San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

APR 30 2013

Mr. Rick Spurlock
Rio Bravo Fresno
3350 S Willow Ave
Fresno, CA 93725

Re: Notice of Significant Title V Permit Modification
District Facility # C-1820
Project # C-1110744

Dear Mr. Spurlock:

Enclosed for your review is the District’s analysis of an application for significant Title V permit modification for the facility identified above. Rio Bravo Fresno is proposing a Title V significant permit modification to incorporate the recently issued Authority to Construct (ATC) C-1820-1-27 into the Title V operating permit (see enclosures). The modification consists of allowing longer startup and shutdown times, clarifying fuel storage requirements, modifying record keeping requirements, and adding an additional source testing method.

Enclosed are the current Title V permit, recently issued ATC C-1820-1-27, proposed modified Title V permit, engineering evaluation, and application. The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the modified Title V operating permit. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice.

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

Sincerely,

David Warner
Director of Permit Services

Enclosures
cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

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Executive Director/Air Pollution Control Officer

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NOTICE OF PRELIMINARY DECISION
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND
THE PROPOSED SIGNIFICANT MODIFICATION OF FEDERALLY
MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed significant modification of the Federally Mandated Operating Permit to Rio Bravo Fresno at 3350 S Willow Ave, Fresno, California. The modification consists of allowing longer startup and shutdown times, clarifying fuel storage requirements, modifying record keeping requirements, and adding an additional source testing method.

The District's analysis of the legal and factual basis for this proposed action, project #C-1110744, is available for public inspection at http://www.valleyair.org/notice/public_notices_idx.htm and at any District office. There are no emission increases associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact the District at (559) 230-6000. Written comments on the proposed initial permit must be submitted by June 3, 2013 to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.
I. PROPOSAL

Rio Bravo Fresno is proposing a Title V significant permit modification to incorporate the recently issued Authority to Construct (ATC) C-1820-1-27 into the Title V operating permit. The modification consists of allowing longer startup and shutdown times, clarifying fuel storage requirements, modifying record keeping requirements, and adding an additional source testing method.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

The facility is located at 3350 S Willow Ave in Fresno, CA

III. EQUIPMENT DESCRIPTION

C-1820-1-28: 352 MMBTU/HR CIRCULATING FLUIDIZED-BED BIOMASS COMBUSTOR USED TO PRODUCE STEAM FOR ELECTRICAL POWER GENERATION (28.5 MW), WITH ONE COOLING TOWER, ONE AIR PREHEATER, ONE BARETUBE ECONOMIZER, AND TWO 900 AND ONE 700 HP FANS.
IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a significant modification. In addition, since the applicant did not originally apply for a Certificate of Conformity (COC) with the original New Source Review (NSR) Authority to Construct (ATC), this project requires public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

The modifications requested by Rio Bravo are summarized as follows:

1. Delete Condition 3:

   Condition #3 on the current PTO states as follows:

   - The fuel consumption in the fluidized bed combustor shall not exceed 36 tons at 30% moisture in any one hour. [District NSR Rule]

   Rio Bravo's Request:

   The fuel usage number is apparently based on a higher heating value (HHV) for the as-fired fuel of approximately 7,000 Btu/lb. While the biomass fuel generally has a HHV greater than 7,000 Btu/lb, over the years, fuels with HHVs as low as 6,000 Btu/lb have been burned successfully in the boiler while meeting the emission limits of the Title V permit. While this is not a normal fuel mix for the facility, it has been successfully burned in the past and there is no regulatory benefit to adding another fuel throughput limit since the facility is already limited to an output of 28.5 MW (net) (Condition # 54 on current PTO).

   The moisture content is not measured continuously and requires a laboratory analysis to determine. With that in mind, the facility could be out of compliance with the fuel flow limit, but not know it until after the fact, even while maintaining compliance with the emission limits. This does not seem to be in accordance with the emission limits in the Title V permit, which do allow the facility to monitor the parameter on a real-time basis and thus take actions to ensure that the facility maintains compliance with the permit condition.
The facility monitors the fuel flow to the boiler, however, the boiler operations are controlled by the steam output. The fuel load is adjusted to allow the facility to meet a specified steam output and specified electrical generation. The quantity of fuel fed is measured by weigh belts which are fairly accurate, however, they are exceedingly difficult to calibrate due to the requirement to bring the facility offline to run a calibration procedure.

The facility believes that this permit condition should be removed from the Title V permit as it does not add any additional environmental emission protection in terms of ensuring the facility meets the stack emission limits. Rather, it adds additional recordkeeping requirements with no increase in ensuring the facility maintains compliance with the emission limits.

Therefore, Rio Bravo has requested to remove this condition.

District's Response:

When the initial ATC was issued for this unit, emissions were calculated based on fuel flow rate. Therefore, fuel flow rate condition was required to comply with emissions limits. However, during the conversion of the ATC, the mass emission rates were adjusted downward based on the original source test results. Thus removing the fuel firing rate does not affect the mass emission rate limits; therefore, condition #3 will be removed from the PTO and will not be included on the proposed PTO C-1820-1-28.

2. Modify Conditions 12 and 13 (Start-up and Shut-down Operations):

Rio Bravo's Request:

During permit renewal, three new conditions (#12 through 14) were added to the renewal PTO C-1820-1-24 containing the start-up and shut down provisions of the latest amendment of Rule 4253. However, Rio Bravo states that neither of the new definitions of start-up nor shut down can be met due to physical characteristics of the boiler. The key item is the definition of a shut-down (Condition #12 on current PTO) which states: "Shutdown operation is defined as the period of time during which a unit is taken from operational to nonoperational status by allowing it to cool down from its operating temperature and pressure to an ambient temperature." Also, in Condition #13: "The duration of each shut down shall not exceed twelve (12) hours."
Taken together, it is physically impossible for the facility to cool from normal operating temperatures of approximately 1,700°F to ambient in 12 hours without potentially damaging the combustor. The manufacturer's criteria for cooling the boiler is no more than 100°F per hour, which would require a minimum of 16 hours to cool from normal operating conditions to ambient. However, since the boiler has concrete walls (which act as a heat sink), the actual cool down process can take longer than 16 hours as the concrete releases the heat absorbed.

If the boiler is cooled down faster than the recommended rate, significant damage to the physical structure (concrete walls and steel wall tubes) can occur, and in fact, has been observed during times when the facility has been forced into an emergency situation where it was imperative to cool the system faster than recommended. Thus, the requirement to cool the system to ambient within 12 hours is likely to result in significant damage to the system and subsequent substantially increased maintenance costs for no environmental emission gain, as there is no emission benefit to cooling the boiler down faster than at its designed rate.

A second concern is that the boiler does not always need to be taken to ambient conditions to facilitate repairs. Often, the boiler can be 'bottled' to retain as much heat as possible in the system so that the subsequent start-up operation is substantially shortened, which reduces emissions from the system, since the start-up is shorter and the system attains an equilibrium much faster than a start-up from ambient conditions. Also, the new definition of a start-up requires that a shut-down have already occurred, which would require the boiler to be taken to ambient conditions, which is a time-consuming process.

The pollution control system on the boiler is designed to operate at normal operating conditions; the efficiency of the ESP (particulate control) is significantly degraded when the system temperature is below 1,000°F. The ammonia injection (NOx control) is ineffective when system temperatures are below 750°F. Thus, requiring the system to be taken to ambient conditions to meet the definition of a shut-down would require additional periods of time when the pollution control systems are not as effective as designed and result in greater emissions from the facility than utilizing the definition of a shut-down (and start-up) in the current permit.
The final concern is that the new definition of a start-up requires that a shut-down have already occurred. With the shut-down requirement to reach ambient temperatures before attaining a shut-down, the facility operations are significantly and unnecessarily impacted due to an administrative dictate rather than working with the facility to ensure that the physical characteristics of the boiler are considered when determining how best to minimize emissions during the start-up and shutdown process.

