007.
- ☐ Gas turbine, small pumps, fans, and motors will be cycled per manufacture's recommendation to maintain operability. Gas Turbines will motor weekly.
- ☐ NCPA operations staffing is expected to remain at normal operating levels during this period.
- ☐ Potable water system remains in service.

## **7.0 Equipment Shutdown and De-Energization, > 90 days**

For periods of facility closure of greater than 90 days and less than 12 months duration with no damage to facility, NCPA will take the following non-inclusive steps to safely shutdown and de-energize LEC facility power generating equipment and prepare for short-term lay-up:

- ☐ Back feed electrical power will be maintained to the facility to ensure power to critical control equipment, circulating water systems, communication, and security systems.
- ☐ Fuel gas systems will be isolated to the facility and all in plant systems de-pressurized.
- ☐ Gas Turbine generators will be prepared for layup per Siemens SGT6-5000F(3) (501F) gas turbine OEM manual.
- ☐ Heat Recovery Steam Generator (HRSG) will be prepared for layup per Nooter Erikson OEM instruction manual.
- ☐ Auxiliary Boiler will be prepared for layup per OEM instruction manual.
- ☐ Steam Turbine will be on turning gear per Siemens steam turbine OEM manual.

- ❑ All condensate water, feed water, and water treatment systems will be fully isolated, drained, and placed in short term lay-up conditions as recommended by equipment manufacturer recommendation.
- ❑ Cooling systems will be fully isolated, drained, and placed in short-term lay-up conditions per manufacturer recommendations.
- ❑ Waste water treatment equipment will be drained, flushed, and placed in normal short-term lay-up condition. Wastes from this cleaning will be handled in accordance with the NCPA Hazardous Waste Management procedure NCPA-GSC-007 (Appendix 1).
- ❑ Large motors will be electrically dehumidified per manufacturer recommendations.
- ❑ Small pumps will be drained and flushed. Waste from this cleaning process will be handled in accordance NCPA Waste Management Plan.
- ❑ Sulfuric acid, sodium hypochlorite, all waste water treatment chemicals, and cooling tower chemistry control chemicals will be removed from the site. .
- ❑ All transformers and gas turbines will remain full of mineral/lubricating oil and monitored on a daily basis for leaks.
- ❑ NCPA staffing will be adjusted accordingly.
- ❑ Potable water system will remain in service.

## **8.0 Removal of Hazardous Materials and Wastes**

Procedures for handling hazardous materials and hazardous wastes within 90 days and for duration of facility closure up to 12 months are included in the NCPA Waste Management procedure NCPA-GSC-007 (Appendix 1). NCPA will manage removal of all required substances through contracted vendors. Hazardous materials will be removed from site in accordance with NCPA-GSC-007. Depending on the expected duration of the temporary cessation of operations, chemicals may be drained from storage tanks and other equipment. Refer to Table 1 below, Chemical Inventory, for a list of chemicals used at the LEC facility.

For closures of more than 90 days, NCPA shall remove all hazardous materials and hazardous wastes from the LEC facility. Tank cleaning of all chemical storage tanks will also be accomplished through approved vendors. Once the tanks are drained and cleaned, all openings will be sealed and power isolated using the NCPA Lock-Out Tag-Out procedure NCPA-GSC-001 (Appendix 3). All tanks will be inspected every three months, and a log kept of the inspections. At the end of closure period, all tanks used for hazardous materials storage will be inspected to meet new tank requirements of the California Code of Regulations, Title 22.



For Hazardous materials decontamination, cleanup, and removal services, NCPA will contact the contracted Emergency Response vendor.

***Table 1 LEC Chemical Inventory***

System	Chemical	# of Containers	Container Size	Total Volume on Site
Raw Water Treatment & Cooling Tower Blowdown	Coagulant (Ferric Chloride 35%)	1	6,000 Gal Tank	3000 Gal
Raw Water Treatment	Hydrated Lime	1	3570 ft2 Silo (124950 lbs Capacity)	50000 lbs
Raw Water Treatment	Magnesium Oxide	1	2720 ft2 Silo (176800 lbs Capacity)	70000 lbs
Raw Water Treatment	Polymer/Flocculant	1	450 Gal Tote	360
Main Steam Cycle	Oxygen	1	Bottles	5 Gal
Demin Water Treatment & Cooling Tower Blowdown	Caustic (25%)	1	330 Gal Tote	260 Gal
Demin Water Treatment	Sodium Bisulfite (12%)	1	100 Gal Tote	80 Gal
Cooling Tower Circ Water & Raw Water Treatment	Sulfuric Acid (66 Baume)	1	6,000 Gal Tank	4800 Gal
Cooling Tower Blowdown, Cooling Tower Circ Water, Demin Water Treatment, & Raw Water Treatment	Sodium Hypochlorite (12%)	1	12,000 Gal Tank	9600 Gal
Cooling Tower Blowdown & Demin Water Treatment	Phosphoric Acid (70%)	1	330 Gal Tote	260 Gal
HRSR SCR Catalyst	Anhydrous Ammonia	1	10200 Gal Tank	8160 Gal
Auxiliary Boiler & Main Steam Cycle	Phosphate	1	400 Gal Tote	320 Gal
Auxiliary Boiler & Main Steam Cycle	Oxygen Scavenger	1	400 Gal Tote	320 Gal
Auxiliary Boiler & Main Steam Cycle	Corrosion Inhibitor	1	400 Gal Tote	320 Gal

## **9.0 Site Security**

For periods of facility closure of less than 90 days, NCPA will maintain staffing levels and conduct routine shift rotations as under normal operating levels. NCPA personnel will act as facility security 24 hours per day, seven days per week and will manage site security in accordance with the Site Security Plan.

For periods of site closure that extend past 90 days durations, but are less than 12 months, NCPA will maintain a work force necessary to meet the security requirements of the Site Security Plan. This includes routine site walk downs, management of security camera and intrusion detection systems, and physical security of plant equipment.

## **10.0 Routine Monitoring**

In addition to the physical security monitoring of the LEC site, NCPA will conduct routine monitoring of power generating equipment, circulating water systems, chemistry controls, lay-up status, and storm water drainage systems during the short-term facility closure period. The facility will be under 24-hour recorded surveillance and all normal, operating security procedures will be observed by NCPA.

During the short-term closure period, NCPA will comply with all equipment manufacturers' repair and record keeping requirements. Any spill release reporting and investigative requirements, release response and corrective action requirements will be reported in accordance with the Site Emergency Response Plan, Spill Prevention Control & Countermeasure Plan, Hazardous Materials Business Plan, CalARP Risk Management Plan, CA Health and Safety code Chapter 6.7, and the California Code of Regulations Chapter 16, as applicable.

## **11.0 Warranties and Insurance**

11.1 Siemens Equipment Warranty: Contractor warrants that the Equipment will be free from defects in workmanship and material. The warranty period for the Equipment, excluding Consumables, shall extend until the earliest to occur of:

- (a) twelve (12) months after the date of Commercial Operation; or
- (b) twenty-four (24) months after the Actual Delivery Date of the Steam Turbine, or
- (c) the Gas Turbine Generator achieves 8,000 Total Equivalent Operating Hours.

11.2 Insurance Summary is found under Appendix 4.

## **12.0 Plan Revisions**

NCPA, in consultation with the CPM, will update this plan as necessary. The CPM may require revisions to the plan over the life of the project. Additionally, this plan shall be reviewed annually by NCPA and recommended changes to bring the plan up to date, if any, are to be reported in the Annual Compliance Report submitted to the CEC. Any changes to the plan must be approved by the CPM.

The current revision date and the revision number are given on the Title Page. Electronic copies shall be similarly dated, numbered. Revisions are also summarized and tracked on the Revision Log below (Table 2). Please note that this Plan is a controlled document. Revision or alteration of the controlled copies is not allowed without following the review and revision procedures given in the following sections.

## 12.1 Revision log

The revision history of this Facility Temporary Closure Contingency Plan is summarized and tracked on the Revision Log (Table 2). Information recorded in the revision log includes the revision number, revision date, the sections affected and why, and the person inserting the revised sections, including the date of the insertion(s).

***Table 2 Revision Log***

<b>Revision Number</b>	<b>Revision Date</b>	<b>Reason for Change</b>	<b>Revision By</b>	<b>Date</b>
00	11/8/2011	Initial development of plan	Vinnie Venethongkham	11/8/2011
01	6/27/13	Updated Section 3.4 Facility Contact	Vinnie Venethongkham	6/27/13
02				
03				
04				
05				
06				

### **13.0 Appendices**

13.1 Appendix 1 – NCPA Hazardous Waste Management procedure NCPA-GSC-007

13.2 Appendix 2 – Facility Emergency Response Plan

13.3 Appendix 3 – Lock out Tag out procedure NCPA-GSC-001

13.4 Appendix 4 – Lodi Energy Center Insurance Information

# Lodi Energy Center Annual Compliance Report #1

## APPENDIX E: PERMITS RECEIVED FROM OTHER GOVERNMENT AGENCIES



AUG 08 2013

Vinnie Venethongkham  
Northern California Power Agency  
P O Box 1478  
Lodi, CA 95241-1478

**Re: Administrative Amendment to Title V Operating Permit  
District Facility # N-2697  
Project # N-1130202**

Dear Mr. Venethongkham:

In accordance with District Rule 2520, Federally Mandated Operating Permits, the District reviewed the Northern California Power Agency application and has administratively amended the requirements for their Title V operating permit. This administrative amendment incorporates the requirements of Authority to Construct N-2697-5-1, which was issued with Certificate of Conformity after EPA review into the Title V permit for this facility. The project was to increase the hourly CO startup and shutdown emissions, establish combustor tuning period, and to modify fuel flow meter requirements to match with the fuel flow scheme used for the gas turbine. This amended Title V permit is being sent to you as a final action.

Your cooperation in this matter was appreciated. Should you have any questions, please contact Mr. Rupi Gill at (209) 557-6400.

