



County of Tuolumne

Agricultural Commissioner • Weights & Measures
Animal Control • Air Pollution Control

VICKI HELMAR

*Agricultural Commissioner
Director of Weights & Measures
Director of Animal Control
Air Pollution Control Officer*

**Agricultural Commissioner
Weights & Measures
Air Pollution Control**

Located at:
22365 S. Airport Rd.
Sonora, CA 95370
Phone: (209) 533-5691
Fax: (209) 533-5520
Email:
AgComm@co.tuolumne.ca.us

Animal Control
Located at:
10040 Victoria place
Jamestown, CA 95327
Phone: (209) 984-1338

All Mailing:
2 So. Green St.
Sonora, CA 95370

July 7, 2011

Geraldo Rios
Chief, Operating Permits Section
Mail Code AIR-3
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

RE: Completeness Notification of Title V Permit Renewal Application for Pacific
Ultrapower Chinese Station

Dear Mr. Rios:

Pursuant to Section V.B. of Tuolumne County Air Pollution Control District (District) Rule 500 - *Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V of the 1990 Federal Clean Air Act Amendments*, the District hereby gives notice that the Title V application for Pacific Ultrapower Chinese Station was deemed administratively complete on July 6, 2011.

You will also find attached a permit application for minor modifications to Permit 55-0032-TV-01, which may amend several conditions in the permit dealing with startup, shutdown, and upset events; fuel material clarification; timeframes for monitoring, data reports, QA procedures, and stack testing reports submittal; and amendment of opacity exceedance timeframes during start up and shutdown conditions for biomass plants producing energy.

Should you need additional information or have any questions, please contact me at (209) 533-6673.

Sincerely,

Bill Sandman
Deputy Air Pollution Control Officer

cc: Chris Gallenstein, California Air Resources Board
Steven Gross, Constellation Energy
Steve Arreguin, Pacific Ultrapower
Vicki Helmar, Air Pollution Control Officer

enclosures

Title V Application Package Checklist

Forms necessary to prepare a complete Title V permit application are attached. These forms can be obtained on diskette by request. Also attached is a summary listing of all emissions units with valid District operating permits. Copies of the full text of existing valid permits, and emissions inventory statements or reports for the facility can be obtained upon request. The existing permits and/or emission inventory statements or reports may be used to prepare a complete Title V application package. In lieu of the forms provided by the District, you may submit computer generated documents or worksheets with the information in a similar format to the District forms.

Please read the instructions for each form. A pre-application meeting with the District staff to address the requirements and any questions that you may have is encouraged. To arrange for a pre-application meeting, please call the District office nearest to you.

Please identify on this checklist the forms and documents that are being submitted as a part of your Title V application. Submit two copies of your Title V application package to the District (one copy will be sent to EPA). **Return this checklist as a cover to your Title V application package.**

Company Name: Pacific Ultrapower Chinese Station	Facility ID: 55-0032-TV-01
TITLE V APPLICATION FORMS	√ If submitted
1. Title V Permit Renewal Application Signature Sheet (TVFORM-Main)	X
2. Title V Actual Emissions Report (TVFORM-001 or FORM B)	X
3. Title V Potential Emissions Report (TVFORM-002)	---
4. Title V Insignificant Activities (TVFORM-003 or Form H)	X
5. Title V Compliance Plan (TVFORM-004 or Form I)	X
6. Title V Compliance Certification (TVFORM-005 or Form K)	X
7. Compliance Schedule	---
8. Title IV Form (Acid Rain Units)	---
9. General Permit Forms	---
10. General Permit Template Forms	---
11. Other: Stationary Source Summary (FORMS A1 and A2)	X
12. Other: Permit Modification Request for PTO 55-0032-TV-01 (TVFORM-008)	X
13. Other: Justification for startup and shutdown emission limits and definitions	X
14. Other: 2010 Annual Compliance Certification	X
15. Other: Rational for Title V permit conditions to modify	X
17. Other: Combustion Emission Unit (Form XXX-C)	X
18. Other: Coating/Solvent Emission Unit (Form XXX-D)	X
19. Other: Organic Liquid Storage Unit (Form XXX-E)	X
20. Other: General Emission Unit (Form XXX-F)	X
21. Other: Emission Control Unit (Form XXX-G)	X
22. Other: TCAPCD Title V Annual Compliance Certification	X
23. Other: Deviation Report (Form XXX-L)	X
24. Other: Certification Statement (Form XXX-M)	X

Tuolumne County Air Pollution Control District

Permit Application For:

- INITIAL TITLE V PERMIT - First Federal Title V Operating Permit
- RENEWAL OF TITLE V PERMIT - Federal Title V Operating Permit Renewal
- MODIFICATION OF TITLE V PERMIT - Federal Title V Operating Permit Modification
- NEW TITLE V PERMIT - New Stationary Source Commencing Operation After June 15, 1995

1. PERMIT TO BE ISSUED TO: Pacific Ultrapower Chinese Station	
2. MAILING ADDRESS: 8755 Enterprise Drive STREET/P.O. BOX: CITY: <u>Jamestown</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>95327</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>8755 Enterprise Drive</u> CITY: <u>Jamestown</u> _____/4 SECTION _____ TOWNSHIP _____ RANGE	S.I.C. CODE(S) OF FACILITY (If known): <u>4911</u>
4. GENERAL NATURE OF BUSINESS: <u>Electricity generation</u>	
5. DESCRIPTION OF EQUIPMENT FOR WHICH APPLICATION IS MADE (include Permit #'s, and use additional sheets if necessary): <u>Renewal of permit and requests for modification of various permit conditions for permit 55-0032-TV-001</u> Additional information included is: <u>Permit modification request for Title V Permit 55-0032-TV-01,</u> <u>Justification discussion for adding startup and shutdown emission limits and definitions to permit</u>	
Optional Section	
6.	
7. TYPE OR PRINT NAME OF APPLICANT: <u>Stephen Gross</u>	TITLE OF APPLICANT: <u>Vice President</u>
8. SIGNATURE OF APPLICANT: 	DATE: <u>6/17/2011</u>
PHONE #: (949) 425-1771 FAX #: (949) 425-1727 E-MAIL: <u>Stephen.Gross@Constellation.com</u>	
County of Tuolumne FOR AGENCY USE ONLY:	
DATE STAMP JUN 26 2011 Agriculture Weights & Measures Air Pollution Control	FILING FEE RECEIVED: \$ _____ CHECK #: DATE PAID: _____ PROJECT #: _____ FACILITY ID: _____

STATIONARY SOURCE SUMMARY

(FORM XXX-A2)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

II. TYPE OF PERMIT ACTION

	CURRENT PERMIT (permit number)	EXPIRATION (date)
<input type="checkbox"/> Initial Title V Application		
<input checked="" type="checkbox"/> Permit Renewal	55-0032-TV-01	2/23/2012
<input type="checkbox"/> Significant Permit Modification		
<input checked="" type="checkbox"/> Minor Permit Modification	55-0032-TV-01	2/23/2012
<input type="checkbox"/> Administrative Amendment		

III. DESCRIPTION OF PERMIT ACTION

1. Does the permit action requested involve:
 - a. Portable Source Voluntary Emissions Caps
 - Acid Rain Source Alternative Operating Scenario
 - Source Subject to MACT Requirements [Section 112]
 - b. None of the options in 1.a. are applicable
2. Is source operating under Compliance Schedule? Yes No
3. For permit modifications, provide a general description of the proposed permit modification:

There are several permit modifications requested:

1. Modify the wording in Title V permit condition IV.D
2. Modify the wording in Title V permit condition IV.F
3. Modify the wording in Title V permit condition V.D
4. Modify the wording in Title V permit condition VII.F.1
5. Modify the wording in Title V permit condition IX.B.1
6. Modify the wording in Title V permit condition IX.B.3
7. Modify the wording in Title V permit condition IX.C.9

TOTAL STATIONARY SOURCE EMISSIONS (FORM XXX-B)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. TOTAL STATIONARY SOURCE EMISSIONS

Provide a brief description of operating scenario: These emissions are the permitted emissions from the facility, there will be no emission increase or decrease as a result of these permit modification requests.

POLLUTANT* (name)	EMISSIONS (tons per year)	PRE-MODIFICATION EMISSIONS (tons per year)	EMISSIONS CHANGE (tons per year)
NOx	244.9	244.9	0
SOx	90.2	90.2	0
CO	233.4	233.4	0
PM10	91.3	91.3	0
RHC	152.5	152.5	0

* - Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported. See Attachment A.

Tuolumne County Air Pollution Control District

TITLE V COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

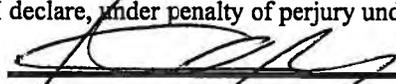
INITIAL TITLE V PERMIT PERMIT RENEWAL PERMIT MODIFICATION NEW TITLE V PERMIT

COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY ID: 55-0032
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Pacific Ultrapower Chinese Station	
3. Agent to the Owner: N/A	
4. Compliance Certifications will be submitted on:	
year 1: <u>2/23/12</u> year 2: <u>2/23/13</u> year 3: <u>2/23/14</u> year 4: <u>2/23/15</u> year 5: <u>2/23/16</u>	
Other dates: <u>if required by regulations or compliance schedule</u>	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial each circle for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) which the source is in compliance as identified in the Compliance Plan.
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term as identified in the Compliance Plan, on a timely basis.
- Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance at the time of permit issuance with the applicable federal requirement(s), as identified in the Compliance Plan, and I have attached a compliance schedule.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:


Signature of Responsible Official

5/13/11
Date

Steven Gross

Name of Responsible Official (please print)

Vice President

Title of Responsible Official (please print)

STATIONARY SOURCE SUMMARY (FORM XXX-A2)

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY > DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

II. TYPE OF PERMIT ACTION

	CURRENT PERMIT (permit number)	EXPIRATION (date)
<input type="checkbox"/> Initial Title V Application		
<input checked="" type="checkbox"/> Permit Renewal	55-0032-TV-01	2/23/2012
<input type="checkbox"/> Significant Permit Modification		
<input checked="" type="checkbox"/> Minor Permit Modification	55-0032-TV-01	2/23/2012
<input type="checkbox"/> Administrative Amendment		

III. DESCRIPTION OF PERMIT ACTION

1. Does the permit action requested involve:
 - a. Portable Source Voluntary Emissions Caps
 Acid Rain Source Alternative Operating Scenario
 Source Subject to MACT Requirements [Section 112]
 - b. None of the options in 1.a. are applicable
2. Is source operating under Compliance Schedule? Yes No
3. For permit modifications, provide a general description of the proposed permit modification:

There are several permit modifications requested:

1. Modify the wording in Title V permit condition IV.D
2. Modify the wording in Title V permit condition IV.F
3. Modify the wording in Title V permit condition V.D
4. Modify the wording in Title V permit condition VII.F.1
5. Modify the wording in Title V permit condition IX.B.1
6. Modify the wording in Title V permit condition IX.B.3
7. Modify the wording in Title V permit condition IX.C.9

TOTAL STATIONARY SOURCE EMISSIONS (FORM XXX-B)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. TOTAL STATIONARY SOURCE EMISSIONS

Provide a brief description of operating scenario: These emissions are the permitted emissions from the facility, there will be no emission increase or decrease as a result of these permit modification requests.

POLLUTANT* (name)	EMISSIONS (tons per year)	PRE-MODIFICATION EMISSIONS (tons per year)	EMISSIONS CHANGE (tons per year)
NOx	244.9	244.9	0
SOx	90.2	90.2	0
CO	233.4	233.4	0
PM10	91.3	91.3	0
VOC	152.5	152.5	0

* - Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported. See Attachment A.

COMBUSTION EMISSION UNIT (FORM XXX-C1)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. Permit Number: 55-0032-TV-01

II. Emission Unit Description

1. Equipment type: 370 MMBtu input wood/biomass fired boiler, 25.6 MW (gross) electric power generating turbine
2. Equipment description: Biomass fired bubbling bed combustor and boiler with LPG start-up burner
3. Equipment make, model & serial number: Energy Products of Idaho #2
4. Maximum design process rate or maximum power input/output: 25.6 MW
5. Primary use: Fuel combustion and steam generation
6. Burner(s) design, operating temperature and capacity: Bubbling bed combustor, 370 MMBtu/hr and propane fired start-up burner, 13 MMBtu/hr
7. Control device(s) type and description (if any): Ammonia injection (noncatalytic Exxon DeNox), tertiary air controls, multiclone, and electrostatic precipitator (ESP).

III. Operational Information

1. Operating schedule: 24 hours/day, 8400 hours/year
2. Exhaust gas properties (temperature, SCFM, %H₂O, %CO₂, % excess air): exhaust gases at 105,000 dscfm and 320°F, excess air is 5 to 8% O₂
3. Fuel specifications:

Fuel Type (name)	Annual Usage (c.f./yr, lb/yr, gal/yr)	Heating Value (Btu/lb, Btu/gal)	Sulfur (%)	Nitrogen (%)
Biomass, wood waste, urban waste wood	160,000 BDT/yr	6,000 – 8,000 Btu/lb (8320 Btu/lb design)	0.05	0.4
LPG	90,000 gal/yr (4500 gal/cold start)	91,500 Btu/gal	0.1	0.1 – 1.0

* - Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported. See Attachment A.

COMBUSTION EMISSION UNIT (FORM XXX-C2)

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY > DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

4. Unit Emissions

Criteria Pollutant Emissions (tons per year)					
Pollutants	NOx	PM	SO2	VOC	CO
A. Emissions	244.9	91.3	90.2	152.5	223.4
B. Pre-modification Emissions (1)	N/A	N/A	N/A	N/A	N/A
C. Emission Change (2)	N/A	N/A	N/A	N/A	N/A
D. Emission Limit (3)	140 ppmdv @ 3% O2	0.025 gr/dscf @ 12% O2	51.9 lb/hr	36.3 lb/hr	55.6 lb/hr
Other Regulated Air Pollutant Emissions (tons per year)					
Pollutants	NA				
A. Emissions	NA				
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					

Notes:

- (1) – For permit modifications only, emissions prior to project modifications.
- (2) – Differences between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
- (3) – For voluntary emissions cap and emission limits (i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr) pounds per million BTU (lb/MMBtu), etc.) required by any applicable federal requirement.

COATING / SOLVENT EMISSION UNIT (FORM XXX-D1)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. Permit Number: 55-0032-TV-01

II. Equipment Description

1. Equipment type: **NOT APPLICABLE TO THIS FACILITY**
2. Equipment description:
3. Equipment make, model & serial number:
4. Maximum design process rate or throughput:
5. Control device(s) type and description (if any):
6. Description of coating/solvent application/drying method(s) employed including coating transfer:

III. Operational Information

1. Operating schedule:
2. Coatings/solvent specifications:

Coating / Solvent (name)	Manufacturer (name)	Maximum Use (gal/day, gal/yr)	Vapor Pressure (mm Hg)	Solids Content (%)	VOC Content (%)

COATING / SOLVENT EMISSION UNIT (FORM XXX-D2)

DISTRICT:

< DISTRICT USE ONLY >

Tuolumne County Air Pollution Control District

DISTRICT ID:

COMPANY NAME: Pacific Ultrapower Chinese Station

FACILITY NAME: Pacific Ultrapower Chinese Station

3. Unit Emissions **NOT APPLICABLE TO THIS FACILITY**

Criteria Pollutant Emissions (tons per year)					
Pollutants					
A. Emissions					
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					
Other Regulated Air Pollutant Emissions (tons per year)					
Pollutants					
A. Emissions					
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					

Notes:

- (1) – For permit modifications only, emissions prior to project modifications.
- (2) – Differences between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
- (3) – For voluntary emissions cap and emission limits (i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr) pounds per million BTU (lb/MMBtu), etc.) required by any applicable federal requirement.

ORGANIC LIQUID STORAGE UNIT (FORM XXX-E1)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. Permit Number: 55-0032-TV-01

II. Equipment Description

1. Equipment type: **NOT APPLICABLE TO THIS FACILITY**
2. Equipment description:
3. Equipment make, model & serial number:
4. Control device(s) type and description (if any):

III. Operational Information

1. Operating schedule:
2. Raw material used or processed:

Organic Liquid	Vapor Pressure (psia)	Boiling Point (°F)	Storage Temperature (°F)	Liquid Throughput (gal/yr)	

3. Total annual throughput (000 gallons):
4. Profile of material throughput (Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec (% of total)):

IV. Tank Design and Specifications:

1. Tank design:

<input type="checkbox"/> Floating Roof (external)
<input type="checkbox"/> Fixed Roof
<input type="checkbox"/> Pressure

<input type="checkbox"/> Floating Roof (internal)
<input type="checkbox"/> Underground
<input type="checkbox"/> Other:

2. Tank specifications:

Max fill rate: (gal/hr)
Height: (ft)
Diameter: (ft)
Capacity: (gal)

Max withdrawal: (gal/hr)
Vapor space: (ft)
Paint color:

ORGANIC LIQUID STORAGE UNIT (FORM XXX-E2)

DISTRICT:

< DISTRICT USE ONLY >

Tuolumne County Air Pollution Control District

DISTRICT ID:

COMPANY NAME: Pacific Ultrapower Chinese Station

FACILITY NAME: Pacific Ultrapower Chinese Station

NOT APPLICABLE TO THIS FACILITY

4. Roof Type Pan Pontoon Other:

5. Tank Seals: Single Seal Double Seal

Primary Seal Shoe Type

- Metallic shoe
- Vapor mounted resilient seal
- Liquid mounted resilient seal
- Wiper seal
- Other:

Secondary Seal Shoe Type

- Shoe mounted wiper seal
- Rim mounted wiper seal
- Weathershield
- Other:

6. Unit Emissions:

Criteria Pollutant Emissions (tons per year)					
Pollutants					
A. Emissions					
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					
Other Regulated Air Pollutant Emissions (tons per year)					
Pollutants					
A. Emissions					
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					

Notes:

- (1) – For permit modifications only, emissions prior to project modifications.
- (2) – Differences between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
- (3) – For voluntary emissions cap and emission limits (i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr) pounds per million BTU (lb/MMBtu), etc.) required by any applicable federal requirement.

GENERAL EMISSION UNIT (FORM XXX-F1-A)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. Permit Number: PTO #55-0032

II. Equipment Description

1. General process description: Wood waste/biomass fuel receiving, transfer, and storage
2. Equipment type: Material transfer
3. Equipment description: Truck dumps (CV-101, 102), receiving conveyor, receiving pile, front loader, live pile, CV-110 under pile reclaim or overpile relaimer, CV-112 screen conveyor, CV-113 accepts conveyor, metering bin/overfeed conveyor.
4. Equipment make, model & serial number: N/A
5. Maximum design process rate or throughput: 25 bdt/hour (average)
6. Control device(s) type and description (if any): Conveyor enclosures, wind screens, water sprays, minimize drop height

III. Operational Information

1. Operating schedule: 24 (hours/day) 8,400 (hours/year)
2. Exhaust gas flow rate: N/A scfm @ N/A % H₂O
3. Raw products used and finished products produced:

Raw Product Used (name)	Consumption (lb/hr, gal/hr, etc.)	Products Produced (name)	Production (lbs/hr, gal/hr, etc.)		
Wood waste / biomass	37.1 tons/hour at 40% moisture (25 bdt/hr)	Fuel	25 bdt/hr		

GENERAL EMISSION UNIT (FORM XXX-F1-B)

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY > DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

4. Unit Emissions:

Criteria Pollutant Emissions (tons per year)					
Pollutants	PM				
A. Emissions	13.4				
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					
Other Regulated Air Pollutant Emissions (tons per year)					
Pollutants					
A. Emissions					
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					

Notes:

- (1) – For permit modifications only, emissions prior to project modifications.
- (2) – Differences between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
- (3) – For voluntary emissions cap and emission limits (i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr) pounds per million BTU (lb/MMBtu), etc.) required by any applicable federal requirement.

GENERAL EMISSION UNIT (FORM XXX-F2-A)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. Permit Number: PTO #55-0032

II. Equipment Description

1. General process description: Ash handling, storage and shipping
2. Equipment type: Materials handling
3. Equipment description: Screw conveyor, wet mixer, batch loading, storage area.
4. Equipment make, model & serial number: N/A
5. maximum design process rate or throughput: 60 tons/day wet basis
6. Control device(s) type and description (if any): Enclosed conveyor, wet handling, covered storage. Enclosed conveying, wet mixing and handling, covered storage (roof only) and drop height.

III. Operational Information

1. Operating schedule: 24 (hours/day) 8,400 (hours/year)
2. Exhaust gas flow rate: N/A scfm @ N/A % H₂O
3. Raw products used and finished products produced:

Raw Product Used (name)	Consumption (lb/hr, gal/hr, etc.)	Products Produced (name)	Production (lbs/hr, gal/hr, etc.)		
	60 tons/day @ 25% moisture	Ash for waste disposal	2.5 tons/hour ash @ 25% moisture		

GENERAL EMISSION UNIT (FORM XXX-F2-B)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

4. Unit Emissions:

Criteria Pollutant Emissions (tons per year)					
Pollutants	PM				
A. Emissions	1.6				
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					
Other Regulated Air Pollutant Emissions (tons per year)					
Pollutants					
A. Emissions					
B. Pre-modification Emissions (1)					
C. Emission Change (2)					
D. Emission Limit (3)					

Notes:

- (1) – For permit modifications only, emissions prior to project modifications.
- (2) – Differences between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
- (3) – For voluntary emissions cap and emission limits (i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr) pounds per million BTU (lb/MMBtu), etc.) required by any applicable federal requirement.