Therefore, Rio Bravo has requested to modify the conditions #12 and 13.

**District's Response:**

Section 5.3.4 of District Rule 4352 allows the District, ARB and EPA to approve a longer start-up or shutdown duration, if an operator submits an application for a Permit to Operate which provides a justification for the requested additional duration.

As stated above, the application has provided enough technical justification for a prolonged shutdown period; therefore, conditions # 12 and 13 on the current PTO will be modified and included as conditions #11 and 12 on the proposed PTO as follows:

- Startup is defined as the period of time, not to exceed 96 hours, during which the unit is set in operation and heated from a lower temperature to a steady state operating temperature. [District Rule 4352, 3.18, 5.3.2]

- Shutdown is defined as the period of time, when fuel is curtailed and the unit begins cooling from the unit's normal operating temperature, as specified by the manufacturer, and ends when steam flow is zero or 24 hours have elapsed since the start of a shutdown, whichever occurs first. [District Rule 4352, 3.15, 5.3.4]

3. **Modify Condition 37 (Higher Heating Value Measurement):**

Condition #37 on the current PTO states as follows:

- The higher heating value of all as-fired solid fuels shall be certified by a third-party supplier or determined by ASTM Method E711 or other test method(s) with prior written approval of the APCO, ARB, and EPA. [District Rule 4352, 6.4]
Rio Bravo's Request:

This permit condition is unclear as to what fuels need to be tested for the higher heating value (HHV). If the intent of the condition is to test the as-fired fuel to determine the HHV, the requirement can be met by the facility. However, if the intent is to test every truck load of fuel coming in to the facility for HHV, the requirement cannot be met due to the large administrative burden placed on the facility for no gain in ensuring compliance with the emission limits (which the facility already meets). The Section 6.4.1.8 of Rule 4352 does require that a specific ASTM method be used to determine the HHV, however, there are no requirements for frequency, thus, our understanding is that the frequency should be left to each facility's discretion.

Historically, Rio Bravo has used laboratories that are certified in ASTM Method D5865 to determine the HHV of the fuel samples. Method D5865 uses the same analytical procedure as ASTM E711; however, the preparation is slightly different in that ASTM D5865 pulverizes the sample prior to the actual HHV analysis. Due to the greater homogeneity of the biomass samples after pulverization, Rio Bravo believes that this is a better indication of the HHV. Rule 4352 Section 6.4 does allow for alternate analytical methods, however, an alternate analytical method requires the written approval of the District, ARB, and EPA.

Recommendation: Modify Rule 4352 to allow for alternate analytical methods that are already approved by the District, ARB, and EPA in current analytical procedures.

District's Response:

Since Section 6.4.1 of Rule 4352 already allows other test methods approved by the District, ARB, and EPA, there is no need to amend the District Rule 4352. The District compliance department is in agreement that ASTM Method D-5865 is a good method to use for gross calorific values of biomass and coal fuels and it is preferred over ASTM Method E711. Therefore, condition #37 on the current PTO will be modified as follows and included as condition #35 on the proposed PTO:

- The higher heating value of all as-fired solid fuels shall be certified by a third-party supplier or determined by ASTM Method E711, ASTM D5865, or other test method(s) with prior written approval of the APCO, ARB, and EPA. [District Rule 4352, 6.4]
4. **Modify Condition 58 (Storage and Handling of Fuel):**

Condition #58 on the current PTO states as follows:

- The storage and handling of fuels shall be conducted so as to prevent any fire in the facility's fuel storage area. [District Rule 4101]

**Rio Bravo’s Request:**

District Rule 4101 does not require preventing any fire in the facility's fuel storage area, rather it prohibits visible air contaminants to the atmosphere. Since the biomass fuel represents the primary revenue source for the facility, every effort is made to maintain the fuel yard and prevent fuel yard fires. However, due to many circumstances, including moisture of incoming fuel, rain fall in the area, amount of fuel moving needed to mix the received fuels, and others, it is impossible to not have a fire in the fuel yard at some point.

Recommendation: Modify the permit condition as indicated in District’s response below:

**District’s Response:**

Condition #58 on the current PTO will be modified as follows and included as condition #56 on the proposed PTO:

- The storage and handling of fuels shall be conducted so as to minimize the potential of any fire in the facility's fuel storage area. [District Rule 4101]

5. **Modify Condition 60 (HHV Records):**

Condition #60 on the current PTO states as follows:

- Permittee shall record on a monthly basis the higher heating value of all fuels used. [District Rule 4352, 6.2.1]

**Rio Bravo’s Request:**

This permit condition as written is very unclear as to what HHVs need to be recorded. Currently, the facility takes as-fired fuel samples and records the HHV on a monthly basis.
Recommendation: Modify the wording of the condition to reflect the actual facility operations. For example: "Permittee shall record the higher heating value of the as-fired fuel on a monthly basis. The HHV shall be determined on either a composite monthly sample (comprised of weekly grab samples, or bi-weekly grab samples).

District's Response:

Condition #60 on the current PTO will be modified as follows and included as condition #58 on the proposed PTO:

- Permittee shall record the higher heating value of the as-fired fuel on a monthly basis. The HHV shall be determined on either a composite monthly sample (comprised of weekly grab samples, or biweekly grab samples). [District Rule 4352, 6.2.1]

6. Modify Condition 62 (Fuel Records and Certification):

Condition #62 on the current PTO states as follows:

- The owner/operator shall maintain records of the type, quantity, and blend of all biomass received and used on a daily basis and of the certifications that the biomass has historically been burned in the San Joaquin Valley air basin. [District NSR Rule and District Rule 4352, 6.2.1]

Rio Bravo's Request:

The permit condition as written is impossible to comply with. The reason for this is that the biomass facilities receive fuel from a wide variety of sources each day and mix the truck loads in a cell that provides fuel for two to three weeks. Every effort is made to make the fuel pile homogenous; however, caterpillar dozers and front-end loaders are not able to perfectly mix the thousands of tons of fuel received in each fuel pile. Thus, the actual composition of the fuel that is fed to the boiler varies continuously. The permit condition as currently worded requires that records be maintained of the "type, quantity, and blend of all biomass received and used on a daily basis". The facility maintains and currently provides to SJVAPCD records of all fuels received which includes fuel source, creditable or non-creditable and offset distance factors for each source of fuel received. The additional requirement to maintain these records on a daily basis provides no additional information to SJVAPCD with regards to maintaining compliance with the emission limits in the Title V permit.
Also, Section 6.2.1 of Rule 4352 requires monthly log containing the following Information:

1. type and quantity of fuel used,
2. the higher heating value (HHV) of each fuel as determined by Section 6.4, or as certified by a third party fuel supplier.

The current practice of providing the fuel receipts and creditable/non-creditable fuel report meets the requirement of type and quantity of fuel used. The fuel receipts allow determination of the type of fuel and the quantity of fuel received. The HHV of the monthly composite as-fired fuel samples meets the requirement of Section 6.2.1.2.

There is no requirement in Rule 4352 to have a certification that the biomass has historically been burned in the San Joaquin Valley air basin. In addition, the facility questions who would provide that certification? Our understanding is that historically virtually all of the agricultural fuel received by the facility was previously burned in the fields by the farmers.

Though this condition did exist in the previous boiler permit, further review of the specific requirements of complying with this condition has resulted in a recommendation to modify the permit condition.

Recommendation: Modify the wording of the condition as follows:

"The owner/operator shall maintain records of the type and quantity of all biomass received."