Sincerely,



David Warner  
Director of Permit Services

DW: JK

cc: Gerardo Rios, EPA Region IX

Enclosures

**Seyed Sadredin**  
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 UNIT:** N-2697-5-1

**EXPIRATION DATE:** 05/31/2014

**EQUIPMENT DESCRIPTION:**

294 MW (NOMINAL) COMBINED-CYCLE ELECTRIC GENERATION PLANT CONSISTING OF A SIEMENS INDUSTRIAL FRAME "FLEX PLANT 30" STG6-5000F NATURAL GAS-FIRED TURBINE ENGINE WITH DRY LOW-NOX COMBUSTORS, AN UNFIRED HEAT RECOVERY STEAM GENERATOR SERVED BY A SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION AND AN OXIDIZATION CATALYST AND A STEAM TURBINE GENERATOR

## PERMIT UNIT 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]
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]
3. Particulate matter emissions from the gas turbine system shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. 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
5. Commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when a gas turbine is first fired, whichever occurs first. The commissioning period shall terminate when the plant has completed initial source testing, completed final plant tuning, and is available for commercial operation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The duration of startup or shutdown period shall not exceed 3.0 hours per event for any type of startup event (hot, warm, or cold). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
7. The combined startup and shutdown duration for all events shall not exceed 6.0 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The owner/operator shall maintain records of the date, start-up time, downtime for gas turbine and the steam turbine prior to startup, startup type, minute-by-minute turbine load (MW), and NOx and CO concentrations (ppmvd @ 15% O2) measurement using CEMS, for each startup event in the first 12 months of operation following the end of the commissioning period. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Within 15 months of the end of the commissioning period, the owner/operator shall submit to the District, the CARB and the EPA proposed new time limits for each type of startup that reflect the effect of "Flex Plant 30" fast start-up technology. The proposed time limits shall be based on the required data collected in the first 12 months of operation following the end of the commissioning period. The submittal must include all CEMS data. [District Rule 2201] 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.

10. A margin of compliance of 60 minutes (or less) may be added to the longest startup to establish a startup limit for each type of startup event (hot, warm, or cold). The established startup limit shall not exceed 3.0 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The District shall administratively establish appropriate startup times for each startup mode (hot, warm, or cold), and associated recordkeeping requirements. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During all types of operation, including startup (cold, warm and hot), shutdown, and combustor tuning periods, ammonia injection into the SCR system shall occur once the minimum temperature of 406°F at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material. [District Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. During start-up, and shutdown and combustor tuning periods, the emissions shall not exceed any of the following limits: NOx (as NO2) - 160.00 lb/hr; CO - 1,500.00 lb/hr; VOC (as methane) - 16.00 lb/hr; PM10 - 9.00 lb/hr; SOx (as SO2) - 6.10 lb/hr; or NH3 - 28.76 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. . [District Rule 4703, 3.29] Federally Enforceable Through Title V Permit
16. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status ending when the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26] Federally Enforceable Through Title V Permit
17. Combustor tuning periods are any periods, not to exceed 8 hours in any calendar day or 40 hours in any calendar year, when combustor tuning activities are taking place. Combustor tuning activities are defined as any testing, adjustment, tuning, and calibration activities recommended by the gas turbine manufacturer to ensure safe and reliable steady-state operation of the gas turbine following replacement of the combustor components, during seasonal tuning events, or at other times when recommended by the turbine manufacturer or necessary to maintain low emissions performance. This includes, but is not limited to, adjusting the amount of fuel distributed between the combustion turbine's staged fuel systems to simultaneously minimize NOx and CO production while minimizing combustor dynamics and ensuring combustor stability. [District Rule 2201] 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, shutdown and combustor tuning periods. [District Rules 2201 and 4703, 5.3.2] Federally Enforceable Through Title V Permit
19. Except during startup, shutdown and combustor tuning periods, emissions from the gas turbine system shall not exceed any of the following limits: NOx (as NO2) - 15.54 lb/hr and 2.0 ppmvd @ 15% O2; CO - 9.46 lb/hr and 2.0 ppmvd @ 15% O2; VOC (as methane) - 3.79 lb/hr and 1.4 ppmvd @ 15% O2; PM10 - 9.0 lb/hr; or SOx (as SO2) - 6.10 lb/hr. NOx (as NO2) emission limits are based on 1-hour rolling average period. All other emission limits are based on 3-hour rolling average period. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
20. NH3 emissions shall not exceed any of the following limits: 10.0 ppmvd @ 15% O2 over a 24-hour rolling average period and 28.76 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Each 3-hour rolling average period will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour rolling average for ammonia slip will commence on the hour. The twenty-four hour rolling average shall be calculated using the most recent twenty-four one-hour periods. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emissions from the gas turbine system, on days when startup, shutdown and/or combustor tuning activities occur, shall not exceed the following limits: NOx (as NO2) - 879.7 lb/day; CO - 5,570.3 lb/day; VOC - 164.2 lb/day; PM10 - 216.0 lb/day; SOx (as SO2) - 146.4 lb/day, or NH3 - 690.3 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] 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. Emissions from the gas turbine system, on days when startup, shutdown and/or combustor tuning activities do not occur, shall not exceed the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 373.0 lb/day; CO - 227.0 lb/day; VOC - 91.0 lb/day; PM<sub>10</sub> - 216.0 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 146.4 lb/day, or NH<sub>3</sub> - 690.3 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Gas turbine system shall be fired on PUC-regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dscf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
25. NO<sub>x</sub> (as NO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 38,038 lb; 2nd quarter: 38,411 lb; 3rd quarter: 37,126 lb; 4th quarter: 37,840 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
26. CO emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 142,312 lb; 2nd quarter: 142,539 lb; 3rd quarter: 86,374 lb; 4th quarter: 113,660 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
27. VOC emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 8,086 lb; 2nd quarter: 8,177 lb; 3rd quarter: 8,417 lb; 4th quarter: 8,323 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
28. NH<sub>3</sub> emissions from the SCR system shall not exceed any of the following: 1st quarter: 62,122 lb; 2nd quarter: 62,812 lb; 3rd quarter: 63,502 lb; 4th quarter: 63,502 lb. [District Rule] Federally Enforceable Through Title V Permit
29. PM<sub>10</sub> emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 19,440 lb; 2nd quarter: 19,656 lb; 3rd quarter: 19,872 lb; 4th quarter: 19,872 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
30. SO<sub>x</sub> (as SO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 13,176 lb; 2nd quarter: 13,322 lb; 3rd quarter: 13,469 lb; 4th quarter: 13,469 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The total CO emissions from the gas turbine system (N-2697-5) and the auxiliary boiler (N-2697-7) shall not exceed 198,000 pounds in any 12-consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
32. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine system. [District Rule 2201] Federally Enforceable Through Title V Permit
33. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
34. 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
35. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
36. Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted 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 Rule 1081] 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.

37. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) and PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every 12 months. [District Rules 2201 and 4703, 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit
38. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days after the end of commissioning period and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
39. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or CARB Method 100. 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, 40 CFR 60.4400(1)(i)] Federally Enforceable Through Title V Permit
40. 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. [40 CFR 60.4415(a)(1)(i)] Federally Enforceable Through Title V Permit
41. 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
42. A mass or volumetric fuel flow meter that meets the requirements of 40 CFR Part 75 shall be installed, utilized and maintained to measure the amount of natural gas combusted in the unit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. 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, 2201 and 4703, 40 CFR 60.4340(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
44. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be installed and certified in accordance with the requirements of 40 CFR Part 75. The CO CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 4A (PS 4A), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
45. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
46. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h) and in accordance with 40 CFR 60.4350, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4350] Federally Enforceable Through Title V Permit
47. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CO CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] 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.

48. The owner/operator shall perform a RATA for CO as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee 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. [District Rule 1080] Federally Enforceable Through Title V Permit
49. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. Linearity reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
50. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS 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 CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
52. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
53. 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
54. Monitor Downtime is defined as any unit operating hour in which the data for NO<sub>x</sub>, O<sub>2</sub> concentrations is either missing or invalid. [40 CFR 60.4380(b)(2)] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain records of the following items on the combustor tuning activities: (1) date on which combustor tuning activity occurs, (2) description of each combustor tuning activity, (3) reason why each combustor tuning activity is required, (4) documentation (such as operating manuals, letters, e-mails, etc.) showing that each combustor tuning activity is necessary. [District Rule 2201] Federally Enforceable Through Title V Permit
56. The owner or operator shall maintain records of the following items: (1) hourly and daily emissions, in pounds, for each pollutant listed in this permit on the days startup, shutdown and/or combustor tuning activities of the gas turbine system occur, (2) hourly and daily emissions, in pounds, for each pollutant in this permit on the days startup, shutdown and/or combustor tuning activities of the gas turbine system do not occur, (3) quarterly emissions, in pounds, for each pollutant listed in this permit, and (4) the combined CO emissions (12 consecutive month rolling total), in pounds, for permit unit N-2697-5 and N-2697-7. [District Rule 2201] Federally Enforceable Through Title V Permit
57. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, total hours of operation, the type and quantity of fuel used, mode of start-up (cold, warm, or hot), duration of each start-up, duration of each shutdown, and duration of each combustor tuning event. [District Rule 2201 and 4703, 6.26, 6.28, 6.2.11] Federally Enforceable Through Title V Permit
58. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703, 6.2.4] 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.

59. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Date, 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, 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
60. The owner or 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 when the CEMS is not operating properly. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit
61. The owners and operators of each affected source and each affected unit at the source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
62. 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
63. 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
64. 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
65. 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
66. 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
67. 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
68. 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
69. 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
70. 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
71. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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72. 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 superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
73. 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 75] Federally Enforceable Through Title V Permit
74. 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

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





# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



AUG 08 2013

Kevin Cunningham  
Northern California Power Agency  
P O Box 1478  
Lodi, CA 95241

**Re: Administrative Amendment to Title V Operating Permit  
District Facility # N-2697  
Project # N-1120751**

Dear Mr. Cunningham:

In accordance with District Rule 2520, Federally Mandated Operating Permits, the District reviewed the Northern California Power Agency application and has administratively amended the requirements for the Title V operating permit. This administrative amendment incorporates the requirements of Authorities to Construct (ATCs) N-2697-5-0, '-6-0 and '-7-0, which were issued with Certificate of Conformity after EPA review into the Title V permit for this facility. These ATCs were for the installation of a 294 MW (nominal) combined-cycle electric generation plant consisting of a Siemens industrial frame "Flex Plant 30" STG6-5000F natural gas-fired turbine with dry low-NOx combustor, an unfired heat recovery steam generator served by a selective catalytic reduction system and oxidation catalyst and a steam turbine generator (N-2697-5), a 69,000 gallons per minute cooling tower with seven cells served by high efficiency drift eliminators (N-2697-6), a 36.5 MMBtu/hr natural gas-fired boiler with ultra-low NOx burner part of Siemens "Flex Plant 30" system (N-2697-7), all located at 12745 N Thornton Road, Lodi, California. This amended Title V permit is being sent to you as a final action.

