



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



JAN 23 2014

Mr. Robert Hilarides  
Hilarides Dairy  
24163 Road 188  
Lindsay, CA 93247

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # S-5058  
Project # S-1132857**

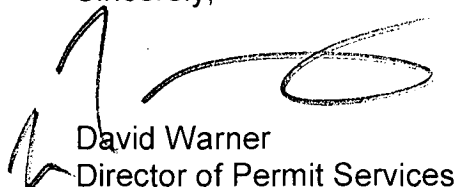
Dear Mr. Hilarides:

Enclosed for your review is the District's analysis of Hilarides Dairy's application for the Federally Mandated Operating Permit for its operation at 24163 Road 188 in Lindsay, California.

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 Federally Mandated Operating Permit. Please submit your written comments on this project 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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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# **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**

## **HILARIDES DAIRY**

### **ENGINEERING EVALUATION**

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**ATTACHMENT A - DETAILED FACILITY REPORT**

**ATTACHMENT B - EXEMPT EQUIPMENT**

**ATTACHMENT C - CURRENT PERMIT TO OPERATE**

# **TITLE V APPLICATION REVIEW**

Project #: S-1132857  
Deemed Complete: July 10, 2013

Engineer: Jonah Aiyabei  
Date: January 21, 2014

Facility Number: S-5058  
Facility Name: Hilarides Dairy  
Mailing Address: 24163 Road 188  
Lindsay, CA 93247

Contact Name: Robert Hilarides  
Phone: (559) 562-0135

Responsible Official: Robert Hilarides  
Title: Owner

## **I. PROPOSAL**

Hilarides Dairy is proposing that an initial Title V permit be issued for its confined animal feeding operation at 24163 Road 188, Lindsay, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

## **II. FACILITY LOCATION**

Hilarides Dairy is located at 24163 Road 188, Lindsay in Tulare County, CA.

## **III. EQUIPMENT LISTING**

A detailed facility report listing all permitted equipment at the facility is shown in Attachment A.

## **IV. GENERAL PERMIT TEMPLATE USAGE**

The applicant has chosen to not use any model general permit templates.

## **V. SCOPE OF EPA AND PUBLIC REVIEW**

The applicant has not requested to utilize any model general permit templates. Therefore, the proposed permit in its entirety is subject to EPA and public review.

## **VI. REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES**

The applicant has not proposed to utilize any model general permit templates. All applicable requirements are explicitly addressed in the permit outside of the general permit templates.

## **VII. REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES**

District Rule 1070, Inspections (Amended December 17, 1992) (Non-SIP replacement for Tulare County Rule 107)

District Rule 1100, Equipment Breakdown (Amended December 17, 1992) (Non-SIP replacement for Tulare County Rule 111)

District Rule 1160, Emission Statements (Adopted November 18, 1992)

District Rule 2010, Permits Required (Amended December 17, 1992)

District Rule 2020, Exemptions (Amended August 18, 2011)

District Rule 2031, Transfer of Permits (Amended December 17, 1992)

District Rule 2040, Applications (Amended December 17, 1992)

District Rule 2070, Standards for Granting Applications (Amended December 17, 1992)

District Rule 2080, Conditional Approval (Amended December 17, 1992)

District Rule 2201, New and Modified Stationary Source Review Rule (Amended April 21, 2011)

District Rule 2410, Prevention of Significant Deterioration (Adopted June 16, 2011)

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

District Rule 4101, Visible Emissions (Amended February 17, 2005)

District Rule 4201, Particulate Matter Concentration (Amended December 17, 1992)

District Rule 4311, Flares (Amended June 18, 2009)

District Rule 4550, Conservation Management Practices (Re-adopted August 19, 2004)

District Rule 4570, Confined Animal Facilities (Amended October 21, 2010)

District Rule 4601, Architectural Coatings (Amended December 17, 2009)

District Rule 4621, Gasoline Transfer Into Stationary Storage Containers

Delivery Vessels, and Bulk Plants (Amended December 20, 2007)

District Rule 4622, Gasoline Transfer Into Motor Vehicle Fuel Tanks (Amended December 20, 2007)

District Rule 4701, Internal Combustion Engines – Phase 1 (Amended August 21, 2003)

District Rule 4702, Internal Combustion Engines (Amended August 18, 2011)

District Rule 4801, Sulfur Compounds (Amended December 17, 1992) (Non-SIP replacement for Tulare County Rule 407)

District Rule 8011, General Requirements (Amended August 19, 2004)

District Rule 8021, Construction, Demolition, Excavation, and Other Earthmoving Activities (Amended August 19, 2004)

District Rule 8031, Bulk Materials (Amended August 19, 2004)

District Rule 8041, Carryout and Trackout (Amended August 19, 2004)

District Rule 8051, Open Areas (Amended August 19, 2004)

District Rule 8061, Paved and Unpaved Roads (Amended August 19, 2004)

District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (Amended September 16, 2004)

District Rule 8081, Agricultural Sources (Amended September 16, 2004)

40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR Part 61, Subpart M, National Emission Standard for Asbestos

40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

40 CFR Part 82, Subpart B and F, Stratospheric Ozone

## **VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE**

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as Federally Enforceable through Title V Permit.

This facility is subject to the following District-only requirements that are not currently federally enforceable:

## **District Rule 4102 – Nuisance**

This rule prevents the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

### **S-5058-0-1 – Facility-Wide Requirements**

- Condition 36 on the proposed permit complies with this rule.

## **Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines**

The Air Toxic Control Measure (ATCM) is a rule under the California Code of Regulations (CCR) which is the official compilation and publication of the regulations adopted, amended or repealed by state agencies. The purpose of this rule is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition engines.

### **S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator**

- Conditions 3, 5, and 8 on the requirements for this permit unit comply with this rule.

## **Public Resources Code 21000-21177: California Environmental Quality Act**

The California Environmental Quality Act (CEQA) is California's broadest environmental law. CEQA helps to guide the Department during issuance of permits and approval of projects. CEQA applies to all discretionary projects proposed to be conducted or approved by a California public agency, including private projects requiring discretionary government approval.

### **S-5058-0-1: Facility-Wide Requirements**

- Condition 40 on the requirements for this permit unit complies with this rule.

## IX. COMPLIANCE

### A. Requirements Addressed by Model General Permit Templates

#### 1. Facility Wide Requirements

The applicant proposes not to utilize any model general permit templates. All applicable requirements are addressed in the following sections.

### B. Requirements Not Addressed by Model General Permit Templates

#### 1. District Rule 1070 – Inspections

The purpose of this rule is to explain the District's authority in determining compliance with the requirements of these rules and regulations. District Rule 1070 has been submitted to the EPA to replace Tulare County Rule 107 that is in the State Implementation Plan (SIP). District Rule 1070 is at least as stringent as Tulare County 107 as shown in the following comparison:

Comparison of District Rule 1070 to Tulare County Rule 107		
REQUIREMENTS	District Rule 1070	Tulare Rule 107
Inspections shall be made by the enforcement agency for the purpose of obtaining information necessary to determine whether air pollution sources are in compliance with applicable rules and regulations.	X	X
The District also has the authority to require record keeping, to make inspections and to conduct tests of air pollution sources.	X	X

#### a. S-5058-0-1: Facility-Wide Requirements

- Conditions 18 and 19 on the requirements for the proposed permit comply with this rule.

#### b. S-5058-11-1: 10,000 scf/hr Digester Gas-Fired Emergency Flare

- Condition 10 on the requirements for the proposed permit complies with this rule.

#### c. S-5058-12-4: Sierra Cattle Company Heifer Housing – 7,700 Total Support Stock (Heifers, Calves and Bulls) Housed in Open Corrals with a Flush/Scrape System

- Condition 14 on the requirements for the proposed permit complies with this rule.
- d. S-5058-17-1: Gas Processing Operation Consisting of Compressors, Sulfatreat H<sub>2</sub>S Scrubbing Vessels (or Equivalent H<sub>2</sub>S Scrubber), and a Questair M-3200 Pressure Swing Adsorption (PSA) Gas Purification System
- Conditions 11 and 12 on the requirements for the proposed permit comply with this rule.

## 2. District Rule 1100 – Equipment Breakdown

This rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified. Sections 6.0 and 7.0 prescribe breakdown procedures and reporting requirements. District Rule 1100 has been submitted to the EPA to replace Tulare County Rule 111 that is in the State Implementation Plan (SIP). District Rule 1100 is at least as stringent as the county SIP rule addressing breakdowns, as shown in following.

Comparison of District Rule 1100 to Tulare County Rule 111		
REQUIREMENTS	District Rule 1100	Tulare County Rule 111
A breakdown occurrence must be reported as soon as reasonably possible but no later than 1 hour after detection.	X	X
A variance must be obtained if the occurrence will last longer than a production run or 24 hours, whichever is shorter (96 hours for CEM systems).	X	X
A report must be submitted to the APCO within 10 days of the correction of the breakdown occurrence which includes:	X	X
A statement that the breakdown condition has been corrected, together with the date of correction and proof of compliance.	X	X
A specific statement of the reason(s) or cause(s) for the occurrence sufficient to enable the APCO to determine whether the occurrence was a breakdown condition.	X	X
A description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future.	X	
Pictures of the equipment or controls which failed if available.	X	

### S-5058-0-1: Facility-Wide Requirements

- Conditions 1 and 2 on the requirements for the proposed permit comply with this rule.



### **3. District Rule 1160 – Emission Statements**

The purpose of this rule is to provide the District with an accurate accounting of emissions from significant sources with which the District and California EPA Air Resources Board (ARB) can compile an accurate inventory. Section 5.0 requires the owner or operator of any stationary source to provide the District with a written emissions statement showing actual emissions of reactive organic gases (ROGs) and nitrogen oxides (NOx) from that source. The District waives this requirement for sources emitting less than 25 tons per year of these pollutants if the District provides the Air Resources Board (ARB) with an emissions inventory of sources emitting greater than 10 tons per year of NOx or ROGs based on the use of emission factors acceptable to the ARB.

S-5058-0-1: Facility-Wide Requirements

- Condition 3 on the requirements for the proposed permit complies with this rule.

### **4. District Rule 2010 – Permits Required**

District Rule 2010 sections 3.0 and 4.0 require any person building, modifying or replacing any operation that may cause the issuance of air contaminants to apply for an Authority to Construct (ATC) from the District in advance. The ATC will remain in effect until the Permit to Operate (PTO) is granted.

S-5058-0-1: Facility-Wide Requirements

- Condition 4 on the requirements for the proposed permit complies with this rule.

### **5. District Rule 2020 – Exemptions**

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions.

S-5058-0-1: Facility-Wide Requirements

- Condition 4 on the requirements for the proposed permit complies with this rule.

## **6. District Rule 2031 – Transfer of Permits**

This rule requires a permit to operate or an authority to construct shall not be transferable, whether by operation of law or otherwise, from one location to another, from one piece of equipment to another, or from one person to another, unless a new application is filed with and approved by the APCO.

### **S-5058-0-1: Facility-Wide Requirements**

- Condition 6 on the requirements for the proposed permit complies with this rule.

## **7. District Rule 2040 – Applications**

The purpose of this rule is to explain the procedures for filing, denying, and appealing the denial of applications for an Authority to Construct or a Permit to Operate.

### **S-5058-0-1: Facility-Wide Requirements**

- Condition 7 on the requirements for the proposed permit complies with this rule.

## **8. District Rule 2070 – Standards for Granting Applications**

The purpose of this rule is to explain the standards by which an APCO may deny an application for an Authority to Construct or Permit to Operate. Any source operation must be constructed and operated in accordance with Rule 2201 (New and Modified Stationary Source Review Rule), Rule 4001 (New Source Performance Standards), and Rule 4002 (National Emissions Standards for Hazardous Air Pollutants), the Authority to Construct, and the Permit to Operate.

### **S-5058-0-1: Facility-Wide Requirements**

- Condition 5 on the requirements for the proposed permit complies with this rule.

## **9. District Rule 2080 – Conditional Approval**

The purpose of this rule is to grant authority to the APCO to issue or revise specific written conditions on an Authority to Construct or a Permit to Operate to assure compliance with air contaminant emission standards

or limitations.

**S-5058-0-1: Facility-Wide Requirements**

- Condition 5 on the requirements for the proposed permit complies with this rule.

**10. District Rule 2201 – New and Modified Stationary Source Review Rule**

The permit unit is subject to the District Rule 2201 upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting Permit to Operate (PTO) were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- a. S-5058-1-3: 9,100 Cow Milking Operation with Two Rotary Milking Parlors (80 Stalls Each) and One Hospital Milking Parlor (34 Stalls)
  - Conditions 1 and 2 from the current PTO have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 and 4 from the current PTO have been deleted since all the mitigation measures on the permit had been implemented with the passing of the compliance date of March 21, 2013.
  - Conditions 5 through 8 from the current PTO have been included as conditions 1 through 4 on the requirements for the proposed permit.
  - Condition 9 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- b. S-5058-2-3: Cow Housing – 9,100 Milk Cows Not to Exceed a Combined Total of 11,100 Mature Cows (Milk and Dry); 5,100 Total Support Stock (Heifers, Calves, and Bulls); and 11 Freestalls with Flush/Scrape System
  - Conditions 1 and 2 from the current PTO have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 21 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
  - Condition 22 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.

- c. S-5058-3-4: Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (2230'x250'x20'); One Storage Pond; Manure is Land Applied Through Flood Irrigation and Furrow Irrigation
- Conditions 1 and 2 from the current PTO have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 12 from the current PTO have been included as conditions 1 through 10 on the requirements for the proposed permit.
  - Condition 13 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- d. S-5058-4-4: Solid Manure Handling Consisting of Manure Stock Piles; Solid Manure Application Hauled Offsite
- Conditions 1 and 2 from the current ATC have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 6 from the current ATC have been included as conditions 1 through 4 on the requirements for the proposed permit.
  - Condition 7 from the current ATC has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- e. S-5058-5-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
- Conditions 1, 2, 3, and 5 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 and 6 through 23 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
  - Condition 24 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- f. S-5058-6-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
- Conditions 1, 2, 3, and 5 from the current PTO have been removed

- and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
- Conditions 4 and 6 through 23 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
  - Condition 24 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- g. S-5058-7-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
- Conditions 1, 2, 3, and 5 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 and 6 through 23 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
  - Condition 24 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- h. S-5058-8-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
- Conditions 1 and 3 from the current PTO have been removed and included as conditions 36 and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 2 and 4 through 21 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
- i. S-5058-9-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
- Conditions 1, 2, 3, and 5 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 and 6 through 23 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
  - Condition 24 from the current PTO has been removed and included

as condition 40 on the facility-wide requirements, S-5058-0-1.

- j. S-5058-10-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 1, 2, 3, and 5 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 and 6 through 23 from the current PTO have been included as conditions 1 through 19 on the requirements for the proposed permit.
  - Condition 24 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- k. S-5058-11-1: 10,000 scf/hr Digester Gas-Fired Emergency Flare
  - Conditions 1, 2, 3, and 5 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 and 6 through 14 from the current PTO have been included as conditions 1 through 10 on the requirements for the proposed permit.
  - Condition 15 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- l. S-5058-12-4: Sierra Cattle Company Heifer Housing – 7,700 Total Support Stock (Heifers, Calves, and Bulls) Housed in Open Corrals with a Flush/Scrape System
  - Conditions 1 and 2 from the current PTO have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 16 from the current PTO have been included as conditions 1 through 14 on the requirements for the proposed permit.
  - Condition 17 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- m. S-5058-13-3: Sierra Cattle Co Heifer Ranch Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon

Anaerobic Digester (1100'x220'x20'); One Storage Pond with Floating Covers; Manure is Land Applied Through Flood Irrigating and Furrow Irrigation

- Conditions 1 and 2 from the current PTO have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 and 4 from the current PTO have been deleted since all the mitigation measures on the permit had been implemented with the passing of the compliance date of March 21, 2013.
  - Conditions 5 through 9 from the current PTO have been included as conditions 1 through 5 on the requirements for the proposed permit.
  - Condition 10 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- n. S-5058-14-4: Sierra Cattle Co Heifer Ranch Solid Manure Handling Consisting of Manure Stock Piles; Windrow Composting; Solid Manure Application to Land and Hauled Offsite
- Conditions 1 and 2 from the current ATC have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 6 from the current ATC have been included as conditions 1 through 4 on the requirements for the proposed permit.
  - Condition 7 from the current ATC has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- o. S-5058-15-1: Agricultural Gasoline Dispensing Operation with One 350 Gallon Phase I Exempt Aboveground Storage Tank and 1 Fueling Point with 1 Phase II Exempt Gasoline Dispensing Nozzle (Implements of Husbandry)
- Conditions 1, 2, and 3 from the current PTO have been removed and included as conditions 18, 19, and 36, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 through 6 from the current PTO have been included as conditions 1 through 3 on the requirements for the proposed permit.
  - Condition 7 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.