EMISSION CONTROL UNIT (FORM XXX-G2-A)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

IV. Operational Information

1. Operating schedule: 24 hours per day 8,400 hours per year
2. Raw products used by control device: electric power
3. Operating information:

Pollutants and Emission Control Information			
Pollutant (name)	Inlet Concentration (ppm or gr/dscf) (1)	Outlet Concentration (ppm or gr/dscf) (1)	Control Efficiency (% by weight)
NOx	unknown	140 ppm @ 3% O2	Unknown, estimated to be 50 – 70%

Notes:

(1) – Specify percent O2 or percent CO2

EMISSION CONTROL UNIT (FORM XXX-G1-B)

DISTRICT:

< DISTRICT USE ONLY >

Tuolumne County Air Pollution Control District

DISTRICT ID:

COMPANY NAME: Pacific Ultrapower Chinese Station

FACILITY NAME: Pacific Ultrapower Chinese Station

I. Permit Number: 55-0032-TV-01

II. Equipment Description

1. General process description: Flue gas particulate control by Electrostatic precipitator (ESP)
2. Equipment type: ESP
3. Equipment description: ESP
4. Equipment make, model & serial number: Research Cottrell ESP
5. Emission unit(s) served by this equipment: 370 MMBtu/hr boiler
6. Maximum design or rated capacity: ESP 0.1-0.5 gr/dscf exhaust flow of 506,731 lb/hr @ 350°F, velocity of 4-5 ft/sec

III. Equipment Design Information

1. Exhaust gas: Temperature: 350°F Flow Rate: 101,363 scfm
Moisture: NA Oxygen: NA
CO2: 12%
2. General: Manufacturer: Research Cottrell Pressure Drop: 1.5 in w.g.
Inlet Temp: 350°F Outlet Temp: 350°F
3. Catalyst data: Catalyst type/material: none
Catalyst life: N/A Volume: NA
Space Velocity: NA NHs injection rate: 16.7 lbs/hr
NH3 Injection Temp: approx 1,500°F
4. Baghouse data: Design: Positive Pressure Negative Pressure Not Applicable
Cleaning method: NA
Fabric material: NA
Flow rate: NA Air/cloth ratio: NA
5. ESP data: Number of fields: 3 Cleaning method: Mechanical rapping
Power input: 50 KVA each field
6. Scrubber data: Type/design: NA Sorbent type: NA
7. Other control devices (include appropriate design information):

EMISSION CONTROL UNIT (FORM XXX-G2-B)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

IV. Operational Information

1. Operating schedule: 24 hours per day 8,400 hours per year
2. Raw products used by control device: electric power
3. Operating information:

Pollutants and Emission Control Information			
Pollutant (name)	Inlet Concentration (ppm or gr/dscf) (1)	Outlet Concentration (ppm or gr/dscf) (1)	Control Efficiency (% by weight)
Particulate matter	0.1 – 0.5 gr/dscf	0.025 gr/dscf @ 12% CO2	95%

Notes:

(1) – Specify percent O2 or percent CO2

EXEMPT EQUIPMENT (FORM XXX-H)

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY >
COMPANY NAME: Pacific Ultrapower Chinese Station	DISTRICT ID: FACILITY NAME: Pacific Ultrapower Chinese Station

I. Equipment Exempt from District Permit Requirements

Exempt Equipment	Equipment Description	Basis for Exemption
1 Cat 814	1 Dozer operating 100 hours/year 210 HP diesel I.C. engine	Rule 402.C.3 or Rule 402.A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 Cat 824	1 Dozer operating 5,000 hours/year 315 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 Cat 966	1 Loader operating 2,100 hours/year 233 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 Cat 988	1 Dozer operating 100 hours/year 375 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 a.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 Cat 966	1 Loader operating 100 hours/year 200 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 Case1840	1 Loader operating 1,100 hours/year 42 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 Case 586	1 Forklift operating 400 hours/year 42 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 JLG 80-H	1 Manlift operating less than 100 hours/year 40 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
1 IHC dump truck	1 IHC dump truck operating 300 hours/year 280 HP diesel I.C. engine	Rule 402.C.3 or Rule 402 A.1 exemptions from ATC permits. Replacement or rebuild may be subject to SIP Rule at 40 CFR 52.220(c)(204)(i)(A)(4).
Diesel fuel tank 3,000 gallon	3,000 gallon diesel storage tank	Rule 402.I: Other sources emitting less than 1 ton per year of any criteria pollutant or precursor which may be specified by the Air Pollution Control Officer
Fire water pump diesel I.C. engine	140 HP emergency raw water pump for fire system. Backup to electric pump.	Rule 402.I: Other sources emitting less than 1 ton per year of any criteria pollutant or precursor which may be specified by the Air Pollution Control Officer
Emergency boiler feed water pump	30 HP emergency boiler feed water pump. Backup to electric pump.	Rule 402.I: Other sources emitting less than 1 ton per year of any criteria pollutant or precursor which may be specified by the Air Pollution Control Officer

Exempt Equipment	Equipment Description	Basis for Exemption
Turbine lube oil tank 1,850 gallons	Lube oil storage tank	Rule 402.I: Other sources emitting less than 1 ton per year of any criteria pollutant or precursor which may be specified by the Air Pollution Control Officer
Parts cleaning tank (Safety Kleen)	Covered parts cleaner	Rule 402.I: Other sources emitting less than 1 ton per year of any criteria pollutant or precursor which may be specified by the Air Pollution Control Officer

COMPLIANCE PLAN (FORM XXX-11)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

I. Applicable Federal Requirements

Applicable Federal Requirement	Emission Unit or Permit Number	In Compliance (yes/no/exempt)	Effective Date
See attached 2010 Annual Compliance Certification			

Title V
Annual Compliance Certification
Pacific Ultrapower Chinese Station
2010

Pacific Ultrapower Chinese Station
8755 Enterprise Drive
Jamestown, CA 95327
(209) 984-4660 (209) 9884-3396 FAX

February 18, 2011

Ms. Vicki Helmar
Air Pollution Control Officer
Tuolumne County Air Pollution Control District
2 South Green Street
Sonora, CA 95370

Director
Air & Toxics Division
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

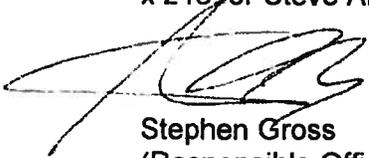
Subject: Pacific-Ultrapower Chinese Station
2010 Annual Compliance Certification and 2010 Emissions Inventory
Permit 55-0032-TV-01

Dear Ms. Helmar and Director:

In accordance with Title V Operating Permit 55-0032-TV-01 Condition VIII.B., the 2010 Annual Certification Statement and the 2010 Emissions Inventory for the Pacific Ultrapower Chinese Station (Chinese Station) facility are enclosed.

"I declare, under penalty of perjury under the laws of the state of California that, based on information and belief formed after reasonable inquiry, the statements and information provided in this compliance certification report are true, accurate, and complete."

Should you have any questions or need additional information regarding this submittal, please contact Maggie Estrada, Environmental Director, West Region, Constellation Energy at 949-425-4756, Kelly Champion, Regional Environmental Manager, Covanta Energy at 503-393-0890 x 216, or Steve Arreguin, Plant Manager, Chinese Station at 209-984-4660.



Stephen Gross
(Responsible Official)
Managing Director, West Region
Constellation Energy Corporation

Attachments

cc: S. Arreguin, Chinese Station
K. Champion, Covanta Energy
M. Estrada, Constellation Energy

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

in numerical order; all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Permit Number: 18-00001-17-01	
Certification Period: 4/1/2019 through 12/31/2019			
Column 1 Permit Section	Column 2 Permit Condition	Narrative of Permit Condition	Column 3 Compliance Status
II	A	Permit Term and Renewal This permit shall be valid for a term of five years from the date of issuance. The permittee shall submit a standard District application no earlier than 18 months and no later than 6 months prior to the expiration date. Permits to operate for all emissions units at a stationary source shall undergo simultaneous review.	None needed. The permit renewal application was not submitted during this reporting year (the 18 month window begins in September 2010).
III	B	Responsibility: This facility shall comply with all terms and conditions of this permit. This permit does not release the facility from complying with all applicable statutes, ordinances, codes, or law, including federal, state, and local requirements. This permit does not authorize emissions of air contaminants in excess of limits established by federal, state, and local requirements. Operating staff shall be advised of and familiar with all conditions contained in the permit.	Operating staff are advised of all permit conditions through formal and informal procedure review and in plant training. The facility maintains compliance with permit terms and conditions except as notified to the District in Deviation, Excess Emission, Breakdown, Upset and Maintenance Reports per the appropriate District Rules. Facility records are maintained in the plant files in the maintenance management system. CEMS data acquisition system, CEMS maintenance logbook and in the operating logbook to show compliance with the permit conditions.
III	C	Property Rights This permit does not convey any property rights or exclusive privilege of any sort.	None needed
III	D	Non-compliance Any non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal. Each day of non-compliance constitutes a separate violation.	None
III	E	Severability The provisions of this permit are severable, and should any permit requirements become illegal or unenforceable, the validity of the remaining requirements shall be unaffected.	None
II	F	Information Request The permittee, within a reasonable period of time, shall furnish any information requested, in writing by the APCO or the Regional Administrator, for the purpose of determining whether or not cause exists for modifying, revoking, reissuing, or terminating this permit, or to determine compliance with this permit, or whether or not cause exists for a permit or enforcement action.	None
II	G	Permit Transfer Upon change of ownership, the applicant shall notify any succeeding owner or operator of this facility of the existence of this permit in writing, a copy of the notification shall be provided to the District. The terms and conditions of this permit shall be binding on all subsequent owners or operator. A request for an administrative amendment shall be sought for changes in ownership or address of the facility.	None needed. The facility did not change ownership during the reporting year.

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Permit Number: 123-12-010	
Certification Period: 1/1/2010 through 12/31/2010		Column 2 Permit Condition	
Column 1 Permit Section	Narrative of Permit Condition	Column 3 Permit Condition	Column 4 Additional Information
II	Permit Reopening: A pending permit action or notification of anticipated noncompliance does not stay any condition of the permit. This permit must be reopened if any of the following occur: the APCO or the Regional Administrator determines there is a need to correct a material mistake, inaccurate statement, or a need to revise or revoke a permit to assure compliance with applicable federal requirements, or additional requirements become applicable to the subject equipment and there is three or more years remaining before the permit expires or, additional requirements become effective pursuant to Rule 500 § (V)(H).	Continuous	None
II	Permit Modification: Any modification other than normal repair and maintenance as defined in Rule 500 § shall require a new or revised permit. If a new or revised permit is required, an application shall be filed with the APCO, following procedures specified in Rule 500 § (IV).	Continuous	None
III	Right of Entry: The Regional Administrator, Executive Officer of the California Air Resources Board, the APCO or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises; to inspect the stationary source, including equipment, work practices, operations, and emissions related activity; to inspect and duplicate records required by this Permit to Operate; and, to sample substances or monitor emissions from the source or other parameters to assure compliance with the permit or applicable requirements	Continuous	None
II	Permit Fees: The authorized representative shall pay all applicable fees as stated in Rule 500 § (VII) and TCAPCD Rule 601	Continuous	None
III	Defenses to Enforcement Action 1 The facility shall not use "Need to Halt or Reduce a Permitted Activity" in order to maintain compliance as a defense for non-compliance with any permit condition 2 An Emergency Upset/Breakdown or Scheduled Maintenance shall be an affirmative defense to an enforcement action, only if the conditions set forth in Rule 516 are met.	Continuous	None
III	Stratospheric Ozone: The facility shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F	Continuous	None
III	Asbestos Removal: The facility shall comply with the provisions of 40 CFR 61, Subpart M during any renovation or demolition activity at this facility.	Continuous	None
III	Acid Rain Provisions: The facility shall comply with all applicable Acid Rain requirements under Title IV (Acid Deposition Control) of the CAA	Continuous	None

**Tuolumne County Air Pollution Control District
Title V - COMPLIANCE CERTIFICATION FORMS**

In numerical order list all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Narrative of Permit Condition	Frequency	Applicable Requirements	Compliance Status
Column 1 Permit Section	Column 2 Permit Condition				
III	P	NESHAPS or MACT Requirements. Should the facility become subject to an existing or newly promulgated National Emissions Standards for Hazardous Air Pollutants or Maximum Achievable Control Technology standard, the facility shall comply with applicable requirements.	Continuous	The facility did not meet the applicability requirements for any existing or newly promulgated NESHAPS or MACT standards in the reporting year.	Not applicable in 2010
III	O	NSPS Applicability. This facility was determined to have commenced construction in 1983 prior to the June 19, 1984 promulgation date, therefore the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (Subpart Db) do not apply at this time.	Continuous	Documentation of the NSPS Non-Applicability determination is maintained in the facility files.	None
III	R	Risk Management. The facility shall comply with all applicable requirements under 40 CFR Part 68 Risk Management Planning for Accidental Releases.	Continuous	The facility has a RMP and updates it as required. The facility does comply with all applicable requirements of 40 CFR Part 68.	None
III	S	Compliance Assurance Monitoring. This facility is subject to the requirements of 40 CFR Part 64. For compliance assurance monitoring parameters and operating ranges for particulate matter emissions, see Appendix A for CAM Plan.	Continuous	The facility has a CAM plan and performs the actions as required.	None
IV	A	Visible Emissions. All process and air pollution control equipment shall not discharge into the atmosphere air contaminants for a period or periods aggregating more than three (3) minutes in any one (1) hour which is dark or darker in shade than Ringelmann No. 1 (20% opacity).	Intermittent	The facility uses an opacity monitor to demonstrate compliance from the stack. Additionally, the plant has one Method 9 Certified operator. Opacity emission records are maintained onsite. Excess emission events are reported via email and in the Upset/Breakdown/Excess Emission Reports and Quarterly Reports. Several past opacity events were reported to TCAPCD in Deviation/Excess Emission Reports. Calculations in the Data Acquisition Handling System (DAS) have been modified to allow direct comparison to standard.	None
IV	B	Particulate Matter 1. Particulate matter emissions from any source or single processing unit exclusive of sources emitting combustion contaminants only, shall not exceed 0.1 grains per dry cubic foot of exhaust gas at standard conditions (g/dsc). 2. Particulate matter (PM10) emissions from the boiler exhaust stack shall not exceed 0.025 g/disc corrected to 12% CO2 based on a three hour average; 21.7 pounds per hour based on a three hour average; and 91.3 tons per year. Ammonium sulfate formed as a result of the capture of ammonia, is allowed to be subtracted from the total particulate residue through EPA Test Method 202	Continuous	The facility uses the source test performed every two years to demonstrate compliance with PM from the boiler. The most recent test was in 2010 and the PM10 emissions from the boiler exhaust stack did not exceed the emission limit. The 2010 source test results were submitted to the District and a copy of the report is maintained in the facility files.	None

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

In numerical order list all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Permit Number: 05-0003-716-01	
Certification Period: 1/1/2010 through 12/31/2010		Pollutant: SO ₂	
Column 1 Permit Section	Column 2 Permit Condition	Narrative of Permit Condition	Compliance Status
IV	C	Sulfur Dioxide: Sulfur dioxide emissions from the boiler exhaust stack shall not exceed 51.9 pounds per hour based on a three hour average and 90.2 tons per year.	Continuous None
IV	D	Oxides of Nitrogen (NOx): NOx emissions from the boiler exhaust stack shall not exceed 140 ppmv calculated at 3% O ₂ and averaged over a 24 hour period from 8 a.m. to 8 a.m., 58.3 pounds per hour averaged over a 24 hour period from 8 a.m. to 8 a.m., and 244.9 tons per year.	Continuous None
IV	E	Volatile Organic Compounds: Volatile Organic Compound emissions from the boiler exhaust stack shall not exceed 36.3 pounds per hour based on a three hour average and 152.5 tons per year.	Continuous None
IV	F	Carbon Monoxide: Carbon Monoxide emissions from the boiler exhaust stack shall not exceed 55.6 pounds per hour based on a three hour average and 233.4 tons per year.	Continuous None
V	A	Hours of Operation: Operation of the boiler shall be limited to 8,400 hours per year. This limit may be increased upon written authorization of the APCO when the permittee has demonstrated that annual emissions of NOx will not exceed 244.9 tons per year.	Continuous None
V	B	Nuisance: No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number persons, or to which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have a natural tendency to cause injury or damage to business or property.	Continuous None

**Tuolumne County Air Pollution Control District
Title V - COMPLIANCE CERTIFICATION FORMS**

In numerical order list all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultra-power Chinese Station		Narrative of Permit Conditions		Permit Information	
Column 1 Permit Section	Column 2 Permit Condition	Equipment Integrity	Intermittent	Continuous	Notes
V	C	Equipment Integrity: The physical integrity of all process equipment, air pollution control equipment, and monitoring equipment shall be maintained in good working order at all times during facility operation. No process equipment shall be operated without designated air pollution control equipment in operation. Manufacturer's recommendations shall be followed.	Intermittent		A new CEMS / DAS has been installed, and certified.
V	D	Fuel Use: No fuel other than liquid petroleum gas shall be used for start-up purposes. Only clean, untreated wood waste shall be charged to the boiler. Particle board, plywood, and other additives shall not exceed 3.0% of the fuel charged to the boiler. Additional fuels may be approved for use upon a written request from the permittee, provided the following: 1. The permittee can provide evidence that the emissions of the affected pollutants will not violate emissions limitation or cause non-compliance with the operating requirements; and 2. The APCO does not object within twenty-one (21) days of the request; an objection shall identify the reason for the objection and shall identify and additional evidence required for approval, including but not limited to, emissions tests, calculations, or engineering analyses.	Continuous		Robust preventative maintenance activities have been performed at the facility. The preventative maintenance system continues to be improved. The maintenance records are maintained in the files. Facility procedures and associated training require that process equipment are only operated when the associated air pollution control equipment required by the permit are in operation. The manufacturer's recommendations are followed. Only LPG is used for startup purposes. Facility has contracts with fuel suppliers to ensure only clean, untreated wood waste is received. Fuel leads are spot checked, the inspection frequency has been increased. No additional fuels were requested from the District in the reporting year.

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

List all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultra-power Chinese Station		Narrative of Permit Condition		Column 1 Permit Section	Column 2 Permit Condition	Column 3 Frequency	Column 4 Compliance Information
Certification Period: <u>11/2010 through 12/31/2010</u>							
V	E	Fugitive Dust Emissions. Including but not limited to any of the following, shall be controlled at all times such that a public nuisance is not created at any point beyond the plant property lines: 1 Dust from unpaved roads or any other non-vegetation covered areas 2 Fugitive dust from fuel-pile areas or fuel-handling devices; 3. Boiler ash which is processed by the ash handling system or is removed from the boiler by other means. Ash shall be stored in such a manner so as to not cause excessive fugitive emissions. Ash transported offsite shall be in a wet condition or in covered containers. 4 All outside surfaces, including but not limited to the main building, boilers, electrostatic precipitators, support pads, road areas, etc., shall be cleaned as necessary to prevent the buildup of ash and/or fugitive dust. 5 In the event that any exposed surfaces become littered with fugitive dust emissions due to an upset condition, a cleaning procedure shall be implemented within twenty-four hours, a cleaning procedure shall be implemented within twenty-four (24) hours following the upset to removed the fugitive debris 6 All transfer process involving a free-fall of material in open areas shall be constructed and operated in such a manner as to minimize the free-fall distance and fugitive emissions.	Continuous	Robust Best Management Practices and good housekeeping practices have been implemented, performed, and continue to improve. Operators observe plant areas for fugitive emissions during plant rounds and discuss during shift turnover meetings. Facility has not been notified by the District concerning any public complaints regarding fugitive emissions being a nuisance beyond the plant property line. No public complaints regarding fugitive emissions beyond the property lines were received at the facility. Fuel purchase contracts contain language limiting the amount of fire material in the fuel deliveries. Fuel truck unloading is observed periodically. Plant is considering possible fugitive emission projects for 2011.	None		
VI	A	The facility shall record and maintain boiler stack gas emissions from the continuous emissions monitoring systems (CEMS) for NOx and oxygen, and the continuous opacity monitoring system (COMS) for opacity. The facility shall also maintain files with date and time of all performance audits, calibrations, adjustments, and maintenance of the CEMS and COMS	Intermittent	The facility has a CEMS and COMS to measure and record boiler stack gas emissions. These records are maintained onsite. Quarterly Monitoring Reports and an Annual Compliance Certification are prepared to demonstrate compliance. For three quarters of the year cylinder gas audits (CGAs) are conducted; the other quarter a relative accuracy test audit (RATA) is conducted each year as required by 40 CFR Part 60, Appendix F. A NOx and O ₂ RATA report is submitted to the District. Records of the maintenance activities performed on the CEMS and COMS are maintained by the facility. A robust program to record maintenance activities was implemented that better describes and reports the events. Daily calibrations are performed and records are maintained for the CEMS and the COMS calibrates daily.	A new NOx and O ₂ CEMS was installed and certified, along with a new DAS. The COMS audit for the 3 rd Quarter was performed in the 4 th Quarter. A deviation report was submitted to the District. All others were performed on time.		

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

in numerical order; all permitted units that are subject to one or more applicable requirements List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information

Company Name: Pacific Ultra-power Chinese Station		Certification Period: 11/2010 through 12/31/2010		Narrative of Permit Condition	
Column 1 Permit Section	Column 2 Permit Condition	Column 3 Frequency	Column 4 Description	Column 5 Compliance	Column 6 Notes
V/I	D	Continuous	A violation of the emissions standards as shown by the stack monitoring system shall be reported to the APCO within 96 hours	Continuous	All identified violations of the emission standards shown by the stack monitoring system are reported to the District within 96 hours. Notification reports are used to show compliance with the notification timeframe. Additional information may be recorded in the operating log.
V/II	E	Continuous	In the event of an emergency, the responsible official shall submit to the APCO a signed contemporaneous log or other evidence which demonstrates the following: an emergency occurred, identification and cause of emergency, the facility was being properly operated at the time of the emergency; all steps were taken to minimize emissions; and, within two working days provide the APCO a description of the emergency and corrective actions taken	Continuous	Facility procedures require that the notification timeframes be met. No emergencies occurred during the reporting period.
V/II	F	Intermittent	Monitoring and Data Reports: A monitoring report shall be submitted to the APCO on a calendar quarter basis. The monitoring reports shall be submitted within 30 days of the end of each reporting period and contain the following: 1 Any deviations from the permit requirements, upset/breakdown occurrences, probable cause and preventative or corrective actions taken; results of any emissions testing, RATA, CGA or any other O&QC procedures, progress made on a compliance schedule and a log of any preventative or corrective action taken; and CEMS/COMS downtime and excess emissions reports	Intermittent	All monitoring and data reports were submitted to the District each quarter and with the listed required information and within the required time frame. Copies of the reports and submittal mailing receipts are maintained in the files to show compliance with the reporting requirements.
V/II	F	Continuous	2 Daily average mass emissions rates and average concentrations for NOx, daily average oxygen concentrations, fuel use rates, on-line boiler operating hours, ash generation rates, and gross megawatt production rates	Continuous	All specified information is in the Quarterly Monitoring Reports and the Reports were submitted to the District. Copies of the Reports and receipts of submittals are maintained to show compliance with the reporting requirements.

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

List all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Permit Number: 05-000000-000000-000000	
Certification Period: 1/1/2010 through 12/31/2010		Facility Name: Pacific Ultrapower Chinese Station	
Column 1 Permit Section	Column 2 Permit Condition	Narrative of Permit Condition	Column 3 Permit Condition
VIII	A	Compliance Plan and Schedule. In the event of a facility non-compliance the provisions in Rule 500 § (VI)(8) and (VI)(9) shall apply.	None
VIII	B	Compliance Certification. The facility shall submit an Annual Emissions Report and Certification Statement by February 23, of each year. The facility shall also include a written statement from a responsible official certifying the truth, accuracy, and completeness of the report. Each report will include the following: Identification of each term or condition of the permit as the basis for compliance; identify the means for monitoring compliance, include the status and method to determine compliance both currently and over the entire reporting period; and, any additional inspection, monitoring, or entry requirement that may be promulgated pursuant to §114(a) and 504(b) of the CAA. All documents must be submitted to both of the following: Director, Air Division U S EPA 75 Hawthorne Street, AIR-3 San Francisco, CA 94105 Air Pollution Control Officer Tuolumne County APCD 2 South Green Street Sonoma, CA 95370	Annual Emission Report and Certification Statement was submitted within the required timeframe. It was certified as true and accurate by the RO with the knowledge he had at that point in time
IX	A	Visible Emissions Observations. 1 The permittee shall employ at least one person who is continuously certified by the California Air Resources Board to conduct visible emissions observations for opacity	Facility employed at least one person who is continuously certified by CARB to conduct visual observations for opacity.
IX	A	2 Boiler Exhaust Stack: Visible emissions observations using EPA Method 9 shall be conducted and recorded at least once on a daily basis when upset/breakdown conditions of the COMS exceed twenty-four (24) hours	No COMS breakdown or upset condition exceeded twenty-four hours.