Your cooperation in this matter was appreciated. Should you have any questions, please contact Mr. Ruphi Gill at (209) 557-6400.

Sincerely,

David Warner  
Director of Permit Services  
DW: jk

cc: Gerardo Rios, EPA Region IX

Enclosures

**Sayed Sadredin**  
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  
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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 UNIT:** N-2697-5-0

**EXPIRATION DATE:** 05/31/2014

**EQUIPMENT DESCRIPTION:**

294 MW (NOMINAL) COMBINED-CYCLE ELECTRIC GENERATION PLANT CONSISTING OF A SIEMENS INDUSTRIAL FRAME "FLEX PLANT 30" STG6-5000F NATURAL GAS-FIRED TURBINE ENGINE WITH DRY LOW-NOX COMBUSTORS, AN UNFIRED HEAT RECOVERY STEAM GENERATOR SERVED BY A SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION AND AN OXIDIZATION CATALYST AND A STEAM TURBINE GENERATOR

## PERMIT UNIT 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]
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]
3. Particulate matter emissions from the gas turbine system shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. 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
5. Commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when a gas turbine is first fired, whichever occurs first. The commissioning period shall terminate when the plant has completed initial source testing, completed final plant tuning, and is available for commercial operation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The duration of startup or shutdown period shall not exceed 3.0 hours per event for any type of startup event (hot, warm, or cold). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
7. The combined startup and shutdown duration for all events shall not exceed 6.0 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The owner/operator shall maintain records of the date, start-up time, downtime for gas turbine and the steam turbine prior to startup, startup type, minute-by-minute turbine load (MW), and NOx and CO concentrations (ppmvd @ 15% O2) measurement using CEMS, for each startup event in the first 12 months of operation following the end of the commissioning period. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Within 15 months of the end of the commissioning period, the owner/operator shall submit to the District, the CARB and the EPA proposed new time limits for each type of startup that reflect the effect of "Flex Plant 30" fast start-up technology. The proposed time limits shall be based on the required data collected in the first 12 months of operation following the end of the commissioning period. The submittal must include all CEMS data. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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10. A margin of compliance of 60 minutes (or less) may be added to the longest startup to establish a startup limit for each type of startup event (hot, warm, or cold). The established startup limit shall not exceed 3.0 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The District shall administratively establish appropriate startup times for each startup mode (hot, warm, or cold), and associated recordkeeping requirements. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During all types of operation, including startup (cold, warm and hot) and shutdown periods, ammonia injection into the SCR system shall occur once the minimum temperature of 406°F at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material. [District Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. During start-up and shutdown periods, the emissions shall not exceed any of the following limits: NOx (as NO2) - 160.00 lb/hr; CO - 900.00 lb/hr; VOC (as methane) - 16.00 lb/hr; PM10 - 9.00 lb/hr; SOx (as SO2) - 6.10 lb/hr; or NH3 - 28.76 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703, 3.29] Federally Enforceable Through Title V Permit
16. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status ending when the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26] Federally Enforceable Through Title V Permit
17. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
18. Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed any of the following limits: NOx (as NO2) - 15.54 lb/hr and 2.0 ppmvd @ 15% O2; CO - 9.46 lb/hr and 2.0 ppmvd @ 15% O2; VOC (as methane) - 3.79 lb/hr and 1.4 ppmvd @ 15% O2; PM10 - 9.0 lb/hr; or SOx (as SO2) - 6.10 lb/hr. NOx (as NO2) emission limits are based on 1-hour rolling average period. All other emission limits are based on 3-hour rolling average period. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
19. NH3 emissions shall not exceed any of the following limits: 10.0 ppmvd @ 15% O2 over a 24-hour rolling average period and 28.76 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average period will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour rolling average for ammonia slip will commence on the hour. The twenty-four hour rolling average shall be calculated using the most recent twenty-four one-hour periods. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emissions from the gas turbine system, on days when a startup and/or shutdown occurs, shall not exceed the following limits: NOx (as NO2) - 879.7 lb/day; CO - 5,570.3 lb/day; VOC - 164.2 lb/day; PM10 - 216.0 lb/day; SOx (as SO2) - 146.4 lb/day, or NH3 - 690.3 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emissions from the gas turbine system, on days when a startup and/or shutdown does not occur, shall not exceed the following: NOx (as NO2) - 373.0 lb/day; CO - 227.0 lb/day; VOC - 91.0 lb/day; PM10 - 216.0 lb/day; SOx (as SO2) - 146.4 lb/day, or NH3 - 690.3 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Gas turbine system shall be fired on PUC-regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dscf of natural gas. [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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24. NO<sub>x</sub> (as NO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 38,038 lb; 2nd quarter: 38,411 lb; 3rd quarter: 37,126 lb; 4th quarter: 37,840 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 142,312 lb; 2nd quarter: 142,539 lb; 3rd quarter: 86,374 lb; 4th quarter: 113,660 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
26. VOC emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 8,086 lb; 2nd quarter: 8,177 lb; 3rd quarter: 8,417 lb; 4th quarter: 8,323 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NH<sub>3</sub> emissions from the SCR system shall not exceed any of the following: 1st quarter: 62,122 lb; 2nd quarter: 62,812 lb; 3rd quarter: 63,502 lb; 4th quarter: 63,502 lb. [District Rule] Federally Enforceable Through Title V Permit
28. PM<sub>10</sub> emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 19,440 lb; 2nd quarter: 19,656 lb; 3rd quarter: 19,872 lb; 4th quarter: 19,872 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
29. SO<sub>x</sub> (as SO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 13,176 lb; 2nd quarter: 13,322 lb; 3rd quarter: 13,469 lb; 4th quarter: 13,469 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The total CO emissions from the gas turbine system (N-2697-5) and the auxiliary boiler (N-2697-7) shall not exceed 198,000 pounds in any 12-consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
31. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine system. [District Rule 2201] Federally Enforceable Through Title V Permit
32. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
33. 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
34. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
35. Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted 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 Rule 1081] Federally Enforceable Through Title V Permit
36. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) and PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every 12 months. [District Rules 2201 and 4703, 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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37. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days after the end of commissioning period and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
38. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or CARB Method 100. 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, 40 CFR 60.4400(1)(i)] Federally Enforceable Through Title V Permit
39. 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. [40 CFR 60.4415(a)(1)(i)] Federally Enforceable Through Title V Permit
40. 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
41. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
42. 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, 2201 and 4703, 40 CFR 60.4340(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
43. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be installed and certified in accordance with the requirements of 40 CFR Part 75. The CO CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 4A (PS 4A), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
44. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
45. The CEMS data shall be reduced to hourly averages as specified in <sup>±</sup> 60.13(h) and in accordance with <sup>±</sup> 60.4350, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4350] Federally Enforceable Through Title V Permit
46. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CO CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
47. The owner/operator shall perform a RATA for CO as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee 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. [District Rule 1080] 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.

48. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. Linearity reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
49. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS 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 CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
52. 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
53. Monitor Downtime is defined as any unit operating hour in which the data for NO<sub>x</sub>, O<sub>2</sub> concentrations is either missing or invalid. [40 CFR 60.4380(b)(2)] Federally Enforceable Through Title V Permit
54. The owner or operator shall maintain records of the following items: (1) hourly and daily emissions, in pounds, for each pollutant listed in this permit on the days startup and or shutdown of the gas turbine system occurs, (2) hourly and daily emissions, in pounds, for each pollutant in this permit on the days startup and or shutdown of the gas turbine system does not occur, (3) quarterly emissions, in pounds, for each pollutant listed in this permit, and (4) the combined CO emissions (12 consecutive month rolling total) , in pounds, for permit unit N-2697-5 and N-2697-7. [District Rule 2201] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, total hours of operation, the type and quantity of fuel used, mode of start-up (cold, warm, or hot), duration of each start-up, and duration of each shutdown. [District Rule 2201 and 4703, 6.26, 6.28, 6.2.11] Federally Enforceable Through Title V Permit
56. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
57. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Date, 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, 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

58. The owner or 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 when the CEMS is not operating properly. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit
59. The owners and operators of each affected source and each affected unit at the source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
60. 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
61. 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
62. 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
63. 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
64. 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
65. 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
66. 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
67. 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
68. 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
69. 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
70. 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 superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] 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.

71. 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 75] Federally Enforceable Through Title V Permit
72. 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

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-2697-6-0

**EXPIRATION DATE:** 05/31/2014

**EQUIPMENT DESCRIPTION:**

69,000 GALLONS PER MINUTE COOLING TOWER WITH SEVEN CELLS SERVED BY HIGH EFFICIENCY DRIFT ELIMINATORS

## PERMIT UNIT 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]
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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012] Federally Enforceable Through Title V Permit
5. The drift rate shall not exceed 0.0005%. [District Rule 2201] Federally Enforceable Through Title V Permit
6. PM10 emissions shall not exceed 22.4 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Compliance with the PM10 emission limit (lb/day) shall be demonstrated by using the following equation: Water Recirculation Rate (gal/day) x 8.34 lb/gal x Total Dissolved Solids Concentration in the blowdown water (ppm x 10E-06) x Design Drift Rate (%). [District Rule 2201] Federally Enforceable Through Title V Permit
8. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory within 60 days after the end of commissioning period of the gas turbine system and at least once quarterly thereafter. [District Rules 2201 and 1081] 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-2697-7-0

**EXPIRATION DATE:** 05/31/2014

**EQUIPMENT DESCRIPTION:**

36.5 MMBTU/HR RENTECH BOILER SYSTEMS INC "D" TYPE BOILER EQUIPPED WITH A TODD/COEN RMB ULTRA LOW-NOX BURNER (PART OF SIEMENS' "FLEX-PLANT 30" SYSTEM)

## PERMIT UNIT REQUIREMENTS

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1. 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
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR60.48(c)(g)] Federally Enforceable Through Title V Permit
5. 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. 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. NO<sub>x</sub> (as NO<sub>2</sub>) emissions shall not exceed 7.0 ppmvd @ 3% O<sub>2</sub>. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub>. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. VOC (as CH<sub>4</sub>) emissions shall not exceed 10.0 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
10. PM<sub>10</sub> emissions shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. NO<sub>x</sub> (as NO<sub>2</sub>) emissions from this unit shall not exceed any of the following: 1st quarter: 310 lb; 2nd quarter: 310 lb; 3rd quarter: 310 lb; 4th quarter: 310 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
13. CO emissions from this unit shall not exceed any of the following: 1st quarter: 1,348 lb; 2nd quarter: 1,348 lb; 3rd quarter: 1,348 lb; 4th quarter: 1,348 lb. [District Rule 2201] 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.