- p. S-5058-16-3: Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
- Conditions 1 and 2 from the current ATC have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 32 from the current ATC have been included as conditions 1 through 30 on the requirements for the proposed permit.
  - Condition 33 from the current ATC has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- q. S-5058-17-1: Gas Processing Operation Consisting of Compressors, Sulfatreat H<sub>2</sub>S Scrubbing Vessels (or Equivalent H<sub>2</sub>S Scrubber), and a Questair M-3200 Pressure Swing Adsorption (PSA) Gas Purification System
- Conditions 1, 2, 4, and 6 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Condition 5 from the current PTO has been deleted. The emissions units do not vent to the atmosphere through a stack but to the fuel line to the digester engines. Therefore District Rule 4201 is not applicable.
  - Conditions 3 and 7 from the current PTO have been included as conditions 1 and 2 on the requirements for the proposed permit.
  - Source testing requirements have been added and included as conditions 3 and 4 on the requirements for the proposed permit to show compliance with VOC content limit on condition 2.
  - Conditions 8 through 15 from the current PTO have been included as conditions 5 through 12 on the requirements for the proposed permit.
  - Condition 16 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- r. S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator
- Conditions 1, 2, 3, and 5 from the current PTO have been removed and included as conditions 18, 19, 36, and 22, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 4 and 6 through 15 from the current PTO have been



included as conditions 1 through 11 on the requirements for the proposed permit.

- Condition 16 from the current PTO has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.
- s. S-5058-19-3: Sierra Cattle Co Heifer Ranch Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
- Conditions 1 and 2 from the current ATC have been removed and included as conditions 18 and 19, respectively, on the facility-wide requirements, S-5058-0-1.
  - Conditions 3 through 32 from the current ATC have been included as conditions 1 through 30 on the requirements for the proposed permit.
  - Condition 33 from the current ATC has been removed and included as condition 40 on the facility-wide requirements, S-5058-0-1.

#### **11. District Rule 2410 – Prevention of Significant Deterioration**

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The provisions of this rule apply to any source and the owner or operator of any source subject to any requirement under Title 40 Code of Federal Regulations (40 CFR) Part 52.21 as incorporated into this rule.

There are no PSD requirements for this source. Therefore, the facility is not subject to this rule and no further discussion is required.

#### **12. District Rule 2520 – Federally Mandated Operating Permits**

The purpose of this rule is to provide for the following: An administrative mechanism for issuing operating permits for new and modified sources of air contaminants in accordance with requirements of 40 CFR Part 70. An administrative mechanism for issuing renewed operating permits for sources of air contaminants in accordance with requirements of 40 CFR Part 70. An administrative mechanism for revising, reopening, revoking, and terminating operating permits for sources of air contaminants in accordance with requirements of 40 CFR Part 70. An administrative mechanism for incorporating requirements authorized by preconstruction permits issued under District Rule 2201 (New and Modified Stationary Source Review) in a Part 70 permit as administrative amendments,

provided that such permits meet procedural requirements substantially equivalent to the requirements of 40 CFR 70.7 and 70.8, and compliance requirements substantially equivalent to those contained in 40 CFR 70.6. The applicable federal and local requirements to appear on a single permit.

Section 5.2 requires permittees submit applications for Title V permit renewal at least six months prior to permit expiration.

#### S-5058-0-1: Facility-Wide Requirements

- Condition 34 on the requirements for the proposed permit complies with this rule.

Section 9.4 contains requirements to incorporate all applicable recordkeeping requirements into the Title V permit. This section also specifies records of any required monitoring and support data be kept for a period of five years.

#### S-5058-0-1: Facility-Wide Requirements

- Conditions 8 and 9 on the requirements for the proposed permit comply with this rule.

Section 9.5 requires the submittal of monitoring reports at least every six months. Prompt reporting of deviations from permitting requirements, including those attributable to upset conditions is also required. The responsible official must certify all required reports.

#### S-5058-0-1: Facility-Wide Requirements

- Conditions 10 and 11 on the requirements for the proposed permit comply with this rule.

Section 9.7 states that the Title V permit must also contain a severability clause in case of a court challenge.

#### S-5058-0-1: Facility-Wide Requirements

- Condition 12 on the requirements for the proposed permit complies with this rule.

Section 9.8 contains requirements for provisions in the Title V permit stating 1) the permittee must comply with all permit conditions; 2) the permitted activity should not be reduced in order to comply with the permit

conditions. Further, this reasoning shall not be used as a defense in an enforcement action, 3) the permit may be revoked, modified, reissued, or reopened for cause, 4) the Title V permit does not reflect any property rights, and 5) the permittee will furnish the District with any requested information to determine compliance with the conditions of the Title V permit.

#### S-5058-0-1: Facility-Wide Requirements

- Conditions 12 through 16 on the requirements for the proposed permit comply with this rule.

Section 9.9 requires the permit specify that the permittee pay annual permit fees and applicable fees from District Rules 3010, 3030, 3050, 3080, 3090, 3110, and 3120.

#### S-5058-0-1: Facility-Wide Requirements

- Condition 17 on the requirements for the proposed permit complies with this rule.

Section 9.13.1 requires any report or document submitted under a permit requirement or a request for information by the District or EPA contain a certification by a responsible official as to truth, accuracy, and completeness.

#### S-5058-0-1: Facility-Wide Requirements

- Condition 26 on the requirements for the proposed permit complies with this rule.

Section 9.13.2 contains inspection and entry requirements that allows an authorized representative of the District to enter a permittee's premises to inspect equipment, operations, work practices, permits on file, and to sample substances or monitor parameters for the purpose of assuring compliance with the permit requirements.

#### S-5058-0-1: Facility-Wide Requirements

- Conditions 18, 19, 20, and 21 on the requirements for the proposed permit comply with this rule.

Section 9.16 requires that the permittee submit certification of compliance with the terms and standards of Title V permits to the EPA and the District annually (or more frequently as required by the applicable requirement or

the District).

S-5058-0-1: Facility-Wide Requirements

- Condition 33 on the requirements for the proposed permit complies with this rule.

Section 10.0 requires any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification of truth, accuracy, and completeness by a responsible official.

S-5058-0-1: Facility-Wide Requirements

- Condition 26 on the requirements for the proposed permit complies with this rule.

Greenhouse Gas Requirements

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

**13. District Rule 4101 – Visible Emissions**

The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere. Section 5.0 prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101.

S-5058-0-1: Facility-Wide Requirements

- Condition 22 on the requirements for the proposed permit complies with this rule.

**14. District Rule 4201 – Particulate Matter Concentration**

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. Section 3.1 requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

### Digester Gas-Fired Engines

PM emissions result from carryover of non-combustible trace constituents in the fuel and lubricating oil and from products of incomplete combustion. The expected concentration of PM emitted from the digester gas-fired IC engine is shown by the following analysis:

$$\left( \frac{0.00991 \text{ lb} - \text{PM}}{10^6 \text{ Btu}} \right) X \left( \frac{7,000 \text{ grains}}{\text{lb}} \right) X \left( \frac{10^6 \text{ Btu}}{8,710 \text{ dscf}} \right) = 0.0080 \frac{\text{grain}}{\text{dscf}}$$

Where:

$$\frac{0.00991 \text{ lb} - \text{PM}}{10^6 \text{ Btu}} = \text{Emission Factor (AP-42 7/00, Table 3.2-2)}$$

$$\frac{10^6 \text{ Btu}}{8,710 \text{ dscf}} = \text{F Factor (40 CFR 60, Appendix A-7, Table 19-1)}$$

In addition, source test result conducted on 9/25/2012 for Gallo Cattle Company's 1,152 bhp lean burn digester gas-fired IC engine, Permit #N-1660-10, shows an average PM<sub>10</sub> emissions of 0.023 g/bhp-hr that is equal to 0.005 gr/dscf as shown in the following calculation.

$$0.023 \frac{\text{g}}{\text{hp} \cdot \text{hr}} \times \frac{1 \text{ hp} \cdot \text{hr}}{2,545 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{8,710 \text{ dscf}} \times \frac{0.30 \text{ Btu}_{\text{out}}}{1 \text{ Btu}_{\text{in}}} \times \frac{15.43 \text{ grain}}{\text{g}} = 0.005 \frac{\text{grain}}{\text{dscf}}$$

Another source test conducted on May 2, 2012 for the City of Stockton's 1,408 bhp lean burn digester-fired IC engine, Permit #N-811-22, shows an average PM<sub>10</sub> emissions of 0.02 g/bhp-hr that is equal to 0.004 gr/dscf as shown in the following calculation.

$$0.02 \frac{\text{g}}{\text{hp} \cdot \text{hr}} \times \frac{1 \text{ hp} \cdot \text{hr}}{2,545 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{8,710 \text{ dscf}} \times \frac{0.30 \text{ Btu}_{\text{out}}}{1 \text{ Btu}_{\text{in}}} \times \frac{15.43 \text{ grain}}{\text{g}} = 0.004 \frac{\text{grain}}{\text{dscf}}$$

All the digester gas-fired IC engines in this facility have a permit limit of 0.075 g/bhp-hr that is equal to 0.016 gr/dscf as shown in the following equation.

$$0.075 \frac{\text{g}}{\text{hp} \cdot \text{hr}} \times \frac{1 \text{ hp} \cdot \text{hr}}{2,545 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{8,710 \text{ dscf}} \times \frac{0.30 \text{ Btu}_{\text{out}}}{1 \text{ Btu}_{\text{in}}} \times \frac{15.43 \text{ grain}}{\text{g}} = 0.016 \frac{\text{grain}}{\text{dscf}}$$

Therefore, the preceding analysis demonstrates that the digester gas-fired engines in this facility will be in compliance with the PM limits of this rule.

Since the two source test result show that the PM emissions are well below the emission limit, no monitoring, recordkeeping, or reports will be required to demonstrate compliance with the rule.

- a. S-5058-5-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- b. S-5058-6-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- c. S-5058-7-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- d. S-5058-8-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- e. S-5058-9-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- f. S-5058-10-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Condition 1 on the requirements for the proposed permit complies with this rule.

Diesel-Fired IC Engine:

For diesel-fired emergency standby IC engines, the results from source tests of the engines generally indicate emission rates from these units are less than the allowable limit of 0.1 grain/dscf. Of the tests available, most were in the range of 0.042 to 0.061 grain/dscf, with a low of 0.020 grain/dscf, and a high of 0.092 grain/dscf. However, although the above testing is sufficient to assume that IC engines comply with the 0.1 grain/dscf limit, the data is insufficient to prove compliance in all cases. There is an exemption from source testing for "Non-utility distillate-oil-fueled emergency piston-type IC engines." Per the CAPCOA/CARB/EPA IX Title V Periodic Monitoring Recommendations memo, dated July 2001, the District's grain loading limit of 0.1 grain/dscf does not need to be source tested as long as the following conditions are required in the Permit to Operate:

- 1) Engine usage is limited to maintenance, testing, and time of actual unforeseen emergencies.
- 2) Usage for maintenance and testing is not to exceed 200 hours per year (the emergency standby diesel-fired engines in this facility are limited to less than or equal to 100 hours per year for maintenance and testing).
- 3) Maintain records of all engine usage and maintenance.

S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator

- Conditions 1, 6, and 8 on the requirements for this permit unit comply with this rule.

**15. District Rule 4311 – Flares**

This rule limits the emissions of volatile organic compounds (VOC), oxides of nitrogen (NO<sub>x</sub>), and sulfur oxides (SO<sub>x</sub>) from the operation of flares.

§3.7 Emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate

corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.

§5.1 Flares that are permitted to operate only during an emergency are not subject to the requirements of §5.6 and §5.7.

§5.2 The flame shall be present at all times when combustible gases are vented through the flare.

§5.3 The 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.

§5.4 Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.

§5.5 Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.

#### §6.1 Recordkeeping

The following records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

§6.1.3 For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.

S-5058-11-1: 10,000 scf/hr Digester Gas-Fired Emergency Flare

- Conditions 3 through 10 on the requirements for the proposed permit comply with this rule.

## **16. District Rule 4550 – Conservation Management Practices**

The purpose of this rule is to limit fugitive dust emissions from agricultural operations sites. The rule applies to agricultural operation sites located within the San Joaquin Valley Air Basin.



## §5.0 Requirements

§5.1 Effective on and after July 1, 2004, an owner/operator shall implement the applicable CMPs selected pursuant to Section 6.2 for each agricultural operation site.

§5.2 An owner/operator shall prepare and submit a CMP Application for each agricultural operation site, pursuant to Section 6.0, to the APCO for approval. A CMP Application approved by the APCO shall constitute a CMP Plan.

§5.3 Except as provided by Section 5.4, an owner/operator shall implement the CMPs as contained in the CMP Plan approved pursuant to Section 6.0 for each agricultural operation site no later than ten (10) days after notification by the APCO of the approval of the CMP Application.

§6.2, an owner/operator shall select one CMP from the CMP list for each of the applicable CMP categories.

§6.2.3, an owner/operator may select a substitute CMP from another CMP category when no feasible CMP can be identified from one category. This provision does not apply for the unpaved road, and unpaved vehicle/equipment traffic area CMP categories.

§6.3, an owner/operator shall submit a CMP Application, prepared pursuant to Section 6.1, to the APCO: 1) within 90 days for an agricultural operation site or an agricultural parcel that is acquired or becomes subject to the provisions of Section 5.0 after October 31, 2004, 2) within 60 days of any operational, administrative, or other modification that necessitates the revision of the CMP Plan.

§6.5.1, an owner/operator subject to Section 5.0 shall maintain a copy of each CMP application, CMP plan, and any supporting information necessary to confirm the implementation of the CMPs for a minimum of five (5) years.

### C-5058-0-1: Facility-Wide Requirements

- Condition 37 on the requirements for the proposed permit complies with this rule.

## 17. District Rule 4570 – Confined Animal Facilities

This rule limits emissions of volatile organic compounds (VOC) from Confined Animal Facilities (CAF). The provisions of this rule shall apply to any Confined Animal Facility.

#### §5.4 Temporary Suspension of Mitigation Measures

An owner/operator may temporarily suspend use of mitigation measure(s) provided all of the following requirements are met:

§5.4.1 It is determined by a licensed veterinarian, certified nutritionist, CDFA, or USDA that any mitigation measure being suspended is detrimental to animal health or necessary for the animal to molt, and a signed written copy of this determination shall be retained on-site and made available for inspection upon request,

§5.4.2 The owner/operator notifies the District, within forty-eight (48) hours of the determination that the mitigation measure is being temporarily suspended; the specific health condition requiring the mitigation measure to be suspended; and the duration that the measure must be suspended for animal health reasons,

§5.4.3 The emission mitigation measure is not suspended for longer than recommended by the licensed veterinarian or certified nutritionist for animal health reasons,

§5.4.4 If such a situation exists, or is expected to exist for longer than thirty (30) days, the owners/operators shall, within that thirty (30) day period, submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the mitigation measure that was suspended, and

§5.4.5 The APCO, ARB, and EPA approve the temporary suspension of the mitigation measure for the time period requested by the owner/operator and a signed written copy of this determination shall be retained on-site.