District's Response:

Condition #62 on the current PTO will be modified as follows and included as condition #60 on the proposed PTO:

- The owner/operator shall maintain daily records of the type and quantity of all biomass received. [District NSR Rule and District Rule 4352, 6.2.1]

7. **Delete Condition 33:**

This condition on the current PTO states as follows:

- The mass ratio of creditable biomass fuel to total biomass fuel shall not be less than 0.48. Grape stems, grape pomace, almond and walnut shells, construction wood waste, urban wood waste and lawn trimmings are not considered biomass fuels. [District NSR Rule]
Rio Bravo’s Request:

This condition was included when the permit was initially issued. The District later modified the procedure in the permit use CARB approved emissions factors to more accurately account for NOx offsets from each individual type of agricultural fuel. Condition #33 was inadvertently left in the permit when conditions 28 through 32 were incorporated into the permit. Since Rio Bravo utilizes the District prescribed, CARB approved emission factor method described in conditions #28 through 32 to accurately track and offset all of its NOx emissions, the requirement in condition #33 is obsolete and redundant.

As such, Rio Bravo is requesting to remove this condition.

District’s Response:

The District agrees with above and therefore condition #33 on the current permit will be removed and will not be included on the proposed PTO.

8. Modify Condition 20:

Condition #20 on the current PTO states as follows:

- Only grape stems, grape pumice, almond shells, walnut shells, construction wood waste, urban wood waste, and up to 1,500 pounds per quarter of confiscated drugs shall be used as non-creditable fuels. [District NSR Rule]

Rio Bravo’s Request:

Rio Bravo requests to remove the ability to combust up to 1,500 pounds per quarter of confiscated drugs. The reason is that the Fresno County Sheriff required positive proof of burning the drugs and their preference was the direct injection of the drugs into the biomass combustor. However, the combustor’s fuel feed system is not designed for direct injection of the drugs. Thus the drugs would have to be placed on the conveyor, which was not acceptable to the Sheriff. In addition, Rio Bravo does not want to have illegal drugs on site due to company policy and personnel safety concerns.

The District has approved more up-to-date and thorough definition of biomass and wood waste in recently granted Title V permits in the Southern Region (for example permit S-883-3-18). Rio Bravo’s Title V permit does not include definitions of biomass and wood waste that reflects all currently available fuel. This limits the plant in its ability to acquire economically viable fuel.
Rio Bravo requests that the definitions of biomass and wood waste, approved by the District in several of their recently issued Title V permits, be added to the Rio Bravo’s permit by modifying condition #20 to read as follows:

- Only biomass and wood waste not included in the creditable fuels shall be used as non-creditable fuels. Biomass is defined as any organic material originating form plants including but not limited to products, by-products and wastes from agriculture, forestry, aquatic, and related industries, such as agricultural, energy or feed crops, residues and wastes, orchard and vineyard prunings and removal, stone fruit pits, nut shells, cotton gin trash, corn stalks and stover, straw, seedhulls, sugarcane leavings and bagasse, aquatic plants and algae, cull logs, eucalyptus logs, poplars, willows, switchgrass, alfalfa, bark, lawn, yard, and garden clippings, waste paper (unprinted), leaves, silvicultural residue, tree and brush prunings, sawdust, timber slash, mill scrap, wood and wood chips, and wood waste. Biomass does not include material containing sewage sludge or industrial, hazardous, radioactive, municipal solid waste, or any material chemically treated or derived from fossil fuels. Wood waste includes clean, chipped wood products, plywood, wood products, manufacturing wood materials, construction and demolition wood materials, and wood pallets, crates and boxes. [District NSR Rule]

**District’s Response:**

The District agrees with above and therefore condition #20 on the current permit will be modified as above and included as condition #19 on the proposed PTO.

None of the proposed modifications will result in any increase in emissions from this project.

**VII. COMPLIANCE**

District Rule 2520, Section 6.0 describes the source’s ability to make changes including significant permit modification. This modification does not meet the minor permit modification criteria pursuant to Section 3.20 described as follows.

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;
   a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
   b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and

5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and

6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of Section 11.3 by including;

1. The identification of the source, the name and address of the permit holder, the activities and emissions change involved in the permit action;

2. The name and address of the District, the name and telephone number of District staff to contact for additional information;

3. The availability, upon request, of a statement that sets forth the legal and factual basis for the proposed permit conditions;

4. The location where the public may inspect the complete application, the District analysis, the proposed permit, and all relevant supporting materials;

5. A statement that the public may submit written comments regarding the proposed decision within at least 30 days from the date of publication and a brief description of commenting procedures, and

6. A statement that members of the public may request the APCO or his designee to preside over a public hearing for the purpose of receiving oral public comment, if a hearing has not already been scheduled. The APCO shall provide notice of any public hearing scheduled to address the proposed decision at least 30 days prior to such hearing;
VIII. ATTACHMENTS

A. Proposed Modified Title V Operating Permit No. C-1820-1-28
B. Authority to Construct No. C-1820-1-27
C. Previous Title V Operating Permit No. C-1820-1-24
D. Application
ATTACHMENT A

Proposed Modified Title V Operating Permit No.
C-1820-1-28
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1820-1-28

EQUIPMENT DESCRIPTION:
352 MMBTU/HR CIRCULATING FLUIDIZED-BED BIOMASS COMBUSTOR USED TO PRODUCE ELECTRICAL POWER GENERATION (28.5 MW), WITH ONE COOLING TOWER, ONE AIR PREHEATER, ONE BARETUBE ECONOMIZER, AND TWO 900 AND ONE 700 HP FANS

PERMIT UNIT REQUIREMENTS

1. No more than 500 lb/day of "Ashvantage" anti-slag additive shall be used in this combustor. [District Rule 2201] Federally Enforceable Through Title V Permit

2. In the event that the use of "Ashvantage" anti-slag additive causes a violation of any applicable requirement of this permit, the operator shall immediately cease usage of the anti-slag additive. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Ammonia shall be injected into the fluidized bed combustor as necessary to meet the limits in these conditions and whenever the combustor is in full operation. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Filterable PM10 emissions from the exhaust of the electrostatic precipitator shall not exceed 5.8 lb/hr, and condensable PM10 emissions shall not exceed 17.4 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Combustion contaminants shall not exceed 10 lb/hr. Combustion contaminants are defined as particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state. Lab analysis testing shall be performed during each source test to determine the total amount of non-combustion contaminants, which shall be subtracted from the total particulate measured during the annual PM performance test to determine the total combustion contaminants. [District Rule 4301] Federally Enforceable Through Title V Permit

6. The SOx emissions (calculated as SO2) from the exhaust of the fluidized bed combustor shall not exceed 10.0 lb/hour nor 240 lb/day. [District NSR Rule, District Rule 4301] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown periods, the NOx emissions (measured as NO2) from the exhaust of the fluidized bed combustor shall not exceed 0.08 lb/MMBTU, 660 lb/day, or 110 tons per year. [District NSR Rule, District Rules 4352, 5.1 and 4301] Federally Enforceable Through Title V Permit

8. Except during startup and shutdown periods, the carbon monoxide emissions from the fluidized bed combustor shall not exceed 400 ppmv @ 3% O2, 22 lb/hour, 528 lb/day, or 46 tons/year. [District NSR Rule and District Rule 4352, 5.1] Federally Enforceable Through Title V Permit

9. During the startup and shutdown periods, the NOx emissions (measured as NO2) from the exhaust of the fluidized bed combustor shall not exceed 0.16 lb/MMBTU, 660 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

10. During startup and shutdown periods, the carbon monoxide emissions from the fluidized bed combustor shall not exceed 44 lb/hour, 528 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Startup is defined as the period of time, not to exceed 96 hours, during which the unit is set in operation and heated from a lower temperature to a steady state operating temperature. [District Rule 4352, 3.18, 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Shutdown is defined as the period of time, when fuel is curtailed and the unit begins cooling from the unit's normal operating temperature, as specified by the manufacturer, and ends when steam flow is zero or 24 hours have elapsed since the start of a shutdown, whichever occurs first. [District Rule 4352, 3.15, 5.3.4] Federally Enforceable Through Title V Permit

13. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. [District Rule 4352, 5.3.3] Federally Enforceable Through Title V Permit

14. The VOC emissions from the exhaust of the fluidized bed combustor shall not exceed 10.4 lb/hour nor 250 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