14. VOC emissions from this unit shall not exceed any of the following: 1st quarter: 154 lb; 2nd quarter: 154 lb; 3rd quarter: 154 lb; 4th quarter: 154 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
15. PM10 emissions from this unit shall not exceed any of the following: 1st quarter: 277 lb; 2nd quarter: 277 lb; 3rd quarter: 277 lb; 4th quarter: 277 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
16. SOx (as SO2) emissions from this unit shall not exceed any of the following: 1st quarter: 104 lb; 2nd quarter: 104 lb; 3rd quarter: 104 lb; 4th quarter: 104 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The total CO emissions from the gas turbine system (N-2697-5) and the auxiliary boiler (N-2697-7) shall not exceed 198,000 pounds in any 12-consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
18. 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
19. 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. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. 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
22. NOx emissions for source test purposes shall be determined using EPA Method 7E or CARB 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
23. CO emissions for source test purposes shall be determined using EPA Method 10 or CARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or CARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute 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
26. 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
27. The owner or operator shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel's sulfur content. [District Rule 4320] Federally Enforceable Through Title V Permit
28. Fuel sulfur content shall be determined using EPA Method 11 or EPA Method 15 or District, CARB and EPA approved alternative methods. [District Rule 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.



29. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications given in District Policy SSP-1105. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. The permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rule 2201, 40 CFR 60.48(c)(g)] Federally Enforceable Through Title V Permit
34. The permittee shall maintain records of: (1) the date, (2) heat input rate, MMBtu/day, (3) daily emissions, in pounds, for each pollutant listed in this permit, (4) quarterly emissions, in pounds, for each pollutant listed in this permit, and the combined CO emissions (12 consecutive month rolling total), in pounds, for permit unit N-2697-5 and N-2697-7. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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.

# Lodi Energy Center Annual Compliance Report #1

## APPENDIX F: NOV's AND LEC RESPONSES



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



April 16, 2013

Mr. Vinnie Venethongkham  
Northern California Power  
651 Commerce Drive  
Roseville, CA 95678

**RE: NOTICE OF VIOLATION & PROPOSED SETTLEMENT**  
**CASE NUMBER: N13-0204**  
**NOV NUMBER: 5010298**  
**PTO NUMBER: N-2697**  
**LOCATION: 12745 N Thornton Rd, Lodi, CA**

Dear Mr. Venethongkham:

On April 09, 2013, the District received check number 180894 in the amount of \$960.00. The District considers Case number N13-0204 settled and closed.

Thank you for your cooperation in settling this matter.

Sincerely,

Chris Kalashian  
Air Quality Specialist II  
Mutual Settlement Group

CK/ls

*Para asistencia en Español, por favor llame a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E. Gettysburg Ave - Fresno, CA 93726-0244



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



March 25, 2013

Mr. Vinnie Venethongkham  
Northern California Power  
651 Commerce Drive  
Roseville, CA 95678

**RE: NOTICE OF VIOLATION & PROPOSED SETTLEMENT**

**CASE NUMBER: N13-0204**  
**NOV NUMBER: 5010298**  
**PERMIT NUMBER: N-2697-7-0**

Dear Mr. Venethongkham:

On February 6, 2013, staff from the San Joaquin Valley Air Pollution Control District (District) conducted a review of Breakdown Report (report) number N-1404-9-1, submitted by Northern California Power, located at 12745 N. Thornton Road, Lodi, California. A review of the report revealed that CO emissions exceeded the allowed hourly limit of 900 pounds per hour.

In light of the above, it has been determined that you are in violation of District Rule 2010 - Permits Required, 2070 - Standards for Granting Applications, 2520 - Federally Mandated Operating Permits, 4703 - Stationary Gas Turbines.

California Health & Safety Code Section 42402 (b) specifies that the penalty for such violations can include civil penalties of up to \$10,000.00 for each day of each violation. The monetary amount of the District's offer specified below takes into account the magnitude and severity of the violation, as well as the prior history of violations of a similar nature at the facility. All parties we deal with, whether private, commercial, or governmental, are treated similarly in the settlement process, with any settlements offered being based upon an evaluation of the same factors and criteria in all cases.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244

If you are interested in settling this matter, I am authorized to settle this matter in accordance with the District's settlement policy as follows:

1. Payment of a civil penalty in the sum of \$960.00. In accordance with Health and Safety Code section 42400.7, recovery of a civil penalty precludes further civil or criminal prosecution for this violation.
2. Proof of present compliance must be submitted in writing if not already provided.
3. In the event any further violations occur, the District may offer evidence to prove the facts of the current violation in connection with any petition for a variance, permit revocation, abatement order before the District Hearing Board, or other legal proceeding. Similarly, you may raise any defenses or contrary proof you may have concerning the facts of present violations.
4. Entering into this settlement shall not constitute an admission of violating District Rules nor shall it be inferred to be such an admission in any administrative or judicial proceeding.

This letter constitutes an offer of settlement and is not a demand for payment. If you wish to meet with District personnel to discuss this settlement, please contact Chris Kalashian at (559) 230-5999, who will be glad to discuss any information which you consider to be related to the settlement of this violation.

If the above terms are acceptable to you, sign and return the last page of this letter together with a check in the sum of \$960.00 to:

San Joaquin Valley Unified  
Air Pollution Control District  
Attn: Finance  
1990 E Gettysburg Ave  
Fresno, CA 93726-0244

Please write the Case Number N13-0204 on your check. Please use the yellow envelope provided.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244

You may write or call Chris Kalashian at (559) 230-5999 to request an office conference if you wish to discuss the matter with representatives of the District's Compliance Staff. If we do not hear from you within 14 days, we will assume that you are not interested in resolving this matter as outlined above and will refer the violation to our Legal Counsel for further action.

Sincerely,



Ryan Hayashi  
Supervising Air Quality Specialist

IF YOU HAVE ANY LEGAL QUESTIONS REGARDING SETTLEMENT, PENALTIES,  
OR PROCEDURES, YOU SHOULD SEEK THE ADVICE OF YOUR ATTORNEY.

---

I have read the above settlement offer and agree to the terms and conditions of this offer.

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



February 6, 2013

Northern California Power  
Vinnie Venethongkham  
651 Commerce Dr  
Roseville, CA 95678

**RE: NOTICE OF VIOLATION: 5010298**  
**LOCATION: 12745 N Thornton Rd, Lodi, CA 95241**

Dear Vinnie Venethongkham:

On February 6, 2013 staff from the San Joaquin Valley Air Pollution Control District reviewed Breakdown N-1301-9-1 follow up report and discovered that on January 13th, 2013 facility exceeded allowed CO hourly limits.

Enclosed is a copy of Notice of Violation #5010298 issued to you for failing to comply with the following:

District Rules 2010 - Permits Required, 2070 - Standards for Granting Applications, 2520 - Federally Mandated Operating Permits, 4703 - Stationary Gas Turbines

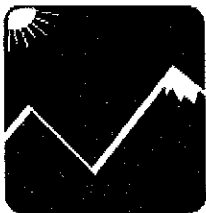
If you have any questions or require additional information, contact Rhonda Mansur of the Northern region Compliance Enforcement Department at (209) 557-6425.

Sincerely,

Ron Giannone  
Supervising Air Quality Inspector

Enclosed: Notice of Violation #5010298  
Certified Mail #7010 1670 0002 0400 4183

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*



# SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

☒ Northern Region Office  
4800 Enterprise Way  
Modesto, CA 95356-8718  
(209) 557-6400

☐ Central Region Office  
1990 E Gettysburg Ave  
Fresno, CA 93726-0244  
(559) 230-5950

☐ Southern Region Office  
34946 Flyover Court  
Bakersfield, CA 93308  
(661) 392-5500

## NOTICE OF VIOLATION

NO. 5010298

### ISSUED TO:

**NAME:** Northern California Power  
**ADDRESS:** 651 Commerce Dr  
**CITY:** Roseville  
**PHONE:** 209-333-6370 ex 109

**STATE:** CA

**PERMIT/FACILITY:** N-2697  
**PERMITS:** 7-0  
**ZIP:** 95678

### OCCURRENCE LOCATION:

**NAME:**

**ADDRESS:** 12745 N Thornton Rd

☐ Same as Above

**CITY:** Lodi

**STATE:** CA

**ZIP:** 95241

**DATE:** January 13, 2013

**TIME:** 4:00 pm

### THIS NOTICE HAS BEEN ISSUED AS A RESULT OF A VIOLATION OF:

☒ San Joaquin Valley Unified Air Pollution Control District Rules and Regulation ☐ California Health and Safety Code

**Rule(s)/Section(s):** 2010 - Permits Required, 2070 - Standards for Granting Applications, 2520 - Federally Mandated Operating Permits, 4703 - Stationary Gas Turbines

**Equipment Type (If Applicable):** Siemens STG6-5000D natural gas fired "Flex Plant 30 " combustion turbine generator

**Description:** Violation of ATC N-2697-5-0 condition # 25, CO emissions exceeded allowed hourly limits of 900lbs/hr.

**RECIPIENT NAME:** Vinnie Venethongkham **TITLE:** Environmental Manager

**SIGNING THIS NOTICE IS**

**NOT AN ADMISSION OF GUILT** ☒

**SIGNATURE**

RETURN A COPY OF THIS NOTICE WITH A WRITTEN DESCRIPTION OF THE IMMEDIATE CORRECTIVE ACTION YOU HAVE TAKEN TO PREVENT A CONTINUED OR RECURRENT VIOLATION.

**THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY.  
YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

ISSUED BY: Rhonda Mansur

DATE: Wed February 06, 2013

TIME: 8:13 am

☐ MAILED

Continued



# INSTRUCTIONS

**THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY, AND YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

**A VARIANCE SHOULD BE SOUGHT IF IT IS NECESSARY TO CONTINUE TO OPERATE IN VIOLATION OF DISTRICT REGULATIONS. A VARIANCE CANNOT BE GRANTED FOR OPERATING WITHOUT A PERMIT OR FOR ACTIVITIES WHICH CREATE A NUISANCE.**

**FOR FURTHER INFORMATION ON ELIGIBILITY FOR, OR THE FILING OF A VARIANCE PETITION, CALL THE COMPLIANCE DIVISION AT THE INDICATED REGIONAL OFFICE.**

## OPERATION WITHOUT A PERMIT

A permit application must be submitted immediately to the District's Permit Services Division. The permit application must reference the Notice of Violation number: 5010298.

If there are any questions regarding the submission of a permit application, contact the Permit Services Division at the indicated Regional office.

## ALL OTHER VIOLATIONS

Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation.

If you have any questions or require additional information, contact the Compliance Division at the indicated Regional Office for assistance.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*



January 23, 2013

P.O. Box 1478  
12745 N. Thornton Road  
Lodi, CA 95241  
(209) 333-6370  
[www.ncpa.com](http://www.ncpa.com)

Rhonda Mansur  
Air Quality Inspector II  
Northern Region Compliance Office  
San Joaquin Valley Unified Air Pollution Control District  
4800 Enterprise Way  
Modesto, CA 95356

Re: Northern California Power Agency, Lodi Energy Center  
Permit No. N-2697-5-0  
Deviation Report for January 13, 2012

Dear Ms. Mansur:

On January 13, 2013, the Lodi Energy Center (LEC) informed the District by telephone of a CO lb/hr startup exceedance. The gas turbine system startup commenced at 16:55 through 17:35, and total CO emissions during the 1700 hour were 949 pounds, in excess of the 900 pound per hour limit in Condition #25.

The Siemens gas turbine fast start technology is normally able to attain CO compliance at 70% load within 24 minutes of startup, but a delay in achieving the 70% load point can result in elevated CO emissions. Additionally, we have found that CO emissions during some startups (including colder temperature conditions) are higher than anticipated and that we need to take extraordinary measures, including aborting gas turbine startups, to comply with the hourly limit. During the January 13, 2013 exceedance, corrective action was not possible as gas turbine was at the end of its startup sequence. Aborting the startup sequence of the gas turbine and restarting the unit would produce more CO lb/hr.

On January 15, 2013 NCPA file a petition with the District for an Interim and Regular Variance relief. NCPA is seeking relief from the hourly CO emission limit during the startup and shutdown periods.

We are working with the manufacturer to determine whether additional turning can be performed to reduce CO emissions at low loads.

A deviation/breakdown form is attached. If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read "V. Venethongkham".

Vinnie Venethongkham  
LEC Compliance Manager

Attachments

cc: Jeffrey Adkins, Sierra Research  
Andrea Grenier, Grenier and Associates

**San Joaquin Valley  
Unified Air Pollution Control District**

**TITLE V - DEVIATION REPORTING FORM / BREAKDOWN REPORT**

Company Name: Northern California Power Agency Facility ID 2697

Reporting Period: January 13, 2013 -through- January 13, 2013

**CERTIFICATION:**

I declare, under penalty of perjury under the laws of the state of California, that, based on information and belief formed after reasonable inquiry, all information provided in this reporting package is true, accurate, and addresses all deviations during the reporting period:



Signature of Responsible Official

January 23, 2013

Date

Vinnie Venethongkham

Name of Responsible Official (please print)

(209) 210-5009

Telephone

LEC Compliance Manager

Title of Responsible Official (please print)

**Use this two-sided form to report deviations from permit requirements for which breakdown relief was also requested. Return completed form to the Compliance Division at your Regional District office within 10 days after the deviation condition was discovered.**

**DEVIATION / BREAKDOWN INFORMATION**

1.	Permit unit and condition #:	Permit No. N-2697-5-0, Condition 25
2.	Equipment involved:	STG6-5000F gas turbine with unfired HRSG and steam turbine
3.	Location of property:	12745 North Thornton Road, Lodi
4.	Description of permit condition:	Limits hourly CO emissions during startup and shutdown periods
5.	Date, time and duration of deviation:	01/13/13: Hour 17:00 (1 hour)

6. Description of deviation: (include excess and visible emissions if applicable)

Condition 25 limits CO emissions to 900 lb/hr during startup and shutdown periods. During Hour 17:00, the CO emissions from the gas turbine exceeded the limit.

7. Date and time when deviation was discovered:

Deviation was discovered on 1/13/13 at 17:40 hours by an alarm from the CEMS data acquisition computer. At the end of hour 1700 CO emissions data for the startup event were reviewed and confirmed.

8. Time corrective action commenced and time corrective action successful:

Corrective action was not possible as gas turbine was at the end of its startup sequence. Aborting the startup sequence of the gas turbine and restarting the unit would produce more CO lb/hr.

9. Probable cause of deviation:

Deviation was probably caused by colder ambient conditions that required more time to heat up the oxidation catalyst, which is not fully effective under colder startup conditions and requires more heating time.

10. Measures taken to correct this occurrence and prevent its recurrence:

On January 15, 2013 NCPA file a petition with the District for an Interim and Regular Variance relief. NCPA is seeking relief from the hourly CO emission limit during the startup and shutdown periods. NCPA has found that CO emissions during some startups (including colder temperature conditions) are higher than anticipated and that we need to take extraordinary measures, including aborting gas turbine startups, to comply with the hourly limit. We are working with the manufacturer to determine whether additional turning can be performed to reduce CO emissions at low loads.

Attach photographs of defective equipment.

Provide any additional information necessary to establish that this occurrence was the result of an unavoidable failure or malfunction – Rule 1100 assigns the burden of proof to the source operator seeking exemption from legal action. An exception cannot be granted for an occurrence that was the result of negligence.

Please see the accompanying letter.

Initial Notification:      Reported by: Matt Cottrell      Date: 1/13/2013

Reported to: Air District (209) 557-6400      Time: 17:40





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



July 23, 2013

Vinnie Venethongkham  
Northern California Power  
P O Box 1478  
Lodi, CA 95241

**RE: NOTICE OF VIOLATION & PROPOSED SETTLEMENT**  
**CASE NUMBER: N13-0311**  
**NOV NUMBER: 5010433**  
**PTO NUMBER: N-2697**  
**LOCATION: 12745 N Thornton Rd, Lodi, CA**

Dear Vinnie Venethongkham:

On July 08, 2013, the District received check number 182298 in the amount of \$1,200.00. The District considers Case number N13-0311 settled and closed.

Thank you for your cooperation in settling this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "JV", representing Jeff Voorhees.

Jeff Voorhees  
Air Quality Specialist II  
Mutual Settlement Group

JV/eg

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



June 18, 2013

Mr. Vinnie Venethongkham  
Northern California Power  
P O Box 1478  
Lodi, CA 95241

**RE: NOTICE OF VIOLATION & PROPOSED SETTLEMENT**

**CASE NUMBER: N13-0311**  
**NOV NUMBER: 5010433**  
**PERMIT NUMBER: N-2697-5-0**

Dear Mr. Venethongkham:

On October 26, 2012 staff from the San Joaquin Valley Air Pollution Control District (District) reviewed a breakdown request submitted by Northern California Power, located at 12745 N Thornton Rd, Lodi, CA. The review revealed the facility exceeded the daily PM10 emissions limit of 108 pounds on October 24 and 25, 2012.

In light of the above, it has been determined that you are in violation of District Rule 2010 - Permits Required, 2201 - New and Modified Stationary Source Review Rule, 2520 - Federally Mandated Operating Permits, 4001 - New Source Performance Standards, 4703 - Stationary Gas Turbines.

California Health & Safety Code Section 42402.1 specifies that the penalty for such violations can include civil penalties of up to \$25,000.00 for each day of each violation. The monetary amount of the District's offer specified below takes into account the magnitude and severity of the violation, as well as the prior history of violations of a similar nature at the facility. All parties we deal with, whether private, commercial, or governmental, are treated similarly in the settlement process, with any settlements offered being based upon an evaluation of the same factors and criteria in all cases.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244

If you are interested in settling this matter, I am authorized to settle this matter in accordance with the District's settlement policy as follows:

1. Payment of a civil penalty in the sum of \$1,200.00. In accordance with Health and Safety Code section 42400.7, recovery of a civil penalty precludes further civil or criminal prosecution for this violation.
2. Proof of present compliance must be submitted in writing if not already provided.
3. In the event any further violations occur, the District may offer evidence to prove the facts of the current violation in connection with any petition for a variance, permit revocation, abatement order before the District Hearing Board, or other legal proceeding. Similarly, you may raise any defenses or contrary proof you may have concerning the facts of present violations.
4. Entering into this settlement shall not constitute an admission of violating District Rules nor shall it be inferred to be such an admission in any administrative or judicial proceeding.

This letter constitutes an offer of settlement and is not a demand for payment. If you wish to meet with District personnel to discuss this settlement, please contact Jeff Voorhees at (559) 230-5999, who will be glad to discuss any information which you consider to be related to the settlement of this violation.

If the above terms are acceptable to you, sign and return the last page of this letter together with a check in the sum of \$1,200.00 to:

San Joaquin Valley Unified  
Air Pollution Control District  
Attn: Finance  
1990 E Gettysburg Ave  
Fresno, CA 93726-0244

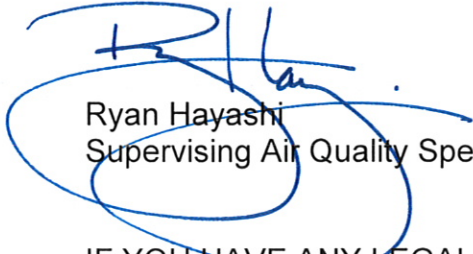
Please write the Case Number N13-0311 on your check. Please use the yellow envelope provided.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244

You may write or call Jeff Voorhees at (559) 230-5999 to request an office conference if you wish to discuss the matter with representatives of the District's Compliance Staff. If we do not hear from you within 14 days, we will assume that you are not interested in resolving this matter as outlined above and will refer the violation to our Legal Counsel for further action.