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

In numerical order list all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Narrative of Permit Condition	
Column 1 Permit Section	Column 2 Permit Condition	Column 3	Column 4
IX	A	<p>3. Facility-wide: At least daily, facility staff shall observe whether any emissions units are causing fugitive emissions beyond the facility's property lines and have the potential to create a public nuisance. If facility staff determine that a public nuisance is possible, the staff shall use the EPA Method 22 to determine whether visible emissions can be confirmed in excess of five percent (5%) of the observation period. If such conditions exist, facility staff shall implement measures designed to repair or maintain the physical integrity of the process and control equipment to minimized emissions.</p>	<p>Intermittent</p> <p>Robust Best Management Practices and good housekeeping practices have been implemented, performed, and continue to improve. Operators observe plant areas for fugitive emissions during plant rounds and discuss during shift turnover meetings. However, these rounds do not always include daily observations of the property lines daily and the observations are not logged. No Method 22 readings have been done or documented.</p> <p>No complaints of public nuisances have been received. Method 22 training will be implemented.</p>
IX	B	<p>Performance Source Testing</p> <p>1. Boiler Exhaust Stack: The facility shall conduct compliance performance tests on the boiler exhaust stack for PM10, NOx, SO2, VOC, and CO with the test methods referenced in condition (X)(B)(2). The source performance tests shall be conducted at least once every two (2) calendar years on or before November 1. Performance tests shall be conducted under such conditions as the Administrator or the APCO shall specify to the plant operator, based on the representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.</p> <p>2. The following performance tests for the boiler exhaust stack shall conform to the following EPA or ARB test methodologies/procedures:</p> <p>(a) PM10: EPA Method 5 (front half) and EPA Method 202 (back half) using nitrogen purge to remove dissolved SO2 gases</p> <p>(b) NO/NO2 (NOx): EPA Method 7E or ARB Method 100</p> <p>(c) SO2: EPA Method 6C or ARB Method 100</p> <p>(d) VOC: EPA Method 18 or ARB Method 100</p> <p>(e) CO: EPA Method 10 or ARB Method 100</p> <p>3. Any deviation from these requirements shall first be approved by the APCO. A source test protocol shall be submitted at least fourteen (14) days prior to the scheduled test and notification of any scheduled test shall be a minimum of 10 days. The results of the performance test(s) shall be submitted within 30 days following completion of testing.</p>	<p>Continuous</p> <p>A Performance Source Test is conducted every two years. The source test protocol was submitted at least 14 days prior to the scheduled test date. The Notice was submitted within 10 days of test date.</p> <p>During 2010, a Source Test was performed. The results report was submitted per the timeframes required.</p>

**Tuolumne County Air Pollution Control District
Title V - COMPLIANCE CERTIFICATION FORMS**

in numerical order list all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Certification Period: 1/1/2010 through 12/31/2010		Normal State of Permit Condition	
IX	Column 1 Permit Section	Column 2 Permit Condition	Continuous Emission Monitoring	Continuous	A CEMS and COMS for NOx concentrations, NOx mass emissions, oxygen concentrations, and stack opacity were installed at the facility in accordance with Appendix B
IX	C	1. The facility shall operate a CEMS and COMS for the following: NOx concentration, NOx mass emissions, oxygen concentration, and stack opacity in accordance with 40 CFR Part 60 Appendix B	Continuous Emission Monitoring	Continuous	A temporary DAS was utilized during a portion of 2010 until the new CEMS and DAS was purchased and installed. The new CEMS and DAS data were used to demonstrate compliance on the District/plant agreed upon CEMS certification date.
IX	C	2. The CEMS and COMS shall be installed, calibrated, maintained, and operated according to manufacturer's recommendations and meet the requirements in 40 CFR §60.13 and Part 60 Appendix B, Performance Specifications (PS) 1, 2, and 3		Intermittent	Interim procedures were implemented to allow for 40 CFR 60 compliance regarding maintenance activities and recordkeeping until the new CEMS/DAS was installed and certified. Additionally, an interim DAS was utilized until the new DAS was installed. The DA/QC manual was updated and used until the new DA/QC manual was provided for the new CEMS/DAS. The new manufacturer's manuals were reviewed for recommended maintenance. These maintenance activities are tracked via the CEMS maintenance database program and/or a PMI program (CHECK which or both).
IX	C	3. The COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period and shall be connected to a data logging device or chart recorder.		Intermittent	An interim 40 CFR 60 DAS was utilized until the new CEMS and DAS was installed. After certification, the permanent CEMS/DAS was used to calculate a reading for each successive 15-minute period.
IX	C	4. The CEMS shall complete a minimum of one cycle of operation (sampling, Analyzing and data recording) for each successive 15 minute period and be connected to a data logging device or chart recorder.		Intermittent	An interim 40 CFR 60 DAS was utilized until the new CEMS and DAS was installed. After certification, the permanent CEMS/DAS was used to calculate a reading for each successive 15-minute period.
IX	C	5. A Relative Accuracy Test Audit (RATA) shall be successfully completed at least once (1) every calendar year. The RATA for the NOx monitor and O ₂ monitors shall be conducted in accordance with 40 CFR Part 60 Appendix F		Continuous	RATA's are conducted annually and in accordance with 40 CFR Part 60, Appendix F

**Tuolumne County Air Pollution Control District
Title V – COMPLIANCE CERTIFICATION FORMS**

In numerical order, list all permitted units that are subject to one or more applicable requirements. List all requirements for a permit, each in a separate box, before moving on to the next permit number. Refer to the attached instruction for more information.

Company Name: Pacific Ultrapower Chinese Station		Permit Number: 65-1002-19-01			
Column 1 Permit Section	Column 2 Permit Condition	Narrative of Permit Condition	Column 3 Compliance Frequency	Column 4 Compliance Status	Column 5 Additional Information
IX	C	6. A Cylinder Gas Audit (CGA) shall be conducted at least once in three (3) quarters per calendar year, but in no more than three (3) quarters in succession. The CGA shall be conducted in accordance with 40 CFR Part 60 Appendix F.	Continuous	A CGA for the CEMS was conducted during each of the three quarters that a RATA was not performed. The CGA was performed in accordance with the requirements of 40 CFR Part 60 Appendix F.	None
IX	C	7. Calibration span checks of the COMS and CEMS monitors shall be conducted daily. Adjustments shall be made if the drift is greater than specified in 40 CFR Part 60 Appendix B PS1 (Opacity) and PS 2 (NOx)	Intermittent	Calibrations of the CEMS and COMS are done daily and adjustments are made as necessary.	None
IX	C	8. All gas cylinders used for calibration and span checks shall have a current, valid certification of concentration by the manufacturer.	Continuous	Cal gas cylinders certifications are valid.	Cal gas certifications will remain with the bottle while the bottle is in use. Once the bottle is empty or expired the cal gas certifications will be filed with other CEMS/COMS maintenance records
IX	C	9. All records of maintenance activity, accuracy audit procedures, corrective actions for malfunctioning CEMS, COMS and associated equipment shall be recorded, maintained for a period of five (5) years, and submitted to the APCO on a quarterly basis pursuant to condition (VI)(F) of this permit	Continuous	Records of maintenance activities on the CEMS and COMS have improved	The facility implements a "continuous improvement program" for record keeping, log entry documentation, training and oversight.
X		Exempt Equipment. Equipment and operations not specifically identified in this permit are not subject to federally enforceable operating conditions or emissions limitations. Such equipment and operations are subject to the applicable Administrative Requirements and General Conditions of this Permit	Continuous	Facility records showing maintenance performed, inspections, and other activities are maintained in various files at the facility, including the maintenance management system, plant files, and operational records.	None

Tuolumne County Air Pollution Control District

TITLE V COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

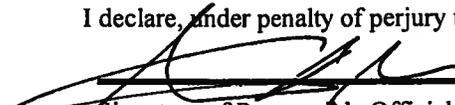
INITIAL TITLE V PERMIT PERMIT RENEWAL PERMIT MODIFICATION NEW TITLE V PERMIT

COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY ID: 55-0032
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Pacific Ultrapower Chinese Station	
3. Agent to the Owner: N/A	
4. Compliance Certifications will be submitted on:	
year 1: <u>2/23/12</u> year 2: <u>2/23/13</u> year 3: <u>2/23/14</u> year 4: <u>2/23/15</u> year 5: <u>2/23/16</u>	
Other dates: <u>if required by regulations or compliance schedule</u>	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial each circle for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) which the source is in compliance as identified in the Compliance Plan.
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term as identified in the Compliance Plan, on a timely basis.
- Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance at the time of permit issuance with the applicable federal requirement(s), as identified in the Compliance Plan, and I have attached a compliance schedule.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



Signature of Responsible Official

7/1/2011

Date

Steven Gross

Name of Responsible Official (please print)

Vice President

Title of Responsible Official (please print)

COMPLIANCE PLAN (FORM XXX-I2)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

NA - Source is in Compliance

III. Compliance Certification

Under penalty of perjury, I certify the following:

- *Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) with which the source is in compliance identified in form XXX-I1.*
- *Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with the future-effective applicable federal requirement(s) identified in form XXX-I1, on a timely basis¹.*
- *Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance with the applicable federal requirement(s), identified in form XXX-I1, and I have attached a compliance plan schedule².*

Signature of Responsible Official

Date

1. Unless a more detailed schedule is expressly required by the applicable federal requirement.
2. At the time of expected permit issuance, if the source expects to be out of compliance with an applicable federal requirement, the applicant is required to provide a compliance schedule with this application, with the following exception. A source which is operating under a variance that is effective for less than 90 days need not submit a Compliance Schedule. For sources operating under a variance, which is in effect for more than 90 days, the Compliance Schedule is the schedule that was approved as part of the variance granted by the hearing board.

The compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with this applicable federal requirement. For sources operating under a variance, the compliance schedule is part of the variance granted by the hearing board. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. For sources not operating under a variance, consult the Air Pollution Control Officer regarding procedures for obtaining a compliance schedule.

CERTIFICATION REPORT (FORM XXX-K1)

DISTRICT:

< DISTRICT USE ONLY >

Tuolumne County Air Pollution Control District

DISTRICT ID:

COMPANY NAME: Pacific Ultrapower Chinese Station

FACILITY NAME: Pacific Ultrapower Chinese Station

I. Facility Information

1. Company name: Pacific Ultrapower Chinese Station
2. Facility name (if different than company name): same
3. Mailing address: 8755 Enterprise Drive, Jamestown, CA 95327
4. Street address or Source location: 8755 Enterprise Drive, Jamestown, CA 95327
5. Facility permit number: 55-0032-TV-001

II. General Information

1. Reporting period (specify dates): not applicable as this is a permit renewal application
2. Due date for submittal of report: not applicable as this is a permit renewal application
3. Type of submittal: Monitoring Report (complete Section III below)
 Compliance Schedule Progress Report (complete Section IV of Form XXX-K2)
 Compliance Certification (complete Section V of Form XXX-K2)
 None of the above: Permit renewal application

III. Monitoring Report Information

1. Were deviations from monitoring requirements encountered during the reporting period?
 No Yes (if Yes, complete Form XXX-L)

CERTIFICATION REPORT (FORM XXX-K2)

DISTRICT:

< DISTRICT USE ONLY >

Tuolumne County Air Pollution Control District

DISTRICT ID:

COMPANY NAME: Pacific Ultrapower Chinese Station

FACILITY NAME: Pacific Ultrapower Chinese Station

NA – This package is a Title V renewal application

IV. Compliance Schedule Progress Information

1. Dates the activities, milestones, or compliance required by schedule of compliance was achieved/will be achieved:

2. Provide explanation of why any dates in schedule of compliance were not/will not be met:

3. Describe in chronological order preventive or corrective action taken:

V. Compliance Certification

1. Was source in compliance during the reporting period specified in Section II of Form XXX-K1 and is source currently in compliance with all applicable federal requirements and permit conditions?

Yes

No (if no, re-submit Forms XXX-I and XXX-J)

I certify based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete.

Signature of Responsible Official

Date

Print Name of Responsible Official

Title of Responsible Official and Company Name

DEVIATION REPORT (FORM XXX-L)

DISTRICT:

< DISTRICT USE ONLY >

Tuolumne County Air Pollution Control District

DISTRICT ID:

COMPANY NAME: Pacific Ultrapower Chinese Station

FACILITY NAME: Pacific Ultrapower Chinese Station

Refer to the Quarterly Deviation Reports and Annual Compliance Certification for the facility

I. Deviation Information

1. Permit number(s) of emission unit or control unit affected:
2. Description of deviation:
3. Description and identification of permit condition(s) deviated:
4. Associated equipment and equipment operation (if any):
5. Date and time when deviation was discovered:
6. Date, time, and duration of deviation:
7. Probable cause of deviation:
8. Preventive or corrective action taken:

CERTIFICATION STATEMENT (FORM XXX-M)

DISTRICT:	< DISTRICT USE ONLY >
Tuolumne County Air Pollution Control District	DISTRICT ID:
COMPANY NAME: Pacific Ultrapower Chinese Station	FACILITY NAME: Pacific Ultrapower Chinese Station

Identify, by checking below, the forms and attachments that are part of your application. If the application contains forms or attachments that are not identified below, please identify these attachments in the blank space provided below. Review the instructions if you are unsure of the forms and attachments that need to be included in a complete application.

Forms Included with Application	Attachments Included with Application
<input checked="" type="checkbox"/> Stationary Source Summary Form	<input type="checkbox"/> Description of Operating Scenarios
<input checked="" type="checkbox"/> Total Stationary Source Emission Form	<input checked="" type="checkbox"/> Sample Emission Calculations
<input checked="" type="checkbox"/> Compliance Plan Form	<input checked="" type="checkbox"/> Fugitive Emission Estimates
<input checked="" type="checkbox"/> Compliance Plan Certification Form	<input checked="" type="checkbox"/> List of Applicable Requirements
<input checked="" type="checkbox"/> Exempt Equipment Form	<input type="checkbox"/> Discussion of units out of compliance with applicable federal requirements and, if required, submit a Schedule of Compliance
<input checked="" type="checkbox"/> Certification Statement Form	<input type="checkbox"/> Facility Schematic Showing Emission Points
	<input checked="" type="checkbox"/> Original Title V Application
List other forms or attachments: See Title V Application Package Checklist	

I certify under penalty of law, based on information and belief formed after reasonable inquiry, that the information contained in this application, composed of the forms and attachments identified above, are true, accurate, and complete.

I certify that I am the responsible official, as defined in TCAPCD Rule 500.


6/17/2001

 Signature of Responsible Official Date

Stephen Gross

 Print Name of Responsible Official

Vice President Pacific Ultrapower Chinese Station

 Title of Responsible Official and Company Name

Attachment 1
CALCULATIONS
FUGITIVE PM
Revised 5/12/04

Fuel receiving, handling and storage emissions.

Fuel is received at two truck dumps with hoppers CV-101, CV-102, and drag conveyors. These discharge to a receiving conveyor CV-103 that empties onto the receiving pile. Materials are generally moved from the receiving pile by front-end loader to the main stock pile. As needed, raw fuel is removed from the pile by either an under pile reclaimer CV-110, or the overpile bucket reclaimer (overpile reclaimer) CV-107 to the chain feeder conveyor CV-109. Both CV-110 and CV-109 empty onto the incline screen conveyor CV-112 to the screen tower. At the top of the screen tower, fuel flow can be diverted to either the North or South disc screens and knife hog (shredder). Once fuel is sized, it is discharged onto incline conveyor (accepts conveyor) CV-113 that feeds the metering bins. Excess fuel can be returned on the overfeed conveyor CV-115. Once in the fuel feed system at the boiler, no fugitive emissions are possible due to the induced draft.

Fugitive emissions can occur at each truck dump and transfer point. The disc screen is located in an enclosed building and is not vented to the air. The transfer to the chute at the top and from the base of the building are each counted as a transfer point for the purpose of calculating emissions. A total of 10 potential transfers points exist for the purpose of calculating the fuel receiving and storage potential to emit. The fuel has a moisture content averaging 40% by weight and a generally large particle size. Delivery operations are limited to 5 days/week during daylight hours, and fuel processing is continuous with the operation of the boiler. For calculations the total annual weight basis is used and it is assumed that batch operations are continuously performed. The actual operating hours do not affect the calculations.

To calculate the fugitive emissions potential to emit, the fugitive emissions calculations in the Authority to Construct Evaluation, August 5, 1985, was reviewed. The potential to emit in this document was based on emission factors in AP-42 Section 10.3-3, Wood Products. Chapter 10 of AP-42 (Wood Products) is currently undergoing revision and more contemporary emission factors are not available. The potential throughput for the equipment is limited by the boiler's capacity of the boiler to burn fuel. This maximum throughput can be applied to each piece of equipment or transfer point unless the equipment is operating in parallel (e.g., truck dumps and screens), in which case the potential to emit is divided equally between the trains. The emission factor of 0.024 lb/ton for the truck dumps and screens, or 0.01 lb/ton for conveyor transfers, is applied to the maximum dry throughput (25 tons/hour) of wood and biomass fuels.

The list of sources and the emission factor used at each source or transfer is shown below.

EMISSION SOURCES IN FUEL RECEIVING

Source	Emission Factor lb/ton
Initial truck dump into hopper	0.024
Hopper to CV-103	0.01
CV-103 to receiving pile	0.01
Receiving pile batch to stock pile	0.01
CV-107 to CV-109 or CV-110 to CV-112	0.01
CV-109 to CV-112	0.01
CV-112 to disc screen	0.01
Disc screen	0.024
Knife Hog	0.024
Disc screen to CV-113	0.01
CV-113 to metering bins or metering bins to CV115	0.01

CALCULATION OF POTENTIAL TO EMIT: PARTICULATE MATERIAL FROM FUEL HANDLING

Potential to Emit 15.96 tons/year

Calculation for PTE for PM $((25 \text{ tons/hour} \times 0.024 \text{ lb/ton}) \times 3 \text{ transfer}) + ((25 \text{ tons/hour} \times 0.01 \text{ lb/ton}) \times 8 \text{ transfers}) = 3.8 \text{ lb/hour} \times 8400 \text{ hours/2000 lb/ton} = 15.96 \text{ tons/year}$

Ash handling and disposal.

Ash is separated from the flue gas and passed through air locks into screw conveyors at the base of the boiler, multiclones, primary economizer and electrostatic precipitator. It is discharged into a surge tank where it is wetted to 25% moisture. An average rate of 60 tons/day of wet ash may be generated. Ash is transferred to an enclosed dumpster and transferred to a covered storage patio. Following characterization and analysis, it is batch loaded on trucks for transport to final disposal. All transfer operations occur in enclosed containers or trucks. Potential emissions occur at the dumping of the dumpster on the storage patio and during batch loading to trucks.

Using AP-42 material transfer emission estimates of 0.1 lb/ton and assuming two transfers, the potential to emit is shown below.

CALCULATION OF POTENTIAL TO EMIT: PARTICULATE MATERIAL FROM ASH HANDLING

Potential to Emit 1.58 tons/year

Calculation for PTE for PM $((60 \text{ wet tons/day average} \times 0.75\% \text{ dry basis}) \times (8400/24 \text{ hours})) \times 0.1 \text{ lb/ton} \times 2 \text{ transfers} \times 1 \text{ ton/2000 lb} = 1.58 \text{ tons/year}$

Fugitive particulate emissions from paved and unpaved roadways.

The fuel handling area experiences traffic loads from front-end loaders and other vehicle and truck types. The AP-42 Section 13.2.1 and 13.2.2 were used to estimate potential fugitive dust emissions from the sources. The 30 micron cumulative particle size was used to estimate all particulate matter emissions. Vehicle miles traveled per day was assumed for each vehicle type and that the silt content resembles municipal landfill haul roads (6.4%). No data is available for the specific wood fuel stockpiling operations, and tannins in the wood should cause some dust control to occur. The empirical expressions below may be used to estimate the quantity of particulate emissions from both paved and unpaved road, per vehicle mile traveled (VMT).

Paved Roads

Emissions calculations from paved roads were based on Section 13.2.1 of EPA's AP-42, updated December 2003. The following equation was used in calculating the facility's fugitive dust emissions along paved roads.

$$E = k (sL/2)^{0.65} (W/3)^{1.5}$$

where:

- E = emission factor (lb/vehicle mile traveled [VMT])
- k = base emission factor for particle size range (lb/VMT) for total suspended particulates
- sL = road surface silt loading (grams/m²)
- W = average weight (tons) of the vehicles traveling the road

Assumption for Paved Road Fugitive Emissions Estimation

- k = 24 g/VMT (from EPA table, PM-10)
- sL = 3.7 (from EPA Table 13.2.1-4, may be best representative as an average between of municipal solid waste landfill and low traffic road)
- 40 tons (36.3 mg) assumed average weight for all trucks and delivery trucks on paved roads
- 15 employee/personal vehicles were assumed to travel 0.4 mile per day on paved roads
- Average weight of employee/personal vehicle was assumed to be 2.5 tons
- Vehicular operation was assumed to occur 5 days/week, 50 weeks/year
- Average weight of dolomite, ammonia, and propane trucks assumed to be 40 tons
- Average weight of delivery trucks assumed to be 5 tons
- Average weight of dolomite, ammonia, and propane trucks assumed to be 40 tons
- Vehicular operation was assumed to occur 5 days/week, 50 weeks/year except for the dolomite, ammonia and propane deliveries which are assumed to occur 50 days/ year, 12 days/year and 18 days/year respectively.

Unpaved Roads

Emissions calculations from unpaved roads were based on Section 13.2.2 of EPA's AP-42, updated December 2003. The following equation was used in calculating the facility's fugitive dust emissions along unpaved industrial roads.

$$E = k (s/12)^a (W/3)^b$$

where:

E = emission factor (lb/vehicle mile traveled [VMT])

k, a, b = empirical constants

s = silt content of road surface material (%)

W = mean vehicle weight, ton

Assumption for Unpaved Road Fugitive Emissions Estimation

- k = 1 (from EPA table, $\leq 30 \mu\text{m}$, Stokes diameter), a=0.7 and b=0.45
- s = 6.4% (from EPA table, municipal landfill haul road)
- 1 truck per week was assumed to travel 0.1 mile over unpaved roads
- Average weight of dolomite, ammonia, and propane trucks assumed to be 40 tons
- Vehicular operation was assumed to occur 5 days/week, 50 weeks/year except for the dolomite, ammonia and propane deliveries which are assumed to occur 50 days/year, 12 days/year and 18 days/year respectively.
- Vehicle speed posted at 5 mph
- Average weight of loader assumed to be 20 tons
- Average weight of dozier assumed to be 25 tons

Fugitive Emissions From Paved and Unpaved Roads

The table on the following page summarized the fugitive emissions estimated from paved and unpaved roads.