15. The concentration of filterable PM10 in the exhaust from the electrostatic precipitator shall not exceed 0.010 gr/dscf corrected to 12% CO2. [District NSR Rule and District Rule 4201] Federally Enforceable Through Title V Permit

16. The concentration of ammonia in the exhaust of the fluidized bed combustor shall not exceed 25 ppmv at 3% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

17. The electrostatic precipitator shall be operated in a manner so as to minimize the emissions of particulate matter whenever the fluidized bed combustor is fired. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Only alfalfa, barley, beanstraw, corn, orchard prunings, vineyard prunings, oats, wheat, and forest residues shall be used as offset creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Only biomass and wood waste not included in the creditable fuels shall be used as non-creditable fuels. Biomass is defined as any organic material originating form plants including but not limited to products, by-products and wastes from agriculture, forestry, aquatic, and related industries, such as agricultural, energy or feed crops, residues and wastes, orchard and vineyard prunings and removal, stone fruit pits, nut shells, cotton gin trash, corn stalks and stover, straw, seedhulls, sugarcane leavings and bagasse, aquatic plants and algae, cull logs, eucalyptus logs, poplars, willows, switchgrass, alfalfa, bark, lawn, yard, and garden clippings, waste paper (unprinted), leaves, silvicultural residue, tree and brush prunings, sawdust, timber slash, mill scrap, wood and wood chips, and wood waste. Biomass does not include material containing sewage sludge or industrial, hazardous, radioactive, municipal solid waste, or any material chemically treated or derived from fossil fuels. Wood waste includes clean, chipped wood products, plywood, wood products, manufacturing wood materials, construction and demolition wood materials, and wood pallets, crates and boxes. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Fuels shall not be painted, oiled or stained. [District NSR Rule] Federally Enforceable Through Title V Permit

21. The NOx emission factor used to calculate emission offset credits for orchard and vineyard wastes shall be 4.3 lb NOx per ton, for forest residue shall be 4.0 lb NOx per ton and for all other permitted agricultural wastes shall be 4.26 lb NOx per ton. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Open-burn emission factors used to determine the quantity of offsets available from the diversion of biomass (as defined in District Rule 2201, Section 3.10, 4/25/02 version) from open-burning are listed in District Policy SSP 2005 "Open Burn Emission Factors". [District NSR Rule] Federally Enforceable Through Title V Permit

23. The owner/operator shall verify all emissions and related data and make the verifications available upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

24. The owner/operator shall provide certification for all fuel which is assigned offset credit. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The owner/operator shall submit written contracts between the owner/operator and all fuel suppliers annually to the District for approval. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Agreements between each fuel supplier and the owner/operator shall be considered as part of the permit to operate after District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The owner/operator shall be responsible for ensuring that emission credits are properly evaluated according to the provisions of the agreements with fuel suppliers. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The owner/operator shall project and use the proper mix of fuels to ensure that all emissions are offset as required with credits from the use of creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit
29. The emission credits for the use of creditable fuels shall be calculated using the protocol approved in the District's December 9, 1999 correspondence to the facility. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Emission offset credit will be calculated using the formula \( EC(y) = CO(y-1) +\ \text{Summation}(1/DF(i) \times T(i) \times EF(i)) \), where \( EC(y) \) = the amount of offset credit available for the year, \( CO(y-1) \) = the amount of offset carryover available from the previous year, \( i \) = the \( i \)th load of biomass received for the offset year, \( DF(i) \) = the distance factor for the \( i \)th load of biomass, \( T(i) \) = the number of Tons of biomass in the \( i \)th load, and \( EF(i) \) = the emission factor for the type of biomass in the \( i \)th load. [District NSR Rule] Federally Enforceable Through Title V Permit

31. The offset Distance Factor (DF) shall be 1.2 for biomass originating within a 15 mile radius of this facility and 2.0 for biomass originating outside of the 15 mile radius. [District NSR Rule] Federally Enforceable Through Title V Permit

32. The owner operator shall curtail operation proportionately and notify the District whenever, due to changes in the quantity or quality of wastes supplied, the emissions exceed the offsets. [District NSR Rule] Federally Enforceable Through Title V Permit

33. All fuels shall be burned on a first-in, first-out basis. Compliance with this condition shall be based on mixed fuel piles (first-mixed, first-burned). [District NSR Rule] Federally Enforceable Through Title V Permit

34. Performance testing shall be conducted annually for NOx, CO, SOx, PM and PM(10) at the maximum operating capacity using following test methods; for NOx EPA Method 7E or ARB Method 100; for CO EPA Method 10 or ARB Method 100; for SOx EPA Method 6 or 6C; for PM EPA Method 5 (including back half); and for PM(10) EPA Method 5 (including back half assuming 100% of PM is PM10) or EPA Method 201A in combination with EPA Method 202 or any others test methods and procedures approved by the District. [District Rule 4301, 4352 & 1081] Federally Enforceable Through Title V Permit

35. The higher heating value of all as-fired solid fuels shall be certified by a third-party supplier or determined by ASTM Method E711, ASTM D5865, or other test method(s) with prior written approval of the APCO, ARB, and EPA. [District Rule 4352, 6.4] Federally Enforceable Through Title V Permit

36. All emissions measurements during a source test shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No compliance determination shall be established within two hours after a period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352, 6.3.2, 6.3.3] Federally Enforceable Through Title V Permit

37. The District must be notified 30 days prior to any performance test, and a test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

38. The results of each performance test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

39. Permittee shall operate a Continuous Emissions Monitoring (CEM) system to monitor and record NOx concentrations and O2 concentrations, as well as the NOx emission rate whenever the unit is operating. The CEM system shall be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c), 60.13, and 60.48b. The CEM system must also comply with 40 CFR 60 Appendix B, Performance Specifications 2 and 3, and 40 CFR 60 Appendix F, Quality Assurance Procedures. Per Section 5.1.1 of Appendix F, at least once each calendar year, a Relative Accuracy Test Audit (RATA) must be conducted. Per Sections 5.1.2 and 5.1.3 of Appendix F, a Cylinder Gas Audit (CGA) or a Relative Accuracy Audit (RAA) must be conducted once each calendar quarter, except in the quarter where a RATA is performed. [District Rules 1080 and 4352, 5.5 and 40 CFR 60.7(c), 40 CFR 60.13, and 40 CFR 60.48b] Federally Enforceable Through Title V Permit

40. Compliance with the daily NOx emission limit shall be based on a block 24-hour averaging period using CEM system data. [District Rule 4352, 5.2 and 40 CFR 60.44b(i)] Federally Enforceable Through Title V Permit

41. The continuous monitoring equipment must be linked to a data acquisition system that is accessible via modem. [District Rules 1080 and 4352, 5.5] Federally Enforceable Through Title V Permit
42. Permittee shall operate a Continuous Opacity Monitoring (COM) system to monitor and record opacity whenever the unit is operating. The COM system shall be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c), 60.13, and 60.48b. The COM system must also satisfy Performance Specification 1 of 40 CFR 60 Appendix B. [District Rule 1080 and 40 CFR 60.7(c), 40 CFR 60.13, 40 CFR 60.48b, and 40 CFR 64.3(a) and (d)] Federally Enforceable Through Title V Permit

43. A quarterly CEM and COM report shall be submitted to the District which includes the following: hours of operation, the date and time of each exceedance of emissions limits (including startup, shutdown, malfunctions or any other reason), the quantity of excess emissions, any conversion factors used to calculate excess emissions, the nature and cause of each malfunction, any corrective action taken and any preventive measures adopted, hours of CEM (and COM) down time, and the cause of all CEM (and COM) down time. [District Rules 1080 and 4352, 5.5; 40 CFR 60.49b(h), and 40 CFR 64.3(d)(i)] Federally Enforceable Through Title V Permit