- a. S-5058-1-3: 9,100 Cow Milking Operation with Two Rotary Milking Parlors (80 Stalls Each) and One Hospital Milking Parlor (34 Stalls)
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- b. S-5058-2-3: Cow Housing – 9,100 Milk Cows Not to Exceed a Combined Total of 11,100 Mature Cows (Milk and Dry); 5,100 Total Support Stock (Heifers, Calves, and Bulls); and 11 Freestalls with Flush/Scrape System
  - Condition 1 on the requirements for the proposed permit complies with this rule.
- c. S-5058-3-4: Liquid Manure Handling System Consisting of Four

Settling Basins; One Covered Lagoon Anaerobic Digester (2230'x250'x20'); One Storage Pond; Manure is Land Applied Through Flood Irrigation and Furrow Irrigation

- Condition 1 on the requirements for the proposed permit complies with this rule.
- d. S-5058-4-4: Solid Manure Handling Consisting of Manure Stock Piles; Solid Manure Application Hauled Offsite
- Condition 1 on the requirements for the proposed permit complies with this rule.
- e. S-5058-12-4: Sierra Cattle Company Heifer Housing – 7,700 Total Support Stock (Heifers, Calves, and Bulls) Housed in Open Corrals with a Flush/Scrape System
- Condition 1 on the requirements for the proposed permit complies with this rule.
- f. S-5058-13-3: Sierra Cattle Co Heifer Ranch Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (1100'x220'x20'); One Storage Pond with Floating Covers; Manure is Land Applied Through Flood Irrigating and Furrow Irrigation
- Condition 1 on the requirements for the proposed permit complies with this rule.
- g. S-5058-14-4: Sierra Cattle Co Heifer Ranch Solid Manure Handling Consisting of Manure Stock Piles; Windrow Composting; Solid Manure Application to Land and Hauled Offsite
- Condition 1 on the requirements for the proposed permit complies with this rule.
- h. S-5058-16-3: Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
- Condition 1 on the requirements for the proposed permit complies with this rule.

- i. S-5058-19-3: Sierra Cattle Co Heifer Ranch Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
  - Condition 1 on the requirements for the proposed permit complies with this rule.

§5.6.1 Dairy CAF: An owner/operator of a medium or large Dairy CAF shall comply with the Phase II mitigation measures in Table 4.1.

- a. S-5058-1-3: 9,100 Cow Milking Operation with Two Rotary Milking Parlors (80 Stalls Each) and One Hospital Milking Parlor (34 Stalls)
  - Condition 2 on the requirements for the proposed permit complies with this rule.
- b. S-5058-2-3: Cow Housing – 9,100 Milk Cows Not to Exceed a Combined Total of 11,100 Mature Cows (Milk and Dry); 5,100 Total Support Stock (Heifers, Calves, and Bulls); and 11 Freestalls with Flush/Scrape System
  - Conditions 2, 3, 5, 7, 9, 11, 13, 15, and 16 on the requirements for the proposed permit comply with this rule.
- c. S-5058-3-4: Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (2230'x250'x20'); One Storage Pond; Manure is Land Applied Through Flood Irrigation and Furrow Irrigation
  - Conditions 2 and 3 on the requirements for the proposed permit comply with this rule.
- d. S-5058-4-4: Solid Manure Handling Consisting of Manure Stock Piles; Solid Manure Application Hauled Offsite
  - Condition 2 on the requirements for the proposed permit complies with this rule.
- e. S-5058-12-4: Sierra Cattle Company Heifer Housing – 7,700 Total Support Stock (Heifers, Calves, and Bulls) Housed in Open Corrals with a Flush/Scrape System
  - Conditions 2, 3, 5, 7, 9, 11, and 12 on the requirements for the proposed permit comply with this rule.
- f. S-5058-13-3: Sierra Cattle Co Heifer Ranch Liquid Manure Handling

System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (1100'x220'x20'); One Storage Pond with Floating Covers; Manure is Land Applied Through Flood Irrigating and Furrow Irrigation

- Conditions 2 and 3 on the requirements for the proposed permit comply with this rule.
- g. S-5058-14-4: Sierra Cattle Co Heifer Ranch Solid Manure Handling Consisting of Manure Stock Piles; Windrow Composting; Solid Manure Application to Land and Hauled Offsite
- Condition 2 on the requirements for the proposed permit complies with this rule.
- h. S-5058-16-3: Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
- Conditions 2, 4, 6, 8, 10, 12, 14, 15, 17, and 26 on the requirements for the proposed permit comply with this rule.
- i. S-5058-19-3: Sierra Cattle Co Heifer Ranch Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
- Conditions 2, 4, 6, 8, 10, 12, 14, 15, 17, and 26 on the requirements for the proposed permit comply with this rule.

## §7.2 General Records for CAFs Subject to Section 5.0 Requirements

§7.2.1 Permits: Owners/operators shall maintain copies of all facility permits.

§7.2.2 Number of Animals: Owner/operators shall maintain records of the number of animals of each species and production group at the facility on a quarterly basis. Examples of records that may be used include, but are not limited to, Dairy Herd Improvement Association records and animal inventories done for financial purposes.

§7.2.3 Owner/operators shall maintain records sufficient to demonstrate compliance with all applicable mitigation measures.

- a. S-5058-1-3: 9,100 Cow Milking Operation with Two Rotary Milking Parlors (80 Stalls Each) and One Hospital Milking Parlor (34 Stalls)
- Condition 3 on the requirements for the proposed permit complies

with this rule.

- b. S-5058-2-3: Cow Housing – 9,100 Milk Cows Not to Exceed a Combined Total of 11,100 Mature Cows (Milk and Dry); 5,100 Total Support Stock (Heifers, Calves, and Bulls); and 11 Freestalls with Flush/Scrape System
  - Conditions 4, 6, 8, 10, 12, 14, 17, and 18 on the requirements for the proposed permit comply with this rule.
- c. S-5058-3-4: Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (2230'x250'x20'); One Storage Pond; Manure is Land Applied Through Flood Irrigation and Furrow Irrigation
  - Condition 4 on the requirements for the proposed permit complies with this rule.
- d. S-5058-4-4: Solid Manure Handling Consisting of Manure Stock Piles; Solid Manure Application Hauled Offsite
  - Condition 3 on the requirements for the proposed permit complies with this rule.
- e. S-5058-12-4: Sierra Cattle Company Heifer Housing – 7,700 Total Support Stock (Heifers, Calves, and Bulls) Housed in Open Corrals with a Flush/Scrape System
  - Conditions 4, 6, 8, 10, and 13 on the requirements for the proposed permit comply with this rule.
- f. S-5058-13-3: Sierra Cattle Co Heifer Ranch Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (1100'x220'x20'); One Storage Pond with Floating Covers; Manure is Land Applied Through Flood Irrigating and Furrow Irrigation
  - Condition 4 on the requirements for the proposed permit complies with this rule.
- g. S-5058-14-4: Sierra Cattle Co Heifer Ranch Solid Manure Handling Consisting of Manure Stock Piles; Windrow Composting; Solid Manure Application to Land and Hauled Offsite
  - Condition 3 on the requirements for the proposed permit complies with this rule.

§7.3. Records for Feed and Silage Mitigation Measures

- a. S-5058-16-3: Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
  - Conditions 3, 5, 7, 9, 11, 13, 16, 18 through 25, and 27 through 29 on the requirements for the proposed permit comply with this rule.
- b. S-5058-19-3: Sierra Cattle Co Heifer Ranch Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
  - Conditions 3, 5, 7, 9, 11, 13, 16, 18 through 25, and 27 through 29 on the requirements for the proposed permit comply with this rule.

§7.9 Records Retention

Owners/operators of a CAF subject to the requirements of Section 5.0 shall keep and maintain the required in Sections 7.1 through 7.8.4, as applicable, for a minimum of five (5) years and the records shall be made available to the APCO and EPA upon request.

- a. S-5058-1-3: 9,100 Cow Milking Operation with Two Rotary Milking Parlors (80 Stalls Each) and One Hospital Milking Parlor (34 Stalls)
  - Condition 4 on the requirements for the proposed permit complies with this rule.
- b. S-5058-2-3: Cow Housing – 9,100 Milk Cows Not to Exceed a Combined Total of 11,100 Mature Cows (Milk and Dry); 5,100 Total Support Stock (Heifers, Calves, and Bulls); and 11 Freestalls with Flush/Scrape System
  - Condition 19 on the requirements for the proposed permit complies with this rule.
- c. S-5058-3-4: Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (2230'x250'x20'); One Storage Pond; Manure is Land Applied Through Flood Irrigation and Furrow Irrigation
  - Condition 10 on the requirements for the proposed permit complies with this rule.
- d. S-5058-4-4: Solid Manure Handling Consisting of Manure Stock Piles; Solid Manure Application Hauled Offsite
  - Condition 4 on the requirements for the proposed permit complies

with this rule.

- e. S-5058-12-4: Sierra Cattle Company Heifer Housing – 7,700 Total Support Stock (Heifers, Calves, and Bulls) Housed in Open Corrals with a Flush/Scrape System
  - Condition 14 on the requirements for the proposed permit complies with this rule.
- f. S-5058-13-3: Sierra Cattle Co Heifer Ranch Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (1100'x220'x20'); One Storage Pond with Floating Covers; Manure is Land Applied Through Flood Irrigating and Furrow Irrigation
  - Condition 5 on the requirements for the proposed permit complies with this rule.
- g. S-5058-14-4: Sierra Cattle Co Heifer Ranch Solid Manure Handling Consisting of Manure Stock Piles; Windrow Composting; Solid Manure Application to Land and Hauled Offsite
  - Condition 4 on the requirements for the proposed permit complies with this rule.
- h. S-5058-16-3: Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
  - Condition 30 on the requirements for the proposed permit complies with this rule.
- i. S-5058-19-3: Sierra Cattle Co Heifer Ranch Feed Storage and Handling Consisting of Commodity Barns and Silage Piles
  - Condition 30 on the requirements for the proposed permit complies with this rule.

## **18. District Rule 4601 – Architectural Coatings**

This rule limits the emissions of VOCs from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). This rule further specifies labeling requirements, coatings thinning recommendations and storage requirements.



S-5058-0-1: Facility-Wide Requirements

- Conditions 23, 24, and 25 on the requirements for the proposed permit comply with this rule.

**19. District Rule 4621 – Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants**

This rule limits VOC emissions from stationary storage containers, delivery vessels, and bulk plants and to provide the administrative requirements for determining compliance with this rule. This rule applies to storage containers located at bulk plants with capacities greater than 250 gallons and less 19,800 gallons; to other stationary storage containers with capacities greater than 250 gallons; and to those storage containers that are not subject to the control requirements of Rule 4623 (Storage of Organic Liquids) Section 5.0. The rule also applies to gasoline delivery vessels.

§4.0 Exemptions

The requirements of Section 5.2.1 and 5.2.2 do not apply to the following operations:

§4.1 The transfer of gasoline into any stationary storage container with a capacity of 550 gallons or less used primarily for the fueling of implements of husbandry, if such container is equipped with a permanent submerged fill pipe.

§5.4 Aboveground Storage Containers

§5.4.1 All aboveground storage containers shall be constructed and maintained in a leak-free condition.

S-5058-15-1: Agricultural Gasoline Dispensing Operation with One 350 Gallon Phase I Exempt Aboveground Storage Tank and 1 Fueling Point with 1 Phase II Exempt Gasoline Dispensing Nozzle (Implements of Husbandry)

- Conditions 1, 2, and 3 on the requirements for the proposed permit comply with this rule.

**20. District Rule 4622 – Gasoline Transfer into Motor Vehicle Fuel Tanks**

This rule limits VOC emissions from the transfer of gasoline into motor vehicle fuel tanks and provides the administrative requirements for

determining compliance with the applicable requirements. This rule applies to any gasoline storage and dispensing operation or mobile fueler from which gasoline is transferred into motor vehicle fuel tanks.

#### §4.0 Exemptions

§4.2 The requirements of this rule shall not apply to gasoline storage containers that are exempt pursuant to Section 4.0 of Rule 4621 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants).

S-5058-15-1: Agricultural Gasoline Dispensing Operation with One 350 Gallon Phase I Exempt Aboveground Storage Tank and 1 Fueling Point with 1 Phase II Exempt Gasoline Dispensing Nozzle (Implements of Husbandry)

- Conditions 1 and 2 on the requirements for the proposed permit comply with this rule.

### **21. District Rule 4701 – Internal Combustion Engines–Phase 1**

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 50 bhp that requires a Permit to Operate (PTO).

Pursuant to Section 4.1 of District Rule 4701, the provisions of this rule do not apply to engines in agricultural operations in the growing of crops or raising of fowl or animals. The District has determined that IC engines at the farm are agricultural IC engines. Therefore, the IC engines at this facility are exempt from the requirements of this rule.

### **22. District Rule 4702 – Internal Combustion Engines**

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. This rule applies to any internal combustion (IC) engine with a rated brake horsepower greater than 50 horsepower.

§4.2 Except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter.

§4.2.1 In lieu of operating a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a nonresettable elapsed time meter.

§4.2.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

## §5.0 Requirements

### §5.2.3 Spark-Ignited Engines Used Exclusively in Agricultural Operations (AO)

§5.2.3.1 The operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 3 for the appropriate engine type on an engine-by-engine basis.

Table 3 Emission Limits/Standards and Compliance Schedule for a Spark-Ignited Internal Combustion Engine >50 bhp Used Exclusively in AO (All ppmv limits are corrected to 15% oxygen on a dry basis).			
Engine Type	NOx Limit	CO Limit	VOC Limit
1. Rich-Burn	90 ppmv or 80% reduction	2000 ppmv	250 ppmv
2. Lean-Burn	150 ppmv or 70% reduction	2000 ppmv	750 ppmv
3. Certified and installed on or before June 16, 2005	Meet a Certified Spark-Ignited Engine Standard of HC + NOx<0.6 g/bhp-hr		

## §5.9 Monitoring Requirements: All Other Engines

§5.9.1 The operator of any of the following engines shall comply with the requirements specified in Section 5.9.2 through Section 5.9.5 below:

§5.9.1.1 An AO spark-ignited engine subject to the requirements of Section 5.2;

§5.9.1.2 A compression-ignited engine subject to the requirements of Section 5.2; or

§5.9.1.3 An engine subject to Section 4.2.

§5.9.2 Properly operate and maintain each engine as recommended by

the engine manufacturer or emission control system supplier.

§5.9.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

§5.9.4 Install and operate a nonresettable elapsed time meter.

§5.9.4.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to-Operate or Permit-Exempt Equipment Registration condition.

§5.9.4.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

§5.9.5 The operator of an AO spark-ignited engine that has been retro-fitted with a NOx exhaust control that has not been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements, or a compression ignited engine that has been retro-fitted with a NOx exhaust control shall comply with the following:

§5.9.5.1 Use a portable NOx analyzer to take NOx emission readings to demonstrate compliance with the emission requirements of Section 5.2.

§5.9.5.2 The operator of a compression-ignited engine that is subject to the limits/standards of Section 5.2 Table 4 Category 1.d shall use a portable NOx analyzer to take NOx emission readings at least once every six (6) months that the engine is operated.

§5.9.5.3 The operator of any other engine that has been retro-fitted with a NOx exhaust control shall use a portable NOx analyzer to take NOx emission readings at least once every 24 months that the engine is operated.

§5.9.5.4 All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration.

§5.9.5.5 The portable NOx analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and

recommendations or a protocol approved by the APCO.

§5.9.5.6 All NO<sub>x</sub> emissions readings shall be reported to the APCO in a manner approved by the APCO.

§5.9.5.7 NO<sub>x</sub> emission readings taken pursuant to this section shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive minute period.

## §6.0 Administrative Requirements

### §6.1 Emission Control Plan

The operator of an engine subject to the requirements of Section 5.2 of this rule shall submit to the APCO an APCO-approvable emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.2 and the compliance schedules of Section 7.0. If there is no change to the previously-approved emission control plan, the operator shall submit a letter to the District indicating that the previously approved plan is still valid.