Fugitive Emissions from Paved and Unpaved Roads

Vehicle Type	Number of Vehicles	Weight (tons)	Number of Wheels	Paved Emission Factor (lb/VMT)	Unpaved Emission Factor (lb/VMT)	Travel Days per year	Distance Traveled		Uncontrolled Emissions	
							Paved (mi/day)	Unpaved (mi/day)	Paved PM (tpy)	Unpaved PM (tpy)
Loaders	1	20	4	2.11	7.08	250		5	0.0	4.427
Dolomite	1	40	18	5.96	9.68	50	< 0.1	< 0.1	0.0149	0.0
Ammonia	1	40	18	5.96	9.68	12	0.5		0.0179	0.0
Propane	1	40	18	5.96	9.68	18	0.5		0.0268	0.0
Other Delivery	2	5	4	0.28	3.80	250	0.2		0.0132	0.0
Employee/Personal Vehicle	15	2.5	4	0.09	2.78	250	0.4		0.0698	0.0
Dozier	1	25	4	2.94	7.83	250		2	0.0000	2.0
Sum									0.142	6.409
Total									6.55	

Paved Roads

AP-42 13.2.1, December 2003

$$E = k (sL/2)^{0.65} (W/3)^{1.5}$$

E = particulate emission factor (lb/VMT)

k = for PM30 (TSP) = 0.082 lb/VMT

sL = assumed to be between Low Traffic Road and Municipal Solid Waste Landfill = average of 0.4 and 7 = 3.7 grams/m²

W = average weight (tons) of the vehicles traveling the road

Unpaved Roads

AP-42 13.2.2, December 2003

$$E = k (s/12)^a (W/3)^b$$

E = size-specified emission factor (lb/VMT)

k = for PM30 (TSP) for Industrial Roads = 4.9 lb/VMT

a = for PM30 (TSP) for Industrial Roads = 0.7

b = for PM30 (TSP) for Industrial Roads = 0.45

s = silt content of road surface material (%) = 6%

W = mean vehicle weight (tons)

lb = pounds

VMT = vehicle mile traveled

mi = mile

Attachment 2

EXEMPTION AND COMPLIANCE WITH NSPS STANDARDS:

This report herein describes the Pacific-Ultrapower Chinese Station facility's construction history, relative to New Source Performance Standards (NSPS) applicability and is the basis for the determination that subpart Db NSPS is not applicable to this facility.

Subpart Db of the NSPS was proposed on June 19, 1984. According to the applicability paragraph of the standards at 40 CFR 60.1, "Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility."

The NSPS standards are not a preconstruction permit regulation, but rather a series of standards for establishing specific emission limits, performance testing and reporting requirements for listed categories of sources constructed after the proposed date of a standard. In so far as there is no preconstruction review formally required by NSPS, the terms "commenced" and "construction" which are important in determining applicability to regulations such as Prevention of Significant Deterioration and New Source Review, have not been interpreted. As a general guideline, the letting of contracts for major equipment purchase and construction is deemed as having commenced construction and thereby defines a source as an "existing source" not subject to the requirements.

The planning and design for construction of the Pacific-Ultrapower Chinese Station began as early as 1982 with site assessment and impact studies. Substantive and continuous progress leading to construction and start-up of the facility was being made before the new subpart Db was proposed. The contract entitled Long-Term Energy and Capacity Power Purchase Agreement was entered between Ultrapower, Incorporated and the Pacific Gas and Electric Company between December 16 and December 21, 1983. The preliminary design was completed, and letter to the planning director requesting a conditional use permit and height variance was dated 2/17/84. The planning board issued a Notice of Conditional Use Permit Hearing 5/21/84, and a land development application was dated 3/6/84. Based on a June, 1984 application for authority to construct (A-C), the Tuolumne County APCD issued its permit evaluation and recommendation to issue permit 8/5/84. It is clear from administrative records pertaining to the permitting and design that a contract to provide an electrical generation facility, substantial expense in design, permitting and property acquisition had already occurred before the time the NSPS standard was proposed.

An evaluation of the Pacific-Ultrapower's ability to comply with the NSPS standards was performed by Harza Engineers to determine if the facility was designed such that the NSPS requirements could be met. The following material is a compliance assessment of the standard indicating those sections of 40 CFR, subpart Db that would be applicable to this class of facility, and the capability of Pacific-Ultrapower - Chinese Station to meet the standard. It was concluded

with Rule 202; however performance is generally less than 5%. The district rule on opacity is at least as stringent as the NSPS requirement and the facility is in compliance.

The standard states: "On and after the date on which the initial performance test is completed or is required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity".

The District rule on opacity is as follows

Rule 202 Visible Emissions. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- A. As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart, as published by the United States Bureau of Mines, or
- B. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (A) of this section.

40 CFR 60.44b Standard for nitrogen oxides.

The NOx standards is not applicable; however, the facility would be in compliance with this section. The emission limits for the facility are more stringent than the 0.3 lb/MBTU NSPS standard at 40 CFR 60.44b(d).

The NSPS standards apply at all times including periods of startup, shutdown, or malfunction. NSPS limits are determined on a 30-day rolling average basis except they are determined on a 24- hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests.

The facility has NOx limits of
83 ppmv (dry) 24 hour or
58.3 lb/hour and
245 tons/year.

Calculation of NSPS basis:

$58.3 \text{ lb/hour} / 370 \text{ MBTU/hour} = 0.16 \text{ lb/MBTU hourly limit.}$

$245 \text{ tons/year} \times 2000 \text{ lb/ton} / 8400 \text{ hours} / 370 \text{ MBTU/hour} = 0.165 \text{ lb/MBTU annual limit.}$

The NOx limits do not apply to a facility that does not have capacity for combustion of coal, oil or natural gas. The Pacific-Ultrapower Chinese Station facility has a capacity to combust LPG gas in start-up burners which is considered equivalent to natural gas in the NSPS. The

A continuous opacity monitor is in place and complies with NSPS. The Facility is exempted from NOx CEMs by paragraph (i). The facility is in compliance with this subsection.

40 CFR 60.48b(a) The owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

(i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a continuous monitoring system for measuring nitrogen oxides emissions.

A continuous opacity monitor is in place and complies with NSPS. The Facility is exempted from NOx CEMs by paragraph (i). A CEM for NOx is available but may not meet all NSPS criteria. The facility is in compliance with this subsection.

40 CFR 60.49b Reporting and recordkeeping requirements.

The facility does not comply with this subsection (NOx and SO2 reporting and recordkeeping do not apply and have been deleted.)

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i),

(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and,

(4) Notification that an emerging technology will be used for controlling emissions of sulfur dioxide. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control

Attachment 3

STATE IMPLEMENTATION PLAN REVIEW OF APPLICABLE PORTIONS FOR TUOLUMNE COUNTY

PART 52 - APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS Subpart F - California

[§52.219 added at 58 FR 62533 , Nov. 29, 1993]

40 CFR 52.220 Identification of plan.

- (a) Title of plan: "The State of California Implementation Plan for Achieving and Maintaining the National Ambient Air Quality Standards".
- (b) The plan was officially submitted on February 21, 1972.
- (c) The plan revisions listed below were submitted on the dates specified.

[40 CFR 52.220(c)(28)(v)(A)]

- (28) Revised regulations for the following APCD's submitted on July 22, 1975, by the Governor's designee.
 - (v) Tuolumne County APCD.
 - (A) Rules 102, 201, 202, 203, (a-f, h, i, and k), 204-216, 301-303, 305 - 306, 308 - 313, 315 -323, 400 - 403, -408 , 409 (Public Records), 600-618, 105-110, 301- 304, 409 (Fuel Burning Equipment, Oxides of Nitrogen), 410, and 412-414.

[40 CFR 52.220(c)(37)(v)(A)]

- (37) Revised regulations for the following APCD's submitted on February 10, 1977, by the Governor's designee.
 - (v) Tuolumne County APCD.
 - (A) Rule 404.

[40 CFR 52.220(c)(37)(v)(B)]

- (B) New or amended Rules 102, 202, 203, 206, 207, 208, 209, 213, 215, 216, 217, 301, 302, 303, 304, 308, 319, 321, 322, 323, 324, 402, 407, 409, 601, 602, 603, 604, 605, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, and 717 and rescinded Rules 413 and 414.

[40 CFR 52.220(c)(46)]

- (46) The following Administrative Chapters of the California SIP, submitted on December 29, 1978, by the Governor's designee.
 - (i) Chapter 2—Statewide Perspective.
 - (ii) Chapter 20—Compliance.
 - (iii) Chapter 23—Source Surveillance.
 - (iv) Chapter 24—Resources.
 - (v) Chapter 25—Intergovernmental Relations.

[40 CFR 52.220(c)(204)]

(204) New and amended plans and regulations for the following agencies were submitted on November 15, 1994, by the Governor's designee.

[40 CFR 52.220(c)(204)(i)]

(i) Incorporation by reference.

[40 CFR 52.220(c)(204)(i)(A)]

(A) California Air Resources Board.

[40 CFR 52.220(c)(204)(i)(A)(1)]

(1) Title 17, California Code of Regulations, Subchapter 8.5, Consumer Products, Article 1, Antiperspirants and Deodorants, Sections 94500-94506.5 and Article 2, Consumer Products, Sections 94507-94517, adopted on December 27, 1990, August 14, 1991, and September 21, 1992.

[40 CFR 52.220(c)(204)(i)(A)(4)]

(4) Long Term Measures, Improved Control Technology for Light-Duty Vehicles (Measure M2), **Off-Road Industrial Equipment (Diesel)**, Consumer Products Long-Term Program (Measure CP4), and Additional Measures (Possible Market- Incentive Measures and Possible Operational Measures Applicable to Heavy-Duty Vehicles), as contained in "The California State Implementation Plan for Ozone, Volume II: The Air Resources Board's Mobile Source and Consumer Products Elements," adopted on November 15, 1994.

40 CFR 52.224 General Requirements

- (a) The requirements of §51.116(c) of this chapter are not met except in certain Air Pollution Control Districts (APCD) as indicated in this paragraph since the plan does not provide procedures by which emission data, as correlated with applicable emission limitations, will be made available to the public.
- (2) The following APCD's do not provide for the correlation of emission data with applicable emission limitations as required by §51.116(c) of this chapter. In these APCD's, only the requirements of §52.224(b)(4) are in effect:
- (v) Tuolumne County APCD.

40 CFR 51.116(c): Each plan must provide for public availability of emission data reported by source owners or operators or otherwise obtained by a State or local agency. Such emission data must be correlated with applicable emission limitations or other measures. As used in this paragraph, correlated means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emissions allowable under the applicable emission limitations or other measures.

40 CFR 52.224(b)(4): Emission data obtained from owners or operators of stationary sources will be correlated with applicable emission limitations and other control measures that are part of the applicable plan and will be available at the appropriate regional office and at other locations in the state designated by the Regional Administrator.

40 CFR 52.226 Control Strategy and regulations: Particulate matter

- (b) The following regulatory changes represent a relaxation of previously submitted regulations and an adequate control strategy has not been submitted showing that the

for recordkeeping and periodic reporting of emission data by sources. *[Note: not met in Tuolumne County or Mountain Counties]*

[40 CFR 52.234(d)(1)]

(d) Regulation for source recordkeeping and reporting.

- (1) The owner or operator of any stationary source in the State of California, except for those APCD's specified in paragraph (a) of this section, shall, upon notification from the Administrator, maintain records of the nature and amounts of emissions from such source and/or any other information as may be deemed necessary by the Administrator to determine whether such source is in compliance with applicable emission limitations or other control measures.

[40 CFR 52.234(d)(2)]

- (2) The information recorded shall be summarized and reported to the Administrator, on forms furnished by the Administrator, and shall be submitted within 45 days after the end of the reporting period. Reporting periods are January 1 to June 30 and July 1 to December 31, except that the initial reporting period shall commence on the date the Administrator issues notification of the recordkeeping requirements.

[40 CFR 52.234(d)(3)]

- (3) Information recorded by the owner or operator and copies of the summarizing reports submitted to the Administrator shall be retained by the owner or operator for 2 years after the date on which the pertinent report is submitted.

40 CFR 52.269 Control strategy and regulations: Photochemical oxidants (hydrocarbons) and carbon monoxide.

40 CFR 52.269(a)

- (a) The requirements of subpart G of this chapter are not met because the plan does not provide for attainment and maintenance of the national standards for photochemical oxidants (hydrocarbons) and carbon monoxide in the San Francisco Bay Area, San Diego, Sacramento Valley, San Joaquin Valley, and Southeast Desert Intrastate Regions by May 31, 1975.

[Note: Subpart G—Control Strategy is found at 40 CFR 51.110 Attainment and maintenance of national standards. Plan must set forth a control strategy to attain national air quality standards.]

40 CFR 52.269(b)

- (b) The following regulatory changes represent a relaxation of previously submitted regulations, and an adequate control strategy demonstration has not been submitted showing that the relaxation would not interfere with the attainment and maintenance of the national standards for photochemical oxidants.

[40 CFR 52.269(b)(1)(ii)(A)]

- (1) Mountain Counties Intrastate Region.
 - (ii) Tuolumne County APCD.
 - (A) The revocation of Rule 413, Organic Liquid Loading, is disapproved; and Rule 413 submitted on June 30, 1972 and previously approved in 40 CFR 52.223 is retained.

[40 CFR 52.274(a)]

- (a) Since the California Air Pollution Emergency Plan does not provide complete, implementable provisions for taking emission control actions necessary to prevent ambient pollutant concentrations from reaching significant harm levels, the requirements of subpart H of this chapter for Priority I and II areas are not met, except in the following areas: *[Note: not met in Tuolumne County, however no rules are imposed]*

40 CFR 52.280 Fuel burning equipment.

[40 CFR 52.280(a)(1)(iii)(A)]

- (a) The following rules and regulations are disapproved because they relax the control on emissions from fuel burning equipment without any accompanying analyses demonstrating that these relaxations will not interfere with the attainment and maintenance of the National Ambient Air Quality Standards.
- (iii) Tuolumne County APCD.
- (A) Rule 210, submitted on October 15, 1979, is disapproved; and Rule 407, previously approved in the June 30, 1972 submittal, is retained.

40 CFR 52.281 Visibility protection.

[40 CFR 52.281(a)]

- (a) The requirements of section 169A of the Clean Air Act are not met, because the plan does not include approvable procedures for protection of visibility in mandatory Class I Federal areas.

[40 CFR 52.281(b)]

- (b) Regulations for visibility monitoring. The provisions of §52.26 are hereby incorporated and made part of the applicable plan for the State of California.

[40 CFR 52.281(d)]

- (d) The provisions of §52.28 are hereby incorporated and made part of the applicable plan for the State of California, except for: Monterey County, and Sacramento County.

[40 CFR 52.281(e)]

- (e) Long-term strategy. The provisions of §52.29 are hereby incorporated and made part of the applicable plan for the State of California.

TITLE 40 - PROTECTION OF ENVIRONMENT

PART 70 - STATE OPERATING PERMIT PROGRAMS

Appendix A to Part 70 - Approval Status of State and Local Operating Permits Programs

[Appendix A added at 59 FR 55820 , Nov. 9, 1994]

This appendix provides information on the approval status of State and Local operating Permit Programs. An approved State part 70 program applies to all part 70 sources, as defined in that approved program, within such State, except for any source of air pollution over which a federally recognized Indian Tribe has jurisdiction.

[Appendix A introductory text amended at 59 FR 61827 , Dec. 2, 1994]

[Added at 60 FR 46774 , Sept. 8, 1995, effective Oct. 10, 1995]

California

The following district programs were submitted by the California Air Resources Board on behalf of:

[Added at 60 FR 36069 , July 13, 1995, effective Aug. 14, 1995]

(ff) Tuolumne County APCD (complete submittal received on November 16, 1993); interim approval effective on June 2, 1995; interim approval expires June 3, 1997.

PART 81 - DESIGNATION OF AREAS FOR AIR QUALITY PLANNING PURPOSES

Subpart B - Designation of Air Quality Control Regions

40 CFR 81.274

Mountain Counties Intrastate Air Quality Control Region.

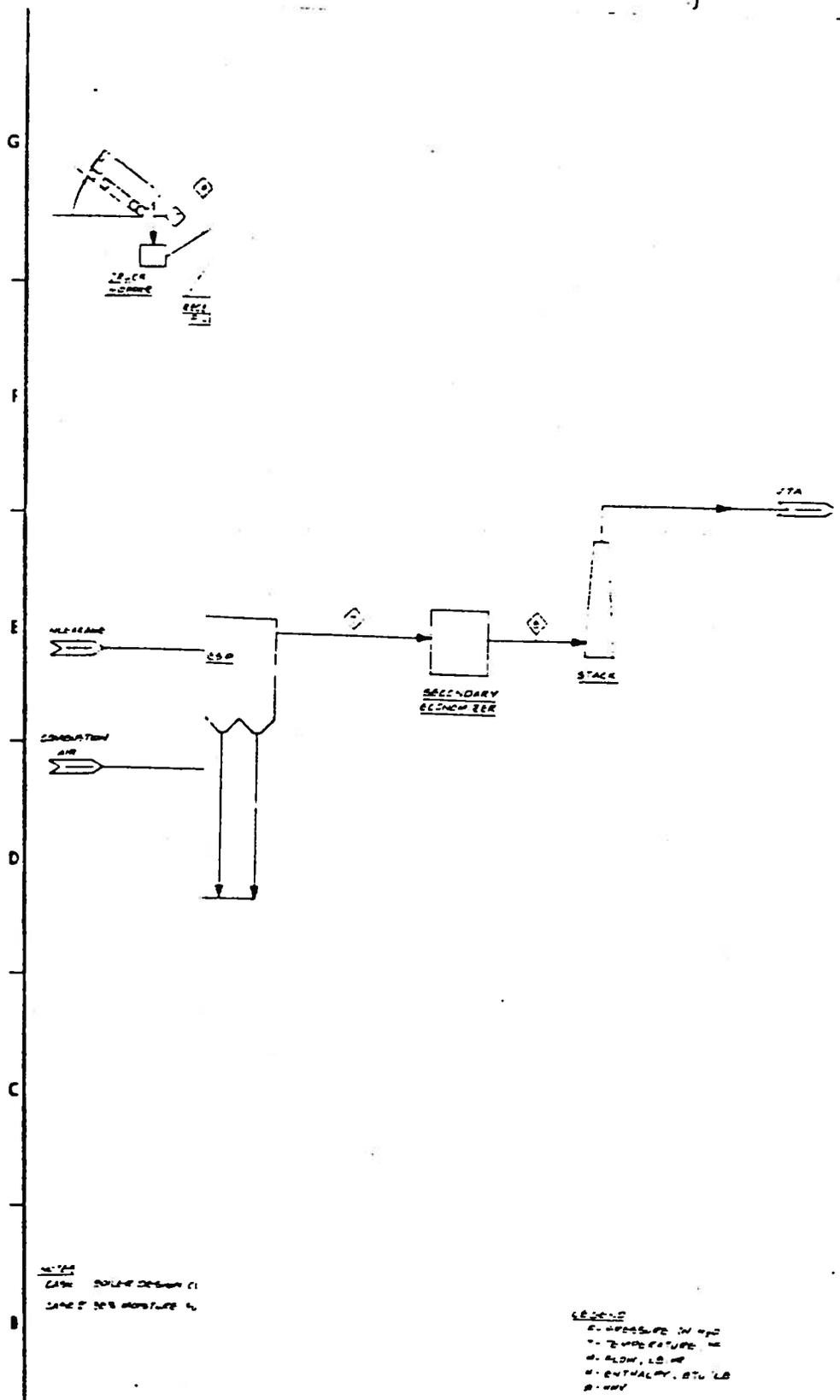
The Mountain Counties Intrastate Air Quality Control Region consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all municipalities (as defined in section 302(f) of the Clean Air Act, 42 U.S.C. 1857h(f)) geographically located within the outermost boundaries of the area so delimited):

"In the State of California: Amador County, Calaveras County, Mariposa County, Nevada Country, Plumas County, Sierra County, Tuolumne County. "

Subpart C - Section 101 Attainment Status Designations

40 CFR 81.305

Tuolumne County:	TSP	Cannot be classified
Tuolumne County.	CO	Unclassifiable Attainment
Tuolumne County.	NOx	Cannot be classified or better than National Standards
Tuolumne County.	Ozone	Unclassifiable Attainment



NOTE
 CASE: SOLID DESIGN C1
 CASE: SOLID DESIGN C2

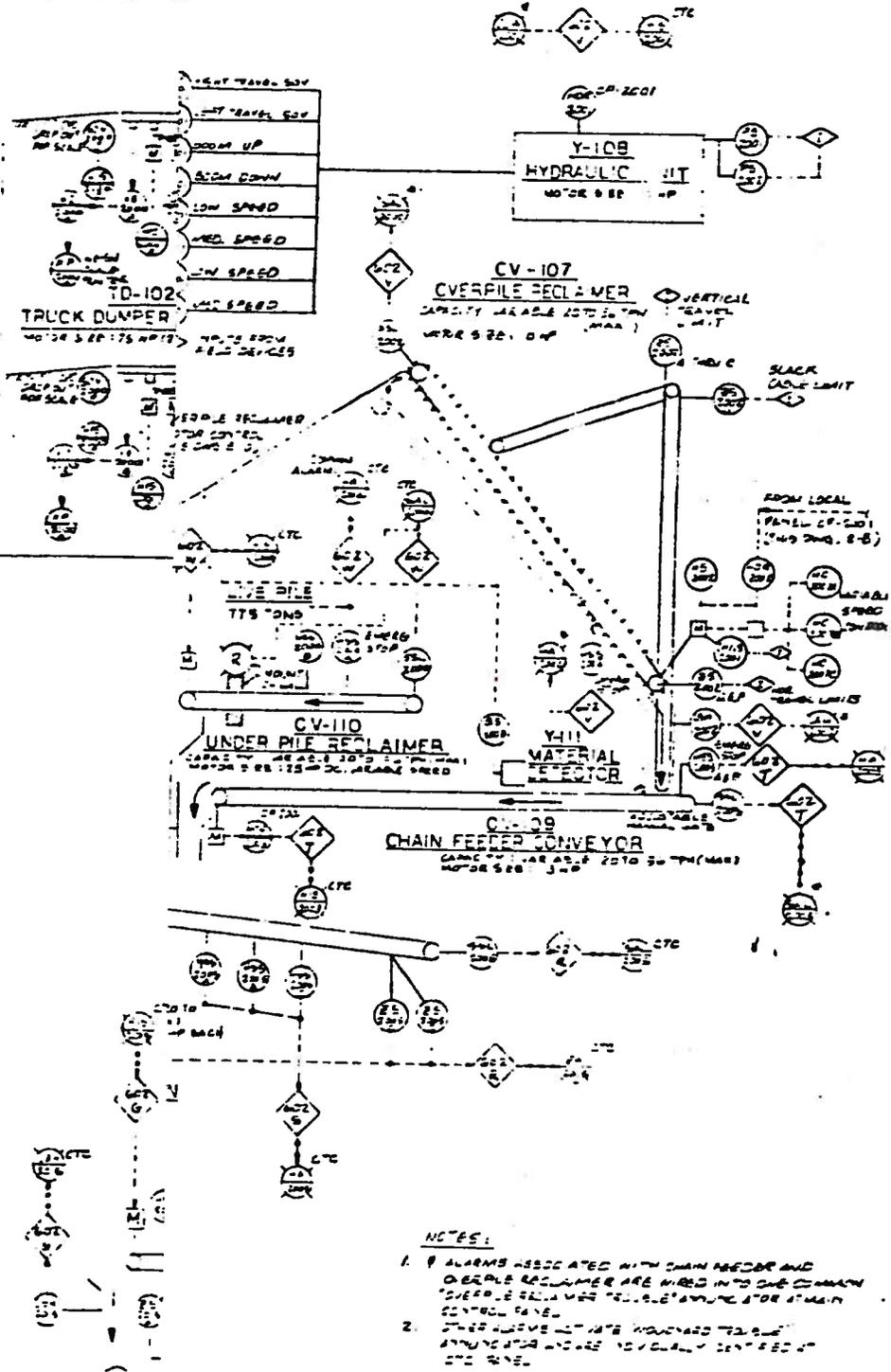
LEGEND
 C - PRESSURE IN PSI
 T - TEMPERATURE IN
 W - FLOW, LB HR
 H - ENTHALPY, BTU LB
 S - HR

Case	(2) (3)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
W																
H																
T																
C																

DATE	TIME	BY	NO.
NONE		PACIFIC-ATRAPOWER	
COMBUSTION CYCLE FLOW DIAGRAM		CHINESE STATION C	

TRUCK DUMPER
MOTOR 520 175 HP

G
F
E
D
C
B
A



- NOTES:
1. 9 ALARMS ASSOCIATED WITH CHAIN FEEDER AND OVERPILE RECLAIMER ARE WIRED INTO ONE COMMON OVERPILE RECLAIMER TELE-ALARMING FOR AT MAIN CONTROL PANEL.
 2. OTHER ALARMS NOT INTO WIRING FOR TELE-ALARMING ARE WIRING TO LOCAL CONTROL PANEL.

