San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: C-5715-3-2 **ISSUANCE DATE:** 02/28/2008

LEGAL OWNER OR OPERATOR: VINTAGE DAIRY
MAILING ADDRESS: 200 NEW STINE RD #220
BAKERSFIELD, CA 93309

LOCATION: 12103 W ELKHORN AVE
BURRELL, CA 93607

EQUIPMENT DESCRIPTION:
MODIFICATION OF LIQUID MANURE HANDLING SYSTEM CONSISTING OF 6 SETTLING BASINS, A MECHANICAL SEPARATOR, 1 TREATMENT LAGOON (100' X400' X10') AND 2 STORAGE PONDS (???' X???' X??', ???' X???' X??'). MANURE IS LAND APPLIED THROUGH FLOOD AND FURROW IRRIGATION: EXPAND LAGOON & CONVERT LAGOON TO COVERED LAGOON ANAEROBIC DIGESTER

CONDITIONS

1. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. If a licensed veterinarian or a certified nutritionist determines that any VOC mitigation measure will be required to be suspended as a detriment to animal health, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]
4. Permittee shall remove solids from the waste system with a solid separator system, prior to the waste entering the lagoon. [District Rule 4570]
5. Permittee shall not allow liquid animal waste to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]

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 Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
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6. Permittee shall maintain records to demonstrate liquid animal waste does not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]
7. The liquid manure handling system shall handle flush manure from no more than 4,400 Holstein milk cows; 650 dry cows; 2,000 heifers (15-24 months); 1,300 heifers (7-14 months); 550 heifers (4-6 months); and 40 bulls. [District Rule 2201]
8. The covered lagoon anaerobic digester system shall be constructed and operated with a minimum average retention time of thirty-eight (38) days. [District Rule 2201]
9. The permittee shall maintain calculations demonstrating that the anaerobic digester system has a minimum average retention time of thirty-eight (38) days. [District Rule 2201]
10. Liquid manure shall be mixed with irrigation water at a ratio in compliance with the facility nutrient management plan and applied to cropland at agronomic rates in accordance with the requirements of Regional Water Quality Control Board. [District Rule 2201]
11. Lagoon cover pressure-vacuum relief valve(s) shall be set to allow all gas generated by the lagoon during summer conditions to accumulate under the cover for at least 48 hours prior to release of the gas. [District Rule 2201]
12. The lagoon cover pressure-vacuum relief valve(s) shall be permanently labeled with the maximum operating pressure settings. [District Rule 2201]
13. The lagoon cover pressure-vacuum relief valve(s) shall be installed and operated in accordance with the manufacturer's instructions. [District Rule 2201]
14. The lagoon cover pressure-vacuum relief valve(s) shall remain in a gas-tight condition except when the operating pressure exceeds the valve set pressure. Gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rule 2201]
15. Records of the date and duration of gas release from lagoon cover pressure-vacuum valve(s) and the cause of the release (for example: gas plant malfunction) shall be maintained. [District Rule 1070]
16. Source testing to determine the total VOC content of the biogas and the H2S content of the biogas shall be performed with the digester operating at conditions representative of steady state operations, no sooner than 45 days after initial start-up and no later than 120 days after initial start-up. [District Rule 2201]
17. Total VOC testing of the biogas shall be performed utilizing SCAQMD Method 25.3 or other method(s) approved by the District. [District Rule 2201]
18. Source testing to measure the H2S content of the biogas shall be conducted using EPA Method 15, ASTM Method D1072, D3246, D4084, D5504, with the use of the Testo 350 XL portable analyzer, or using an alternative method approved by the APCO. [District Rules 1081 and 2201]
19. Sampling ports adequate for extraction of grab samples, use of a District-approved portable emission monitor, and use of a District-approved H2S detection device shall be provided. Sampling ports may be located at the gas processing plant. [District Rule 1081]
20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 30 days prior to testing. [District Rule 1081]
21. The results of each source test shall be submitted to the District within 60 days of completion of the source test. [District Rule 1081]
22. All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rules 2201 and 4570]
23. This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [District Rules 2070 and 2080]

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: C-5715-28-0 **ISSUANCE DATE:** 02/28/2008

LEGAL OWNER OR OPERATOR: VINTAGE DAIRY
MAILING ADDRESS: 200 NEW STINE RD #220
BAKERSFIELD, CA 93309

LOCATION: 12103 W ELKHORN AVE
BURRELL, CA 93607

EQUIPMENT DESCRIPTION:
GAS PROCESSING OPERATION CONSISTING OF COMPRESSORS, A NATCO PAQUES BIOLOGICAL TRICKLING FILTER H2S REMOVAL SYSTEM, CARBON CANISTERS, A PRESSURE SWING ADSORPTION (PSA) DEHYDRATION SYSTEM, AND A 17.0 MMBTU/HR JOHN ZINK MODEL FBF ZTOF080X50DI BIOGAS-FIRED FLARE