44. Quarterly reports shall be submitted to the District within 30 days after the end of each calendar quarter. [District Rules 1080 and 4352, 5.5] Federally Enforceable Through Title V Permit

45. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

46. A violation of NOx emission standards indicated by the NOx CEMS shall be reported by the operator to the APCO within 96 hours. [District Rule 1080] Federally Enforceable Through Title V Permit

47. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEMS. Operator shall inform the APCO of the intent to shut down the CEMS at least 24 hours prior to the event. [District Rule 1080] Federally Enforceable Through Title V Permit

48. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit

49. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit

50. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit

51. All equipment or systems installed or used to achieve compliance with the terms and conditions of this Title V permit shall be maintained in good working order and be operated as efficiently as possible to minimize air pollution emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

52. The net electrical power output shall not exceed 28.5 MW. [District NSR Rule] Federally Enforceable Through Title V Permit

53. Natural gas, butane, and propane may be used as start-up fuel and combustion stabilization purposes only. [District NSR Rule] Federally Enforceable Through Title V Permit

54. Records of system maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Fresno County Rule 406] Federally Enforceable Through Title V Permit

56. The storage and handling of fuels shall be conducted so as to minimize the potential of any fire in the facility's fuel storage area. [District Rule 4101]

57. Permittee shall maintain daily records of the amount of "Ashvantage" anti-slag additive used. [District Rule 2201] Federally Enforceable Through Title V Permit
58. Permittee shall record the higher heating value of the as-fired fuel on a monthly basis. The HHV shall be determined on either a composite monthly sample (comprised of weekly grab samples, or biweekly grab samples). [District Rule 4352, 6.2.1] Federally Enforceable Through Title V Permit

59. Records of all daily fuel consumption shall be maintained on site and submitted to the District with quarterly reports and upon request. [District NSR Rule, District Rule 4352, 6.2.1 and 40 CFR 60.49b(d)] Federally Enforceable Through Title V Permit

60. The owner/operator shall maintain daily records of the type and quantity of all biomass received. [District NSR Rule and District Rule 4352, 6.2.1] Federally Enforceable Through Title V Permit

61. All records required by this permit shall be retained on site for a minimum of five years, and shall be made available for District inspection upon request. [District NSR Rule, and District Rules 2520, 9.4.2 and 4352, 6.2.2] Federally Enforceable Through Title V Permit
ATTACHMENT B

Authority to Construct No.
C-1820-1-27
AUTHORITY TO CONSTRUCT

PERMIT NO: C-1820-1-27

LEGAL OWNER OR OPERATOR: RIO BRAVO FRESNO
MAILING ADDRESS: 3350 S WILLOW AVE
FRESNO, CA 93725

LOCATION: 3350 S WILLOW AVE
FRESNO, CA 93725

EQUIPMENT DESCRIPTION:
MODIFICATION OF 352 MMBTU/HR CIRCULATING FLUIDIZED-BED BIOMASS COMBUSTOR USED TO PRODUCE STEAM FOR ELECTRICAL POWER GENERATION (28.5 MW), WITH ONE COOLING TOWER, ONE AIR PREHEATER, ONE BARETUBE ECONOMIZER, AND TWO 900 AND ONE 700 HP FANS; DELETE CONDITIONS #3 AND 33 OF CURRENT PTO; MODIFY CONDITIONS #12 AND 13 FOR LONGER STARTUP AND SHUTDOWN; MODIFY CONDITION #36 TO INCLUDE ASTM TEST METHOD D-5865; MODIFY CONDITION #67 TO MINIMIZE FIRE POTENTIAL; MODIFY CONDITION #59 FOR HHV RECORDS; MODIFY CONDITION #61 FOR FUEL RECORDS AND CERTIFICATION; MODIFY CONDITION #20 FOR BETTER DEFINITIONS OF BIOMASS AND WOOD WASTE

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit

2. No more than 500 lb/day of "Ashvantage" anti-slag additive shall be used in this combustor. [District Rule 2201] Federally Enforceable Through Title V Permit

3. In the event that the use of "Ashvantage" anti-slag additive causes a violation of any applicable requirement of this permit, the operator shall immediately cease usage of the anti-slag additive. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Ammonia shall be injected into the fluidized bed combustor as necessary to meet the limits in these conditions and whenever the combustor is in full operation. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Filterable PM10 emissions from the exhaust of the electrostatic precipitator shall not exceed 5.8 lb/hr, and condensable PM10 emissions shall not exceed 17.4 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadrelin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
C-1820-1-27 - Mar 26, 2011 3:19PM - Version: 1
Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061
6. Combustion contaminants shall not exceed 10 lb/hr. Combustion contaminants are defined as particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state. Lab analysis testing shall be performed during each source test to determine the total amount of non-combustion contaminants, which shall be subtracted from the total particulate measured during the annual PM performance test to determine the total combustion contaminants. [District Rule 4301] Federally Enforceable Through Title V Permit

7. The SOx emissions (calculated as SO2) from the exhaust of the fluidized bed combustor shall not exceed 10.0 lb/hour nor 240 lb/day. [District NSR Rule, District Rule 4301] Federally Enforceable Through Title V Permit

8. Except during startup and shutdown periods, the NOx emissions (measured as NO2) from the exhaust of the fluidized bed combustor shall not exceed 0.08 lb/MMBTU, 660 lb/day, or 110 tons per year. [District NSR Rule, District Rules 4352, 5.1 and 4301] Federally Enforceable Through Title V Permit

9. Except during startup and shutdown periods, the carbon monoxide emissions from the fluidized bed combustor shall not exceed 400 ppmv @ 3% O2, 22 lb/hour, 528 lb/day, or 46 tons/year. [District NSR Rule and District Rule 4352, 5.1] Federally Enforceable Through Title V Permit

10. During the startup and shutdown periods, the NOx emissions (measured as NO2) from the exhaust of the fluidized bed combustor shall not exceed 0.16 lb/MMBTU, 660 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

11. During startup and shutdown periods, the carbon monoxide emissions from the fluidized bed combustor shall not exceed 44 lb/hour, 528 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Startup is defined as the period of time, not to exceed 96 hours, during which the unit is set in operation and heated from a lower temperature to a steady state operating temperature. [District Rule 4352, 3.7, 5.3.2] Federally Enforceable Through Title V Permit

13. Shutdown is defined as the period of time, when fuel is curtailed and the unit begins cooling from the unit’s normal operating temperature, as specified by the manufacturer, and ends when steam flow is zero or 24 hours have elapsed since the start of a shutdown, whichever occurs first. [District Rule 4352, 3.15, 5.3.4] Federally Enforceable Through Title V Permit

14. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during startup or shutdown. [District Rule 4352, 5.3.3] Federally Enforceable Through Title V Permit

15. The VOC emissions from the exhaust of the fluidized bed combustor shall not exceed 10.4 lb/hour nor 250 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The concentration of filterable PM10 in the exhaust from the electrostatic precipitator shall not exceed 0.010 grid/sec corrected to 12% CO2. [District NSR Rule and District Rule 4201] Federally Enforceable Through Title V Permit

17. The concentration of ammonia in the exhaust of the fluidized bed combustor shall not exceed 25 ppmv at 3% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

18. The electrostatic precipitator shall be operated in a manner so as to minimize the emissions of particulate matter whenever the fluidized bed combustor is fired. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Only alfalfa, barley, bean straw, corn, orchard prunings, vineyard prunings, oats, wheat, and forest residues shall be used as offset creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Only biomass and wood waste not included in the creditable fuels shall be used as non-creditable fuels. Biomass is defined as any organic material originating from plants including but not limited to products, by-products and wastes from agriculture, forestry, aquatic, and related industries, such as agricultural, energy or feed crops, residues and wastes, orchard and vineyard prunings and removal, stone fruit pits, nut shells, cotton gin trash, corn stalks and stover, straw, seed hulls, sugarcane bagasse, aquatic plants and algae, cull logs, eucalyptus logs, poplars, willows, switchgrass, alfalfa, bark, lawn, yard, and garden clippings, waste paper (unprinted), leaves, silvicultural residue, tree and brush prunings, sawdust, timber slash, mill scrap, wood and wood chips, and wood waste. Biomass does not include material containing sewage sludge or industrial, hazardous, radioactive, municipal solid waste, or any material chemically treated or derived from fossil fuels. Wood waste includes clean, chipped wood products, plywood, wood products, manufacturing wood materials, construction and demolition wood materials, and wood pallets, crates and boxes. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
21. Fuels shall not be painted, oiled or stained. [District NSR Rule] Federally Enforceable Through Title V Permit