Sincerely,



Ryan Hayashi  
Supervising Air Quality Specialist

IF YOU HAVE ANY LEGAL QUESTIONS REGARDING SETTLEMENT, PENALTIES, OR PROCEDURES, YOU SHOULD SEEK THE ADVICE OF YOUR ATTORNEY.

---

I have read the above settlement offer and agree to the terms and conditions of this offer.

Signature: 

Title: COMPLIANCE MANAGER

Date: 7/1/13

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*



March 20, 2013

Mr. Ron Giannone  
Supervising Air Quality Inspector  
San Joaquin Valley Unified Air Pollution Control District  
4800 Enterprise Way  
Modesto, CA 95356-8718

P.O. Box 1478  
12745 N. Thornton Road  
Lodi, CA 95241  
(209) 333-6370  
[www.ncpa.com](http://www.ncpa.com)

Re: Notice of Violation 5010433  
Northern California Power Agency, Lodi Energy Center  
12745 N. Thornton Road, Lodi, CA 95241

Dear Mr. Giannone:

This letter is in response to the District's Notice of Violation #5010433 ("NOV"), dated March 11, 2013, alleging a violation of Permit Condition N-2697-5-0, Condition #12, on October 24 and 25, 2012. We respectfully disagree that any violation of Condition #12 actually occurred. The background of the alleged event and the basis for our conclusion are discussed in more detail below.

On October 26, 2012, a review of the daily emissions reports for October 24 and 25, 2012, indicated that an exceedance of the daily PM<sub>10</sub> limit might have occurred. These daily reports were based on comparing the daily PM<sub>10</sub> emissions, calculated using a default emission factor, with the limits in Condition 12 of the permit. These exceedances were reported to the District by phone on October 26, as soon as they were discovered.

On November 2, 2012, we followed up in writing with a Title V Deviation Reporting Form/Breakdown Report that indicated that no deviation had, in fact, occurred. Our letter dated November 28, 2012 (attached), explained in detail that no deviation had occurred for two reasons:

- Condition #12 was not applicable during the alleged exceedances, because "commissioning activities" were no longer taking place; and
- **Actual** daily PM<sub>10</sub> emissions were well below the 108 lb/day limit of Condition #12.

On December 31, 2012, we submitted the initial compliance test report for the Lodi Energy Center combustion turbine. The results of the compliance test (summary attached) demonstrated that the actual PM<sub>10</sub> emission rate from the combustion turbine was 0.001 lb/MMBtu, well below the default emission factor of 0.0042 lb/MMBtu used in the earlier emissions calculation.

Table 1 summarizes actual PM<sub>10</sub> emissions based on the measured fuel consumption each day, a higher heating value (HHV) of 1020 Btu/scf, and the actual PM<sub>10</sub> emission factor of 0.001 lb/MMBtu. Actual PM<sub>10</sub> emissions on both days were well below the 108 lb/day limit of Condition 12. Therefore, even if the District concludes that the emission limits of



Condition 12 were applicable at the time of the alleged violation, the daily PM<sub>10</sub> emissions from the gas turbine did not exceed the limit.

<b>Table 1</b> <b>Calculated Daily PM<sub>10</sub> Emissions</b>		
Date	Fuel Consumption (mmscfd)	PM <sub>10</sub> Emissions (lb/day)
October 24, 2012	29.1	29.7
October 25, 2012	28.8	29.4

Nonetheless, any potential compliance issues related to Condition #12 ended no later than November 7, 2012, when initial source testing was completed and the "commissioning period" emission limits in Condition #12 were no longer applicable. Additionally, we note that the original permit application evaluated the air quality impact of daily PM<sub>10</sub> emissions of up to 216 lb/day (two times higher than the Condition #12 limit) and determined that at that level of daily emissions, the project would not cause or significantly contribute to a violation of a State or National ambient air quality standard.<sup>1</sup> Further, we note that all emissions during the commissioning period accrued toward the quarterly emission limits, and since no quarterly emission limit was exceeded, emissions offsets have already been provided for any daily PM<sub>10</sub> emissions considered by the District to be "excess."

Finally, we note that even if the District insists that there was a violation of Condition #12 on October 24 and 25, 2012, there were still no violations of the requirements of Rule 4001 (New Source Performance Standards) or Rule 4703 (Stationary Gas Turbines), as alleged in the NOV. These rules do not contain particulate matter emission limits for gas-fired turbines. NOV #5010433 should be revised to eliminate references to these rules.

We appreciate your consideration of this information, and we are available to meet with you to discuss this issue further at your convenience.

Sincerely,



Vinnie Venethongkham  
NCPA Compliance Manager

Attachments

cc: Jeff Adkins, Sierra Research  
Andrea Grenier

<sup>1</sup> See "Final Determination of Compliance Evaluation, Northern California Power Agency (Lodi Energy Center)," p. 3 of Attachment F, dated January 22, 2010.

**TABLE 2.1**  
**SUMMARY OF SIEMENS, STG6-5000F, UNIT #CT1 RESULTS**

Parameter	Base Load, Run - 1-1	Base Load, Run - 1-2	Base Load, Run - 1-3	Average	Permit Limits	Startup Load, Run - 2-1
Start Time (hh:mm:ss)	11:05:18	12:17:18	13:27:18	11:05:18	--	7:06:04
End Time (hh:mm:ss)	12:04:48	13:16:48	14:26:48	14:26:48	--	8:08:34
Run Duration (min / run)	60	60	60	60	--	63
Bar. Pressure (in. Hg)	30.16	30.10	30.07	30.11	--	30.16
Amb. Temp. (°F)	72	73	73	73	--	56
Rel. Humidity (%)	52	49	47	49	--	73
Spec. Humidity (lb water / lb air)	0.008607	0.008403	0.008064	0.008358	--	0.006964
Load Designator	Base	Base	Base	Base	--	Startup
Comb. Inlet Pres. (psig)	246.4	244.4	242.7	244.5	--	182.0
NH <sub>3</sub> Inj. Rate (lb/hr)	41.3	41.3	40.6	41.1	--	31.0
Turbine Fuel Flow (SCFH)	1,891,820	1,874,850	1,859,850	1,875,507	--	1,276,787
Stack Flow (RM19) (SCFH)	48,002,635	47,567,432	47,178,798	47,582,955	--	44,326,405
Stack Moisture (% Method 4 or 320)	8.9	8.9	8.9	8.9	--	5.4
Power Output (megawatts)	190.0	188.0	186.0	188.0	--	106.3
NO <sub>x</sub> (ppmvd)	1.77	1.79	1.76	1.78	--	6.07
NO <sub>x</sub> (ppm@15%O <sub>2</sub> )	1.46	1.48	1.45	1.46	2.0	6.85
NO <sub>x</sub> (lb/hr)	10.17	10.17	9.94	10.09	--	28.58
NO <sub>x</sub> (lb/MMBtu)	0.005	0.005	0.005	0.005	--	0.033
CO (ppmvd)	0.00	0.00	0.00	0.00	--	288.48
CO (ppm@15%O <sub>2</sub> )	0.00	0.00	0.00	0.00	2.0	325.42
CO (lb/hr)	0.00	0.00	0.00	0.00	--	832.69
CO (lb/MMBtu)	0.000	0.000	0.000	0.000	--	1.219
VOC (as CH <sub>4</sub> ) (ppmvd)	0.79	0.68	0.69	0.72	--	0.00
VOC (as CH <sub>4</sub> ) (ppm@15%O <sub>2</sub> )	0.65	0.56	0.57	0.59	1.4	0.00
VOC (as CH <sub>4</sub> ) (lb/hr)	1.57	1.35	1.35	1.42	--	0.00
VOC (as CH <sub>4</sub> ) (lb/MMBtu)	0.0008	0.0007	0.0007	0.0008	--	0.000
SO <sub>2</sub> (ppmvd)	0.06	0.06	0.06	0.06	--	0.04
SO <sub>2</sub> (ppm@15%O <sub>2</sub> )	0.05	0.05	0.05	0.05	--	0.05
SO <sub>2</sub> (lb/hr)	0.48	0.47	0.47	0.47	--	0.32
SO <sub>2</sub> (lb/MMBtu)	0.000	0.000	0.000	0.000	--	0.000
Total PM <sub>10</sub> (mg)	1.92	2.05	2.13	2.03	--	--
Total PM <sub>10</sub> (g/dscf)	2.18E-05	2.35E-05	2.41E-05	2.32E-05	--	--
Total PM <sub>10</sub> (gr/dscf)	3.37E-04	3.62E-04	3.72E-04	3.57E-04	--	--
Total PM <sub>10</sub> (kg/hr)	1.17	1.27	1.28	1.24	--	--
Total PM <sub>10</sub> (lb/hr)	2.58	2.79	2.82	2.73	9.0	--
Total PM <sub>10</sub> (lb/MMBtu)	0.001	0.001	0.001	0.001	--	--
Sulfur (wt %)	0.0003	0.0003	0.0003	0.0003	--	0.0003
NH <sub>3</sub> (ppmvd)	0.70	1.39	0.77	0.95	--	--
NH <sub>3</sub> (ppm@15%O <sub>2</sub> )	0.58	1.15	0.64	0.79	10.0	--
NH <sub>3</sub> (lb/hr)	1.63	3.28	1.83	2.25	--	--
NH <sub>3</sub> (lb/MMBtu)	0.00078	0.00156	0.00086	0.00107	--	--
CO <sub>2</sub> (%)	3.87	3.91	3.91	3.89	--	--
O <sub>2</sub> (%)	13.74	13.74	13.74	13.74	--	15.67

The results of all measured pollutant emissions were below the required limits. All testing was performed without any real or apparent errors. All testing was conducted according to the approved testing protocol. The shutdown RAA was not performed as required by permit condition 46. On November 7, 2012, Scott Van Dyken of SJVAPCD acknowledged that since the CEMS data is certifiable at startup, no shutdown RAA testing was required during this test period. An electronic data logger was used during the test period to monitor emissions and the data charts were produced in place of a strip chart recorder (refer to Appendix I).