**PACIFIC-ULTRAPOWER CHINESE STATION
COMPLIANCE ASSURANCE MONITORING PLAN
FOR PARTICULATE MATTER EMISSIONS**

Date: October 2005

Prepared for
Pacific-Ultrapower Chinese Station
8755 Enterprise Drive
Jamestown, CA 95327

TABLE OF CONTENTS

1.0 General

2.0 Background

3.0 Electostatic Precipitator Description

4.0 Perfomance Indicators and Justification for Particulate Matter

4.1 Monitoring Plan for Particulate Matter

1.0 GENERAL

This compliance assurance monitoring (CAM) plan was developed in accordance with 40 CFR Section 64.3 "Monitoring design criteria". Within these regulations requirements for selecting monitoring parameters and establishing operating ranges are outlined. The plan was developed to include specified methods to determine compliance with an emission limitation on a continuous basis, consistent with the averaging period established for the emission unit in the operating permit. The plan addresses the operation of the electrostatic precipitator and monitoring opacity at Pacific Ultrapower Chinese Station as means of assuring compliance with particulate matter emission limitations.

The basis for selecting monitoring parameters and establishing operating ranges to ensure continued compliance are discussed in the sections below. Equipment description, performance indicators, operating ranges, and justification for each indicator are described.

2.0 BACKGROUND

The plant utilizes an electrostatic precipitator (ESP) furnished by Research-Cottrell for control of particulate matter. The ESP is equipped with G-Opzel type collecting plates (three fields), "Duratode" rigid discharge electrodes, one chamber, 22 gas passages, support insulator seal air system and top housing. The ESP is installed at Pacific Ultrapower, Chinese Station, Tuolumne County, California. The emission limit for the precipitator is 0.025 grains per dry standard cubic foot of exhaust gas corrected to 12% CO₂ based on a three hour average; 21.74 pounds per hour based on a three hour average; and 91.34 tons per year (County of Tuolumne 2005 Permit to Operate Condition 19 a). The opacity limit is 20% (County of Tuolumne 2005 Permit to Operate Condition 11b). Prior source tests have indicated that when the ESP is properly operating at its design specifications the above emission limits are met. Indicators for particulate matter control are proper operation and performance of the ESP, including secondary voltage and secondary current along with verification of normal operation of rappers. The plant also has in place a continuous opacity monitoring system (COMS) to monitor the opacity from the stack.

3.0 Electrostatic Precipitator Description

Emissions Unit

Description:

One (1) 370 MMBTU/hr Wood Fired Fluidized Bed Combustion Unit controlled by One (1) Noncatalytic NO_x Reduction System using ammonia, One (1) Multiclone System, and **One (1) Electrostatic Precipitating Unit.**

The primary control for particulate matter is the electrostatic precipitator. The electrostatic precipitator is assembled from a series of modules. The unit is comprised of three fields/chambers, 16 feet each in length. The precipitator utilizes a plate separation distance of 12 inches, a voltage potential of 50 kVA, and a specific collection area of 233 ft² per 1000 acfm. There are 22 gas passages and 138 collecting surfaces. The emitter plates have pins in

the leading and trailing edge to generate corona. Computer controlled automatic voltage controllers optimize collection efficiency across the plates. The current configuration is as follows:

ESP data:

Number of fields: 3
Cleaning Method: Electro Mechanical Rapping
Power Input: 47.3 KVA at 480V, 98.5 mA, 60 Hz, each field

Applicable Regulation, Emission Limit and Monitoring Requirements:

Regulation No.: Permit No. 55-0032
Regulated Pollutant: Particulate Matter

Emission Limit:

0.025 grain loading limitation (grains per dry standard cubic foot of exhaust gas corrected to 12% CO₂ on a three hour average; and mass emission rate of 21.74 pounds per hour (based on three hour average) and 91.34 tons per year (outlet)

Monitoring Requirements in Permit:

Continuous opacity monitor

VEE Evaluation (daily) if breakdown of COM beyond 24 hours

Control Technology:

Multiclone System and Electrostatic Precipitating Unit

4.0 Performance Indicators and Justification for Particulate Matter

The performance indicators for proper operation of the ESP include secondary voltage, secondary current, and rappers in good operating order.

- A. Secondary voltage is the voltage being applied to the collector and emitter plates. This voltage is very high relative to the primary voltage. This is necessary to attract dust and particulate matter to the collector plates. In the event that this drops to below the ranges indicated, then collection performance of the ESP field or fields is affected. Field #1 through #3 operate at approximately the same voltage set point. Generally the first field collects a larger proportion of the total particulate. A reduction in field voltages in field #2 and #3 would occur if less particulate is available to collect.

Rationale: Low secondary voltage reduces the effectiveness of the ESP. For this reason the voltage operating range of 50,000 to 68,000 volts is maintained across all fields and is selected as a monitored parameter (data collected and recorded manually each day).

- B. Secondary current (or amperes) is the current or power being consumed by the ESP field or fields. Since the voltage is very high being applied to the fields, the current is relatively low, ≤500 (field #1) to 750 (fields #2 and #3) milliamps. Readings near the high end of the range indicate that particulate loading is relatively high on the field and readings near the low end of the range indicate relatively low particulate loading on the field. Readings above the high end of the range for each field may indicate an electrical fault in the ESP.

Rationale: Secondary current above the high end of the range for each field may indicate a potential electrical problem that could result in reduced effectiveness of the ESP. For this reason the secondary current of less than or equal to 500-750 milliamps (depending on the particular ESP field) is selected as a monitored parameter (data collected and recorded manually each day).

- C. Rappers in good operating condition indicate that collected particulate matter is being effectively removed from the plates by a mechanical rapping action for collection and removal from the ESP hoppers. Any rapper on any field that is not operating properly will not allow for removal of accumulated particulate and continued collection of particulate over time.

Rationale: Proper Rapper Operation is necessary for effective particulate matter collection and removal. For this reason the rapper system verified in good working order every 24 hours is selected as a monitored parameter. The proper operation of the rapper system is checked and verified daily.

4.1. Monitoring Plan for Particulate Matter

The Plant will monitor the parameters shown in Table 1 as part of the CAM Plan. Actions are taken by plant operators, as indicated, in the event that any parameter is outside of established limits.

Table 1 – CAM Plan Monitoring Requirements for Particulate Matter

<u>Parameter</u>	<u>Operating Limits</u>	<u>Actions to be Taken</u>	<u>Monitoring Method</u>
Opacity	≥20	Initial action is taken when the opacity reaches 10%. A visual inspection is made of all control equipment. At 20% opacity the plant investigates and will take action to shutdown equipment – Report to the District as required in Permit condition 8.	COMS and Data Recording and the plant employs one CARB certified VEE per Permit Condition No. 12.
ESP Secondary Voltage Field #1, #2, #3	≥50 kv ≤68 kv	In event of secondary voltage being outside of stated range, the Plant will investigate and Repair or Shutdown. If condition remains outside range after 3 hours, report condition as a deviation from parameters in CAM Plan to the District within 2 hours of making the above determination.	Daily Observation and Data Recording
ESP Secondary Amperes (current)	≤500 milliamps for field #1 and ≤750 milliamps for fields #2 and #3	In event of secondary current being higher than stated upper limit for that field, the Plant will investigate and Repair or Shutdown. If condition remains higher than limit for that field after 3 hours, report condition as a deviation from parameters in CAM Plan to the District within 2 hours of making the above determination.	Daily Observation and Data Recording
Mechanical Rappers	In Operation	In event of any single rapper found not operating properly, Plant will investigate and Repair or Shutdown. Report condition as	Daily Observation – Recorded by Operators once each 24 hour shift.

		a deviation from parameters in CAM Plan to the District within 2 hours of making the above determination.	
--	--	---	--

ATTACHMENT A

ORIGINAL TITLE V PERMIT APPLICATION

STATIONARY SOURCE SUMMARY (FORM XXX-A1)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District

COMPANY NAME: Pacific-Ultrapower Chinese Station, a California General Partnership

< DISTRICT USE ONLY =

District ID:

Application #:

Application Received:

Application Filing Fee:

Application Deemed Complete:

I. FACILITY IDENTIFICATION

1. Facility Name: Pacific-Ultrapower Chinese Station
2. Four digit SIC Code: 4911 EPA Plant ID: CAL000180136
3. Parent Company (if different than Facility Name): Covanta Power Pacific
4. Mailing Address: 8755 Enterprise Drive, Jamestown, CA 95327
5. Street Address or Source Location: Same
6. UTM Coordinates (if required):
7. Source located within: 50 miles of the state line Yes No
50 miles of a Native American Nation Yes No Not Applicable
8. Type of Organization: Corporation Sole Ownership Government Partnership Utility Company
9. Legal Owner's Name: Pacific-Ultrapower Chinese Station, a California General Partnership
10. Owner's Agent Name (if any): Amy Wolfe
11. Responsible Official: Amy Wolfe, Vice President (209) 837-4423
12. Plant Site Manager/Contact: Ron Brown Telephone #: (209) 984-4660
13. Type of facility: Electric Generating Facility
14. General description of processes/products: Steam electrical power generation unit, combusting biomass fuel in a bubbling fluidized bed combustor with one 370 MBTU boiler, generating up to 208,640 pounds/hour steam to drive a 25.6 gross megawatt steam driven generator. Plant has fuel storage and handling facilities/equipment and ash storage and handling equipment.
15. Does your facility store, or otherwise handle, greater than threshold quantities of any substance on the Section 112(r) List of Substances and their Thresholds (see attachment A)? Yes No
16. Is a Federal Risk Management Plan [pursuant to Section 112(r)] required? Not Applicable Yes No
(If yes, attach verification that Risk Management Plan is registered with appropriate agency or description of status of Risk Management Plan submittal.) ATTACHED

COMBUSTION EMISSION UNIT (FORM XXX-C1)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

I. PERMIT NUMBER:

II. EMISSION UNIT DESCRIPTION

1. Equipment type: 370 MBTU input wood/biomass fired boiler, 25.6 MW (gross) electric power generating turbine
2. Equipment description: Biomass fired bubbling bed combustor and boiler with LPG start-up burner
3. Equipment make, model & serial number: Energy Products of Idaho #2
4. Maximum design process rate or maximum power input/output: 25.6 MW 208,640 lb/hour steam
5. Primary use: Fuel combustion and steam generation
6. Burner(s) design, operating temperature and capacity: Bubbling bed combustor 370 MMBTU/hour and propane fired start-up burner 13 MMBTU/hour
7. Control device(s) type and description (if any): Ammonia injection (noncatalytic Exxon DeNox), tertiary air controls, multiclone and Electrostatic Precipitator (ESP)

III. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8400 (hours/year)
2. Exhaust gas properties (temperature, SCFM, %H₂O, %O₂ or %CO₂, % excess air): 105,000 dscfm 320°F, 5 to 8% excess O₂
3. Fuel specifications:

FUEL TYPE (name)	ANNUAL USAGE (c.f./yr, lb/yr, gal/yr)	HEATING VALUE (BTU/lb or BTU/gal)	SULFUR (%)	NITROGEN (%)
Biomass, wood waste, urban waste wood	160,000 BDT/yr	6000-8800 BTU/lb (8320 BTU/design)	0.05	0.4
LPG	90,000 gal/yr (4500 gal/cold start)	91,500 BTU/gal	0.1	0.1-1.0

COMBUSTION EMISSION UNIT (FORM XXX-C2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

4. Unit emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS	NO _x	PM	SO ₂	VOC	CO
A. Emissions	245	77.91	32.76	145.93	223.35
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³	140 ppm _{dv} @ 3% O ₂	0.025 gr/dscf @ 12% CO ₂	51.86 lb/hr	36.30 lb/hr	55.56 lb/hr
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS					
A. Emissions	See Note ¹				
B. Pre-Modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					
¹ For permit modifications only; emissions prior to project modification. ² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.). ³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.					

Emissions of toxic air pollutants were estimated for California Toxic Hot Spots Inventory program under AB2588. The emissions inventory report is on file at the District Office. No hazardous, toxic or other criteria pollutants are emitted above major thresholds for Title I or Title III of the Clean Air Act or other applicable regulation.

GENERAL EMISSION UNIT (FORM XXX-F1-A)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Pacific-Ultrapower Chinese Station	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

I. PERMIT NUMBER: PTO #55-0032

II. EQUIPMENT DESCRIPTION

1. General process description: Wood waste/biomass fuel receiving, transfer and storage.
2. Equipment type: Material transfer
3. Equipment description: Truck dumps (CV-101, 102), receiving conveyor, receiving pile, front loader, live pile, CV-110 under pile reclaim or overpile reclaim, CV-112 screen conveyor, screen/shredder, CV-113 accepts conveyor, metering bin/overfeed conveyor.
4. Equipment make, model & serial number: N/A
5. Maximum design process rate or throughput: 25 BDT/hour Average
6. Control device(s) type and description (if any): Conveyor enclosures, wind screens, water sprays, minimize drop height

III. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8400 (hours/year)
2. Exhaust gas flow rate: N/A SCFM @ N/A %H₂O
3. Raw products used and finished products produced: fuel

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Wood waste/biomass	37.1 tons/hour @ 40% moisture (25 dry tons/hour)	Fuel	25 dry tons/hour

GENERAL EMISSION UNIT

(FORM XXX-F2-A)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

4. Unit emissions: Wood Fuel receiving, handling and storage

CRITERIA POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS	PM				
A. Emissions	13.44				
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS	N/A				
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					

¹ For permit modifications only; emissions prior to project modification.

² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).

³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.]

GENERAL EMISSION UNIT (FORM XXX-F1-B)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

I. **PERMIT NUMBER:** PTO #55-0032

II. EQUIPMENT DESCRIPTION

1. General process description: Ash handling, storage and shipping
2. Equipment type: Materials handling
3. Equipment description: Screw conveyer, wet mixer, batch loading, storage area
4. Equipment make, model & serial number: N/A
5. Maximum design process rate or throughput: 60 tons/day wet basis
6. Control device(s) type and description (if any): Enclosed conveyer, wet handling, covered storage. Enclosed conveying, wet mixing and handling, covered storage (roof only) and drop height.

III. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8400 (hours/year)
2. Exhaust gas flow rate: N/A SCFM @ N/A %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Ash	60 tons/day @ 25% moisture	Ash for waste disposal	2.50 tons/hour ash @ 25% moisture

**GENERAL EMISSION UNIT
(FORM XXX-F2-B)**

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

4. Unit emissions: Ash handling, storage and shipping

CRITERIA POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS	PM				
A. Emissions	1.58				
B. Pre-modification Emissions ¹					
C. Emission Change ²					
D. Emission Limit ³					
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS	N/A				
A. Emissions					
B. Pre-modification Emissions ¹					
C. Emission Change ²					
D. Emission Limit ³					

¹ For permit modifications only; emissions prior to project modification.
² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.]

COMPLIANCE PLAN (FORM XXX-11)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Pacific-Ultrpower Chinese Station	DISTRICT ID:
COMPANY NAME: Pacific-Ultrpower Chinese Station	FACILITY NAME: Pacific-Ultrpower Chinese Station

I. PROCEDURE FOR USING FORM 5-1

^ This form shall be submitted as part of the Title V Application. The Responsible Official shall identify the applicable federal requirement(s) to which the source is subject. In the Compliance Plan (Form 5-1), a Responsible Official shall identify whether the source identified in the Title V Application currently operates in compliance with all applicable federal requirements.

II. APPLICABLE FEDERAL REQUIREMENTS

APPLICABLE FEDERAL REQUIREMENT ²	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt ¹)	EFFECTIVE DATE ²
40 CFR 52.21: Prevention of Significant Deterioration. Major new source permit to construct or modify. [40 CFR 52.270(a)(3)]: The provisions of §52.21(b) through (w) are hereby incorporated and made a part of the applicable state plan for the State of California.	25.6 MW (gross) 208,640 lb/hr boiler	Exempt ³	Applicable upon significant modification or increase in emission rate. Regulation IV may subsume if approved as SIP.
40 CFR Part 60 NSPS: Notifications and recordkeeping -- construction, startup, physical or operational changes, CEMs, performance tests, excess emissions report, file retention (2 years).	25.6 MW (gross) 208,640 lb/hr boiler	Exempt ⁴	Applicable upon significant modification.
40 CFR 52.233 (SIP) New Source Review. [40 CFR 52.233(d)(27)]: The requirements of §51.160(a) are not met in Tuolumne County APCD.	Boiler or other equipment upon modification or construction	Yes	Regulation IV, of TCAPCD may be approved as SIP. Date unknown.
Permit to Operate (PO) condition 11. Fugitive dust 20% opacity limit.	PO 55-0032	Yes	
PO condition 7: Open burning prohibited	PO 55-0032	Yes	
PO condition 5: Operate and maintain combustion controls, ammonia injection, multiclone and FSP in good operating condition.	PO 55-0032	Yes	
PO condition 15, A-C condition 125: Fuel limited to LPG for startup and clean, woodwaste. Particleboard, plywood and other additives not to exceed 3%. Added fuel restriction is a local requirement not part of NSR or BACT determination.	PO 55-0032 A-C 8/9/95	Yes	
PO condition 16, A-C condition 3: Monitors and recorders maintained and operated in good condition.	PO 55-0032 A-C 8/9/95	Yes	
PO condition 18a: Calculate daily emission rates for NOx and report quarterly to APCD	PO 55-0032	Yes	

APPLICABLE FEDERAL REQUIREMENT ²	EMISSION UNIT or PERMIT NUMBER	IN COMPLIANCE (yes/no/exempt ¹)	EFFECTIVE DATE ²
PO condition 18b: Report gross megawatt production rate, fuel use and ash generation rates, and operating hours quarterly to APCD.	PO 55-0032	Yes	
PO condition 19, A-C condition 6: Emission limits ⁶ PM: 26.14 lb/hour, 77.91 tons/year NOx: 245 tons/year 58.3 lb/hr/24 hour, 140 ppmvd @ 3% O ₂ /24 hour, 245 ton SO ₂ : 51.86 lb/hour, 32.76 tons/year VOC: 36.3 lb/hour, 145.93 tons/year CO: 55.56 lb/hour, 223.35 tons/year	PO 55-0032 A-C 8/9/95	Yes	
PO condition 20: Operating hours Limit operating hours to 8400/year	PO 55-0032	Yes	
PO condition 8: Rule 516 ⁷ Notify APCD of breakdown, startup and malfunction of operations or CEM.	PO 55-0032	Yes	
PO condition 2, A-C condition 8: Rule 426 Transfer of ownership.	PO 55-0032 A-C 8/9/95	Yes	
PO condition 10: SIP/TCAPCD Rule 205 Nuisance prohibited.	Facility	Yes	
40 CFR 51.116(c) 60.9 Public availability of information.	Facility No permit item	District plan not approved in SIP	
40 CFR 5220(c)(204)(i)(A)(4) Long term measures off road industrial equipment emission standards.	Heavy duty off road vehicles	Yes	Upon replacement
40 CFR 51.211 Right of entry inspection, entry, monitoring, compliance certification, and reporting requirements to ensure compliance with permit terms.	Facility	Yes	
¹ If exempt from applicable federal requirement, attach explanation for exemption. ² Indicate the date during the permit term that the applicable federal requirement will become effective.			

²Permit conditions listed below are part of SIP for California at 40 CFR 52.220 and federally enforceable through NSR and ambient air quality attainment programs for major sources at various code locations in parts 50 and 52. The SIP (attachment 3) for Tuolumne County cannot be traced due to recodification and substantial revisions. In accordance with the White Paper Number 2, 1996, judgment has been used to determine if District rules or permit conditions may be applicable as SIP requirements or are subsumed by more stringent Federal requirements.

³PSD is not applicable. Source is not a listed category for 100-ton major source (not fossil fuel fired), and is less than 250 tons per year for any regulated pollutant.

⁴Effective date for NSPS Subpart Db regulations (6/19/84). Compliance assessment is attached.

⁵A-C means Authority to Construct permit and infers New Source Review including BACT, air quality attainment and other SIP elements.

⁶NOx limits in A-C permit were 55.2 lb/hour and 221.9 tons/year and may have been adjusted following performance test.

⁷Breakdown and malfunction rule codified as Rule 404 in 1977 was disapproved at 40 CFR 52.271(a)(33)(i). Review of Rule 516 suggests it is enforceable although it is not in the SIP.

COMPLIANCE PLAN (FORM XXX-12)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

III. COMPLIANCE CERTIFICATION

Under penalty of perjury, I certify the following:

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) with which the source is in compliance identified in form XXX-11;*
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with the future-effective applicable federal requirement(s) identified in form 5-11, on a timely basis¹;*
- 9 Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance with the applicable federal requirement(s), identified in form 5-11, and I have attached a compliance plan schedule.²*

Signature of Responsible Official

Date

1. Unless a more detailed schedule is expressly required by the applicable federal requirement.
2. At the time of expected permit issuance, if the source expects to be out of compliance with an applicable federal requirement, the applicant is required to provide a compliance schedule with this application, with the following exception. A source that is operating under a variance that is effective for less than 90 days need not submit a Compliance Schedule. For sources operating under a variance, which is in effect for more than 90 days, the Compliance Schedule is the schedule that was approved as part of the variance granted by the hearing board.

The compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with this applicable federal requirement. For sources operating under a variance, the compliance schedule is part of the variance granted by the hearing board. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. For sources not operating under a variance, consult the Air Pollution Control Officer regarding procedures for obtaining a compliance schedule.

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J1)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

I. CERTIFICATION STATUS

1. Indicate the dates the applicant intends to submit the **COMPLIANCE CERTIFICATION REPORT** to the district during the entire permit term. The district federal operating permits rule requires the applicant to submit this report at least annually.

February 1 each year for the previous year

2. For sources required to have a schedule of compliance to remedy a violation, indicate the dates the applicant intends to submit **CERTIFIED PROGRESS REPORTS** to the district during the permit term. The district federal operating permits rule requires the applicant to submit this report at least semiannually.