22. The NOx emission factor used to calculate emission offset credits for orchard and vineyard wastes shall be 4.3 lb NOx per ton, for forest residue shall be 4.0 lb NOx per ton and for all other permitted agricultural wastes shall be 4.26 lb NOx per ton. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Open-burn emission factors used to determine the quantity of offsets available from the diversion of biomass (as defined in District Rule 2201, Section 3.10, 4/25/02 version) from open-burning are listed in District Policy SSP 2005 "Open Burn Emission Factors". [District NSR Rule] Federally Enforceable Through Title V Permit

24. The owner/operator shall verify all emissions and related data and make the verifications available upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The owner/operator shall provide certification for all fuel which is assigned offset credit. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The owner/operator shall submit written contracts between the owner/operator and all fuel suppliers annually to the District for approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Agreements between each fuel supplier and the owner/operator shall be considered as part of the permit to operate after District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The owner/operator shall be responsible for ensuring that emission credits are properly evaluated according to the provisions of the agreements with fuel suppliers. [District NSR Rule] Federally Enforceable Through Title V Permit

29. The owner/operator shall project and use the proper mix of fuels to ensure that all emissions are offset as required with credits from the use of creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

30. The emission credits for the use of creditable fuels shall be calculated using the protocol approved in the District's December 9, 1999 correspondence to the facility. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Emission offset credit will be calculated using the formula EC(y) = CO(y-1) + Summation (1/DF(i) x T(i) x EF(i)), where EC(y) = the amount of offset credit available for the year, CO(y-1) = the amount of offset carryover available from the previous year, i = the ith load of biomass received for the offset year, DF(i) = the distance factor for the ith load of biomass, T(i) = the number of Tons of biomass in the ith load, and EF(i) = the emission factor for the type of biomass in the ith load. [District NSR Rule] Federally Enforceable Through Title V Permit

32. The offset Distance Factor (DF) shall be 1.2 for biomass originating within a 15 mile radius of this facility and 2.0 for biomass originating outside of the 15 mile radius. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The owner operator shall curtail operation proportionately and notify the District whenever, due to changes in the quantity or quality of wastes supplied, the emissions exceed the offsets. [District NSR Rule] Federally Enforceable Through Title V Permit

34. All fuels shall be burned on a first-in, first-out basis. Compliance with this condition shall be based on mixed fuel piles (first-mixed, first-burned). [District NSR Rule] Federally Enforceable Through Title V Permit

35. Performance testing shall be conducted annually for NOx, CO, SOx, PM and PM(10) at the maximum operating capacity using following test methods; for NOx EPA Method 7E or ARB Method 100; for CO EPA Method 10 or ARB Method 100; for SOx EPA Method 6 or 6C; for PM EPA Method 5 (including back half); and for PM(10) EPA Method 5 (including back half assuming 100% of PM is PM10) or EPA Method 201A in combination with EPA Method 202 or any other test methods and procedures approved by the District. [District Rule 4301, 4352 & 1081] Federally Enforceable Through Title V Permit

36. The higher heating value of all as-fired solid fuels shall be certified by a third-party supplier or determined by ASTM Method E711, ASTM D5865, or other test method(s) with prior written approval of the APCO, ARB, and EPA. [District Rule 4352, 6.4] Federally Enforceable Through Title V Permit

37. All emissions measurements during a source test shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No compliance determination shall be established within two hours after a period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352, 6.3.2, 6.3.3] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
38. The District must be notified 30 days prior to any performance test, and a test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

39. The results of each performance test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

40. Permittee shall operate a Continuous Emissions Monitoring (CEM) system to monitor and record NOx concentrations and O2 concentrations, as well as the NOx emission rate whenever the unit is operating. The CEM system shall be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c), 60.13, and 60.48b. The CEM system must also comply with 40 CFR 60 Appendix B, Performance Specifications 2 and 3, and 40 CFR 60 Appendix F, Quality Assurance Procedures. Per Section 3.1.1 of Appendix F, at least once each calendar year, a Relative Accuracy Test Audit (RATA) must be conducted. Per Sections 5.1.2 and 5.1.3 of Appendix F, a Cylinder Gas Audit (CGA) or a Relative Accuracy Audit (RAA) must be conducted once each calendar quarter, except in the quarter where a RATA is performed. [District Rules 1080 and 4352, 5.5 and 40 CFR 60.7(c), 40 CFR 60.13, and 40 CFR 60.48b] Federally Enforceable Through Title V Permit

41. Compliance with the daily NOx emission limit shall be based on a block 24-hour averaging period using CEM system data. [District Rule 4352, 5.2 and 40 CFR 60.44b(j)] Federally Enforceable Through Title V Permit

42. The continuous monitoring equipment must be linked to a data acquisition system that is accessible via modem. [District Rules 1080 and 4352, 5.5] Federally Enforceable Through Title V Permit

43. Permittee shall operate a Continuous Opacity Monitoring (COM) system to monitor and record opacity whenever the unit is operating. The COM system shall be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c), 60.13, and 60.48b. The COM system must also satisfy Performance Specification 1 of 40 CFR 60 Appendix B. [District Rule 1080 and 40 CFR 60.7(c), 40 CFR 60.13, 40 CFR 60.48b, and 40 CFR 64.3(a) and (d)] Federally Enforceable Through Title V Permit

44. A quarterly CEM and COM report shall be submitted to the District which includes the following: hours of operation, the date and time of each exceedance of emissions limits (including startups, shutdowns, malfunctions or any other reason), the quantity of excess emissions, any conversion factors used to calculate excess emissions, the nature and cause of each malfunction, any corrective action taken and any preventive measures adopted, hours of CEM (and COM) down time, and the cause of all CEM (and COM) down time. [District Rules 1080 and 4352, 5.5; 40 CFR 60.49b(h), and 40 CFR 64.3(d)(i)] Federally Enforceable Through Title V Permit

45. Quarterly reports shall be submitted to the District within 30 days after the end of each calendar quarter. [District Rules 1080 and 4352, 5.5] Federally Enforceable Through Title V Permit

46. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.33, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

47. A violation of NOx emission standards indicated by the NOx CEMS shall be reported by the operator to the APCO within 96 hours. [District Rule 1080] Federally Enforceable Through Title V Permit

48. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEMS. Operator shall inform the APCO of the intent to shut down the CEMS at least 24 hours prior to the event. [District Rule 1080] Federally Enforceable Through Title V Permit

49. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit

50. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit

51. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit

52. All equipment or systems installed or used to achieve compliance with the terms and conditions of this Title V permit shall be maintained in good working order and be operated as efficiently as possible to minimize air pollution emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
53. The net electrical power output shall not exceed 28.5 MW. [District NSR Rule] Federally Enforceable Through Title V Permit

54. Natural gas, butane, and propane may be used as start-up fuel and combustion stabilization purposes only. [District NSR Rule] Federally Enforceable Through Title V Permit

55. Records of system maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Fresno County Rule 406] Federally Enforceable Through Title V Permit

57. The storage and handling of fuels shall be conducted so as to minimize the potential of any fire in the facility's fuel storage area. [District Rule 4101]

58. Permittee shall maintain daily records of the amount of "Ashvantage" anti-slag additive used. [District Rule 2201] Federally Enforceable Through Title V Permit