§6.1.1 The requirement to submit an emission control plan shall apply to the following engines:

§6.1.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0;

§6.1.1.2 Engines subject to Section 8.0;

§6.1.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0;

§6.1.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0.

### §6.2 Recordkeeping

§6.2.1 The operator of an engine subject to the requirements of Section 5.2 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request.

### §6.3 Compliance Testing

The operator of an engine subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall comply with the following requirements:

§6.3.1 The requirements of Section 6.3.2 through Section 6.3.4 shall apply to the following engines:

§6.3.1.1 Engines that have been retrofitted with an exhaust control device

§6.3.2 Demonstrate compliance with applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified below:

§6.3.2.1 By the applicable date specified in Section 5.2, and at least once every 24 months thereafter, except for an engine subject to Section 6.3.2.2.

§6.3.2.2 By the applicable date specified in Section 5.2 and at least once every 60 months thereafter, for an AO spark-ignited engine that has been retro-fitted with a catalytic emission control device.

§6.3.2.3 A portable NO<sub>x</sub> analyzer may be used to show initial compliance with the applicable limits/standards in Section 5.2 for AO spark ignited engines, provided the criteria specified in Sections 6.3.2.3.1 to 6.3.2.3.5 are met, and a source test is conducted in accordance with Section 6.3.2 within 12 months from the required compliance date.

§6.3.2.3.1 A minimum of 15 minutes of runtime must be measured with data recorded at a minimum of 15, evenly spaced time intervals. Compliance is to be determined with the arithmetic average of the oxygen corrected data;

§6.3.2.3.2 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer calibration records shall be made available at the District's request;

§6.3.2.3.3 The analyzer shall be checked with EPA protocol span gas at the beginning and end of each test day. The results of these checks shall be recorded and copies submitted to the District with each engine test. If the analyzer exhibits more than a 10%

deviation from the span check, the instrument must be recalibrated. Any analysis performed prior to an end of day span check failure shall be void;

§6.3.2.3.4 The test results of each engine, including span check results, shall be submitted to the District within 30 days of the test date. Test results shall clearly identify the engine tested including operator, location, permit or registration number, manufacturer, model, and serial number; and

§6.3.2.3.5 The analyzer utilized for each check shall be clearly identified in the material submitted with the test results. Identification shall include manufacturer and serial number of the analyzer used, and the last calibration date.

#### §6.4 Test Methods

Compliance with the requirements of Section 5.2 shall be determined, as required, in accordance with the test procedures or any other method approved by EPA and the APCO.

#### §6.5 Inspection and Monitoring (I&M) Plan

The operator of an engine that is subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.8. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below. If there is no change to the previously approved I&M plan, the operator shall submit a letter to the District indicating that previously approved plan is still valid.

- a. S-5058-5-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 2, 3, 6, 7, 9, 10, 12 through 15, 17, 18, and 19 on the requirements for the proposed permit comply with this rule.
- b. S-5058-6-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 2, 3, 6, 7, 9, 10, 12 through 15, 17, 18, and 19 on the requirements for the proposed permit comply with this rule.

- c. S-5058-7-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 2, 3, 6, 7, 9, 10, 12 through 15, 17, 18, and 19 on the requirements for the proposed permit comply with this rule.
- d. S-5058-8-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 2, 3, 6, 7, 9, 10, 12 through 15, 17, 18, and 19 on the requirements for the proposed permit comply with this rule.
- e. S-5058-9-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 2, 3, 6, 7, 9, 10, 12 through 15, 17, 18, and 19 on the requirements for the proposed permit comply with this rule.
- f. S-5058-10-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 2, 3, 6, 7, 9, 10, 12 through 15, 17, 18, and 19 on the requirements for the proposed permit comply with this rule.
- g. S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator
  - Conditions 3, 4, and 6 through 11 on the requirements for this permit unit comply with this rule.

### **23. District Rule 4801 – Sulfur Compounds**

This rule limits the emissions of sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO<sub>2</sub>), on a dry basis averaged over 15 consecutive minutes.

The rule has been submitted to the EPA to replace Tulare County Rule 407 which is contained in the SIP. District Rule 4801 is as stringent as Tulare County Rule 407, as shown on the following table:



Comparison of District Rule 4801 to Tulare County Rule 407		
REQUIREMENTS	District Rule 4801	Tulare County Rule 407
A person shall not discharge into the atmosphere sulfur compounds exceeding in concentration at the point of discharge 0.2 percent by volume calculated as sulfur dioxide on a dry basis averaged over 15 consecutive minutes.	✓	✓
EPA Method 8 and ARB Method 1-100 shall be used to determine such emissions.	✓	

#### Digester Gas-Fired Internal Combustion (IC) Engines:

Using the permitted H<sub>2</sub>S Content of Dairy digester Gas of 2,000 ppmv as H<sub>2</sub>S in the following mass balance equation:

$$\frac{2,000 \text{ ppmv H}_2\text{S}}{10^6} \times \frac{32.06 \text{ lb S}}{\text{lb H}_2\text{S}} \times \frac{\text{lb} \cdot \text{mole}}{379.5 \text{ ft}^3} \times \frac{64.06 \text{ lb SO}_2}{32.06 \text{ S lb}} \times \frac{\text{ft}^3}{600 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{\text{MMBtu}} = 0.563 \frac{\text{lb SO}_x}{\text{MMBtu}}$$

Using the ideal gas equation, the sulfur compound emissions at the point of discharge is calculated as follows:

$$\text{Volume of SO}_x \text{ as (SO}_2\text{)} = (n \times R \times T) \div P$$

$$n = \text{moles SO}_2$$

$$T (\text{standard temperature}) = 60^\circ \text{F or } 520^\circ \text{R}$$

$$R (\text{universal gas constant}) = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ \text{R}}$$

$$0.563 \frac{\text{lb SO}_2}{\text{MMBtu}} \times \frac{1 \text{ MMBtu}}{9,100 \text{ scf}_{\text{exhaust}}} \times \frac{1 \text{ lb mol}}{64 \text{ lb SO}_2} \times \frac{10.73 \text{ psi ft}^3}{\text{lb mol } ^\circ \text{R}} \times \frac{520^\circ \text{R}}{14.7 \text{ psi}} \times 10^6 \text{ ppm} = 367 \text{ ppmv}$$

Since 367 ppmv is  $\leq$  2000 ppmv, these engines are expected to comply with Rule 4801. In addition, the facility is required to monitor the sulfur content of the digester gas at least once every 12 months.

- a. S-5058-5-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 5 and 16 on the requirements for the proposed permit comply with this rule.
- b. S-5058-6-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

- Conditions 5 and 16 on the requirements for the proposed permit comply with this rule.
- c. S-5058-7-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 5 and 16 on the requirements for the proposed permit comply with this rule.
- d. S-5058-8-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 5 and 16 on the requirements for the proposed permit comply with this rule.
- e. S-5058-9-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 5 and 16 on the requirements for the proposed permit comply with this rule.
- f. S-5058-10-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 5 and 16 on the requirements for the proposed permit comply with this rule.

Diesel-Fired Internal Combustion (IC) Engines:

The diesel-fired IC engines are required by permit condition to use only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight, which is 0.000015 lb-S/lb-fuel. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

$$n = \text{moles SO}_2$$

$$T (\text{standard temperature}) = 60^\circ\text{F or } 520^\circ\text{R}$$

$$R (\text{universal gas constant}) = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$$

$$\frac{0.000015 \text{ lb} - \text{S}}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb}}{\text{gal}} \times \frac{64 \text{ lb} - \text{SO}_2}{32 \text{ lb} - \text{S}} \times \frac{1 \text{ MMBtu}}{9,051 \text{ scf}} \times \frac{1 \text{ gal}}{0.137 \text{ MMBtu}} \times \frac{\text{lb} - \text{mol}}{64 \text{ lb} - \text{SO}_2} \times \frac{10.73 \text{ psi} - \text{ft}^3}{\text{lb} - \text{mol} - ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times 1,000,000 = 1.0 \text{ ppmv}$$

Since 1.0 ppmv is  $\leq 2,000$  ppmv (0.2% by volume), these engines are expected to comply with the rule.

S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator

- Condition 5 on the requirements for this permit unit complies with this rule.

## 24. District Rule 8011 – General Requirements

The purpose of Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM<sub>10</sub>) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM<sub>10</sub> Nonattainment Areas. The rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM<sub>10</sub> and particles larger than PM<sub>10</sub>. Controlling fugitive dust missions when visible emissions are detected will not prevent all PM<sub>10</sub> emissions, but will substantially reduce PM<sub>10</sub> emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

S-5058-0-1: Facility-Wide Requirements

- Conditions 29, 30, and 31 on the requirements for the proposed permit comply with these rules.

## 25. District Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit Visible Dust Emissions (VDE) to 20% opacity or less. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

#### S-5058-0-1: Facility-Wide Requirements

- Condition 29 on the requirements for the proposed permit complies with these rules.

### **26. District Rule 8031 – Bulk Materials**

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 4.5 provides an exemption from this rule for agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources).

Since this facility is an agricultural source subject to the requirements of Rule 8081, it is exempt from the requirements of this rule.

### **27. District Rule 8041 – Carryout and Trackout**

The purpose of this rule is to prevent or limit fugitive dust emissions from carryout and trackout.

This rule applies to all sites that are subject to any of the following rules where carryout or trackout has occurred or may occur on paved public roads or the paved shoulders of a paved public road: Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), 8061 (Paved and Unpaved Roads), and 8071 (Unpaved Vehicle and Equipment Traffic Areas).

Section 4.1 provides an exemption from this rule for carryout and trackout caused by an agricultural Source.

Since this facility is an agricultural source, it is exempt from the requirements of this rule.

## **28. District Rule 8051 – Open Areas**

The purpose of this rule is to limit fugitive dust emissions from open areas. This rule applies to any open area having 3.0 acres or more of disturbed surface area that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner or operator shall implement one or more of the control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit Visible Dust Emissions (VDE) to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

### **S-5058-0-1: Facility-Wide Requirements**

- Condition 30 on the requirements for the proposed permit complies with these rules.

## **29. District Rule 8061 – Paved and Unpaved Roads**

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

Section 4.3 provides an exemption from this rule for agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources).

Since this facility is an agricultural source subject to the requirements of Rule 8081, it is exempt from the requirements of this rule.

## **30. District Rule 8071 –Unpaved Vehicle/Equipment Traffic Areas**

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas.

This rule applies to any unpaved vehicle/equipment traffic area.

Section 4.2 provides an exemption from this rule for agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources).

Since this facility is an agricultural source subject to the requirements of Rule 8081, it is exempt from the requirements of this rule.

### **31. District Rule 8081 – Agricultural Sources**

The purpose of this rule is to limit fugitive dust emissions from agricultural sources. This rule applies to off-field agricultural sources.

Section 5.0 requires that an owner or operator shall comply with Sections 5.1 through 5.3 of Rule 8081 and sufficiently implement at least one of the control measures indicated in each section of Table 8081-1 to limit Visible Dust Emissions (VDE) to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

#### **S-5058-0-1: Facility-Wide Requirements**

- Condition 31 on the requirements for the proposed permit complies with these rules.

### **32. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

This provisions of this subpart are applicable to owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) that commence construction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 and are not fire pump engines.

S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator

This ICE was manufactured prior to April 1, 2006. Therefore the ICE is not subject to this subpart.

### **33. CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution

and modifications of existing sources of air pollution listed in 40 CFR Part 60.

The purpose of 40 CFR 60 Subpart JJJJ is to establish New Source Performance Standards (NSPS) to reduce emissions of NO<sub>x</sub>, SO<sub>x</sub>, PM, CO, and VOC from new stationary compression ignition (SI) internal combustion (IC) engines.

Pursuant to Section 60.4230(a)(4), this subpart is applicable to owners and operators of stationary SI IC engines that commence modification or reconstruction after June 12, 2006. All the digester gas-fired engines commenced construction prior to June 12, 2006 and have not been modified (as defined by the 40 CFR 60) or reconstructed; therefore, the engines are not subject to this subpart.

**34. 40 CFR 61, Subpart M – National Emission Standard for Asbestos**

There are applicable requirements from the National Emissions Standards for Hazardous Air Pollutants that apply to all sources in general. These requirements pertain to asbestos removal and disposal from renovated or demolished structures.

S-5058-0-1: Facility-Wide Requirements

- Condition 32 on the requirements for the proposed permit complies with this rule.

**35. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§63.6585 states an owner or operator is subject to this subpart if it owns or operates a stationary RICE at a major or area source of HAP emissions.

§63.6585(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§63.6585(c) An area source of HAP emissions is a source that is not a major source.

- This facility is an area source of HAP emissions since it is not a major source of HAP per §63.6585(b).

§63.6590(a)(1)(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

- Permit units S-5058-5, -6, -7, -8, -9, -10, and -18 are existing stationary RICE since all commenced construction before June 12, 2006.

§63.6603(a) An existing stationary RICE located at an area source of HAP emissions must comply with the applicable requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, the following requirements are applicable to existing stationary RICE located at area sources of HAP emissions:

For each	Applicable requirement, except during periods of startup	Applicable requirement, during periods of startup
Emergency stationary CI RICE	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.



For each	Applicable requirement, except during periods of startup	Applicable requirement, during periods of startup
Non-emergency, non-black start 4SLB stationary RICE ≤ 500 hp	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

§63.6625(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

§63.6640(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, the emissions and operating limitations and work or management practices as required as follows:

For each	Requirement	Demonstrate continuous compliance by
Existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE $\leq$ 500 hp located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§63.6640(f)(i) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.

§63.6655(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE.

§63.6655(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

§63.6655(f)(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

§63.6655(f)(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

The above requirements are addressed in the following conditions on these permit units.

- a. S-5058-5-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 19 through 29 on the requirements for the proposed permit comply with this rule.
- b. S-5058-6-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 19 through 29 on the requirements for the proposed permit comply with this rule.
- c. S-5058-7-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 19 through 29 on the requirements for the proposed permit comply with this rule.
- d. S-5058-8-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 19 through 29 on the requirements for the proposed permit comply with this rule.
- e. S-5058-9-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 19 through 29 on the requirements for the proposed permit comply with this rule.
- f. S-5058-10-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator
  - Conditions 19 through 29 on the requirements for the proposed permit comply with this rule.

- g. S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator

- Conditions 3 and 11 through 17 on the requirements for this permit unit comply with this rule.

### **36. 40 CFR Part 64 – Compliance Assurance Monitoring**

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

- a. S-5058-1-3: 9,100 Cow Milking Operation with Two Rotary Milking Parlors (80 Stalls Each) and One Hospital Milking Parlor (34 Stalls)

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- b. S-5058-2-3: Cow Housing – 9,100 Milk Cows Not to Exceed a Combined Total of 11,100 Mature Cows (Milk and Dry); 5,100 Total Support Stock (Heifers, Calves, and Bulls); and 11 Freestalls with Flush/Scrape System

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- c. S-5058-3-4: Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (2230'x250'x20'); One Storage Pond; Manure is Land Applied Through Flood Irrigation and Furrow Irrigation

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- d. S-5058-4-4: Solid Manure Handling Consisting of Manure Stock Piles; Solid Manure Application Hauled Offsite

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- e. S-5058-5-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

This permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- f. S-5058-6-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

This permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- g. S-5058-7-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

This permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- h. S-5058-8-4: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

This permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- i. S-5058-9-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

This permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- j. S-5058-10-3: 200 bhp Caterpillar Model G-342 Digester Gas-Fired Lean Burn IC Engine Equipped with an Air/Fuel Ratio Controller and Turbocharger Powering an Electrical Generator

This permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- k. S-5058-11-1: 10,000 scf/hr Digester Gas-Fired Emergency Flare

This permit unit has emissions limits for SO<sub>x</sub> and PM<sub>10</sub> but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for SO<sub>x</sub> and PM<sub>10</sub>.