Not applicable

3. Describe the compliance status of the source with respect to applicable enhanced monitoring, and compliance certification requirements of Section 114(a)(3) of the Clean Air Act:

Compliance assurance monitoring requirements have not been issued in final form. It is expected that this facility will be classified as Tier 1 pursuant to 40 CFR 64.1(b) as a major source with applicable emission limitations, applicable to NSPS but for date and not otherwise exempt. The facility continuously monitors Opacity, NOx and various production parameters. A program will be implemented to gather data needed to establish parametric monitoring techniques for PM, SO₂ and VOC. A compliance assurance monitoring plan will be developed before the final regulations take effect.

COMPLIANCE PLAN CERTIFICATION

(FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility

APPLICABLE FEDERAL REQUIREMENT: 40 CFR 52.21, 40 CFR Part 60, 40 CFR 52.233, TCAPCD Regulation IV

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	None applicable
Reporting	Application for Authority to Construct as applicable
Record Keeping	None
Test Methods	None

Proposed Language:

Any addition to, enlargement of, replacement of, or any major modification or change of the design, capacity, process, or arrangement, or any increase in the connected loading of equipment or control apparatus, which will significantly increase or affect the kind or amount of air contaminants emitted is subject to New Source Review under Regulation IV of the TCAPCD and shall require an Authority to Construct permit, except as provided in Rule 402.

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility

APPLICABLE FEDERAL REQUIREMENT: Nuisance Prevention, Fugitive Dust, Open Burning pursuant to SIP, California regulations at Title 17, §41700, 41800; TCAPCD Rule 205

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Observe daily during operating hours
Reporting	Not applicable
Record Keeping	Not applicable
Test Methods	Visible emissions Method 9

Proposed Language:

1. The operator shall prevent fugitive dust emissions exceeding 20% opacity off the property from mobile, stationary and area source activities associated with this facility from causing a violation of Rule 202 of Tuolumne County Rules and/or Section 41700 of the Health and Safety Code.
2. Except as provided in TCAPCD Rule 310, it is prohibited to use open outdoor fires for the purpose of disposal or burning of petroleum wastes, plastics, construction or demolition debris, tires, tar, trees, wood waste, or other combustible or flammable solid or liquid waste (Section 41800).

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility

APPLICABLE FEDERAL REQUIREMENT: Operating and construction conditions related to New Source Review

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Visual inspection
Reporting	Annual Certification
Record Keeping	Fuel receipts
Test Methods	None applicable

Proposed Language:

1. The combustion unit shall be operated and maintained in good condition in accordance with the design criteria in the Authority to Construct permit and manufacturer's recommendations for combustion control, noncatalytic ammonia injection, multiclone and electrostatic precipitator.
2. The unit shall be fired using only wood waste, biomass, construction wood waste, agricultural prunings, pits and other fuels that can be used without modification of the unit and specifically approved for use by the Air Pollution Control Officer (APCO). The APCO may require source testing as a pre-condition to use of other waste fuels not previously demonstrated in the unit, and may limit their use and composition to ensure the emission limits are complied with.
3. Fossil fuels are prohibited for combustion in the unit except that liquid propane gas may be used during start-up, shut down or malfunctions to stabilize combustion and reduce emissions.

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility

APPLICABLE FEDERAL REQUIREMENT: Emission limits, excess emissions, malfunction and breakdown

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	NO_x CEM
	Performance test not to exceed once in two years at APCO request
	Compliance Assurance Monitoring Plan to be proposed
Reporting	Annual summary of excess emissions
	District breakdown reports each incident, annual startup shutdown malfunction report summary
Record Keeping	Performance source test results, calculations, emissions data log
	Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation; any malfunction of air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative
Test Methods	Approved by APCD 14 days prior to source test

Proposed Language:

1. The unit emissions shall not exceed the following:

Particulate Matter	26.14 pounds per hour or, 0.025 grains/dscf at 12% CO ₂ , 3-hour average 62.23 tons/year
Oxides of Nitrogen	58.3 pounds/hour 140 ppm @ 3% O ₂ 245 tons/year
Sulfur Dioxide	51.86 pounds/hour 32.76 tons/year
VOC	36.3 pounds/hour 145.93 tons/year
Carbon Monoxide	55.56 pounds/hour 223.35 tons/year
Opacity	20% 3-minute average

2. The owner or operator of the facility shall provide and maintain in good, safe condition:
 - a. Sampling ports adequate for test methods applicable to such facility.
 - b. Safe sampling platform(s).
 - c. Safe access to sampling platform(s).
 - d. Utilities for sampling and testing equipment.
3. Upon receiving written request from the APCO, and not to exceed once every two years, the facility shall schedule a CARB certified source tester to perform the following performance testing:
 - a. Relative Accuracy Tests on the continuous monitors for NO_x and CO using Method 100.
 - b. The facility shall demonstrate compliance with the particulate matter standard by performing a source test using CARB Method 5. Isokenetic flow and flow measurements shall be in accordance with CARB Methods 1 and 3. The continuous pressure differential flow meter shall be calibrated with actual flow from the main stack using Method 3 and a relative accuracy range reported.
 - c. In accordance with the compliance assurance monitoring plan and using data from source testing, the facility shall develop parametric equations that correlate emissions of PM to appropriate measurable parameters such as power or steam production rates or opacity.
 - d. Emissions of VOC and SO₂ or fuel analyses shall be tested upon request using Methods 25 and 9, respectively.
4. The owner or operator shall provide access to the APCO, California Air Resources Board or U.S. EPA to perform such additional source testing as may be necessary to determine compliance of the source.
5. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner's or operator's control, compliance may be determined using the arithmetic mean of the results of the two other runs.
6. Excess emissions shall be calculated and reported in accordance with 40CFR 60.7(c) on an annual basis. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted.
7. The owner or operator shall submit an Excess Emissions and Monitoring Systems Performance report to provide data on its compliance with emission limits and operating parameters, and on the performance of the monitoring systems.

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility

APPLICABLE FEDERAL REQUIREMENT: Administrative modifications 40 CFR Part 70 TCAPCD Rule 500 B

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Not applicable
Reporting	Notifications of change in ownership and permit errors
Record Keeping	Not applicable
Test Methods	None applicable

Proposed Language:

The following shall be allowed as an Administrative Permit Amendment:

1. Changes that correct a typographical error;
2. Permit amendments that identify a minor administrative change at the stationary source; for example, a change in the name, address, or phone number of any person identified in the permit;
3. Requires more frequent monitoring or reporting by a responsible official of the stationary source; or
4. Transfers ownership or operational control of a stationary source, provided that, prior to the transfer, the APCO receives a written agreement that specifies a date for the transfer of permit responsibility, coverage, and liability from the current to the prospective permittee.

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrpower Chinese Station	FACILITY NAME: Pacific-Ultrpower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility
 APPLICABLE FEDERAL REQUIREMENT: Production limits

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	Continuous during operations
Reporting	The facility shall report monthly gross megawatt production rates and operating hours to the APCD on a quarterly basis
Record Keeping	Electric transmission meter recorder; Steam production log
Test Methods	None applicable

Proposed Language:

1. The facility shall not operate more than 8400 hours/year unless the owner or operator demonstrates on the basis of performance source testing and monitoring that increased hours of operation will not cause a significant increase in emissions of any criteria pollutant. Significant increase shall have the same meaning as found at 40 CFR 52.21 Prevention of Significant Deterioration.
2. The facility shall not exceed an average 25.6 gross megawatts/hour on a monthly basis.
3. The facility shall not exceed an average 208,640 pounds per hour steam generation on a monthly basis.

COMPLIANCE PLAN CERTIFICATION (FORM XXX-J2)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: Chinese Station Facility
 APPLICABLE FEDERAL REQUIREMENT: Right of entry inspection 40 CFR 51.211

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	N/A
Reporting	N/A
Record Keeping	N/A
Test Methods	N/A

CERTIFICATION REPORT (FORM XXX-K1)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

I. FACILITY INFORMATION

1. Company Name: Pacific-Ultrapower Chinese Station
2. Facility Name (if different than Company Name):
3. Mailing Address: 8755 Enterprise Drive, Jamestown, CA 95327
4. Street Address or Source Location: Same
5. Facility Permit Number: PTO #55-0032

II. GENERAL INFORMATION

1. Reporting period (specify dates):
2. Due date for submittal of report:
3. Type of submittal: Monitoring Report (complete Section III below)
 Compliance Schedule Progress Report (complete Section IV of Form 5-K2)
 Compliance Certification (complete Section V of Form 5-K2)

III. MONITORING REPORT INFORMATION

1. Were deviations from monitoring requirements encountered during the reporting period?
 No Yes (If Yes, complete Form 5-I.)

DEVIATION REPORT
(FORM XXX-L)
FORM NOT APPLICABLE PENDING PERMIT
 Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

I. DEVIATION INFORMATION

1. Permit number(s) of emission unit or control unit affected:

2. Description of deviation:

3. Description and identification of permit condition(s) deviated:

4. Associated equipment and equipment operation (if any):

5. Date and time when deviation was discovered:

6. Date, time and duration of deviation:

7. Probable cause of deviation:

8. Preventive or corrective action taken:

CERTIFICATION STATEMENT (FORM XXX-M)

Revised 4/1/04

DISTRICT: Tuolumne County Air Pollution Control District	< DISTRICT USE ONLY =
	DISTRICT ID:
COMPANY NAME: Pacific-Ultrapower Chinese Station	FACILITY NAME: Pacific-Ultrapower Chinese Station

Identify, by checking off below, the forms and attachments that are part of your application. If the application contains forms or attachments that are not identified below, please identify these attachments in the blank space provided below. Review the instructions if you are unsure of the forms and attachments that need to be included in a complete application.

<p><u>Forms included with application</u></p> <p><input checked="" type="checkbox"/> Stationary Source Summary Form</p> <p><input checked="" type="checkbox"/> Total Stationary Source Emission Form</p> <p><input checked="" type="checkbox"/> Compliance Plan Form</p> <p><input checked="" type="checkbox"/> Compliance Plan Certification Form</p> <p><input checked="" type="checkbox"/> Exempt Equipment Form</p> <p><input checked="" type="checkbox"/> Certification Statement Form</p> <p><u>List other forms or attachments</u></p> <p><u>Combustion Emission Unit, General Emission Unit Emission Control Unit, Attachment 1 Calculations Attachment 2 Basis for NSPS exemption and supporting documents, SIP review, Flow diagram of combustion NOx Totalizer System.</u></p>

<p><u>Attachments included with application</u></p> <p><input type="checkbox"/> Description of Operating Scenarios</p> <p><input checked="" type="checkbox"/> Sample emission calculations</p> <p><input checked="" type="checkbox"/> Fugitive emission estimates</p> <p><input type="checkbox"/> List of Applicable requirements</p> <p><input type="checkbox"/> Discussion of units out of compliance with applicable federal federal requirements and, if required, submit a schedule of Compliance</p> <p><input checked="" type="checkbox"/> Facility schematic showing emission points</p> <p><input type="checkbox"/> NSR Permit</p> <p><input type="checkbox"/> PSD Permit</p> <p><input type="checkbox"/> Enhanced monitoring protocols</p> <p><input type="checkbox"/> Risk management verification per 112(r)</p>

I certify under penalty of law, based on information and belief formed after reasonable inquiry, that the information contained in this application, composed of the forms and attachments identified above, are true, accurate, and complete.

I certify that I am the responsible official, as defined in Tuolumne County Air Pollution Control District Rules and Regulations, Rule 500.II.BB, "Responsible Official."

Signature of Responsible Official Date

Amy Wolfe
Print Name of Responsible Official

Vice President Pacific-Ultrapower Chinese Station
Title of Responsible Official and Company Name

Attachment 1
CALCULATIONS
FUGITIVE PM
Revised 5/12/04

Fuel receiving, handling and storage emissions.

Fuel is received at two truck dumps with hoppers CV-101, CV-102, and drag conveyors. These discharge to a receiving conveyor CV-103 that empties onto the receiving pile. Materials are generally moved from the receiving pile by front-end loader to the main stock pile. As needed, raw fuel is removed from the pile by either an under pile reclaimer CV-110, or the overpile bucket reclaimer (overpile reclaimer) CV-107 to the chain feeder conveyor CV-109. Both CV-110 and CV-109 empty onto the incline screen conveyor CV-112 to the screen tower. At the top of the screen tower, fuel flow can be diverted to either the North or South disc screens and knife hog (shredder). Once fuel is sized, it is discharged onto incline conveyor (accepts conveyor) CV-113 that feeds the metering bins. Excess fuel can be returned on the overfeed conveyor CV-115. Once in the fuel feed system at the boiler, no fugitive emissions are possible due to the induced draft.

Fugitive emissions can occur at each truck dump and transfer point. The disc screen is located in an enclosed building and is not vented to the air. The transfer to the chute at the top and from the base of the building are each counted as a transfer point for the purpose of calculating emissions. A total of 10 potential transfers points exist for the purpose of calculating the fuel receiving and storage potential to emit. The fuel has a moisture content averaging 40% by weight and a generally large particle size. Delivery operations are limited to 5 days/week during daylight hours, and fuel processing is continuous with the operation of the boiler. For calculations the total annual weight basis is used and it is assumed that batch operations are continuously performed. The actual operating hours do not affect the calculations.

To calculate the fugitive emissions potential to emit, the fugitive emissions calculations in the Authority to Construct Evaluation, August 5, 1985, was reviewed. The potential to emit in this document was based on emission factors in AP-42 Section 10.3-3, Wood Products. Chapter 10 of AP-42 (Wood Products) is currently undergoing revision and more contemporary emission factors are not available. The potential throughput for the equipment is limited by the boiler's capacity of the boiler to burn fuel. This maximum throughput can be applied to each piece of equipment or transfer point unless the equipment is operating in parallel (e.g., truck dumps and screens), in which case the potential to emit is divided equally between the trains. The emission factor of 0.024 lb/ton for the truck dumps and screens, or 0.01 lb/ton for conveyor transfers, is applied to the maximum dry throughput (25 tons/hour) of wood and biomass fuels.

The list of sources and the emission factor used at each source or transfer is shown below.

EMISSION SOURCES IN FUEL RECEIVING

Source	Emission Factor lb/ton
Initial truck dump into hopper	0.024
Hopper to CV-103	0.01
CV-103 to receiving pile	0.01
Receiving pile batch to stock pile	0.01
CV-107 to CV-109 or CV-110 to CV-112	0.01
CV-109 to CV-112	0.01
CV-112 to disc screen	0.01
Disc screen	0.024
Knife Hog	0.024
Disc screen to CV-113	0.01
CV-113 to metering bins or metering bins to CV115	0.01

CALCULATION OF POTENTIAL TO EMIT: PARTICULATE MATERIAL FROM FUEL HANDLING

Potential to Emit 15.96 tons/year

Calculation for PTE for PM $((25 \text{ tons/hour} \times 0.024 \text{ lb/ton}) \times 3 \text{ transfer}) + ((25 \text{ tons/hour} \times 0.01 \text{ lb/ton}) \times 8 \text{ transfers}) = 3.8 \text{ lb/hour} \times 8400 \text{ hours/2000 lb/ton} = 15.96 \text{ tons/year}$

Ash handling and disposal.

Ash is separated from the flue gas and passed through air locks into screw conveyors at the base of the boiler, multiclones, primary economizer and electrostatic precipitator. It is discharged into a surge tank where it is wetted to 25% moisture. An average rate of 60 tons/day of wet ash may be generated. Ash is transferred to an enclosed dumpster and transferred to a covered storage patio. Following characterization and analysis, it is batch loaded on trucks for transport to final disposal. All transfer operations occur in enclosed containers or trucks. Potential emissions occur at the dumping of the dumpster on the storage patio and during batch loading to trucks.

Using AP-42 material transfer emission estimates of 0.1 lb/ton and assuming two transfers, the potential to emit is shown below.

CALCULATION OF POTENTIAL TO EMIT: PARTICULATE MATERIAL FROM ASH HANDLING

Potential to Emit 1.58 tons/year

Calculation for PTE for PM $((60 \text{ wet tons/day average} \times 0.75\% \text{ dry basis}) \times (8400/24 \text{ hours})) \times 0.1 \text{ lb/ton} \times 2 \text{ transfers} \times 1 \text{ ton}/2000 \text{ lb} = 1.58 \text{ tons/year}$

Fugitive particulate emissions from paved and unpaved roadways.

The fuel handling area experiences traffic loads from front-end loaders and other vehicle and truck types. The AP-42 Section 13.2.1 and 13.2.2 were used to estimate potential fugitive dust emissions from the sources. The 30 micron cumulative particle size was used to estimate all particulate matter emissions. Vehicle miles traveled per day was assumed for each vehicle type and that the silt content resembles municipal landfill haul roads (6.4%). No data is available for the specific wood fuel stockpiling operations, and tannins in the wood should cause some dust control to occur. The empirical expressions below may be used to estimate the quantity of particulate emissions from both paved and unpaved road, per vehicle mile traveled (VMT).

Paved Roads

Emissions calculations from paved roads were based on Section 13.2.1 of EPA's AP-42, updated December 2003. The following equation was used in calculating the facility's fugitive dust emissions along paved roads.

$$E = k (sL/2)^{0.65} (W/3)^{1.5}$$

where:

- E = emission factor (lb/vehicle mile traveled [VMT])
- k = base emission factor for particle size range (lb/VMT) for total suspended particulates
- sL = road surface silt loading (grams/m²)
- W = average weight (tons) of the vehicles traveling the road

Assumption for Paved Road Fugitive Emissions Estimation

- k = 24 g/VMT (from EPA table, PM-10)
- sL = 3.7 (from EPA Table 13.2.1-4, may be best representative as an average between of municipal solid waste landfill and low traffic road)
- 40 tons (36.3 mg) assumed average weight for all trucks and delivery trucks on paved roads
- 15 employee/personal vehicles were assumed to travel 0.4 mile per day on paved roads
- Average weight of employee/personal vehicle was assumed to be 2.5 tons
- Vehicular operation was assumed to occur 5 days/week, 50 weeks/year
- Average weight of dolomite, ammonia, and propane trucks assumed to be 40 tons
- Average weight of delivery trucks assumed to be 5 tons
- Average weight of dolomite, ammonia, and propane trucks assumed to be 40 tons
- Vehicular operation was assumed to occur 5 days/week, 50 weeks/year except for the dolomite, ammonia and propane deliveries which are assumed to occur 50 days/ year, 12 days/year and 18 days/year respectively.

Unpaved Roads

Emissions calculations from unpaved roads were based on Section 13.2.2 of EPA's AP-42, updated December 2003. The following equation was used in calculating the facility's fugitive dust emissions along unpaved industrial roads.

$$E = k (s/12)^a (W/3)^b$$

where:

- E = emission factor (lb/vehicle mile traveled [VMT])
- k, a, b = empirical constants
- s = silt content of road surface material (%)
- W = mean vehicle weight, ton

Assumption for Unpaved Road Fugitive Emissions Estimation

- k = 1 (from EPA table, $\leq 30 \mu\text{m}$, Stokes diameter), a=0.7 and b=0.45
- s = 6.4% (from EPA table, municipal landfill haul road)
- 1 truck per week was assumed to travel 0.1 mile over unpaved roads
- Average weight of dolomite, ammonia, and propane trucks assumed to be 40 tons
- Vehicular operation was assumed to occur 5 days/week, 50 weeks/year except for the dolomite, ammonia and propane deliveries which are assumed to occur 50 days/year, 12 days/year and 18 days/year respectively.
- Vehicle speed posted at 5 mph
- Average weight of loader assumed to be 20 tons
- Average weight of dozier assumed to be 25 tons

Fugitive Emissions From Paved and Unpaved Roads

The table on the following page summarized the fugitive emissions estimated from paved and unpaved roads.

Fugitive Emissions from Paved and Unpaved Roads

Vehicle Type	Number of Vehicles	Weight (tons)	Number of Wheels	Paved Emission Factor (lb/VMT)	Unpaved Emission Factor (lb/VMT)	Travel Days per year	Distance Traveled		Uncontrolled Emissions	
							Paved (mi/day)	Unpaved (mi/day)	Paved PM (tpy)	Unpaved PM (tpy)
Loaders	1	20	4	2.11	7.08	250		5	0.0	4.427
Doiomite	1	40	18	5.96	9.68	50	< 0.1	< 0.1	0.0149	0.0
Ammonia	1	40	18	5.98	9.68	12	0.5		0.0179	0.0
Propane	1	40	18	5.96	9.68	18	0.5		0.0268	0.0
Other Delivery	2	5	4	0.26	3.80	250	0.2		0.0132	0.0
Employee/Personal Vehicle	15	2.5	4	0.09	2.78	250	0.4		0.0898	0.0
Dozler	1	25	4	2.94	7.83	250		2	0.0000	2.0
Sum									0.142	6.409
Total									6.55	

Paved Roads

AP-42 13.2.1, December 2003

$$E = k (sL/2)^{0.65} (W/3)^{1.5}$$

E = particulate emission factor (lb/VMT)

k = for PM30 (TSP) = 0.082 lb/VMT

sL = assumed to be between Low Traffic Road and Municipal Solid Waste Landfill = average of 0.4 and 7 = 3.7 grams/m²

W = average weight (tons) of the vehicles traveling the road

Unpaved Roads

AP-42 13.2.2, December 2003

$$E = k (s/12)^a (W/3)^b$$

E = size-specified emission factor (lb/VMT)

k = for PM30 (TSP) for Industrial Roads = 4.9 lb/VMT

a = for PM30 (TSP) for Industrial Roads = 0.7

b = for PM30 (TSP) for Industrial Roads = 0.45

s = silt content of road surface material (%) = 8%

W = mean vehicle weight (tons)

lb = pounds

VMT = vehicle mile traveled

mi = mile

Attachment 2
CALCULATIONS
POINT SOURCE CRITERIA POLLUTANTS
Revised 5/06/04

FBC (Fluid Bed Combustion Unit)

Criteria pollutant emissions result from the combustion process of wood fuel sprayed atop a bed of silica sand in the combustion chamber of the FBC unit. Overfire air parts are located above the floor of the combustion chamber, and provide 30% of total combustion air. Excess air is maintained at 45% of stoichiometric requirements. Combustion temperature is regulated by in-bed steam tubes, and averages 1600°F. Selective non-catalytic reduction (SNCR) and an electrostatic precipitator (ESP) are used to control NO_x and TSP, respectively. CO and VOC are maintained through good engineering combustion practices. SO₂ emissions are a function of fuel borne sulfur contained in the fuel supply. Both conifer and domestic wood fuel sources are accepted. Emission calculations for each criteria pollutant are summarized below.

The calculating methodology used to estimate hourly and annual emissions are identical to the calculation approach that was used during the ATC evaluation performed in 1985. These emission estimates differ only in that they take into account the current operating schedule (8400 hrs/yr versus 8040 hrs/yr), actual annual sulfur balances of fuel (0.05 lbs/10⁶ BTU versus 0.022 lbs/10⁶ BTU) and current TSP grain loading limits (0.025 grains/dscf versus 0.02 grains/dscf).