59. Permittee shall record the higher heating value of the as-fired fuel on a monthly basis. The HHV shall be determined on either a composite monthly sample (comprised of weekly grab samples, or biweekly grab samples). [District Rule 4352, 6.2.1] Federally Enforceable Through Title V Permit

60. Records of all daily fuel consumption shall be maintained on site and submitted to the District with quarterly reports and upon request. [District NSR Rule, District Rule 4352, 6.2.1 and 40 CFR 60.49b(d)] Federally Enforceable Through Title V Permit

61. The owner/operator shall maintain daily records of the type and quantity of all biomass received. [District NSR Rule and District Rule 4352, 6.2.1] Federally Enforceable Through Title V Permit

62. All records required by this permit shall be retained on site for a minimum of five years, and shall be made available for District inspection upon request. [District NSR Rule, and District Rules 2520, 9.4.2 and 4352, 6.2.2] Federally Enforceable Through Title V Permit
ATTACHMENT C

Previous Title V Operating Permit No.
C-1820-1-24
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1820-1-24

EXPIRATION DATE: 11/30/2014

EQUIPMENT DESCRIPTION:
352 MMBTU/HR CIRCULATING FLUIDIZED-BED BIOMASS COMBUSTOR USED TO PRODUCE STEAM FOR ELECTRICAL POWER GENERATION (28.5 MW), WITH ONE COOLING TOWER, ONE AIR PREHEATER, ONE BARETUBE ECONOMIZER, AND TWO 900 AND ONE 700 HP FANS

PERMIT UNIT REQUIREMENTS

1. No more than 500 lb/day of "Ashvantage" anti-slag additive shall be used in this combustor. [District Rule 2201] Federally Enforceable Through Title V Permit

2. In the event that the use of "Ashvantage" anti-slag additive causes a violation of any applicable requirement of this permit, the operator shall immediately cease usage of the anti-slag additive. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The fuel consumption in the fluidized bed combustor shall not exceed 36 tons at 30% moisture in any one hour. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Ammonia shall be injected into the fluidized bed combustor as necessary to meet the limits in these conditions and whenever the combustor is in full operation. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Filterable PM10 emissions from the exhaust of the electrostatic precipitator shall not exceed 5.8 lb/hr, and condensable PM10 emissions shall not exceed 17.4 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Combustion contaminants shall not exceed 10 lb/hr. Combustion contaminants are defined as particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state. Lab analysis testing shall be performed during each source test to determine the total amount of non-combustion contaminants, which shall be subtracted from the total particulate measured during the annual PM performance test to determine the total combustion contaminants. [District Rule 4301] Federally Enforceable Through Title V Permit

7. The SOx emissions (calculated as SO2) from the exhaust of the fluidized bed combustor shall not exceed 10.0 lb/hour nor 240 lb/day. [District NSR Rule, District Rule 4301] Federally Enforceable Through Title V Permit

8. Except during startup and shutdown periods, the NOx emissions (measured as NO2) from the exhaust of the fluidized bed combustor shall not exceed 0.08 lb/MMBTU, 660 lb/day, or 110 tons per year. [District NSR Rule, District Rules 4352, 5.1 and 4301] Federally Enforceable Through Title V Permit

9. Except during startup and shutdown periods, the carbon monoxide emissions from the fluidized bed combustor shall not exceed 400 ppmv @ 3% O2, 22 lb/hour, 528 lb/day, or 46 tons/year. [District NSR Rule and District Rule 4352, 5.1] Federally Enforceable Through Title V Permit

10. During the startup and shutdown periods, the NOx emissions (measured as NO2) from the exhaust of the fluidized bed combustor shall not exceed 0.16 lb/MMBTU, 660 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

11. During startup and shutdown periods, the carbon monoxide emissions from the fluidized bed combustor shall not exceed 44 lb/hour, 528 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Start-up operation is defined as the period of time during which a unit is heated to the operating temperature and pressure from a shutdown status. Shutdown operation is defined as the period of time during which a unit is taken from operational to nonoperational status by allowing it to cool down from its operating temperature and pressure to an ambient temperature. [District Rule 4352, 3.15, 3.18, 5.3] Federally Enforceable Through Title V Permit

13. The duration of each start-up shall not exceed 96 hours. The duration of each shutdown shall not exceed twelve (12) hours. [District Rule 4352, 5.3.1 and 5.3.2] Federally Enforceable Through Title V Permit

14. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. [District Rule 4352, 5.3.3] Federally Enforceable Through Title V Permit

15. The VOC emissions from the exhaust of the fluidized bed combustor shall not exceed 10.4 lb/hour nor 250 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The concentration of filterable PM10 in the exhaust from the electrostatic precipitator shall not exceed 0.010 gr/dscf corrected to 12% CO2. [District NSR Rule and District Rule 4201] Federally Enforceable Through Title V Permit

17. The concentration of ammonia in the exhaust of the fluidized bed combustor shall not exceed 25 ppmv at 3% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

18. The electrostatic precipitator shall be operated in a manner so as to minimize the emissions of particulate matter whenever the fluidized bed combustor is fired. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Only alfalfa, barley, bean straw, corn, orchard prunings, vineyard prunings, oats, wheat, and forest residues shall be used as offset creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Only grape stems, grape pumice, almond shells, walnut shells, construction wood waste, urban wood waste, and up to 1,500 pounds per quarter of confiscated drugs shall be used as non-creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Fuels shall not be painted, oiled or stained. [District NSR Rule] Federally Enforceable Through Title V Permit

22. The NOx emission factor used to calculate emission offset credits for orchard and vineyard wastes shall be 4.3 lb NOx per ton; for forest residue shall be 4.0 lb NOx per ton and for all other permitted agricultural wastes shall be 4.26 lb NOx per ton. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Open-burn emission factors used to determine the quantity of offsets available from the diversion of biomass (as defined in District Rule 2201, Section 3.10, 4/25/02 version) from open-burning are listed in District Policy SSP 2005 "Open Burn Emission Factors". [District NSR Rule] Federally Enforceable Through Title V Permit

24. The owner/operator shall verify all emissions and related data and make the verifications available upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The owner/operator shall provide certification for all fuel which is assigned offset credit. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The owner/operator shall submit written contracts between the owner/operator and all fuel suppliers annually to the District for approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Agreements between each fuel supplier and the owner/operator shall be considered as part of the permit to operate after District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The owner/operator shall be responsible for ensuring that emission credits are properly evaluated according to the provisions of the agreements with fuel suppliers. [District NSR Rule] Federally Enforceable Through Title V Permit

29. The owner/operator shall project and use the proper mix of fuels to ensure that all emissions are offset as required with credits from the use of creditable fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

30. The emission credits for the use of creditable fuels shall be calculated using the protocol approved in the District’s December 9, 1999 correspondence to the facility. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. Emission offset credit will be calculated using the formula \( EC(y) = CO(y-1) + \text{Summation} (1/DF(i) \times T(i) \times EF(i)) \), where \( EC(y) \) = the amount of offset credit available for the year, \( CO(y-1) \) = the amount of offset carryover available from the previous year, \( i = \) the i\(th\) load of biomass received for the offset year, \( DF(i) = \) the distance factor for the i\(th\) load of biomass, \( T(i) = \) the number of Tons of biomass in the i\(th\) load, and \( EF(i) = \) the emission factor for the type of biomass in the i\(th\) load. [District NSR Rule] Federally Enforceable Through Title V Permit

32. The offset Distance Factor (DF) shall be 1.2 for biomass originating within a 15 mile radius of this facility and 2.0 for biomass originating outside of the 15 mile radius. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The mass ratio of creditable biomass fuel to total biomass fuel shall not be less than 0.48. Grape stems, grape pomace, almond and walnut shells, construction wood waste, urban wood waste and lawn trimmings are not considered biomass fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

34. The owner operator shall curtail operation proportionately and notify the District whenever, due to changes in the quantity or quality of wastes supplied, the emissions exceed the offsets. [District NSR Rule] Federally Enforceable Through Title V Permit