- l. S-5058-12-4: Sierra Cattle Company Heifer Housing - 7,700 Total Support Stock (Heifers, Calves, and Bulls) Housed in Open Corrals with a Flush/Scrape System

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- m. S-5058-13-3: Sierra Cattle Co Heifer Ranch Liquid Manure Handling System Consisting of Four Settling Basins; One Covered Lagoon Anaerobic Digester (1100'x220'x20'); One Storage Pond with Floating Covers; Manure is Land Applied Through Flood Irrigating and Furrow Irrigation

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- n. S-5058-14-4: Sierra Cattle Co Heifer Ranch Solid Manure Handling Consisting of Manure Stock Piles; Windrow Composting; Solid Manure Application to Land and Hauled Offsite

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- o. S-5058-15-1: Agricultural Gasoline Dispensing Operation with One 350 Gallon Phase I Exempt Aboveground Storage Tank and 1 Fueling Point with 1 Phase II Exempt Gasoline Dispensing Nozzle (Implements of Husbandry)

This permit unit has no emissions limits for VOC. Therefore, this permit unit is not subject to CAM for VOC.

- p. S-5058-16-3: Feed Storage and Handling Consisting of Commodity Barns and Silage Piles

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- q. S-5058-17-1: Gas Processing Operation Consisting of Compressors, Sulfatreat H<sub>2</sub>S Scrubbing Vessels (or Equivalent H<sub>2</sub>S Scrubber), and a Questair M-3200 Pressure Swing Adsorption (PSA) Gas Purification System

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

- r. S-5058-18-1: 1,026 bhp Cummins Model 680F (Serial #5069FF) Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator

This permit unit has emissions limits for SO<sub>x</sub> and PM<sub>10</sub> but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for SO<sub>x</sub> and PM<sub>10</sub>.

- s. S-5058-19-3: Sierra Cattle Co Heifer Ranch Feed Storage and Handling Consisting of Commodity Barns and Silage Piles

This permit unit has no emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, this permit unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

### **37. 40 CFR Part 82, Subpart B and F – Stratospheric Ozone**

There are applicable requirements from Title VI of the CAA (Stratospheric Ozone) that apply to all sources in general. These requirements pertain to air conditioners, chillers, and refrigerators located at a Title V source and to disposal of air conditioners or maintenance/recharging/disposal of motor vehicle air conditioners (MVAC).

#### **S-5058-0-1: Facility-Wide Requirements**

- Conditions 27 and 28 on the requirements for the proposed permit comply with this rule.

## **X. PERMIT SHIELD**

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

### **A. Requirements Addressed by Model General Permit Templates**

The applicant has not requested to utilize any model general permit templates.

### **B. Requirements not Addressed by Model General Permit Templates**

The applicant has not requested permit shield for any requirements not addressed by model general permit templates.

## **XI. PERMIT CONDITIONS**

See draft operating permit beginning on the following page.



# San Joaquin Valley Air Pollution Control District

FACILITY: S-5058-0-1

EXPIRATION DATE: 12/31/2015

## FACILITY-WIDE REQUIREMENTS

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520 and 1100] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101] Federally Enforceable Through Title V Permit
23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601] Federally Enforceable Through Title V Permit

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

24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
31. The owner or operator shall comply with Sections 5.1 through 5.3 of District Rule 8081 and shall sufficiently implement at least one of the control measures indicated in each section of Table 8081-1 to limit Visible Dust Emissions to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011, unless specifically exempted under Section 4.0 of Rule 8081 (9/16/2004) or Rule 8011 (8/19/2004). The owner or operator shall also comply with all applicable requirements of Regulation VIII unless specifically exempted by the applicable rules. [District Rule 8081 and 8011] Federally Enforceable Through Title V Permit
32. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
33. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520] Federally Enforceable Through Title V Permit
34. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520] Federally Enforceable Through Title V Permit
35. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520] Federally Enforceable Through Title V Permit
36. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

37. The owner or operator shall implement the applicable conservation management practices (CMP) selected in the approved CMP plan pursuant to Section 6.2 of District Rule 4550 (8/19/04). The owner or operator shall submit a CMP application to the APCO prepared pursuant to Section 6.1 of District Rule 4550 (8/19/04) within 90 days for an agricultural operation site or an agricultural parcel that is acquired or becomes subject to District Rule 4550 and within 60 days of any operational, administrative, or other modification that necessitates revision of the CMP Plan. The owner or operator shall maintain a copy of each CMP application, CMP plan, and any supporting information necessary to confirm the implementation of the CMPs for a minimum of five (5) years. [District Rule 4550] Federally Enforceable Through Title V Permit
38. On Month, Day, Year, the initial Title V permit was issued. [District Rule 2520] Federally Enforceable Through Title V Permit
39. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin Month, Day of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
40. {3658} This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-1-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

9,100 COW MILKING OPERATION WITH TWO ROTARY MILKING PARLORS (80 STALLS EACH) AND ONE HOSPITAL MILKING BARN (34 STALLS)

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall flush or hose milk parlor immediately prior to, immediately after, or during each milking. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall provide verification that milk parlors are flushed or hosed prior to, immediately after, or during each milking. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-2-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

COW HOUSING - 9,100 MILK COWS NOT TO EXCEED A COMBINED TOTAL OF 11,100 MATURE COWS (MILK AND DRY); 5,100 TOTAL SUPPORT STOCK (HEIFERS, CALVES AND BULLS); AND 11 FREESTALLS WITH FLUSH/SCRAPE SYSTEM

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall pave feedlanes, where present, for a width of at least 8 feet along the corral side of the feedlane fence for milk and dry cows and at least 6 feet along the corral side of the feedlane for heifers. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall flush, scrape or vacuum freestall lanes immediately prior to, immediately after or during each milking. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records sufficient to demonstrate that freestall lanes are flushed, scraped or vacuumed immediately prior to, immediately after or during each milking. [District Rule 4570] Federally Enforceable Through Title V Permit
5. Permittee shall remove manure that is not dry from individual cow freestall beds or rake, harrow, scrape, or grade freestall bedding at least once every seven (7) days. [District Rule 4570] Federally Enforceable Through Title V Permit
6. Permittee shall record the date that manure that is not dry is removed from individual cow freestall beds or raked, harrowed, scraped, or freestall bedding is graded at least once every seven (7) days. [District Rule 4570] Federally Enforceable Through Title V Permit
7. Permittee shall inspect water pipes and troughs and repair leaks at least once every seven (7) days. [District Rule 4570] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records demonstrating that water pipes and troughs are inspected and leaks are repaired at least once every seven (7) days. [District Rule 4570] Federally Enforceable Through Title V Permit
9. Permittee shall clean manure from corrals at least four (4) times per year with at least sixty (60) days between each cleaning, or permittee shall clean corrals at least once between April and July and at least once between September and December. [District Rule 4570] Federally Enforceable Through Title V Permit
10. Permittee shall demonstrate that manure from corrals are cleaned at least four (4) times per year with at least sixty (60) days between each cleaning or demonstrate that corrals are cleaned at least once between April and July and at least once between September and December. [District Rule 4570] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Permittee shall implement at least one of the following corral mitigation measures: 1) slope the surface of the corrals at least 3% where the available space for each animal is 400 square feet or less and shall slope the surface of the corrals at least 1.5% where the available space for each animal is more than 400 square feet per animal; 2) maintain corrals to ensure proper drainage preventing water from standing more than forty-eight hours; or 3) harrow, rake, or scrape pens sufficiently to maintain a dry surface except during periods of rainy weather. [District Rule 4570] Federally Enforceable Through Title V Permit
12. Permittee shall either 1) maintain sufficient records to demonstrate that corrals are maintained to ensure proper drainage preventing water from standing for more than forty-eight hours or 2) maintain records of dates pens are groomed (i.e., harrowed, raked, or scraped, etc.). [District Rule 4570] Federally Enforceable Through Title V Permit
13. Permittee shall clean concreted lanes such that the depth of manure does not exceed twelve (12) inches at any point or time. [District Rule 4570] Federally Enforceable Through Title V Permit
14. Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570] Federally Enforceable Through Title V Permit
15. Shade structures shall be installed in any of the following ways: 1) constructed with a light permeable roofing material; 2) uphill of any slope in the corral; 3) installed so that the structure has a North/South orientation. OR Permittee shall clean manure from under corral shades at least once every fourteen (14) days, when weather permits access into the corral. [District Rule 4570] Federally Enforceable Through Title V Permit
16. Permittee shall manage corrals such that the manure depth in the corral does not exceed twelve (12) inches at any time or point, except for in-corral mounding. Manure depth may exceed 12 inches when corrals become inaccessible due to rain events. However, permittee must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible. [District Rule 4570] Federally Enforceable Through Title V Permit
17. Permittee shall measure and document the depth of manure in the corrals at least once every ninety (90) days. [District Rule 4570] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a record of the number of animals of each species and production group at the facility and shall maintain quarterly records of any changes to this information. [District Rule 4570] Federally Enforceable Through Title V Permit
19. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-3-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

LIQUID MANURE HANDLING SYSTEM CONSISTING OF FOUR SETTLING BASINS; ONE COVERED LAGOON ANAEROBIC DIGESTER (2230'X250'X20'); ONE STORAGE POND; MANURE IS LAND APPLIED THROUGH FLOOD IRRIGATION AND FURROW IRRIGATION

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall remove solids with a solid separator system, prior to the manure entering the lagoon. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall not allow liquid manure to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records to demonstrate liquid manure did not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570] Federally Enforceable Through Title V Permit
5. The covered lagoon anaerobic digester system shall be constructed and operated with an average retention time of at least thirty-eight (38) days. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The permittee shall maintain calculations demonstrating that the anaerobic digester system has an average retention time of at least thirty-eight (38) days. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The liquid manure handling system shall handle flush manure from no more than 9,100 milk cows, 2,000 dry cows, and 5,100 total support stock (heifers, calves, and bulls). [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] Federally Enforceable Through Title V Permit
9. Lagoon cover submerged pipe relief vents shall be designed to allow all gas generated by the lagoon during summer conditions to accumulate under the cover for at least 24 hours prior to release of the gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-4-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SOLID MANURE HANDLING CONSISTING OF MANURE STOCK PILES; SOLID MANURE APPLICATION HAULED OFFSITE

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall incorporate all solid manure within seventy-two (72) hours of land application. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records to demonstrate that all solid manure has been incorporated within seventy-two (72) hours of land application. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-5-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired only on digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
11. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
14. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702, and 40 CFR 63, ZZZZ] 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.

20. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily records of the fuel usage monitors. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-6-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired only on digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
11. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
14. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702, and 40 CFR 63, ZZZZ] 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.

20. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily records of the fuel usage monitors. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-7-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired only on digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
11. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



12. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
14. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702, and 40 CFR 63, ZZZZ] 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.

20. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily records of the fuel usage monitors. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-8-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired only on digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
11. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
14. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702, and 40 CFR 63, ZZZZ] 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.

20. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily records of the fuel usage monitors. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-9-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired only on digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
11. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
14. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702, and 40 CFR 63, ZZZZ] 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.

20. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily records of the fuel usage monitors. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-10-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and] Federally Enforceable Through Title V Permit
3. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired only on digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
11. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
14. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702, and 40 CFR 63, ZZZZ] 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.

20. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily records of the fuel usage monitors. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-11-1

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

10,000 SCF/HR DIGESTER GAS-FIRED EMERGENCY FLARE

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801] Federally Enforceable Through Title V Permit
3. A flame shall be present at all times whenever combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. Unless the flare is equipped with a flow (pressure) 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] Federally Enforceable Through Title V Permit
6. Flares that use flow (pressure) sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
7. This flare shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per year. [District Rules 2010 and 4311] Federally Enforceable Through Title V Permit
8. An emergency is: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, or natural disaster. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rule 4311] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311] Federally Enforceable Through Title V Permit
10. 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 1070 and 4311] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-12-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE COMPANY HEIFER HOUSING - 7,700 TOTAL SUPPORT STOCK (HEIFERS, CALVES AND BULLS)  
HOUSED IN OPEN CORRALS WITH A FLUSH/SCRAPE SYSTEM

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall pave feedlanes, where present, for a width of at least 8 feet along the corral side of the feedlane fence for milk and dry cows and at least 6 feet along the corral side of the feedlane for heifers. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall inspect water pipes and troughs and repair leaks at least once every seven (7) days. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records demonstrating that water pipes and troughs are inspected and leaks are repaired at least once every seven (7) days. [District Rule 4570] Federally Enforceable Through Title V Permit
5. Permittee shall clean manure from corrals at least four (4) times per year with at least sixty (60) days between each cleaning, or permittee shall clean corrals at least once between April and July and at least once between September and December. [District Rule 4570] Federally Enforceable Through Title V Permit
6. Permittee shall demonstrate that manure from corrals are cleaned at least four (4) times per year with at least sixty (60) days between each cleaning or demonstrate that corrals are cleaned at least once between April and July and at least once between September and December. [District Rule 4570] Federally Enforceable Through Title V Permit
7. Permittee shall implement at least one of the following corral mitigation measures: 1) slope the surface of the corrals at least 3% where the available space for each animal is 400 square feet or less and shall slope the surface of the corrals at least 1.5% where the available space for each animal is more than 400 square feet per animal; 2) maintain corrals to ensure proper drainage preventing water from standing more than forty-eight hours; or 3) harrow, rake, or scrape pens sufficiently to maintain a dry surface except during periods of rainy weather. [District Rule 4570] Federally Enforceable Through Title V Permit
8. Permittee shall either 1) maintain sufficient records to demonstrate that corrals are maintained to ensure proper drainage preventing water from standing for more than forty-eight hours or 2) maintain records of dates pens are groomed (i.e., harrowed, raked, or scraped, etc.). [District Rule 4570] Federally Enforceable Through Title V Permit
9. Permittee shall clean concreted lanes such that the depth of manure does not exceed twelve (12) inches at any point or time. [District Rule 4570] Federally Enforceable Through Title V Permit
10. Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Permittee shall install all shade structures so that the structure has a North/South orientation. [District Rules 2201 and 4570] Federally Enforceable Through Title V Permit
12. Permittee shall manage corrals such that the manure depth in the corral does not exceed twelve (12) inches at any time or point, except for in-corral mounding. Manure depth may exceed 12 inches when corrals become inaccessible due to rain events. However, permittee must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible. [District Rule 4570] Federally Enforceable Through Title V Permit
13. Permittee shall measure and document the depth of manure in the corrals at least once every ninety (90) days. [District Rule 4570] Federally Enforceable Through Title V Permit
14. 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 1070 and 4570] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-13-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE CO. HEIFER RANCH LIQUID MANURE HANDLING SYSTEM CONSISTING OF FOUR SETTLING BASINS; ONE COVERED LAGOON ANAEROBIC DIGESTER (1100' X 220' X 20'); ONE STORAGE POND WITH FLOATING COVERS; MANURE IS LAND APPLIED THROUGH FLOOD IRRIGATION AND FURROW IRRIGATION

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall remove solids with a solid separator system, prior to the manure entering the lagoon. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall not allow liquid manure to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records to demonstrate liquid manure did not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570] Federally Enforceable Through Title V Permit
5. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-14-4

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE CO. HEIFER RANCH SOLID MANURE HANDLING CONSISTING OF MANURE STOCK PILES;  
WINDROW COMPOSTING; SOLID MANURE APPLICATION TO LAND AND HAULED OFFSITE

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall incorporate all solid manure within seventy-two (72) hours of land application. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records to demonstrate that all solid manure has been incorporated within seventy-two (72) hours of land application. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-15-1

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

AGRICULTURAL GASOLINE DISPENSING OPERATION WITH ONE 350 GALLON PHASE I EXEMPT ABOVEGROUND STORAGE TANK AND 1 FUELING POINT WITH 1 PHASE II EXEMPT GASOLINE DISPENSING NOZZLE (IMPLEMENTS OF HUSBANDRY)