TSP: Permitted exhaust grain loading = 0.025 grains/dscf @ 12% CO₂
(January 8, 1987; PTO)

Exhaust gas flow = 101,489.07 (August 5, 1985; ATC)

Emission rate = $\frac{(0.025 \text{ grains/dscf}) * (101,489.07 \text{ dscfm}) * (60 \text{ min/hr})}{7000 \text{ grains/lb}}$ = 21.74 lb/hr

Maximum annual hours of operation = 8400 hrs/yr (January 8, 1987; PTO)

Maximum annual emissions = $\frac{(21.74 \text{ lb/hr}) * (8400 \text{ hrs/yr})}{2000 \text{ lb/ton}}$ = 91.34 tons/yr TSP

NO_x: Maximum projected NO_x emission rate = 58.3 lb/hr (January 8, 1987; PTO)

Adjusted to 8400 operating hours/yr (January 8, 1987; PTO) =
 $\frac{(58.3 \text{ lb/hr}) * (8400 \text{ hrs/yr})}{2000 \text{ lb/ton}}$ = 245 tons/yr NO_x

HC: Emission factor = 0.098 lb/10⁶ BTU (August 5, 1985; ATC)

Pacific Ultrapower Chinese Station
8755 Enterprise Drive
Jamestown, CA 95327
(209) 984-4660 (209) 984-3396 fax

County of Tuolumne

SEP 28 2011

September 21, 2011

Agriculture
Weights & Measures
Air Pollution Control

Mr. Bill Sandman
Tuolumne County Air Pollution Control District
2 South Green Street
Sonora, CA 95370

Subject: Comments to Draft Title V Permit
Title V Permit 55-0032-TV-001
Pacific Ultrapower Chinese Station

Dear Mr. Sandman:

Pacific Ultrapower Chinese Station (Chinese Station) has several comments on the draft Title V permit. The specific comments are included in Attachment 1.

We will be contacting you to discuss our comments. Please contact Maggie Estrada at (949) 425-4756 or Maggie.Estrada@Constellation.com or Kelly Champion at (503) 393-0890 x216 or KJChampion@CovantaEnergy.com if you have any immediate questions.

Chinese Station appreciates all of your efforts related to this request.



Stephen Gross
Responsible Official
Vice President Pacific Ultrapower Chinese Station
Constellation Energy

Cc: R. Johnston, Covanta Energy
M. Estrada, Constellation Energy
K. Champion, Covanta Energy
S. Arreguin, Plant Manager, Chinese Station

September 21, 2011

ATTACHMENT 1
COMMENTS TO DRAFT TITLE V PERMIT

Comments to Draft Title V Permit

General Permit Contact Information:

Chinese Station is requesting that Russ Johnston be added to the Responsible Officials on the permit. Russ is the Vice President Regional Operations – West Region for Covanta Energy.

Rational:

Update the Responsible Official information to include both partners.

New Permit Condition

1. Add after Current Condition III.M.

Upset, Breakdown, Malfunction Provisions:

PUCS shall refer to Rule 516 requirements regarding and upset, breakdown, or malfunctions at the facility.

Revise Current Permit Conditions

1. Condition III.O.

The condition refers to voluntary emission caps.

Requested change:

Chinese Station requests that this permit condition be removed.

Rational:

Chinese Station does not currently envision that more than one major combustion unit would be at the facility, so an emission cap would not be requested. In the event that a second boiler or other major combustion unit is added to the facility, the Voluntary Emission Cap condition could be added.

2. Condition III.P.2. currently reads:

'... and ends when the steam flow to the turbine is zero, or 24 hours has elapsed.'

Requested change:

'... and ends when the steam flow to the turbine is essentially zero, or 24 hours has elapsed.'

Rational:

Chinese Station is also requesting to not have a start-up/shutdown emission limit for CO.

The current permit limit is for normal operations. The biennial source test is used to demonstrate compliance. We did request a daily startup and shutdown permit limit for CO emissions in the PTO modification request. We have had further discussions and would like to remove the requested daily CO mass limit from the PTO permit.

6. Condition V.D.1. currently reads:

'Biomass fuel including wood, bark, wood residue, mill wastes, unpainted lumber, agricultural crop residues,...

Requested change:

Biomass fuel including, but not limited to: wood, bark, wood residue, mill wastes, unpainted lumber, agricultural crop residues,...

Rational:

Chinese Station believes that it is helpful considering the context of the discussion and future requirements to explicitly include the term 'but not limited to'.

7. Condition V.D.2. currently reads:

'Biomass fuel including wood, bark, wood residue, mill wastes, unpainted lumber, agricultural crop residues,...

Requested change:

Biomass fuel including, but not limited to: wood, bark, wood residue, mill wastes, unpainted lumber, agricultural crop residues,...

Rational:

Chinese Station believes that it is helpful considering the context of the discussion and future requirements to explicitly include the term 'but not limited to'.

8. Condition V.D.4. currently reads:

No fuel other than liquid petroleum gas shall be used for start-up purposes.

Requested change:

No fuel other than ~~liquid petroleum gas~~ propane shall be used for start-up purposes.

12. Condition VII.H. currently reads;

'...Annual Emissions Report and Certification Statement within 45 days of the end of the calendar year.'

Requested change:

'...Annual Emissions Report and Certification Statement by March 1 ~~within 45 days of the end of the following~~ calendar year.'

Rational:

This will align the reporting requirement with the start of a month which will make it easier to track and complete.

13. Condition VII.H.4. currently reads:

The facility shall include a written statement from the responsible official certifying the truth, and completeness of the report.

Requested change:

The facility shall include a written statement from the responsible official certifying the truth, accuracy, and completeness of the report.

Rational:

This will include all of the certification language.

14. Condition VIII.B.1. currently reads:

'...The facility shall conduct compliance performance tests on the boiler exhaust stack for PM10, NOx, SO2, VOC, and CO with the test methods referenced...'

Requested change:

...The facility shall conduct compliance performance tests on the boiler exhaust stack for PM10, NOx, SO2, VOC, NH3, and CO with the test methods referenced...

Rational:

Adding NH3 to the list of constituents since they are regulated pollutants, and were added to the list of performance test methods.

15. Condition VIII.B.1.a) currently reads:

The CEMS, COMS, and CERMS shall be installed, calibrated, maintained, and operated according to manufacturer's recommendations and meet the requirements in 40 CFR 60.13 and Part 60 Appendix B, Performance Specifications (PS) 1, 2, and 3, and 6. (TCAPCD Enforceable)

Rational:

Add the QA/QC requirements for the CERMS to the conditions. In addition, the requirement for the monitors is the District rules and regulations.

19. Condition VIII.C.6 currently reads:

'...The RATA for the NOx monitor and O2 monitor shall be conducted in accordance with 40 CFR Part 60 Appendix B, PS 2 and 3 respectively.'

Requested change;

...The RATA for the NOx monitor, CO2, and O2 monitor shall be conducted in accordance with 40 CFR Part 60 Appendix B, PS 2 and 3 (for CO2 and O2) respectively. (TCAPCD Enforceable (NOx, O2), CARB Enforceable (CO2))

Rational:

Add the CO2 monitor to the RATA requirements. The requirement for the NOx and O2 monitors is the District rules and regulations while the CO2 monitor is used based on CARB regulations.

20. Condition VIII.C.10. currently reads:

'...corrective actions for malfunctioning CEMS/COMS and associated equipment shall be recorded...'

Requested change:

...corrective actions for malfunctioning CEMS/COMS/CERMS and associated equipment shall be recorded...

Rational:

Explicitly add the CERMS to the record retention requirements.

Pacific Ultrapower Chinese Station
8755 Enterprise Drive
Jamestown, CA 95327
(209) 984-4660 (209) 984-3396 fax

June 17, 2011

Mr. Bill Sandman
Tuolumne County Air Pollution Control District
2 South Green Street
Sonora, CA 95370

County of Tuolumne

JUN 26 2011

**Agriculture
Weights & Measures
Air Pollution Control**

**Subject: Request for Renewal and Minor Modifications
Title V Permit 55-0032-TV-001
Pacific Ultrapower Chinese Station**

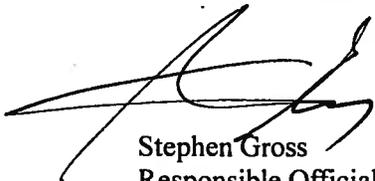
Dear Mr. Sandman:

Pacific Ultrapower Chinese Station (Chinese Station) is requesting renewal and several minor modifications to the Title V Permit to refine and/or clarify certain permit conditions and to adjust other conditions to follow industry standards. The revised Title V renewal package is provided in the attachments and includes the additional information requested by the APCD.

The modification information is provided in the attachments presents the current permit condition, the proposed wording change(s), and the rational for requesting the change. Language that we wish to delete is presented in ~~striketrough font~~ and new language is presented in underline font.

The information provided should allow the District to complete the minor permit modification process. However, if you should have any questions or require additional information, please contact Maggie Estrada at (949) 425-4756 or Maggie.Estrada@Constellation.com or Kelly Champion at (503) 393-0890 x216 or KJChampion@CovantaEnergy.com.

Chinese Station appreciates all of your efforts related to this request.



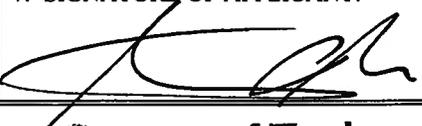
Stephen Gross
Responsible Official
Vice President Pacific Ultrapower Chinese Station
Constellation Energy

Cc: R. Johnston, Covanta Energy
M. Estrada, Constellation Energy
K. Champion, Covanta Energy
S. Arreguin, Plant Manager, Chinese Station

Tuolumne County Air Pollution Control District

Permit Application For:

ADMINISTRATIVE AMENDMENT
 MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: <u>Pacific Ultrapower Chinese Station</u>	
2. MAILING ADDRESS:	
STREET/P.O. BOX: <u>8755 Enterprise Drive</u>	
CITY: <u>Jamestown</u>	STATE: <u>California</u> 9-DIGIT ZIP CODE: <u>95327</u>
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:	INSTALLATION DATE:
STREET: <u>Same</u> CITY: _____	<u>1986</u>
_____ ¼ SECTION _____ TOWNSHIP _____ RANGE _____	
4. GENERAL NATURE OF BUSINESS: <u>Electricity generation</u>	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)	
<u>55-0032-TV-01</u>	
<u>Various wording changes to permit conditions to clarify the meaning as described on the following pages. Request for startup and shutdown limits and definitions. Change to the number of days allowed for report submittal to be more in line with other industry standards.</u>	
6. TYPE OR PRINT NAME OF APPLICANT: <u>Stephen Gross</u>	TITLE OF APPLICANT: <u>Vice-President</u>
7. SIGNATURE OF APPLICANT: 	DATE: <u>6/17/2011</u>
	PHONE: (949) 425-1771 FAX: (949) 425-1727 EMAIL: <u>Stephen.Gross@Constellation.com</u>

County of Tuolumne

DATE STAMP <div style="text-align: center; font-size: 1.2em; font-weight: bold;">JUN 26 2011</div> Agriculture Weights & Measures Air Pollution Control	FILING FEE RECEIVED: \$ _____ CHECK#: _____ DATE PAID: _____ PROJECT NO: _____ FACILITY ID: _____
--	---

Original Intent and Permit Amendment Justification

Intent of Original Facility Permits (ATC, PTO then later Title V)

The original Chinese Station Permit to Operate (PTO) permit application was submitted and issued in 1984. The Title V permit application was submitted in 1996, with an addendum submitted in 2005 and the permit was issued in 2007. At the time of the initial application, Air Permit limits were determined and negotiated for the normal operations scenario when all of the generating equipment, pollution control equipment, and processes were functioning as designed. This is indicated in the original air permit applications by examining the emission data provided by the facility.

"Normal operating conditions" is defined as: operating in a steady-state condition at thermal equilibrium and the design parameters at which the equipment is designed to operate. Since the nature of combustion is random, the emissions are high and variable (due to the fluctuations in mixing, temperature, and exhaust flow) until it reaches "steady state" conditions.

During this same time period (1980s), startup and shutdown periods were not considered in the operating limits, and furthermore, were not required to be included by the various air districts. Thus, there were no provisions for emissions limits for lower load conditions (outside of normal operations), even though it is and always has been clear that these emissions are higher than the emissions at 100% load. During that time frame, anticipated emissions during periods of startup and shutdown were not guaranteed by the equipment vendors nor were they even available. The generation equipment and the control equipment were designed to meet emission guarantees at "Normal Operating Conditions" and "Design Temperature" only, not startup and shutdown periods.

USEPA prepared a Policy Clarification guidance memorandum¹ (1982-1983 timeframe) that presented a policy for SIPs regarding excess emissions during malfunctions, startup, shutdown, and maintenance. Interpretation of this policy allowed for enforcement discretion at national levels for emission exceedances during startup, shutdown (SU/SD), and malfunction events. During a review of SIPs, USEPA observed several provisions that appeared to be inconsistent with the original policy. The 1999 USEPA Memorandum by Steven Herman and Robert Perciasepe "State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown" was prepared and distributed to the control authorities. It was intended to take the opportunity to clarify several issues of interpretation and reaffirm and supplement the original policy. Various issues were discussed, including specific emission limits for startup and shutdown events, the "affirmative defense" concept, and how modifications to SIPs could occur and meet the requirements described in the 1999 USEPA memorandum.

The main question of interpretation that has arisen regarding the original policy is whether a State may go beyond an "enforcement discretion" approach and include in its SIP a provision that would, in the context of an enforcement action for excess emissions, excuse a source from penalties if the source can demonstrate that it meets certain objective criteria (an "affirmative defense"). The 1999 memorandum clarifies that States and air districts have the discretion to provide such a defense to actions for penalties brought for excess emissions that occur during certain malfunction, startup, and shutdown episodes.

¹ Kathleen Bennett, Assistant Administrator for Air, Noise and Radiation dated September 28, 1982 and February 15, 1983.

In general, because excess emissions that occur during these periods are reasonably foreseeable, they should not be excused. However, EPA recognizes that, for some source categories, even the best available emissions control systems might not be consistently effective during startup or shutdown and malfunction periods. In areas where no single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, these startup, shutdown, and malfunction periods may be addressed in the standards. This can be done through narrowly-tailored SIP revisions that take into account the potential impacts on ambient air quality caused by the inclusion of these excess emissions. In these instances, as part of its justification of the SIP revision, the State and Air District should analyze the impact of the potential worst-case emissions that could occur during startup, shutdown periods and malfunctions.

EPA recognizes that there are several approaches that may be used to incorporate excess emission provisions into SIPs so that they can in turn provide greater certainty to the regulated community. The main approaches are:

- Enforcement Discretion, and/or
- General Affirmative Defense Provision

In order to provide the most certainty to the regulated community, a SIP revision using a general affirmative defense provision meeting the requirements of the EPA Policy on Excess Emissions During Malfunctions, Startup, and Shutdown can be pursued. This is a more definitive approach, and thus does not rely on "agency enforcement discretion" for each event.

Definitions for a startup and shutdown are being proposed to be included in the Title V permit and the Permit to Operate (PTO). Language similar to the following will allow facilities the flexibility necessary during each shutdown event since many shutdowns are unique events:

A startup is the period that commences when the unit begins heating to achieve the normal operating temperature (approximately 1700 degrees F); and ends when it reaches normal operating temperature, or 24 hours has elapsed for a normal startup, or 96 hours has elapsed for a curing startup.

This definition allows the facility to complete a startup which includes the longer startups required for refractory curing. Refractory curing startups require additional time because the refractory must be heated up on a set temperature schedule (for example increasing temperature by no more than 100°F per hour and may include various 'holds' at specified temperatures to allow for water removal from the refractory).

A shutdown is the period that starts when fuel feed is curtailed and the unit begins cooling from the unit's normal operating temperature, (approximately 1700 degrees F); and ends when the steam flow to the turbine is essentially zero or 24 hours has elapsed, whichever occurs first.

This definition allows the facility to complete a full shutdown which allows for entry into the boiler for maintenance purposes. It also allows for a boiler to be 'bottled up' so that in the event that it is necessary to shut off fuel flow to the boiler to address a problem, but not necessary to enter the boiler for maintenance, the heat in the system can be maintained to allow for a more efficient startup cycle, which will minimize startup time periods as well as emissions by allowing the pollution control systems for NOx emission control to come on-line more quickly than when the system is started from ambient temperatures.

Justification

This revision to the Chinese Station permits is an opportunity to amend these permits to include specific emission limits, conditions, and definitions for startup and shutdown and malfunction events in accordance with the United States Environmental Protection Agency (USEPA) 1999 Memorandum. Accordingly, a justification discussion of how each of the seven points described in the memorandum is met is provided below.

The current PTO and Title V permit limits meet the applicability requirements (definition of a source) presented below. The normal operating emission limits for nitrogen oxides (NO_x) and carbon monoxide (CO) do not apply during the narrowly defined startup and shutdown periods, instead, the alternative emission NO_x and CO limits for startup and shutdown will apply. To align with the EPA Policy on startup and shutdown emissions, the permit modifications must demonstrate that the revision meets the following requirements:

1. Requirement: The revision must be limited to specific, narrowly-defined source categories using specific control strategies (e.g., cogeneration facilities burning natural gas and using selective catalytic reduction);

Justification Discussion: The permit revision applies only to the following source category: biomass fired boilers using SNCR (ammonia injection).

2. Requirement: Use of the control strategy for this source category must be technically infeasible during start-up, shut-down, or malfunction periods;

Justification Discussion: The NO_x control technology (either Selective Catalytic Reduction (SCR) or Selective Non-Catalytic Reduction (SNCR)) requires a specific operating temperature range in order to function. Therefore, the NO_x emission control system is technically limited during periods of startup, shutdown, and malfunction when the boiler is not within the temperature range.

The SNCR process does not operate at low system temperatures (less than 1,400°F) and functions best at temperatures between 1,600°F and 1,800°F. During a startup, the combustion system is fired on propane until the primary fuel can begin to be introduced into the system. Once the temperature of the combustion system reaches the normal operating temperature (and thermal equilibrium), ammonia injection begins, which allows for the non-catalytic NO_x reduction reactions to occur. If the ammonia is injected before the system reaches the normal operating temperature, NO_x is not reduced and significant emissions of ammonia (ammonia slip) occur as the ammonia is not reduced by conversion to nitrogen and water prior to exiting the stack.

It is the same with the SCR process, except that the best temperature range is between 675°F and 840°F.

During a shutdown, the ammonia injection continues until the temperature of the system drops below the normal operating range for the SCR or SNCR control process to occur.

The ammonia flow is then shutoff to eliminate ammonia slip. Thus during a shutdown, the NOx control system cannot be used to control NOx emissions throughout the complete shutdown cycle.

In addition, due to the combustion process characteristics, the CO emissions during a startup undergo significant variation until the flame stability improves. Generally, the flame stability improves as fuel flow increases and the system temperature rises. Once the system reaches thermal equilibrium, CO emissions are controlled by stable flame characteristics, which promote CO emissions that are in compliance with normal operations permit limits.

Furthermore during a shutdown, the combustion process characteristics vary and thus the flame stability can degrade sufficiently to cause high CO emissions before the fuel (propane stabilization fuel) is completely shutoff.

3. Requirement: The frequency and duration of operation in startup, shutdown, or malfunction mode must be minimized to the maximum extent practicable;

Justification Discussion: This requires implementation of narrowly defined periods for startup, shutdown, and malfunctions which are unique to each boiler type. A startup commences when fuel is first introduced into the combustion unit. A startup ends when the combustion unit reaches normal operating temperatures as defined for each specific combustion unit. Typically for a Bubbling Bed (BB) boiler, a startup will not last longer than 24 hours (up to 96 hours for a refractory curing startup). The reason for a curing startup length of 96 hours is that this represents the length of time required to cure the refractory material when it is poured in the combustor area.

The number of startup and shutdown events for each facility over the course of a year is dependent on many factors including:

- Type of facility (peaker facility, base load facility, utility boiler, independent power producer, etc.)
- Boiler and facility design (Stoker boiler, circulating fluidized bed, bubbling bed, etc.)
- If the facility has a power purchase agreement (PPA),
- Age of facility
- If the original fuel is still available
- If the available fuel still meets all original design criteria. Or if there are additional constituents that may cause problems in system.
- If the available fuel meets all pollution control equipment design criteria. Or if there are additional constituents that may cause problems in system.

Chinese Station will minimize the frequency and duration of all startups, shutdowns, and malfunctions because it is good business, less stress and fatigue on the equipment, and is part of environmental stewardship.

Electricity (and revenue) is only generated when the plant is operational. For this reason the plant conducts its start up as rapidly and as short a duration as possible and as safely as possible. When it is necessary to shut down the boiler, the shutdown is performed as rapidly and as safely as possible, so that maintenance can begin quickly and the plant can be returned to operation.

Furthermore, there is no incentive for Chinese Station to startup any more than is absolutely necessary. Hence, Chinese Station will also minimize the frequency of its startups and shutdowns, which will also minimize wear and tear on the equipment.

4. Requirement: As part of its justification of the SIP revision, the state should analyze the potential worst-case emissions that could occur during startup and shutdown periods;

A. Justification Discussion: The worst case emissions were reviewed and compared to the NAAQS and PSD increments, and the results indicate there were no impacts.

The emissions from the facility during a startup and shutdown period ramp up to and ramp down from the normal operating conditions and permit limits. For example, during startup, the emission control system (NOx) is not functioning and the combustion characteristics are poor (CO), thus, the NOx emissions and CO emissions are high in terms of concentration at the onset of a startup event. The NOx emissions are high because there is no control of emissions and the combustion process results in localized temperatures high enough to cause the N₂ (from ambient air) to NOx reaction to occur. The CO emissions are high because the poor combustion conditions do not facilitate complete combustion. This is a result of many factors including poor mixing, high localized temperatures, and low temperatures on average in the combustor region.

As the startup process continues, the startup fuel flow rate is increased with the result of steadily climbing average temperatures in the combustor, improving mixing characteristics, and overall better combustion characteristics occurring. This causes lower CO emissions due to the more complete burnout of the startup fuel and primary fuel. When the system heats up sufficiently, the NOx control system will begin operating. Usually, this occurs near the end of a startup event for facilities that use selective non-catalytic reduction (SNCR), because the optimum operating temperature range for the NOx control system is 1,600°F to 1,800°F.

Due to the nature of the combustion process, the startup emission limits are less likely to be exceeded the longer that the startup lasts and the longer the averaging period. However during the initial phases of a startup, any emission limits are likely to be exceeded for a short period of time because of the lack of effective pollution control techniques. For example, CO emissions will spike during initial phases of startup. As the startup progresses, the concentration of CO in the exhaust gases will drop to the normal operating levels. Likewise the NOx emissions will spike during the startup event, but due to the nature of combustion process, probably not until later in the event but prior to initiating ammonia injection to begin the SNCR reaction. Hence the reason not to have startup and shutdown limits in terms of concentrations (ppm).

B.

Justification

Discussion: The Startup and Shutdown Limits for Chinese Station were determined by either using another plant limit with comparable technologies (CO) and/or utilizing an existing limit as a basis (NOx).

The Delano Power plant is of a similar design to Chinese Station Power Plant. Both are bubbling bed boilers with ammonia injection for NOx control. Additionally, the heat input rates are also within the same range, Delano with a heat input rate of 400 mmBTU/hr and Chinese Station with a heat input rate of 370 mmBTU/hr.