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



March 11, 2013

Northern California Power  
Vinnie Venethongkham  
P O Box 1478  
Lodi, CA 95241

**RE: NOTICE OF VIOLATION: 5010433**  
**LOCATION: 12745 N Thornton Rd, Lodi, CA 95241**

Dear Vinnie Venethongkham:

On February 28th, 2012 staff from the San Joaquin Valley Air Pollution Control District conducted a review of the emission exceedance report for Northern California Powers Agency (NCPA) for the dates of October 24th and 25th 2012. NCPA was in violation of Permit Conditions N-2697-5-0 condition # 12.

Enclosed is a copy of Notice of Violation #5010433 issued to you for failing to comply with the following:

District Rules 2201 - New and Modified Stationary Source Review Rule, 2520 - Federally Mandated Operating Permits, 4001 - New Source Performance Standards, 4703 - Stationary Gas Turbines

If you have any questions or require additional information, contact Rhonda Mansur of the Northern region Compliance Enforcement Department at (209) 557-6425.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Giannone".

Ron Giannone  
Supervising Air Quality Inspector

Enclosed: Notice of Violation #5010433  
Certified Mail #7010 1670 0002 0400 3889



# SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

☒ Northern Region Office  
4800 Enterprise Way  
Modesto, CA 95356-8718  
(209) 557-6400

☐ Central Region Office  
1990 E Gettysburg Ave  
Fresno, CA 93726-0244  
(559) 230-5950

☐ Southern Region Office  
34946 Flyover Court  
Bakersfield, CA 93308  
(661) 392-5500

## NOTICE OF VIOLATION

NO. 5010433

### ISSUED TO:

**NAME:** Northern California Power  
**ADDRESS:** P O Box 1478  
**CITY:** Lodi  
**PHONE:** 209-333-6370 ex 109

**STATE:** CA

**PERMIT/FACILITY:** N-2697  
**PERMITS:** 5-0  
**ZIP:** 95241

### OCCURRENCE LOCATION:

**NAME:** Northern California Power  
**ADDRESS:** 12745 N Thornton Rd  
**CITY:** Lodi  
**DATE:** October 24, 2012

**STATE:** CA

**ZIP:** 95241

**TIME:** 11:45 am

☐ Same as Above

### THIS NOTICE HAS BEEN ISSUED AS A RESULT OF A VIOLATION OF:

☒ San Joaquin Valley Unified Air Pollution Control District Rules and Regulation ☐ California Health and Safety Code

**Rule(s)/Section(s):** 2070 - Standards for Granting Applications, 2201 - New and Modified Stationary Source Review Rule, 2520 - Federally Mandated Operating Permits, 4001 - New Source Performance Standards, 4703 - Stationary Gas Turbines

**Equipment Type (If Applicable):** Siemens Industrial Flame "Flex Plant" 30" STG6-5000F Natural Gas Fired Turbine

**Description:** On October 24th and 25th Northern California Power exceeded there daily PM-10 emission limits. ATC N-2697-5-0 condition # 12.

**RECIPIENT NAME:** Vinnie Venethongkham

**TITLE:** Environmental Manager

SIGNING THIS NOTICE IS

NOT AN ADMISSION OF GUILT x

3/20/13

SIGNATURE

RETURN A COPY OF THIS NOTICE WITH A WRITTEN DESCRIPTION OF THE IMMEDIATE CORRECTIVE ACTION YOU HAVE TAKEN TO PREVENT A CONTINUED OR RECURRENT VIOLATION.

**THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY.  
YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

ISSUED BY: Rhonda Mansur

DATE: Mon March 11, 2013

TIME: 10:25 am

☐ MAILED

Continued

# **INSTRUCTIONS**

**THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY, AND YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

**A VARIANCE SHOULD BE SOUGHT IF IT IS NECESSARY TO CONTINUE TO OPERATE IN VIOLATION OF DISTRICT REGULATIONS. A VARIANCE CANNOT BE GRANTED FOR OPERATING WITHOUT A PERMIT OR FOR ACTIVITIES WHICH CREATE A NUISANCE.**

**FOR FURTHER INFORMATION ON ELIGIBILITY FOR, OR THE FILING OF A VARIANCE PETITION, CALL THE COMPLIANCE DIVISION AT THE INDICATED REGIONAL OFFICE.**

## **OPERATION WITHOUT A PERMIT**

A permit application must be submitted immediately to the District's Permit Services Division. The permit application must reference the Notice of Violation number: 5010433.

If there are any questions regarding the submission of a permit application, contact the Permit Services Division at the indicated Regional office.

## **ALL OTHER VIOLATIONS**

Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation.

If you have any questions or require additional information, contact the Compliance Division at the indicated Regional Office for assistance.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

November 28, 2012

Rhonda Mansur  
Air Quality Inspector II  
Northern Region Compliance Office  
San Joaquin Valley Unified Air Pollution Control District  
4800 Enterprise Way  
Modesto, CA 95356

P.O. Box 1478  
12745 N. Thornton Road  
Lodi, CA 95241  
(209) 333-6370  
www.ncpa.com

Re: Northern California Power Agency, Lodi Energy Center  
Permit No. N-2697-5-0  
Rescind Deviation Report for October 24-25, 2012 Incident

Dear Ms. Mansur:

Pursuant to your telephone conversation on November 15<sup>th</sup> with Sierra Research, we have prepared this response to your e-mail request to Jeremy Lawson of the Northern California Power Agency (NCPA), pertaining to alleged excess emission incidents at NCPA's Lodi Energy Center (LEC) on October 24 and 25, 2012. In this response we emphasize our previous conclusion that no deviation occurred and provide additional information to support that conclusion. Also, based on this additional information, we wish to rescind the Excess Emissions Notification of October 26 and the ensuing Deviation Report dated October 30.

### Background

Condition #12 of Permit N-2697-5-0 specifies the following commissioning requirements:

*During the commissioning period, the emission rates from the gas turbine system shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 400.00 lb/hr and 4,000 lb/day; VOC (as CH<sub>4</sub>) - 16.00 lb/hr and 192.0 lb/day; CO - 2,000 lb/hr and 20,000 lb/day; **PM<sub>10</sub> - 9.00 lb/hr and 108.0 lb/day**; or SO<sub>x</sub> (as SO<sub>2</sub>) - 6.10 lb/hr and 73.1 lb/day. [Emphasis added.]*

Although the *hourly* commissioning PM<sub>10</sub> emission limit is identical to the routine *hourly* PM<sub>10</sub> emission limit (as well as the startup/shutdown, or SU/SD, PM<sub>10</sub> emission limit, see Conditions #25 and #29), the *daily* commissioning PM<sub>10</sub> emission limit essentially reflects full load operation for only 12 hours, or a 50% daily capacity factor (i.e., 25,704 MMBtu/day). In contrast, the *daily* routine PM<sub>10</sub> emission limit reflects full load operation for 24 hours (i.e., 216 lb/day PM<sub>10</sub>; see Conditions #32 and #33). On October 26, NCPA informed you via telephone that an apparent exceedance of the daily commissioning PM<sub>10</sub> emission limit had occurred on October 24 and 25. The alleged



PM<sub>10</sub> excess emissions occurred merely because NCPA had operated the gas turbine for 24 hours on those days, at slightly more than 50% load, in preparation for the upcoming initial compliance testing (i.e., source tests and RATAs). Since the daily capacity factors exceeded 50% (the basis for the daily commissioning PM<sub>10</sub> limits) on those days, the calculated emissions, using the PM<sub>10</sub> emission factor derived from the hourly permit limit (0.0042 lb/MMBtu), exceeded the daily PM<sub>10</sub> emission limit of 108 lb/day specified in Condition #12.

Upon further review, NCPA concluded that a deviation of Condition #12 had not occurred. On October 30, NCPA submitted a Deviation Report to the District that communicated this conclusion. On November 15, you informed NCPA, via e-mail, that the District had concluded that Condition #12 applied throughout the “commissioning *period*.” You further requested that NCPA revise the Deviation Report to show the date, time, and duration of each deviation of Condition #12; the probable cause of the deviation; and corrective action for the deviation.

We note that NCPA still contends that no excess emissions deviation of Condition #12 occurred, for the following reasons:

- Condition #12 was not applicable during the alleged incident based upon the intent of Condition #12, if not a literal interpretation of Condition #12; and
- Actual daily PM<sub>10</sub> emissions did not exceed the limits of Condition #12 (108 lb/day).

### Interpretation of Condition #12

In determining that Condition #12 is applicable during the alleged excess emissions incident, the District is making a narrow literal interpretation of Condition #12 and ignoring the broader context of this condition. Furthermore, we believe Condition #12, as written, does not accurately reflect the intent of the commissioning limits. That is, in the context of the LEC permit, “commissioning” has two meanings:

- “Commissioning *activities*” are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to ensure safe and reliable steady state operation of the gas turbine and associated electrical delivery systems. (See definition in Condition #10.)
- “Commissioning *period*” commences when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when a gas turbine is first fired, whichever occurs first, and terminates when the plant has completed initial source testing, completed final plant tuning, and is available for commercial operation. (See definition in Condition #11.)

During the performance of commissioning *activities*, emissions of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and volatile organic compounds (VOC) can be much higher than during routine operation because the gas turbine combustors and the associated air pollution control equipment (e.g., selective catalytic reduction, or SCR, system for NO<sub>x</sub> control) may not yet be fully optimized. Since the permit requires the operator of a new gas turbine to install and operate a continuous emissions monitoring system (CEMS) prior to first fire (i.e., prior to the beginning of the commissioning period) to monitor CO/NO<sub>x</sub> emissions during the commissioning *period*, an exemption from the routine and startup/shutdown (SU/SD) emission limits of Conditions #25, #29, #32 and #33 is necessary in order to avoid excess emissions deviations during the periods of expected high NO<sub>x</sub>, CO and VOC emissions during the performance of various commissioning *activities*.

The intent of Condition #12 is to provide this commissioning exemption for commissioning *activities* that occur during the plant commissioning *period*. The definition of "commissioning activities" in Condition #10 supports this interpretation, as the term "commissioning activities" is not used elsewhere in the permit. Commissioning activities comprise only a small fraction of plant operation during the commissioning period, occurring mostly during the initial portion of the commissioning period. The commissioning emission limits in Condition #12 are based on data provided by NCPA for these specific commissioning activities described in Condition #10.<sup>1</sup> These commissioning limits were not intended to apply during routine plant operation during the commissioning period.