## PERMIT UNIT REQUIREMENTS

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1. The storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621] Federally Enforceable Through Title V Permit
2. The storage tank shall be used primarily for the fueling of implements of husbandry. [District Rule 4621] Federally Enforceable Through Title V Permit
3. The storage tank shall be maintained and operated such that it is leak-free. [District Rule 4621] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-16-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARNs AND SILAGE PILES

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall feed all animals according to National Research Council (NRC) guidelines. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of feed content, formulation, and quantity of feed additive utilized, to demonstrate compliance with National Research Council (NRC) guidelines. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall push feed so that it is within three feet of feedlane fence within two hours of putting out the feed or use a feed trough or other feeding structure designed to maintain feed within reach of the animals. [District Rule 4570] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an operating plan/record that requires feed to be pushed within three feet of feedlane fence within two hours of putting out the feed, or use of a feed trough or other structure designed to maintain feed within reach of the animals. [District Rule 4570] Federally Enforceable Through Title V Permit
6. Permittee shall begin feeding total mixed rations within two hours of grinding and mixing rations. [District Rule 4570] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an operating plan/record of when feeding of total mixed rations began within two hours of grinding and mixing rations. [District Rule 4570] Federally Enforceable Through Title V Permit
8. Permittee shall store grain in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records demonstrating grain is/was stored in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570] Federally Enforceable Through Title V Permit
10. Permittee shall feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. [District Rule 4570] Federally Enforceable Through Title V Permit
11. Permittee shall maintain records to demonstrate animals are fed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Permittee shall remove uneaten wet feed from feed bunks within twenty-four (24) hours after the end of a rain event. [District Rule 4570] Federally Enforceable Through Title V Permit
13. Permittee shall maintain records demonstrating that uneaten wet feed was removed from feed bunks within twenty-four (24) hours after the end of a rain event. [District Rule 4570] Federally Enforceable Through Title V Permit
14. For bagged silage/feedstuff, permittee shall utilize a sealed feed storage system (e.g., ag bag). [District Rule 4570] Federally Enforceable Through Title V Permit
15. Permittee shall cover all silage piles, except for the area where feed is being removed from the pile, with a plastic tarp that is at least five (5) mils (0.005 inches) thick, multiple plastic tarps with a cumulative thickness of at least 5 mils (0.005 inches), or an oxygen barrier film covered with a UV resistant material. Silage piles shall be covered within seventy-two (72) hours of last delivery of material to the pile. Sheets of material used to cover silage shall overlap so that silage is not exposed where the sheets meet. [District Rule 4570] Federally Enforceable Through Title V Permit
16. Permittee shall maintain records of the thickness and type of cover used to cover each silage pile. Permittee shall also maintain records of the date of the last delivery of material to each silage pile and the date each pile is covered. [District Rule 4570] Federally Enforceable Through Title V Permit
17. Permittee shall select and implement one of the following mitigation measures for building each silage pile at the facility: Option 1) build the silage pile such that the average bulk density is at least 44 lb/cu ft for corn silage and 40 lb/cu ft for other silage types, as measured in accordance with Section 7.11 of District Rule 4570; Option 2) Adjust filling parameters when creating the silage pile to achieve an average bulk density of at least 44 lb/cu ft for corn silage and at least 40 lb/cu ft for other silage types as determined using a District-approved spreadsheet; or Option 3) build silage piles using crops harvested with the applicable minimum moisture content, maximum Theoretical Length of Chop (TLC), and roller opening identified in District Rule 4570, Table 4.1, 1.d and manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. Records of the option chosen as a mitigation measure for building each silage pile shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
18. For each silage pile that Option 1 (Measured Bulk Density) is chosen as a mitigation measure for building the pile, records of the measured bulk density shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
19. For each silage pile that Option 2 (Bulk Density Determined by Spreadsheet) is chosen as a mitigation measure for building the pile, records of the filling parameters entered into the District-approved spreadsheet to determine the bulk density shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
20. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall harvest corn used for the pile at an average moisture content of at least 65% and harvest other silage crops for the pile at an average moisture content of at least 60%. [District Rule 4570] Federally Enforceable Through Title V Permit
21. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records of the average percent moisture of crops harvested for silage shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
22. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall adjust setting of equipment used to harvest crops for the pile to incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable: 1) Corn with no processing: TLC not exceeding 1/2 inch, 2) Processed Corn: TLC not exceeding 3/4 inch and roller opening of 1-4 mm, 3) Alfalfa/Grass: TLC not exceeding 1.0 inch, 4) Other silage crops: TLC not exceeding 1/2 inch. [District Rule 4570] Federally Enforceable Through Title V Permit
23. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records that equipment used to harvest crops for the pile was set to the required TLC and roller opening for the type of crop harvested shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570] Federally Enforceable Through Title V Permit
25. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall maintain a plan that requires that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570] Federally Enforceable Through Title V Permit
26. Permittee shall select and implement at least two of the following mitigation measures for management of silage piles at the facility: Option 1) manage silage piles such that only one silage pile has an uncovered face and the total exposed surface area is less than 2,150 square feet, or manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet; Option 2) use a shaver/facer to remove silage from the silage pile, or shall use another method to maintain a smooth vertical surface on the working face of the silage pile; or Option 3) inoculate silage with homolactic lactic acid bacteria in accordance with manufacturer recommendations to achieve a concentration of at least 100,000 colony forming units per gram of wet forage, apply propionic acid, benzoic acid, sorbic acid, sodium benzoate, or potassium sorbate at the rate specified by the manufacturer to reduce yeast counts when forming silage piles, or apply other additives at rates that have been demonstrated to reduce alcohol concentrations in silage and/or VOC emissions from silage and have been approved by the District and EPA. Records of the options chosen for managing each silage pile shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
27. If Option 1 (Limiting Exposed Area of Silage) is chosen as a mitigation measure for managing silage piles, the permittee shall calculate and record the maximum (largest part of pile) total exposed area of each silage pile. Records of the maximum calculated area shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
28. For each silage pile that Option 2 (Shaver/Facer or Smooth Face) is chosen as a mitigation measure for building the pile, the permittee shall maintain records that a shaver/facer was used to remove silage from the pile or shall visually inspect the pile at least daily to verify that the working face was smooth and maintain records of the visual inspections. [District Rule 4570] Federally Enforceable Through Title V Permit
29. For each silage pile that Option 3 (Silage Additives) is chosen as a mitigation measure for building the pile, records shall be maintained of the type additive (e.g. inoculants, preservative, other District & EPA-approved additive), the quantity of the additive applied to the pile, and a copy of the manufacturers instructions for application of the additive. [District Rule 4570] Federally Enforceable Through Title V Permit
30. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-17-1

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

GAS PROCESSING OPERATION CONSISTING OF COMPRESSORS, SULFATREAT H<sub>2</sub>S SCRUBBING VESSELS (OR EQUIVALENT H<sub>2</sub>S SCRUBBER), AND A QUESTAIR M-3200 PRESSURE SWING ADSORPTION (PSA) GAS PURIFICATION SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The gas processing operation shall only process biogas with a VOC content not exceeding 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Source testing to determine the total VOC content of the biogas shall be performed with the digesters operating at conditions representative of steady state operations. Annual source testing of the VOC content of the biogas shall be conducted at least once every twelve (12) months. Annual source testing may discontinue if three consecutive annual source tests demonstrate that the biogas processed has a VOC content of 5% or less. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. All piping, valves, fittings, threaded connections, pumps, and compressors for the gas processing operation shall be constructed and maintained in a leak-free condition. A leak-free condition is a condition without a gas leak and without a leak of organic liquid at a rate of more than 3 drops per minute. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking and shall be repaired expeditiously. If the leak cannot be eliminated immediately, then the leak shall be minimized to the lowest possible level by using best maintenance practices. Operator shall maintain records of the date/time the leak was discovered and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Exhaust gas from the PSA unit shall be returned to the digester, directed to the biogas-fired engines (Permit #S-5058-5, -6, -7, -8, -9, & -10) for combustion, or directed to a VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by US EPA Method 25 or 25a. Exhaust gas from the PSA may be combusted in the emergency flare (Permit #S-5058-11) during emergency situations. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. Sampling ports adequate for extraction of grab samples, use of a District-approved portable emission monitor, and use of a District-approved H<sub>2</sub>S detection device shall be provided. Sampling ports may be located in the inlet biogas pipeline to the gas processing operation. [District Rule 1081] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. Permittee shall maintain weekly and annual records of amount of biogas processed in MMscf. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-18-1

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

1026 BHP CUMMINS MODEL 680F (SERIAL # 5069FF) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE  
POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. This IC engine shall only be used for the growing of crops or raising of fowl or animals. [District Rules 4701] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702, 40 CFR 63, ZZZZ, and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
7. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
12. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
13. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
14. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
16. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-19-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE CO. HEIFER RANCH FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARN AND SILAGE PILES

## PERMIT UNIT REQUIREMENTS

1. 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 or necessary for the animal to molt, the owners/operators 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] Federally Enforceable Through Title V Permit
2. Permittee shall feed all animals according to National Research Council (NRC) guidelines. [District Rule 4570] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of feed content, formulation, and quantity of feed additive utilized, to demonstrate compliance with National Research Council (NRC) guidelines. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570] Federally Enforceable Through Title V Permit
4. Permittee shall push feed so that it is within three feet of feedlane fence within two hours of putting out the feed or use a feed trough or other feeding structure designed to maintain feed within reach of the animals. [District Rule 4570] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an operating plan/record that requires feed to be pushed within three feet of feedlane fence within two hours of putting out the feed, or use of a feed trough or other structure designed to maintain feed within reach of the animals. [District Rule 4570] Federally Enforceable Through Title V Permit
6. Permittee shall begin feeding total mixed rations within two hours of grinding and mixing rations. [District Rule 4570] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an operating plan/record of when feeding of total mixed rations began within two hours of grinding and mixing rations. [District Rule 4570] Federally Enforceable Through Title V Permit
8. Permittee shall store grain in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records demonstrating grain is/was stored in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570] Federally Enforceable Through Title V Permit
10. Permittee shall feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. [District Rule 4570] Federally Enforceable Through Title V Permit
11. Permittee shall maintain records to demonstrate animals are fed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Permittee shall remove uneaten wet feed from feed bunks within twenty-four (24) hours after the end of a rain event. [District Rule 4570] Federally Enforceable Through Title V Permit
13. Permittee shall maintain records demonstrating that uneaten wet feed was removed from feed bunks within twenty-four (24) hours after the end of a rain event. [District Rule 4570] Federally Enforceable Through Title V Permit
14. For bagged silage/feedstuff, permittee shall utilize a sealed feed storage system (e.g., ag bag). [District Rule 4570] Federally Enforceable Through Title V Permit
15. Permittee shall cover all silage piles, except for the area where feed is being removed from the pile, with a plastic tarp that is at least five (5) mils (0.005 inches) thick, multiple plastic tarps with a cumulative thickness of at least 5 mils (0.005 inches), or an oxygen barrier film covered with a UV resistant material. Silage piles shall be covered within seventy-two (72) hours of last delivery of material to the pile. Sheets of material used to cover silage shall overlap so that silage is not exposed where the sheets meet. [District Rule 4570] Federally Enforceable Through Title V Permit
16. Permittee shall maintain records of the thickness and type of cover used to cover each silage pile. Permittee shall also maintain records of the date of the last delivery of material to each silage pile and the date each pile is covered. [District Rule 4570] Federally Enforceable Through Title V Permit
17. Permittee shall select and implement one of the following mitigation measures for building each silage pile at the facility: Option 1) build the silage pile such that the average bulk density is at least 44 lb/cu ft for corn silage and 40 lb/cu ft for other silage types, as measured in accordance with Section 7.11 of District Rule 4570; Option 2) Adjust filling parameters when creating the silage pile to achieve an average bulk density of at least 44 lb/cu ft for corn silage and at least 40 lb/cu ft for other silage types as determined using a District-approved spreadsheet; or Option 3) build silage piles using crops harvested with the applicable minimum moisture content, maximum Theoretical Length of Chop (TLC), and roller opening identified in District Rule 4570, Table 4.1, 1.d and manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. Records of the option chosen as a mitigation measure for building each silage pile shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
18. For each silage pile that Option 1 (Measured Bulk Density) is chosen as a mitigation measure for building the pile, records of the measured bulk density shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
19. For each silage pile that Option 2 (Bulk Density Determined by Spreadsheet) is chosen as a mitigation measure for building the pile, records of the filling parameters entered into the District-approved spreadsheet to determine the bulk density shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
20. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall harvest corn used for the pile at an average moisture content of at least 65% and harvest other silage crops for the pile at an average moisture content of at least 60%. [District Rule 4570] Federally Enforceable Through Title V Permit
21. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records of the average percent moisture of crops harvested for silage shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
22. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall adjust setting of equipment used to harvest crops for the pile to incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable: 1) Corn with no processing: TLC not exceeding 1/2 inch, 2) Processed Corn: TLC not exceeding 3/4 inch and roller opening of 1-4 mm, 3) Alfalfa/Grass: TLC not exceeding 1.0 inch, 4) Other silage crops: TLC not exceeding 1/2 inch. [District Rule 4570] Federally Enforceable Through Title V Permit
23. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records that equipment used to harvest crops for the pile was set to the required TLC and roller opening for the type of crop harvested shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570] Federally Enforceable Through Title V Permit
25. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall maintain a plan that requires that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570] Federally Enforceable Through Title V Permit
26. Permittee shall select and implement at least two of the following mitigation measures for management of silage piles at the facility: Option 1) manage silage piles such that only one silage pile has an uncovered face and the total exposed surface area is less than 2,150 square feet, or manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet; Option 2) use a shaver/facer to remove silage from the silage pile, or shall use another method to maintain a smooth vertical surface on the working face of the silage pile; or Option 3) inoculate silage with homolactic lactic acid bacteria in accordance with manufacturer recommendations to achieve a concentration of at least 100,000 colony forming units per gram of wet forage, apply propionic acid, benzoic acid, sorbic acid, sodium benzoate, or potassium sorbate at the rate specified by the manufacturer to reduce yeast counts when forming silage piles, or apply other additives at rates that have been demonstrated to reduce alcohol concentrations in silage and/or VOC emissions from silage and have been approved by the District and EPA. Records of the options chosen for managing each silage pile shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
27. If Option 1 (Limiting Exposed Area of Silage) is chosen as a mitigation measure for managing silage piles, the permittee shall calculate and record the maximum (largest part of pile) total exposed area of each silage pile. Records of the maximum calculated area shall be maintained. [District Rule 4570] Federally Enforceable Through Title V Permit
28. For each silage pile that Option 2 (Shaver/Facer or Smooth Face) is chosen as a mitigation measure for building the pile, the permittee shall maintain records that a shaver/facer was used to remove silage from the pile or shall visually inspect the pile at least daily to verify that the working face was smooth and maintain records of the visual inspections. [District Rule 4570] Federally Enforceable Through Title V Permit
29. For each silage pile that Option 3 (Silage Additives) is chosen as a mitigation measure for building the pile, records shall be maintained of the type additive (e.g. inoculants, preservative, other District & EPA-approved additive), the quantity of the additive applied to the pile, and a copy of the manufacturers instructions for application of the additive. [District Rule 4570] Federally Enforceable Through Title V Permit
30. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570] Federally Enforceable Through Title V Permit

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

Attachment A

Detailed Facility Report

**Detailed Facility Report**  
For Facility=5058 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

1/17/14  
4:54 pm

<b>HILARIDES DAIRY</b>	<b>FAC #</b>	<b>S 5058</b>	<b>TYPE:</b>	<b>TitleV</b>	<b>EXPIRE ON:</b>	<b>12/31/2015</b>
<b>24163 ROAD 188</b>	<b>STATUS:</b>	<b>A</b>	<b>TOXIC ID:</b>		<b>AREA:</b>	<b>21 /</b>
<b>LINDSAY, CA 93247</b>	<b>TELEPHONE:</b>				<b>INSP. DATE:</b>	<b>02/14</b>