Therefore, the startup and shutdown limits that are currently in Delano's Air Quality Permits are excellent examples of what is proposed for Chinese Station. Furthermore, Delano utilizes the concept of a startup and/or shutdown day which is also desired for Chinese Station. Especially for a biomass plant, which has various sources and processes of fuel, it is possible to have a startup and then a subsequent shutdown in the same day (24 hour period) if issues occur. Although startup and shutdown periods are always minimized as much as possible (to limit emissions, obtain steady state-complete combustion conditions, minimize fatigue of equipment, and optimize operation efficiencies) problems can arise. The permit Startup and Shutdown limit must accommodate these rare events. As stated in the definition of a startup, the event could take 24 hours or 96 hours if concrete curing is required. A shutdown will be less than 24 hours.

Delano Limits

Normal operations CO:	181 ppm (3% O ₂ , 24-hr rolling average) 56.00 lbs/hr (24-hr rolling average) 1344.0 lbs/day
CO SU/SD:	3500 lbs/day (on SU/SD days) (CO SU/SD limits based on CO CEMS data)

Chinese Station Limits

Normal Operations NOx:	140 ppm (3% O ₂ , 24-hr block average) 58.3 lbs/hr (24-hr block average) 244.9 tons/yr
Normal operations CO:	55.6 lbs/hr (3-hr block average) 233.4 tons/yr

Chinese Station proposed SU/SD Limits

NOx SU/SD:	1399.2 lbs/day (on SU/SD days) (58.3 lbs/hr x 24 hr/day = 1399.2 lbs/day)
CO SU/SD:	3500 lbs/day (Same as Delano's limit)

Furthermore, utilizing existing plant information, such as an established, Agency approved permit limit, is more representative of overall historical operations and plant conditions than performing a performance test to determine an emission factor that translates into a SU/SD permit limit.

- C. Requirement: All possible steps must be taken to minimize the impact of emissions during start-up, shut-down, and malfunctions on ambient air quality;

Justification Discussion: Each source must provide to the District a description of the actions that will be taken to minimize emissions during startup, shutdown, and malfunction events.

The facility is minimizing emissions by following the manufacturer's startup, shutdown, and malfunction procedures, which minimizes the "wear and tear" on the system. Deviating from these operational practices will increase maintenance costs, reduce equipment life, increase downtime for the facility, increase the number of startups and shutdowns, and increase the annual emissions from the addition of startup and shutdown events. The emission limits presented represent good engineering practice for this facility when the system is not at equilibrium (and therefore emitting higher CO levels than during normal operations) and the NO_x pollution control is not functioning due to technical constraints (and therefore emitting higher NO_x levels than normal operations).

- D. Requirement: At all times, the facility must be operated in a manner consistent with good practice for minimizing emissions, and the source must have used best efforts regarding planning, design, and operating procedures to meet the otherwise applicable emission limitation;

Justification Discussion: Sources will be required in their Permits to be operated in a manner consistent with good practice for minimizing emissions, and the source must have used best efforts regarding planning, design, and operating procedures to meet the otherwise applicable emission limitations.

It should be understood that the facility is a business, and thus it is in their best interest to attain "normal operations" as soon as possible. Generating electricity at design conditions is the most efficient and cost effective scenario.

- E. Requirement: The owner or operator's actions during startup, shutdown, and malfunction periods must be documented by properly signed, contemporaneous operating logs, or other relevant evidence.

Justification Discussion: Sources must demonstrate that actions are being taken during startup, shutdown, and malfunction events to minimize emissions. This will be a requirement in their permit, and can be achieved in several ways: by maintaining operating logs, identifying periods of startup, shutdown, and malfunctions in the CEMs, reporting in quarterly and annual reports, and implementing site specific Plant Operating Procedures (POP), and following manufacturer recommendations/guidelines during these periods.

The manufacturer's recommended operating practices and POPs can be discussed with agency personnel to describe how the plant operations minimized emissions during startup, shutdown, and malfunction events.

On a case by case basis, the source can also offer other relevant evidence that describes these actions for District consideration.

Chinese Station Title V Permit Conditions to Modify

1. Title V Permit, Condition IV.D. currently states:

"Oxides of Nitrogen (NOx): NOx emissions from the boiler exhaust stack shall not exceed 140 ppmv calculated at 3% O2 and averaged over a 24 hour period from 8 a.m. to 8 a.m.; 58.3 pounds per hour averaged over a 24 hour period from 8 a.m. to 8 a.m.; and 244.86 tons per year."

Change to:

Oxides of Nitrogen (NOx): NOx emissions from the boiler exhaust stack shall not exceed 140 ppmv calculated at 3% O2 and averaged over a 24 hour period from 8 a.m. to 8 a.m.; 58.3 pounds per hour averaged over a 24 hour period from 8 a.m. to 8 a.m.; and 244.986 tons per year-- except during days when a startup, shutdown, upset, malfunction, or breakdown occurred. The emission limits during days when a startup or shutdown, upset, malfunction, or breakdown occurs is 1,399.2 pounds per day (8 a.m. to 8 a.m.). All NOx emissions are included in the total tons per year.

Rational:

The permit limits were based on, and issued for operations during normal operating conditions of the boiler.

The District and EPA allows for enforcement discretion for upset, malfunction, and breakdown events.

During startup, shutdown, malfunction, and upset conditions, the ammonia control system does not function effectively to control NOx emissions due to lower boiler temperatures; therefore, the facility believes that it is appropriate to accept limits that are specifically for startup and shutdown scenarios. All emissions, including startup, shutdown, malfunction, and upset conditions, are included in the annual emissions and in the annual report. The EPA has guidance that discusses the information needed to allow for startup, shutdown, malfunction, upset, and breakdown emissions to be granted to a facility. The guidance document and justifications prepared for Chinese Station are presented in Attachment 1.

2. Title V Permit, Condition IV.F. currently states:

"Carbon Monoxide: Carbon Monoxide emissions from the boiler exhaust stack shall not exceed 55.6 pounds per hour based on a three hour average and 233.4 tons per year."

Change to:

Carbon Monoxide: Carbon Monoxide (CO) emissions from the boiler exhaust stack shall not exceed 55.6 pounds per hour based on a three hour average and 233.4 tons per year-- except during days when a startup, shutdown, upset, malfunction, or breakdown occurred. Startup and shutdown periods are included in the annual CO calculations.

Rational:

The permit limits were based on, and issued for operations during normal operating conditions of the boiler.

The District and EPA allows for enforcement discretion for upset, malfunction, and breakdown events.

During startup operations, the boiler combustion characteristics are unstable and result in incomplete combustion which may cause higher CO emissions. After the combustion conditions have stabilized, the CO emissions from the boiler are very low.

3. Title V Permit, Condition V.D currently states:

"Foreign material for all fuel consumed shall not exceed 3% by weight."

Change to:

Foreign material for all fuel consumed shall not exceed 3% by weight (averaged over 1 calendar year – January 1 through December 31).

Rational:

This clarifies the averaging period for determining the fuel contaminants.

4. Title V Permit, Condition VII.F.1:

"Monitoring and Data Reports: A monitoring report shall be submitted to the APCO on a calendar quarter basis. The monitoring reports shall be submitted within 30 days of the end of each reporting period and contain the following:

Any deviations from the permit requirements; upset/breakdown occurrences, probable cause and preventative or corrective actions taken; results of any emissions testing, RATA, CGA or any other QA/QC procedures; progress made on a compliance schedule; and, CEMS/COMS downtime and excess emissions reports."

Change to:

Monitoring and Data Reports: A monitoring report shall be submitted to the APCO on a calendar quarter basis. The monitoring reports shall be submitted within 30 days of the end of each reporting period and contain the following:

A list of any deviations from the permit requirements; upset/breakdown occurrences, probable cause and preventative or corrective actions taken; RATA, CGA, COMS filter audit, or any other QA/QC procedures; progress made on a compliance schedule, as appropriate; and, CEMS/COMS downtime and excess emissions reports.

Rational:

The modified language clarifies that the emission testing and RATA reports do not need to be submitted to TCAPCD in the quarterly report as well as within 60 days after completion of the emissions and/or RATA testing, and clarifies that the COMS filter audit must be included, and clarifies that the COMS filter audit must be included.

5. Title V Permit, Condition IX.B.1 currently states:

“Boiler Exhaust Stack: The facility shall conduct compliance performance tests on the boiler exhaust stack for PM10, NOx, SO2, VOC, and CO with the test methods referenced in condition (IX)(B)(2). The source performance tests shall be conducted at least once every two (2) calendar years on or before November 1. Performance tests shall be conducted under such conditions as the Administrator or the APCO shall specify to the plant operator, based on the representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.”

Change to:

Boiler Exhaust Stack: The facility shall conduct compliance performance tests on the boiler exhaust stack for PM10, NOx, SO2, VOC, and CO with the test methods referenced in condition (IX)(B)(2). The source performance tests shall be conducted at least once every two (2) calendar years on or before November 1. Performance tests shall be conducted under such conditions as the Administrator or the APCO shall specify to the plant operator, based on the representative performance of the affected facility. Conditions specified by the APCO shall be at least 90 percent of the maximum achievable steam capacity at the time of the test based on ambient conditions. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

Rational:

This modification allows for clear understanding by the facility of what the maximum achievable load is during the performance tests. Steam capacity can be observed on a continuous, real-time basis and is one of the standards in the power industry.

6. Title V Permit, Condition IX.B.3 currently states:

“Any deviation from these requirements shall first be approved by the APCO. A source test protocol shall be submitted at least fourteen (14) days prior to the scheduled test and notification of any scheduled test shall be a minimum of 10 days. The results of the performance test(s) shall be submitted within 30 days following completion of testing.”

Change to:

Any deviation from these requirements shall first be approved by the APCO. A source test protocol shall be submitted at least fourteen (14) days prior to the scheduled test and notification of any scheduled test shall be a minimum of 10 days. The results of the performance test(s) shall be submitted within ~~30~~ 60 days following completion of testing.

Rational:

The reason for this request is that the laboratory analysis is not always ready within 30 days of the completion of testing. Increasing the length of time to 60 days after the completion of testing will allow for full review of the data and analytical procedures prior to submitting the final report to Tuolumne County Air Pollution Control District (TCAPCD). Additionally, 60 days is a standard reporting period and is a typical requirement in other air districts.

7. Title V Permit, Condition IX.C.9 currently states:

"All records of maintenance activity, accuracy audit procedures, corrective actions for malfunctioning CEMS, COMS and associated equipment shall be recorded, maintained for a period of five (5) years, and submitted to the APCO on a quarterly basis pursuant to condition (VII)(F) of this permit."

Change to:

All records of maintenance activity, accuracy audit procedures, corrective actions for malfunctioning CEMS, COMS and associated equipment shall be recorded, maintained for a period of five (5) years, and submitted to the APCO on a quarterly basis pursuant to condition (VII)(F) of this permit (except that the RATA Test Results report shall be submitted within 60 days of the RATA Test completion date).

Rational:

The modified language clarifies that the full RATA report does not need to be submitted to TCAPCD in the quarterly report as well as within 60 days after completion of the RATA testing.

Chinese Station Title V Permit Conditions to Add

1. The facility Title V permit does not currently contain the exemption (Rule 203) from the opacity limit (Rule 202).

New Condition:

The provisions of Rule 202 (opacity limits) shall not apply to: Smoke emissions from tepee burners operating in compliance with Section 4438 of the Public Resources Code during the disposal of forestry and agricultural residues with supplemental fossil fuels, and burners used to produce energy and fired with such fuels, when such emissions result from startup or shutdown of the combustion process or from the malfunction of emissions control equipment. This subdivision shall not apply to emissions which exceed a period or periods of time aggregating more than 30 minutes in any 24-hour period. This subdivision shall not apply to emissions which result from the failure to operate and maintain in good working order any emission control equipment.

Rational:

This incorporates the Rule 203 exemption to the opacity limit (Rule 202) into the Title V permit.

2. The facility Title V permit does not currently contain emission limits expressly for startup and shutdown conditions. The following permit condition is proposed to define startup and shutdown conditions.

New Condition:

SHUTDOWN: A shutdown starts when fuel feed is curtailed and the unit begins cooling from the unit's normal operating temperature, (approximately 1700 degrees F); and ends when the steam flow to the turbine is zero or 24 hours has elapsed since the start of the shutdown, whichever occurs first.

STARTUP: A startup commences when the unit begins heating to achieve the normal operating temperature (approximately 1700 degrees F); and ends when it reaches normal operating temperature, or 24 hours has elapsed for a normal startup, or 96 hours has elapsed for a curing startup.

Rational:

This will allow the facility the ability to startup and shutdown and meet the proposed startup and shutdown emission limits with an operational definition that can be met by the bubbling bed technology.

Pacific Ultrapower Chinese Station
8755 Enterprise Drive
Jamestown, CA 95327
(209) 984-4660 (209) 984-3396 fax

County of Tuolumne

September 21, 2011

SEP 28 2011

Mr. Bill Sandman
Tuolumne County Air Pollution Control District
2 South Green Street
Sonora, CA 95370

Agriculture
Weights & Measures
Air Pollution Control

Subject: Response to Questions
Modifications to Air Permits

Dear Mr. Sandman:

Pacific Ultrapower Chinese Station (Chinese Station) has answered the questions you had regarding the permit modification requests in Attachment 1.

We will be contacting you to discuss our responses. Please contact Maggie Estrada at (949) 425-4756 or Maggie.Estrada@Constellation.com or Kelly Champion at (503) 393-0890 x216 or KJChampion@CovantaEnergy.com if you have any immediate questions.

Chinese Station appreciates all of your efforts related to this request.



Stephen Gross
Responsible Official
Vice President Pacific Ultrapower Chinese Station
Constellation Energy

Cc: R. Johnston, Covanta Energy
M. Estrada, Constellation Energy
K. Champion, Covanta Energy
S. Arreguin, Plant Manager, Chinese Station

September 21, 2011

ATTACHMENT 1
RESPONSE TO QUESTIONS

Chinese Station Questions from Bill Sandman

Conditions to Modify

Comment 1:

#1 Condition IV.D: Requesting lbs/hr NOx limit be waived on days with startup/shutdowns.

There is no request for an amendment to the NOx concentration limit, are you going to be able to meet the hourly NOx concentration during start up/shutdown conditions?

Response:

The requested exception was intended to exempt the facility from all of the normal operating limits, averaged over 24 hours (ppm as well as lbs/hr) and apply only the lbs/day limit during a startup or shutdown day. The EPA has recognized that startup/shutdown limits should not be concentrations.

Comment 2:

#2 Condition IV.F: You are requesting the CO lbs/hr limit be amended on days with startup/shutdowns.

How would (is) this limit enforced without a CO CEM, are there predictive parameters to measure hourly CO?

Response:

The current permit limit is for normal operations. The biennial source test is used to demonstrate compliance. We did request a daily startup and shutdown permit limit for CO emissions in the PTO modification request. We have had further discussions and would like to remove the requested daily CO mass limit from the PTO permit.

There are no predictive parameters to measure hourly CO emissions during a startup event.

Comment 3:

#3 Condition V.D: Foreign material to be amended to include an averaging period of one calendar year.

I have not seen any other permits yet that have an averaging time, are there permits that you have that contain this provision? Is this something you are working on with other districts to get it into your permits?

Response:

Constellation does not have an averaging time in other permits, though Covanta does have a facility with an averaging period for this type of permit condition. The idea was to allow the

facility to take grab samples throughout the year (probably monthly) and average the results over the calendar year. The main problem that we are trying to avoid is that some metal pieces and chunks do make it into the fuel despite the best efforts of the fuel processors, so a small number of samples could be very biased. Chinese Station is proposing to begin the fuel sampling procedure to show compliance with this permit condition in January 2012.

Comment 4:

#5 Condition IX.B.1: Add – condition specified by the APCO shall be at least 90% of the max achievable steam capacity at the time of the test.

I have not seen language like this in other T-V permits or in the CFR. I believe the language should say 90% of the max steam (or rated heat input) capacity of the boiler (and not during start up, shutdown, or breakdown conditions)? Language should also specify that source testing conditions be representative of normal operations. The language that is currently in your permit is what I see in almost all of the T-V permits I have reviewed.

Response:

We have been modifying the California facility permits to reflect steam production as the capacity indicator that the units are running at to meet the requirement of at least 90% of normal operating conditions based on available fuel. The reason for this is that the maximum operating condition is defined in terms of a process rate that is measured continuously and instantaneously. Thus, compliance with the process parameter (steam flow) can be observed by looking at a meter that is reading the value in real time. The concept of operating at the normal operating conditions during a source test is very clear, however, it is not necessarily straight forward to measure a process parameter to show compliance with that concept. For example, heat input has traditionally been used to show compliance, unfortunately, the higher heating value (HHV) of the fuel burned at the time of the source test was not known as the analytical results often took several days to several weeks to obtain and determine if the source test met the at least 90% of normal operating conditions.

At Chinese Station, the maximum achievable operating conditions are very dependent on ambient conditions because the facility uses an air cooled condenser to condense the steam instead of a cooling tower. Extensive review of the historical records by facility personnel and discussions with them indicates that the facility is able to meet a steam flow level of 90% of the design capacity on the vast majority of operating days. Therefore, we are proposing to modify the original language to the following: ... condition specified by the APCO shall be at least 90% of 206,000 pounds of steam per hour.

The language "and normal operating conditions" could be added to the end of the sentence that we proposed adding.

New Conditions

Comment 5:

#2 Start Up/Shutdown: A shutdown starts when fuel feed is curtailed and the unit begins cooling from the normal operating temperature (1,700°F).

Verifying that the 1,700 degree range is correct, the Rio Bravo boiler (same/similar heat input) reaches normal op range at 1,500, (does this matter)? Where is the temperature measured to ascertain that a start up or shutdown has been completed?

District will incorporate in the T-V conditions that when notification is given, the startup be classified as normal or curing.

Response:

The normal operating temperature is measured at a different location for the Chinese Station boiler than at the Rio Bravo facilities. Also, the Chinese Station boiler is a slightly different technology (it is a bubbling bed boiler while the Rio Bravo boilers are circulating fluidized bed boilers). The end result is that the normal operating range temperature for the Chinese Station boiler is slightly higher.

The intent for a shutdown was to use the decrease in the normal operating temperature as the start of a shutdown and the cessation of steam flow to indicate the end of the shutdown rather than using the temperature.

General Questions

Comment 6:

1. We are looking a little closer at your SNCR process.

The T-V application states that ammonia is controlled by a process controller. How is ammonia use quantified and has there ever been any evaluation of the SNCR system for efficiency or for ammonia slip?

Are there any other reasons that there is a condensate plume at the stack and how big of an impact does moisture (stack gas & fuel moisture) play with this plume?

We are also concerned that by allowing ammonium sulfate to be subtracted from the PM inventory several years ago, there does not appear to be any incentive in controlling ammonia use/emissions other than purchasing costs. Does this view point make sense to you?

Of the total number of energy plants you have in California, how many are allowed to subtract ammonium sulfate from the PM emissions?

Response:

The quantity of ammonia used has been determined by checking the volume of ammonia in the ammonia storage tank on a daily basis. The facility has looked at the efficiency of the SNCR system in the past; however, another engineering study was begun about two months ago. This

study is intended to look at the nozzle design, nozzle placement in the exhaust gas stream, temperature profile in the boiler, ammonia injection rate, and residence times. The Rocklin facility reviewed the ammonia injection system several years ago and the lessons learned during that study will also be examined during the engineering study at Chinese Station. Preliminary data indicates that several operational changes have resulted in improved SNCR performance. The facility is not required to measure ammonia slip in the exhaust gas stream.

The two most common reasons for the detached plume are water condensing and ammonia condensing. Moisture is usually the biggest culprit.

The point of view related to ammonia use does make sense; however, the facility strives to maintain compliance with all emission limits and nuisance requirements and thus had included the ammonia evaluation study into the 2011 Annual Environmental Plan as part of our Environmental Management System (EMS).

All five of the other facilities in California subtract the ammonium sulfate from the PM emissions for compliance purposes (including hourly emission limits, daily emission limits, and annual inventories).

Comment 7:

How often does soot blowing occur and is this process quantified for PM?

Response:

Soot blowing occurs on a regular schedule (once every three hours) and has not been included in any source test.

Comment 8:

Verifying that Chromium 6 is not used in your cooling towers?

Response:

Chinese Station does not have a cooling tower, but uses an air cooled condenser instead due to minimal water availability. The water spray system that is used is part of the air cooled condenser system. Chromium 6 is not used in any water systems at the facility.

Affidavit of Publication

STATE OF CALIFORNIA, COUNTY OF TUOLUMNE

I, **Jeanne Souther**, a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not party to or interested in the above-entitled matter. I am the principal clerk of the printer of

The Union Democrat

a daily newspaper of general circulation, printed and published in the City of Sonora, County of Tuolumne, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Tuolumne, State of California, under the date of March 21, 1952, case number 7594; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published and not in any supplement thereof on the following dates, to-wit:

Acct Name: TUO CO AIR POLLUTION

Legal Description: PUBLIC NOTICE

Pursuant to Tuolumne County Air Pollution Control District (District) Rule 500 - S

09/27/2012

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Sonora, California, this 27 day of September, 2012.

Jeanne Souther
Signature

PUBLIC NOTICE

Pursuant to Tuolumne County Air Pollution Control District (District) Rule 500 - Sources Subject to Title V of the Federal Clean Air Act Amendments, the Air Pollution Control Officer has made a preliminary decision to issue a Title V Operating Permit to Pacific Ultrapower Chinese Station (PUCS). PUCS is located at 8755 Enterprise Drive, Jamestown. PUCS operates a biomass fired electrical generating facility (26.6 MW Gross) and is classified as a major source of air pollution pursuant to 40 CFR Part 70. This proposed permitting action is a permit renewal with minor permit modifications proposed by the source and by the District, including incorporating emissions limits based on existing State Implementation Plan rules that were not included in the initial Title V Operating Permit. Emissions limits for nitrogen dioxide and carbon monoxide during start up and shutdown conditions have also been amended consistent with EPA policies.

Written comments may be submitted to the District within 30 days of the date of this Notice. The public can request a public hearing, if a hearing has not been scheduled, by submitting a written request to the District within 30 days of the date of this Notice. Written comments or a request for a public hearing must include the name, mailing address, comments, and/or a statement of the reason(s) for requesting a hearing. If a public hearing is to be held, the District will provide 30 days notification prior to the requested hearing.

The Application, Statement of Basis/Evaluation, and Proposed Permit are available for review at the District's office at 22265 South Airport Road Columbia. Written comments or a request for a public hearing may be mailed to Tuolumne County APCD, 2 South Green Street, Sonora, 95370. Additional information may be obtained by calling Bill Sandman at (209) 535-6673.

Publication Date September 27, 2012
The Union Democrat, Sonora, CA 95370

Affidavit
attn -
Bill
Sandman

AFFIDAVIT OF PUBLICATION

Filed _____

By _____

From the Office of _____

No. _____

In the _____ Court of the

STATE OF CALIFORNIA
for the
COUNTY OF TUOLUMNE

Garyt Emmer

Could I please see
a copy of the Utra
Power permit. I heard
It was available for public
review. my email is
GREmmersn@sp-in.
Thanks Bill

Conn

(Sept 28, 2012)

Public request # 1

DUCS draft permit emailed

1515 ws to SDI