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Any purge or carrier gas used to regenerate the carbon canisters or molecular sieve for the Pressure Swing Adsorption (PSA) unit shall contain less than 5% VOCs by weight. [District Rule 2201]
5. The permittee shall maintain records of the type and VOC content of any purge or carrier gas used to regenerate the molecular sieve for the PSA unit. [District Rule 2201]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 2201]
7. Only biogas shall be combusted in the flare. [District Rule 2201]
8. The amount of biogas combusted in the flare shall neither exceed 0.41 MMscf in any one day nor 100.00 MMscf in any 365-day period. [District Rule 2201]
9. The flare shall be equipped with an operational, non-resettable, totalizing mass or volumetric fuel flow meter or other District-approved alternative method to measure the amount of biogas combusted in the flare. [District Rule 2201]
10. A flame shall be present at all times whenever combustible gases are vented through the flare. [District Rule 4311]

CONDITIONS CONTINUE ON NEXT PAGE

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11. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311]
12. Unless the flare is equipped with a flow-sensing ignition system, the flare shall be equipped and operated with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame. [District Rule 4311]
13. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311]
14. Emissions from the flare shall not exceed any of the following limits: 0.06 lb-NOx/MMBtu, 0.008 lb-PM10/MMBtu, 0.20 lb-CO/MMBtu, or 0.0027 lb-VOC/MMBtu. [District Rules 2201 and 4311]
15. The H2S content of the digester gas combusted in the flare shall not exceed 50 ppmv. [District Rules 2201 and 4801]
16. Source testing to measure NOx and VOC emissions from the biogas-fired flare shall be conducted within 120 days of initial start-up. [District Rules 2201 and 4311]
17. Source testing to measure NOx and VOC emissions from the biogas-fired flare shall be conducted at least once every twelve (12) months. [District Rules 2201 and 4311]
18. For source test purposes, NOx emissions from the flare shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB Method 100 on a ppmv basis. [District Rule 4311]
19. For source test purposes, VOC emissions from the flare shall be determined using EPA Method 25 or 25a. [District Rule 4311]
20. Stack gas oxygen (O2) shall be determined using EPA Method 3A, EPA Method 7E, or ARB Method 100. [District Rule 4311]
21. To demonstrate initial compliance with the gas H2S content limit of this permit, laboratory samples of the influent gas stream to the flare shall be taken at the initial inspection, under the supervision of the District Inspector. The initial samples shall be taken with the digester operating at conditions representative of steady state operations, no sooner than 45 days after initial start-up of the digester and no later than 120 days after initial operation of the flare. [District Rules 1081 and 2201]
22. Source testing to measure the H2S content of the biogas shall be conducted using EPA Method 15, ASTM Method D1072, D3246, D4084, D5504, with the use of the Testo 350 XL portable analyzer, or using an alternative method approved by the APCO. [District Rules 1081 and 2201]
23. Sampling ports adequate for extraction of grab samples, use of a District-approved portable emission monitor, and use of a District-approved H2S detection device shall be provided in the influent gas line to the flare. [District Rules 1081 and 2201]
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 30 days prior to testing. [District Rules 1081 and 4311]
25. The results of each source test shall be submitted to the District within 45 days of completion of the source test. [District Rules 1081 and 4311]
26. To demonstrate ongoing compliance with the gas H2S content limit of this permit, the permittee shall monitor and record the H2S content of the biogas in the influent line to the flare at least once every month. Monitoring shall be performed using portable emission monitors that meet District specifications; gas detection tubes calibrated for H2S; in-line H2S monitors; or a District-approved alternative method. Monitoring shall not be required if the flare does not operate during that month. [District Rule 2201]
27. If in-line monitors are used to determine the H2S concentration of the gas combusted in the flare, the permittee shall submit details of the proposed H2S monitoring system, including the make, model, and detection limits, prior to operation of the flare. [District Rule 2201]
28. Permittee shall maintain daily and annual records of amount of biogas processed and the quantity of biogas combusted in the flare in MMscf. [District Rule 1070 and 2201]

CONDITIONS CONTINUE ON NEXT PAGE

29. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

30. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201]

31. The permittee's request for approval of equivalent equipment shall include, as applicable, the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment diagram(s)/drawing(s), and operational characteristics/parameters. [District Rule 2010]

32. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]

33. No emission factor and no emissions shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201]