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-5058-1-2	Milking Center - Miscellaneous	3020-06	1	105.00	105.00	A	9,100 COW MILKING OPERATION WITH TWO ROTARY MILKING PARLORS (80 STALLS EACH) AND ONE HOSPITAL MILKING BARN (34 STALLS)
S-5058-2-2	Cow Housing - Miscellaneous	3020-06	1	105.00	105.00	A	COW HOUSING - 9,100 MILK COWS NOT TO EXCEED A COMBINED TOTAL OF 11,100 MATURE COWS (MILK AND DRY); 5,100 TOTAL SUPPORT STOCK (HEIFERS, CALVES AND BULLS); AND 11 FREESTALLS WITH FLUSH/SCRAPE SYSTEM
S-5058-3-3	Liquid Manure Management - Miscellaneous	3020-06	1	105.00	105.00	A	LIQUID MANURE HANDLING SYSTEM CONSISTING OF FOUR SETTLING BASINS; ONE COVERED LAGOON ANAEROBIC DIGESTER (2230'X250'X20'); ONE STORAGE POND; MANURE IS LAND APPLIED THROUGH FLOOD IRRIGATION AND FURROW IRRIGATION
S-5058-4-2	Solid Manure Management - Miscellaneous	3020-06	1	105.00	105.00	A	SOLID MANURE HANDLING CONSISTING OF MANURE STOCK PILES; SOLID MANURE APPLICATION HAULED OFFSITE:
S-5058-5-3	200 bhp IC engine	3020-10 C	1	240.00	240.00	A	200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR
S-5058-6-3	200 bhp IC engine	3020-10 C	1	240.00	240.00	A	200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR
S-5058-7-3	200 bhp IC engine	3020-10 C	1	240.00	240.00	A	200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR
S-5058-8-3	200 bhp IC engine	3020-10 C	1	240.00	240.00	A	200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR
S-5058-9-2	200 bhp IC engine	3020-10 C	1	240.00	240.00	A	200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR
S-5058-10-2	200 bhp IC engine	3020-10 C	1	240.00	240.00	A	200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR
S-5058-11-0	6 MMBtu/hr Flare	3020-02 G	1	815.00	815.00	A	10,000 SCF/HR DIGESTER GAS-FIRED EMERGENCY FLARE

**Detailed Facility Report**  
For Facility=5058 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

1/17/14  
4:54 pm

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-5058-12-3	Heifer Housing - Miscellaneous	3020-06	1	105.00	105.00	A	SIERRA CATTLE COMPANY HEIFER HOUSING - 7,700 TOTAL SUPPORT STOCK (HEIFERS, CALVES AND BULLS) HOUSED IN OPEN CORRALS WITH A FLUSH/SCRAPE SYSTEM
S-5058-13-2	Liquid Manure Management - Miscellaneous	3020-06	1	105.00	105.00	A	SIERRA CATTLE CO. HEIFER RANCH LIQUID MANURE HANDLING SYSTEM CONSISTING OF FOUR SETTLING BASINS; ONE COVERED LAGOON ANAEROBIC DIGESTER (1100' X 220' X 20"); ONE STORAGE POND WITH FLOATING COVERS; MANURE IS LAND APPLIED THROUGH FLOOD IRRIGATION AND FURROW IRRIGATION
S-5058-14-2	Solid Manure Management - Miscellaneous	3020-06	1	105.00	105.00	A	SIERRA CATTLE CO. HEIFER RANCH SOLID MANURE HANDLING CONSISTING OF MANURE STOCK PILES; WINDROW COMPOSTING; SOLID MANURE APPLICATION TO LAND AND HAULED OFFSITE
S-5058-15-0	1 Nozzle	3020-11 A	1	34.00	34.00	A	AGRICULTURAL GASOLINE DISPENSING OPERATION WITH ONE 350 GALLON PHASE I EXEMPT ABOVEGROUND STORAGE TANK AND 1 FUELING POINT WITH 1 PHASE II EXEMPT GASOLINE DISPENSING NOZZLE (IMPLEMENTS OF HUSBANDRY)
S-5058-16-1	Feed Storage and Handling - Miscellaneous	3020-06	1	105.00	105.00	A	FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARNs AND SILAGE PILES
S-5058-17-0	115 Electric hp	3020-01 D	1	314.00	314.00	A	GAS PROCESSING OPERATION CONSISTING OF COMPRESSORS, SULFATREAT H2S SCRUBBING VESSELS (OR EQUIVALENT H2S SCRUBBER), AND A QUESTAIR M-3200 PRESSURE SWING ADSORPTION (PSA) GAS PURIFICATION SYSTEM
S-5058-18-0	1,026 diesel engine	3020-10 F	1	749.00	749.00	A	1026 BHP CUMMINS MODEL 680F (SERIAL # 5069FF) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-5058-19-1	Feed Storage and Handling - Miscellaneous	3020-06	1	105.00	105.00	A	SIERRA CATTLE CO. HEIFER RANCH FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARNs AND SILAGE PILES

Number of Facilities Reported: 1

# Attachment B

## Exempt Equipment

**San Joaquin Valley  
Unified Air Pollution Control District  
Title V Application - INSIGNIFICANT ACTIVITIES**

COMPANY NAME: Hilarides Dairy

FACILITY ID: S-5058

Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	✓	Exemption Category	Rule 2020 Citation	✓
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	✓
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1	✓	Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Piston-type i.e. engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2		Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥ 0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4		Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers ++	6.2	✓	Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyORIZED cleaning equipment with < 10 ft² open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	✓
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	
Containers used to store clean produced water	6.6.1		Fugitive emissions sources assoc. with exempt equipment	6.12	
Containers ≤ 100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store org-anic material where the actual storage temperature < 150 F	6.6.4		Emissions less than 2 lb/day from units not included above	6.19	
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥ 0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

☐ No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)



Attachment C

Current Permit to Operate



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

# Permit to Operate

**FACILITY:** S-5058

**EXPIRATION DATE:** 12/31/2015

**LEGAL OWNER OR OPERATOR:**  
**MAILING ADDRESS:**

HILARIDES DAIRY  
24163 ROAD 188  
LINDSEY, CA 93247

**FACILITY LOCATION:**

24163 ROAD 188  
LINDSAY, CA 93247

**FACILITY DESCRIPTION:**

AGRICULTURAL CROP PRODUCTION, DAIRY

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

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

**Seyed Sadredin**  
Executive Director / APCO

**David Warner**  
Director of Permit Services

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-1-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

9,100 COW MILKING OPERATION WITH TWO ROTARY MILKING PARLORS (80 STALLS EACH) AND ONE HOSPITAL MILKING BARN (34 STALLS)

## PERMIT UNIT REQUIREMENTS

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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. Permittee shall implement and maintain all the mitigation measures contained in this permit no later than March 21, 2013. [District Rule 4570]
4. Mitigation measures that are currently being implemented as required by Phase I of Rule 4570 should continue to be implemented until the mitigation measures required under this permit are implemented. [District Rule 4570]
5. 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 or necessary for the animal to molt, the owners/operators 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]
6. Permittee shall flush or hose milk parlor immediately prior to, immediately after, or during each milking. [District Rule 4570]
7. Permittee shall provide verification that milk parlors are flushed or hosed prior to, immediately after, or during each milking. [District Rule 4570]
8. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]
9. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-2-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

COW HOUSING - 9,100 MILK COWS NOT TO EXCEED A COMBINED TOTAL OF 11,100 MATURE COWS (MILK AND DRY); 5,100 TOTAL SUPPORT STOCK (HEIFERS, CALVES AND BULLS); AND 11 FREESTALLS WITH FLUSH/SCRAPE SYSTEM

## PERMIT UNIT REQUIREMENTS

---

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 or necessary for the animal to molt, the owners/operators 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 pave feedlanes, where present, for a width of at least 8 feet along the corral side of the feedlane fence for milk and dry cows and at least 6 feet along the corral side of the feedlane for heifers. [District Rule 4570]
5. Permittee shall flush, scrape or vacuum freestall lanes immediately prior to, immediately after or during each milking. [District Rule 4570]
6. Permittee shall maintain records sufficient to demonstrate that freestall lanes are flushed, scraped or vacuumed immediately prior to, immediately after or during each milking. [District Rule 4570]
7. Permittee shall remove manure that is not dry from individual cow freestall beds or rake, harrow, scrape, or grade freestall bedding at least once every seven (7) days. [District Rule 4570]
8. Permittee shall record the date that manure that is not dry is removed from individual cow freestall beds or raked, harrowed, scraped, or freestall bedding is graded at least once every seven (7) days. [District Rule 4570]
9. Permittee shall inspect water pipes and troughs and repair leaks at least once every seven (7) days. [District Rule 4570]
10. Permittee shall maintain records demonstrating that water pipes and troughs are inspected and leaks are repaired at least once every seven (7) days. [District Rule 4570]
11. Permittee shall clean manure from corrals at least four (4) times per year with at least sixty (60) days between each cleaning, or permittee shall clean corrals at least once between April and July and at least once between September and December. [District Rule 4570]
12. Permittee shall demonstrate that manure from corrals are cleaned at least four (4) times per year with at least sixty (60) days between each cleaning or demonstrate that corrals are cleaned at least once between April and July and at least once between September and December. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Permittee shall implement at least one of the following corral mitigation measures: 1) slope the surface of the corrals at least 3% where the available space for each animal is 400 square feet or less and shall slope the surface of the corrals at least 1.5% where the available space for each animal is more than 400 square feet per animal; 2) maintain corrals to ensure proper drainage preventing water from standing more than forty-eight hours; or 3) harrow, rake, or scrape pens sufficiently to maintain a dry surface except during periods of rainy weather. [District Rule 4570]
14. Permittee shall either 1) maintain sufficient records to demonstrate that corrals are maintained to ensure proper drainage preventing water from standing for more than forty-eight hours or 2) maintain records of dates pens are groomed (i.e., harrowed, raked, or scraped, etc.). [District Rule 4570]
15. Permittee shall clean concreted lanes such that the depth of manure does not exceed twelve (12) inches at any point or time. [District Rule 4570]
16. Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570]
17. Shade structures shall be installed in any of the following ways: 1) constructed with a light permeable roofing material; 2) uphill of any slope in the corral; 3) installed so that the structure has a North/South orientation. OR Permittee shall clean manure from under corral shades at least once every fourteen (14) days, when weather permits access into the corral. [District Rule 4570]
18. Permittee shall manage corrals such that the manure depth in the corral does not exceed twelve (12) inches at any time or point, except for in-corral mounding. Manure depth may exceed 12 inches when corrals become inaccessible due to rain events. However, permittee must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible. [District Rule 4570]
19. Permittee shall measure and document the depth of manure in the corrals at least once every ninety (90) days. [District Rule 4570]
20. Permittee shall maintain a record of the number of animals of each species and production group at the facility and shall maintain quarterly records of any changes to this information. [District Rule 4570]
21. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]
22. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-3-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

LIQUID MANURE HANDLING SYSTEM CONSISTING OF FOUR SETTLING BASINS; ONE COVERED LAGOON ANAEROBIC DIGESTER (2230'X250'X20'); ONE STORAGE POND; MANURE IS LAND APPLIED THROUGH FLOOD IRRIGATION AND FURROW IRRIGATION

## PERMIT UNIT REQUIREMENTS

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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 or necessary for the animal to molt, the owners/operators 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 with a solid separator system, prior to the manure entering the lagoon. [District Rule 4570]
5. Permittee shall not allow liquid manure to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]
6. Permittee shall maintain records to demonstrate liquid manure did not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]
7. The covered lagoon anaerobic digester system shall be constructed and operated with an average retention time of at least thirty-eight (38) days. [District Rule 2201]
8. The permittee shall maintain calculations demonstrating that the anaerobic digester system has an average retention time of at least thirty-eight (38) days. [District Rule 2201]
9. The liquid manure handling system shall handle flush manure from no more than 9,100 milk cows, 2,000 dry cows, and 5,100 total support stock (heifers, calves, and bulls). [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 submerged pipe relief vents shall be designed to allow all gas generated by the lagoon during summer conditions to accumulate under the cover for at least 24 hours prior to release of the gas. [District Rule 2201]
12. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-4-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SOLID MANURE HANDLING CONSISTING OF MANURE STOCK PILES; SOLID MANURE APPLICATION HAULED OFFSITE:

## PERMIT UNIT REQUIREMENTS

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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. Permittee shall implement and maintain all the mitigation measures contained in this permit no later than March 21, 2013. [District Rule 4570]
4. Mitigation measures that are currently being implemented as required by Phase I of Rule 4570 should continue to be implemented until the mitigation measures required under this permit are implemented. [District Rule 4570]
5. 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 or necessary for the animal to molt, the owners/operators 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]
6. Within seventy two (72) hours of removal of solid manure from housing, permittee shall either 1) remove dry manure from the facility, or 2) cover dry manure outside the housing with a weatherproof covering from October through May, except for times when wind events remove the covering, not to exceed twenty-four (24) hours per event. [District Rule 4570]
7. Permittee shall keep records of dates when manure is removed from the facility or permittee shall maintain records to demonstrate that dry manure piles outside the pens are covered with a weatherproof covering from October through May. [District Rule 4570]
8. If weatherproof coverings are used, permittee shall maintain records, such as manufacturer warranties or other documentation, demonstrating that the weatherproof covering over dry manure are installed, used, and maintained in accordance with manufacturer recommendations and applicable standards listed in NRCS Field Office Technical Guide Code 313 or 367, or any other applicable standard approved by the APCO, ARB, and EPA. [District Rule 4570]
9. Permittee shall incorporate all solid manure within seventy-two (72) hours of land application. [District Rule 4570]
10. Permittee shall maintain records to demonstrate that all solid manure has been incorporated within seventy-two (72) hours of land application. [District Rule 4570]
11. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



12. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-5-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
7. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
8. This IC engine shall be fired only on digester gas. [District Rule 2201]
9. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801]
10. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702]
11. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702]
12. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201]
13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201]
16. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 2201]
17. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]
18. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2201]
19. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 2201]
20. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]
24. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-6-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
7. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
8. This IC engine shall be fired only on digester gas. [District Rule 2201]
9. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801]
10. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702]
11. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702]
12. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201]
13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201]
16. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 2201]
17. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]
18. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2201]
19. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 2201]
20. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]
24. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-7-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
7. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
8. This IC engine shall be fired only on digester gas. [District Rule 2201]
9. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801]
10. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702]
11. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702]
12. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201]
13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201]
16. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 2201]
17. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]
18. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2201]
19. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 2201]
20. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]
24. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-8-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
5. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
6. This IC engine shall be fired only on digester gas. [District Rule 2201]
7. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801]
8. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702]
9. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201]
11. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]
12. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
13. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 2201]
15. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]
16. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2201]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 2201]
18. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201]
19. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702]
20. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-9-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
7. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
8. This IC engine shall be fired only on digester gas. [District Rule 2201]
9. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801]
10. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702]
11. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702]
12. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201]
13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201]
16. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 2201]
17. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]
18. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2201]
19. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 2201]
20. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]
24. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-10-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