35. All fuels shall be burned on a first-in, first-out basis. Compliance with this condition shall be based on mixed fuel piles (first-mixed, first-burned). [District NSR Rule] Federally Enforceable Through Title V Permit

36. Performance testing shall be conducted annually for NOx, CO, SOx, PM and PM(10) at the maximum operating capacity using following test methods; for NOx EPA Method 7E or ARB Method 100; for CO EPA Method 10 or ARB Method 100; for SOx EPA Method 6 or 6C; for PM EPA Method 5 (including back half); and for PM(10) EPA Method 5 (including back half assuming 100% of PM is PM10) or EPA Method 201A in combination with EPA Method 202 or any other test methods and procedures approved by the District. [District Rule 4301, 4352 & 1081] Federally Enforceable Through Title V Permit

37. The higher heating value of all as-fired solid fuels shall be certified by a third-party supplier or determined by ASTM Method E711 or other test method(s) with prior written approval of the APCO, ARB, and EPA. [District Rule 4352, 6.4] Federally Enforceable Through Title V Permit

38. All emissions measurements during a source test shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No compliance determination shall be established within two hours after a period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352, 6.3.2, 6.3.3] Federally Enforceable Through Title V Permit

39. The District must be notified 30 days prior to any performance test, and a test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

40. The results of each performance test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

41. Permittee shall operate a Continuous Emissions Monitoring (CEM) system to monitor and record NOx concentrations and O2 concentrations, as well as the NOx emission rate whenever the unit is operating. The CEM system shall be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c), 60.13, and 60.48b. The CEM system must also comply with 40 CFR 60 Appendix B, Performance Specifications 2 and 3, and 40 CFR 60 Appendix F, Quality Assurance Procedures. Per Section 5.1.1 of Appendix F, at least once each calendar year, a Relative Accuracy Test Audit (RATA) must be conducted. Per Sections 5.1.2 and 5.1.3 of Appendix F, a Cylinder Gas Audit (CGA) or a Relative Accuracy Audit (RAA) must be conducted once each calendar quarter, except in the quarter where a RATA is performed. [District Rules 1080 and 4352, 5.5 and 40 CFR 60.7(c), 40 CFR 60.13, and 40 CFR 60.48b] Federally Enforceable Through Title V Permit

42. Compliance with the daily NOx emission limit shall be based on a block 24-hour averaging period using CEM system data. [District Rule 4352, 5.2 and 40 CFR 60.44b(i)] Federally Enforceable Through Title V Permit

43. The continuous monitoring equipment must be linked to a data acquisition system that is accessible via modem. [District Rules 1080 and 4352, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
44. Permittee shall operate a Continuous Opacity Monitoring (COM) system to monitor and record opacity whenever the unit is operating. The COM system shall be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c), 60.13, and 60.48b. The COM system must also satisfy Performance Specification 1 of 40 CFR 60 Appendix B. [District Rule 1080 and 40 CFR 60.7(c), 40 CFR 60.13, 40 CFR 60.48b, and 40 CFR 64.3(a) and (d)] Federally Enforceable Through Title V Permit

45. A quarterly CEM and COM report shall be submitted to the District which includes the following: hours of operation, the date and time of each exceedance of emissions limits (including startup, shutdown, malfunctions or any other reason), the quantity of excess emissions, any conversion factors used to calculate excess emissions, the nature and cause of each malfunction, any corrective action taken and any preventive measures adopted, hours of CEM (and COM) down time, and the cause of all CEM (and COM) down time. [District Rules 1080 and 4352, 5.5; 40 CFR 60.49b(h), and 40 CFR 64.3(d)(i)] Federally Enforceable Through Title V Permit

46. Quarterly reports shall be submitted to the District within 30 days after the end of each calendar quarter. [District Rules 1080 and 4352, 5.5] Federally Enforceable Through Title V Permit

47. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix F, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

48. A violation of NOx emission standards indicated by the NOx CEMS shall be reported by the operator to the APCO within 96 hours. [District Rule 1080] Federally Enforceable Through Title V Permit

49. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEMS. Operator shall inform the APCO of the intent to shut down the CEMS at least 24 hours prior to the event. [District Rule 1080] Federally Enforceable Through Title V Permit

50. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit

51. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit

52. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit

53. All equipment or systems installed or used to achieve compliance with the terms and conditions of this Title V permit shall be maintained in good working order and be operated as efficiently as possible to minimize air pollution emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

54. The net electrical power output shall not exceed 28.5 MW. [District NSR Rule] Federally Enforceable Through Title V Permit

55. Natural gas, butane, and propane may be used as start-up fuel and combustion stabilization purposes only. [District NSR Rule] Federally Enforceable Through Title V Permit

56. Records of system maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Fresno County Rule 406] Federally Enforceable Through Title V Permit

58. The storage and handling of fuels shall be conducted so as to prevent any fire in the facility's fuel storage area. [District Rule 4101]

59. Permittee shall maintain daily records of the amount of "Ashvantage" anti-slag additive used. [District Rule 2201] Federally Enforceable Through Title V Permit

60. Permittee shall record on a monthly basis the higher heating value of all fuels used. [District Rule 4352, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
61. Records of all daily fuel consumption shall be maintained on site and submitted to the District with quarterly reports and upon request. [District NSR Rule, District Rule 4352, 6.2.1 and 40 CFR 60.49b(d)] Federally Enforceable Through Title V Permit

62. The owner/operator shall maintain records of the type, quantity, and blend of all biomass received and used on a daily basis and of the certifications that the biomass has historically been burned in the San Joaquin Valley air basin. [District NSR Rule and District Rule 4352, 6.2.1] Federally Enforceable Through Title V Permit

63. All records required by this permit shall be retained on site for a minimum of five years, and shall be made available for District inspection upon request. [District NSR Rule, and District Rules 2520, 9.4.2 and 4352, 6.2.2] Federally Enforceable Through Title V Permit

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

Application
San Joaquin Valley Air Pollution Control District
www.valleyair.org

Permit Application For:

[X] MINOR MODIFICATION  [ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO:  
   Rio Bravo Fresno

2. MAILING ADDRESS:
   STREET/P.O. BOX: 3350 S. Willow
   CITY: Fresno  STATE: CA  ZIP CODE: 93725

3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:
   STREET: 3350 S. Willow
   CITY: Fresno
   INSTALLATION DATE: July 2011

4. GENERAL NATURE OF BUSINESS:
   Steam Generation Power Plant

5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE:
   (include Permit # if known, and use additional sheets if necessary)
   Please see attached ATC for Title V permit C-1820-1-27 containing various modifications to permit conditions. Incorporate this ATC into the Rio Bravo Fresno Title V permit.

6. TYPE OR PRINT NAME OF APPLICANT:
   Rick Spurlock
   TITLE OF APPLICANT: Plant Manager and Vice President, Woodpower II, Inc

7. SIGNATURE OF APPLICANT:  
   [Signature]
   DATE: 6-16-11
   PHONE: (559) 264-4575
   FAX: (559) 264-7580
   EMAIL: rspurlock@bbfresno.com

For APCD Use Only:

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San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[ ] SIGNIFICANT PERMIT MODIFICATION [ ] ADMINISTRATIVE AMENDMENT
[X] MINOR PERMIT MODIFICATION

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<th>COMPANY NAME: Rio Bravo Fresno</th>
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<td>2. Owner's Name: Rio Bravo Fresno</td>
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II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

☑ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

☑ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

☑ Corrected information will be provided to the District when I became 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

Risk Spurlock

Name of Responsible Official (please print)

Plant Manager and Vice President CII Woodpower

Title of Responsible Official (please print)

Date: 6-16-11

Mailing Address: Central Regional Office * 1990 E. Gettysburg Avenue * Fresno, California 93726-0244 * (559) 230-5900 * FAX (559) 230-6661

TVFORM-009