As reflected in the commissioning emission limits, daily operation during these high-emitting commissioning *activities* were not expected to exceed 12 hours. Once the air pollution controls were installed and optimized, the commissioning limits needed to be invoked only occasionally thereafter, as the gas turbine was further tuned and plant initial operational problems were resolved. In the case of LEC, NCPA completed installation of the CEMS during the week of June 25, 2012, and commenced operation of the gas turbine on August 22, 2012. The initial source tests and relative accuracy test audits (RATA) for the CEMS were successfully performed on November 6 and 7, 2012, which constituted the end of the commissioning *period* during which the commissioning exemption to the routine and SU/SD emission limits was available to NCPA. Operating data indicate that PM<sub>10</sub> emissions never exceeded the limits in Condition #12 during commissioning *activities* throughout the commissioning period.

We note that during the commissioning period, NCPA operated the gas turbine for 38 calendar days and 345 clock operating hours (whereby partial operating hours are counted as whole hours) but only needed to invoke the commissioning *activity* exemptions of Condition #12 as follows:

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<sup>1</sup> The 108 lb/day daily PM<sub>10</sub> limit was proposed by the Applicant during permitting, based on the assumption that commissioning activities would occur only 12 hours per day. This limit was not based on any BACT or ambient air quality impact considerations, as compliance with both BACT and ambient impact requirements were evaluated for the 216 lb/day PM<sub>10</sub> limit in Conditions 32 and 33 as part of the permit review. In addition, emissions of all pollutants during the commissioning period accrue toward the quarterly and annual permitted limits (Condition #14).

- Only 52 clock hours (of 345 clock operating hours, or 15% of the commissioning period) for the routine/SU/SD hourly NOx emissions;
- Only 3 calendar days (of 38 operating days, or 8% of the commissioning period) for the daily NOx emissions limit;
- Only 48 clock hours (of 345 clock operating hours, or 14% of the commissioning period) for the routine/SU/SD hourly CO emission limits; and
- Only one calendar day of 38 operating days (or 3% of the commissioning period), for the daily CO emission limits.

Otherwise, NCPA met its routine/SU/SD emission limits throughout the remainder, which was the vast majority, of the commissioning *period*. We also note that NCPA completed its initial compliance tests within 77 days of first fire, whereas 40 CFR Parts 60 and 75 allow up to 180 days to complete the initial compliance tests. Therefore, NCPA expedited the completion of commissioning activities and minimized the excess emissions of NOx and CO that were allowed during the commissioning period.

#### Actual Daily PM<sub>10</sub> Emissions

Regardless of whether Condition #12 was applicable to LEC on October 24 and 25 (the dates of the alleged PM<sub>10</sub> excess emissions incidents), we do not believe that the *actual* daily PM<sub>10</sub> emissions exceeded 108 lb/day on those days. Table 1 summarizes the calculated PM<sub>10</sub> emissions based on the measured fuel consumption, a higher heating value (HHV) of 1020 Btu/scf, and a PM<sub>10</sub> emission factor of 0.0042 lb/MMBtu (which was derived from the hourly PM<sub>10</sub> emission limit of 9 lb/hr—under all operating conditions, not just commissioning—and the maximum turbine heat input rate of 2142 MMBtu/hr).

<b>Table 1</b> <b>Calculated Daily PM<sub>10</sub> Emissions Based on PM<sub>10</sub> Permit Limit</b>			
Date	Fuel Consumption (mmscfd)	Calculated PM <sub>10</sub> Emissions (lb/day)	Commissioning PM <sub>10</sub> Limit (lb/day)
October 24, 2012	29.1	125	108
October 25, 2012	28.8	123	108

While these *calculated* daily PM<sub>10</sub> emissions exceed the 108 lb/day commissioning emission limit of Condition #12, we believe that *actual* PM<sub>10</sub> emissions were lower than 108 lb/day on each of these two days. This is because the PM<sub>10</sub> component of the initial source testing was conducted less than two weeks later, on November 6 and 7. As such,

we believe that a PM<sub>10</sub> emission factor derived from the source test provides a more accurate characterization of actual PM<sub>10</sub> emissions.

NCPA has received results of the initial PM<sub>10</sub> compliance tests. Measured PM<sub>10</sub> emissions ranged from 2.58 lb/hr to 3.09 lb/hr, compared with the permit limit of 9 lb/hr. The average hourly emission rate of 2.82 lb/hr is equivalent to 0.001 lb/MMBtu on a heat input basis. Table 2 summarizes actual PM<sub>10</sub> emissions on October 24 and 25, based on the measured fuel consumption, a higher heating value (HHV) of 1020 Btu/scf, and the measured PM<sub>10</sub> emission rate of 0.001 lb/MMBtu. Actual PM<sub>10</sub> emissions on October 24 and 25 were well below the daily PM<sub>10</sub> emission limit of 108 lb/day, with compliance margins of over 70%. While NCPA has not yet received the final compliance test report, the source test firm (Air Hygiene International, Inc.) has confirmed these results. NCPA expects to receive the compliance test report within the next few weeks. We will forward a copy of the relevant summary tables to you as soon as we receive the final report.

<p align="center"><b>Table 2</b> <b>Actual Daily PM<sub>10</sub> Emissions Based on Measured PM<sub>10</sub> Emission Rate</b></p>			
Date	Fuel Consumption (mmscfd)	PM <sub>10</sub> Emissions (lb/day)	Commissioning PM <sub>10</sub> Limit (lb/day)
October 24, 2012	29.1	29.7	108
October 25, 2012	28.8	29.4	108

In summary, we believe that the commissioning limits in Condition #12 apply specifically to commissioning *activities* that occur during the commissioning *period*, and that otherwise the routine and SU/SD emission limits in the permit apply. In any event, the source test data demonstrates that there was no *actual* exceedance of the daily PM<sub>10</sub> commissioning emission limit in Condition #12.

If you have any questions regarding this letter rescinding the excess emission notifications and deviation reports for October 24 and 25, 2012, please do not hesitate to call.

Sincerely,



Vinnie Venethongkham  
Compliance Manager

cc: Nancy Matthews, Sierra Research  
Andrea Grenier, Grenier and Associates



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



May 20, 2013

Mr. Vinnie Venethongkham  
Northern California Power  
651 Commerce Dr  
Roseville, CA 95678

**RE: NOTICE OF VIOLATION & PROPOSED SETTLEMENT**

**CASE NUMBER: N13-0237**

**NOV NUMBER: 5010414**

**PTO NUMBER: N-2697**

**LOCATION: 12745 N Thornton Rd, Lodi, CA**

Dear Mr. Venethongkham:

On May 06, 2013, the District received check number 181241 in the amount of \$768.00. The District considers Case number N13-0237 settled and closed.

Thank you for your cooperation in settling this matter.

Sincerely,

Jeff Voorhees  
Air Quality Specialist II  
Mutual Settlement Group

JV/lis

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



April 18, 2013

Mr. Vinnie Venethongkham  
Northern California Power  
651 Commerce Dr  
Roseville, CA 95678

**RE: NOTICE OF VIOLATION & PROPOSED SETTLEMENT**

**CASE NUMBER: N13-0237**  
**NOV NUMBER: 5010414**  
**PERMIT NUMBER: N-2697-5-0**

Dear Mr. Venethongkham:

On February 25, 2013 staff from the San Joaquin Valley Air Pollution Control District (District) conducted an inspection of Northern California Power, located at 12745 N Thornton Rd, Lodi, CA. The inspection revealed the facility failed to submit a breakdown follow-up report within 10-days of correcting the condition. The report was due by February 16, 2013.

In light of the above, it has been determined that you are in violation of District Rule 1100 - Equipment Breakdown, 2010 - Permits Required, 2201 - New and Modified Stationary Source Review Rule, 2520 - Federally Mandated Operating Permits.

California Health & Safety Code Section 42402 (b) specifies that the penalty for such violations can include civil penalties of up to \$10,000.00 for each day of each violation. The monetary amount of the District's offer specified below takes into account the magnitude and severity of the violation, as well as the prior history of violations of a similar nature at the facility. All parties we deal with, whether private, commercial, or governmental, are treated similarly in the settlement process, with any settlements offered being based upon an evaluation of the same factors and criteria in all cases.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244



If you are interested in settling this matter, I am authorized to settle this matter in accordance with the District's settlement policy as follows:

1. Payment of a civil penalty in the sum of \$768.00. In accordance with Health and Safety Code section 42400.7, recovery of a civil penalty precludes further civil or criminal prosecution for this violation.
2. Proof of present compliance must be submitted in writing if not already provided.
3. In the event any further violations occur, the District may offer evidence to prove the facts of the current violation in connection with any petition for a variance, permit revocation, abatement order before the District Hearing Board, or other legal proceeding. Similarly, you may raise any defenses or contrary proof you may have concerning the facts of present violations.
4. Entering into this settlement shall not constitute an admission of violating District Rules nor shall it be inferred to be such an admission in any administrative or judicial proceeding.

This letter constitutes an offer of settlement and is not a demand for payment. If you wish to meet with District personnel to discuss this settlement, please contact Jeff Voorhees at (559) 230-5999, who will be glad to discuss any information which you consider to be related to the settlement of this violation.

If the above terms are acceptable to you, sign and return the last page of this letter together with a check in the sum of \$768.00 to:

San Joaquin Valley Unified  
Air Pollution Control District  
Attn: Finance  
1990 E Gettysburg Ave  
Fresno, CA 93726-0244


Please write the Case Number N13-0237 on your check. Please use the yellow envelope provided.

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*

1990 E Gettysburg Ave - Fresno, CA 93726-0244

You may write or call Jeff Voorhees at (559) 230-5999 to request an office conference if you wish to discuss the matter with representatives of the District's Compliance Staff. If we do not hear from you within 14 days, we will assume that you are not interested in resolving this matter as outlined above and will refer the violation to our Legal Counsel for further action.

Sincerely,

  
Ryan Hayashi  
Supervising Air Quality Specialist

IF YOU HAVE ANY LEGAL QUESTIONS REGARDING SETTLEMENT, PENALTIES,  
OR PROCEDURES, YOU SHOULD SEEK THE ADVICE OF YOUR ATTORNEY.

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I have read the above settlement offer and agree to the terms and conditions of this offer.

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



COMPLIANCE MANAGER

4/25/13

*Para asistencia en Español, por favor llama a la oficina del Distrito del Aire a (559) 230-6000.*