200 BHP CATERPILLAR MODEL G-342 DIGESTER GAS-FIRED LEAN BURN IC ENGINE EQUIPPED WITH AN AIR/FUEL RATIO CONTROLLER AND TURBOCHARGER POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
7. The engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
8. This IC engine shall be fired only on digester gas. [District Rule 2201]
9. The sulfur content of the digester gas used as fuel in this engine shall not exceed 2,000 ppmv as H<sub>2</sub>S. [District Rules 2201 and 4801]
10. This engine shall be operated in a lean-burn configuration maintaining an exhaust stream oxygen (O<sub>2</sub>) concentration of 4% per volume or greater prior to any exhaust stream control device. Monitoring to demonstrate that the engine is maintained in a lean-burn configuration shall be performed on a monthly basis and records of such monitoring shall be maintained (for example: Electronic O<sub>2</sub> readout, portable O<sub>2</sub> exhaust analysis). [District Rules 2201 and 4702]
11. Emissions from this IC engine shall not exceed any of the following limits: 150 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 2.24 g-NO<sub>x</sub>/bhp-hr), 1,573 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 14.31 g-CO/bhp-hr), and 87 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.45 g-VOC/bhp-hr). [District Rules 2201 and 4702]
12. PM<sub>10</sub> emissions from this IC engine shall not exceed 0.075 g-PM<sub>10</sub>/hp-hr. [District Rule 2201]
13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. This IC engine shall be configured to operate with an exhaust oxygen concentration greater than or equal to the average exhaust oxygen concentration measured during source testing of the digester gas-fired IC engine(s) (from units S-5058-5, -6, -7, -8, -9, or -10) at the facility that were source tested to demonstrate initial compliance. [District Rule 2201]
16. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every year using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation during a particular year, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within one month of restarting the engine unless monitoring has been performed within the last six months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 2201]
17. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]
18. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2201]
19. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 2201]
20. The permittee shall monitor and record the sulfur content of the digester gas combusted in the engine at least once every 12 months. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H<sub>2</sub>S; a Testo 350 XL portable emission monitor; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; District-approved source test methods, including EPA Method 15, ASTM Method D1072, D4084, and D5504; District-approved in-line H<sub>2</sub>S monitors; or an alternative method approved by the District. Prior to utilization of in-line monitors to demonstrate compliance with the digester gas sulfur content limit of this permit, the permittee shall submit details of the proposed monitoring system, including the make, model, and detection limits, to the District and obtain District approval for the proposed monitor(s). [District Rule 2201]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and sulfur content of the fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]
24. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-11-0

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

10,000 SCF/HR DIGESTER GAS-FIRED EMERGENCY FLARE

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801]
7. A flame shall be present at all times whenever combustible gases are vented through the flare. [District Rule 4311]
8. 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]
9. Unless the flare is equipped with a flow (pressure) 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]
10. Flares that use flow (pressure) sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311]
11. This flare shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per year. [District Rules 2010 and 4311]
12. An emergency is: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, or natural disaster. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rule 4311]
13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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 1070 and 4311]
15. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-12-3

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE COMPANY HEIFER HOUSING - 7,700 TOTAL SUPPORT STOCK (HEIFERS, CALVES AND BULLS)  
HOUSED IN OPEN CORRALS WITH A FLUSH/SCRAPE SYSTEM

## PERMIT UNIT REQUIREMENTS

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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 or necessary for the animal to molt, the owners/operators 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 pave feedlanes, where present, for a width of at least 8 feet along the corral side of the feedlane fence for milk and dry cows and at least 6 feet along the corral side of the feedlane for heifers. [District Rule 4570]
5. Permittee shall inspect water pipes and troughs and repair leaks at least once every seven (7) days. [District Rule 4570]
6. Permittee shall maintain records demonstrating that water pipes and troughs are inspected and leaks are repaired at least once every seven (7) days. [District Rule 4570]
7. Permittee shall clean manure from corrals at least four (4) times per year with at least sixty (60) days between each cleaning, or permittee shall clean corrals at least once between April and July and at least once between September and December. [District Rule 4570]
8. Permittee shall demonstrate that manure from corrals are cleaned at least four (4) times per year with at least sixty (60) days between each cleaning or demonstrate that corrals are cleaned at least once between April and July and at least once between September and December. [District Rule 4570]
9. Permittee shall implement at least one of the following corral mitigation measures: 1) slope the surface of the corrals at least 3% where the available space for each animal is 400 square feet or less and shall slope the surface of the corrals at least 1.5% where the available space for each animal is more than 400 square feet per animal; 2) maintain corrals to ensure proper drainage preventing water from standing more than forty-eight hours; or 3) harrow, rake, or scrape pens sufficiently to maintain a dry surface except during periods of rainy weather. [District Rule 4570]
10. Permittee shall either 1) maintain sufficient records to demonstrate that corrals are maintained to ensure proper drainage preventing water from standing for more than forty-eight hours or 2) maintain records of dates pens are groomed (i.e., harrowed, raked, or scraped, etc.). [District Rule 4570]
11. Permittee shall clean concreted lanes such that the depth of manure does not exceed twelve (12) inches at any point or time. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570]
13. Permittee shall install all shade structures so that the structure has a North/South orientation. [District Rules 2201 and 4570]
14. Permittee shall manage corrals such that the manure depth in the corral does not exceed twelve (12) inches at any time or point, except for in-corral mounding. Manure depth may exceed 12 inches when corrals become inaccessible due to rain events. However, permittee must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible. [District Rule 4570]
15. Permittee shall measure and document the depth of manure in the corrals at least once every ninety (90) days. [District Rule 4570]
16. 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 1070 and 4570]
17. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-13-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE CO. HEIFER RANCH LIQUID MANURE HANDLING SYSTEM CONSISTING OF FOUR SETTLING BASINS; ONE COVERED LAGOON ANAEROBIC DIGESTER (1100' X 220' X 20'); ONE STORAGE POND WITH FLOATING COVERS; MANURE IS LAND APPLIED THROUGH FLOOD IRRIGATION AND FURROW IRRIGATION

## PERMIT UNIT REQUIREMENTS

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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. Permittee shall implement and maintain all the mitigation measures contained in this permit no later than March 21, 2013. [District Rule 4570]
4. Mitigation measures that are currently being implemented as required by Phase I of Rule 4570 should continue to be implemented until the mitigation measures required under this permit are implemented. [District Rule 4570]
5. 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 or necessary for the animal to molt, the owners/operators 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]
6. Permittee shall remove solids with a solid separator system, prior to the manure entering the lagoon. [District Rule 4570]
7. Permittee shall not allow liquid manure to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]
8. Permittee shall maintain records to demonstrate liquid manure did not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]
9. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]
10. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-14-2

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE CO. HEIFER RANCH SOLID MANURE HANDLING CONSISTING OF MANURE STOCK PILES;  
WINDROW COMPOSTING; SOLID MANURE APPLICATION TO LAND AND HAULED OFFSITE

## PERMIT UNIT REQUIREMENTS

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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. Permittee shall implement and maintain all the mitigation measures contained in this permit no later than March 21, 2013. [District Rule 4570]
4. Mitigation measures that are currently being implemented as required by Phase I of Rule 4570 should continue to be implemented until the mitigation measures required under this permit are implemented. [District Rule 4570]
5. 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 or necessary for the animal to molt, the owners/operators 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]
6. Within seventy two (72) hours of removal of solid manure from housing, permittee shall either 1) remove dry manure from the facility, or 2) cover dry manure outside the housing with a weatherproof covering from October through May, except for times when wind events remove the covering, not to exceed twenty-four (24) hours per event. [District Rule 4570]
7. Permittee shall keep records of dates when manure is removed from the facility or permittee shall maintain records to demonstrate that dry manure piles outside the pens are covered with a weatherproof covering from October through May. [District Rule 4570]
8. If weatherproof coverings are used, permittee shall maintain records, such as manufacturer warranties or other documentation, demonstrating that the weatherproof covering over dry manure are installed, used, and maintained in accordance with manufacturer recommendations and applicable standards listed in NRCS Field Office Technical Guide Code 313 or 367, or any other applicable standard approved by the APCO, ARB, and EPA. [District Rule 4570]
9. Permittee shall incorporate all solid manure within seventy-two (72) hours of land application. [District Rule 4570]
10. Permittee shall maintain records to demonstrate that all solid manure has been incorporated within seventy-two (72) hours of land application. [District Rule 4570]
11. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



12. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-15-0

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

AGRICULTURAL GASOLINE DISPENSING OPERATION WITH ONE 350 GALLON PHASE I EXEMPT ABOVEGROUND STORAGE TANK AND 1 FUELING POINT WITH 1 PHASE II EXEMPT GASOLINE DISPENSING NOZZLE (IMPLEMENTS OF HUSBANDRY)

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621]
5. The storage tank shall be used primarily for the fueling of implements of husbandry. [District Rule 4621]
6. The storage tank shall be maintained and operated such that it is leak-free. [District Rule 4621]
7. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-16-1

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARNs AND SILAGE PILES

## PERMIT UNIT REQUIREMENTS

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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. Permittee shall implement and maintain all the mitigation measures contained in this permit no later than March 21, 2013. [District Rule 4570]
4. Mitigation measures that are currently being implemented as required by Phase I of Rule 4570 should continue to be implemented until the mitigation measures required under this permit are implemented. [District Rule 4570]
5. 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 or necessary for the animal to molt, the owners/operators 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]
6. Permittee shall feed all animals according to National Research Council (NRC) guidelines. [District Rule 4570]
7. Permittee shall maintain records of feed content, formulation, and quantity of feed additive utilized, to demonstrate compliance with National Research Council (NRC) guidelines. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]
8. Permittee shall push feed so that it is within three feet of feedlane fence within two hours of putting out the feed or use a feed trough or other feeding structure designed to maintain feed within reach of the animals. [District Rule 4570]
9. Permittee shall maintain an operating plan/record that requires feed to be pushed within three feet of feedlane fence within two hours of putting out the feed, or use of a feed trough or other structure designed to maintain feed within reach of the animals. [District Rule 4570]
10. Permittee shall begin feeding total mixed rations within two hours of grinding and mixing rations. [District Rule 4570]
11. Permittee shall maintain an operating plan/record of when feeding of total mixed rations began within two hours of grinding and mixing rations. [District Rule 4570]
12. Permittee shall store grain in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570]
13. Permittee shall maintain records demonstrating grain is/was stored in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. Permittee shall feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. [District Rule 4570]
15. Permittee shall maintain records to demonstrate animals are fed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]
16. For bagged silage/feedstuff, permittee shall utilize a sealed feed storage system (e.g., ag bag). [District Rule 4570]
17. Permittee shall cover all silage piles, except for the area where feed is being removed from the pile, with a plastic tarp that is at least five (5) mils (0.005 inches) thick, multiple plastic tarps with a cumulative thickness of at least 5 mils (0.005 inches), or an oxygen barrier film covered with a UV resistant material. Silage piles shall be covered within seventy-two (72) hours of last delivery of material to the pile. Sheets of material used to cover silage shall overlap so that silage is not exposed where the sheets meet. [District Rule 4570]
18. Permittee shall maintain records of the thickness and type of cover used to cover each silage pile. Permittee shall also maintain records of the date of the last delivery of material to each silage pile and the date each pile is covered. [District Rule 4570]
19. Permittee shall select and implement one of the following mitigation measures for building each silage pile at the facility: Option 1) build the silage pile such that the average bulk density is at least 44 lb/cu ft for corn silage and 40 lb/cu ft for other silage types, as measured in accordance with Section 7.11 of District Rule 4570; Option 2) Adjust filling parameters when creating the silage pile to achieve an average bulk density of at least 44 lb/cu ft for corn silage and at least 40 lb/cu ft for other silage types as determined using a District-approved spreadsheet; or Option 3) build silage piles using crops harvested with the applicable minimum moisture content, maximum Theoretical Length of Chop (TLC), and roller opening identified in District Rule 4570, Table 4.1, 1.d and manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. Records of the option chosen as a mitigation measure for building each silage pile shall be maintained. [District Rule 4570]
20. For each silage pile that Option 1 (Measured Bulk Density) is chosen as a mitigation measure for building the pile, records of the measured bulk density shall be maintained. [District Rule 4570]
21. For each silage pile that Option 2 (Bulk Density Determined by Spreadsheet) is chosen as a mitigation measure for building the pile, records of the filling parameters entered into the District-approved spreadsheet to determine the bulk density shall be maintained. [District Rule 4570]
22. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall harvest corn used for the pile at an average moisture content of at least 65% and harvest other silage crops for the pile at an average moisture content of at least 60%. [District Rule 4570]
23. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records of the average percent moisture of crops harvested for silage shall be maintained. [District Rule 4570]
24. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall adjust setting of equipment used to harvest crops for the pile to incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable: 1) Corn with no processing: TLC not exceeding 1/2 inch, 2) Processed Corn: TLC not exceeding 3/4 inch and roller opening of 1-4 mm, 3) Alfalfa/Grass: TLC not exceeding 1.0 inch, 4) Other silage crops: TLC not exceeding 1/2 inch. [District Rule 4570]
25. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records that equipment used to harvest crops for the pile was set to the required TLC and roller opening for the type of crop harvested shall be maintained. [District Rule 4570]
26. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall maintain a plan that requires that the thickness of the layer of uncompacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570]
28. Permittee shall select and implement at least two of the following mitigation measures for management of silage piles at the facility: Option 1) manage silage piles such that only one silage pile has an uncovered face and the total exposed surface area is less than 2,150 square feet, or manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet; Option 2) use a shaver/facer to remove silage from the silage pile, or shall use another method to maintain a smooth vertical surface on the working face of the silage pile; or Option 3) inoculate silage with homolactic lactic acid bacteria in accordance with manufacturer recommendations to achieve a concentration of at least 100,000 colony forming units per gram of wet forage, apply propionic acid, benzoic acid, sorbic acid, sodium benzoate, or potassium sorbate at the rate specified by the manufacturer to reduce yeast counts when forming silage piles, or apply other additives at rates that have been demonstrated to reduce alcohol concentrations in silage and/or VOC emissions from silage and have been approved by the District and EPA. Records of the options chosen for managing each silage pile shall be maintained. [District Rule 4570]
29. If Option 1 (Limiting Exposed Area of Silage) is chosen as a mitigation measure for managing silage piles, the permittee shall calculate and record the maximum (largest part of pile) total exposed area of each silage pile. Records of the maximum calculated area shall be maintained. [District Rule 4570]
30. For each silage pile that Option 2 (Shaver/Facer or Smooth Face) is chosen as a mitigation measure for building the pile, the permittee shall maintain records that a shaver/facer was used to remove silage from the pile or shall visually inspect the pile at least daily to verify that the working face was smooth and maintain records of the visual inspections. [District Rule 4570]
31. For each silage pile that Option 3 (Silage Additives) is chosen as a mitigation measure for building the pile, records shall be maintained of the type additive (e.g. inoculants, preservative, other District & EPA-approved additive), the quantity of the additive applied to the pile, and a copy of the manufacturers instructions for application of the additive. [District Rule 4570]
32. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]
33. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-17-0

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

GAS PROCESSING OPERATION CONSISTING OF COMPRESSORS, SULFATREAT H<sub>2</sub>S SCRUBBING VESSELS (OR EQUIVALENT H<sub>2</sub>S SCRUBBER), AND A QUESTAIR M-3200 PRESSURE SWING ADSORPTION (PSA) GAS PURIFICATION SYSTEM

## PERMIT UNIT REQUIREMENTS

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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. 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]
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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 or 20% opacity. [District Rule 4101]
7. The gas processing operation shall only process biogas with a VOC content not exceeding 10% by weight. [District Rule 2201]
8. All piping, valves, fittings, threaded connections, pumps, and compressors for the gas processing operation shall be constructed and maintained in a leak-free condition. A leak-free condition is a condition without a gas leak and without a leak of organic liquid at a rate of more than 3 drops per minute. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201]
9. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 2201]
10. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking and shall be repaired expeditiously. If the leak cannot be eliminated immediately, then the leak shall be minimized to the lowest possible level by using best maintenance practices. Operator shall maintain records of the date/time the leak was discovered and date/time the component was repaired to a leak-free condition. [District Rule 2201]
11. Exhaust gas from the PSA unit shall be returned to the digester, directed to the biogas-fired engines (Permit #S-5058-5, -6, -7, -8, -9, & -10) for combustion, or directed to a VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by US EPA Method 25 or 25a. Exhaust gas from the PSA may be combusted in the emergency flare (Permit #S-5058-11) during emergency situations. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Sampling ports adequate for extraction of grab samples, use of a District-approved portable emission monitor, and use of a District-approved H<sub>2</sub>S detection device shall be provided. Sampling ports may be located in the inlet biogas pipeline to the gas processing operation. [District Rule 1081]
13. 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]
14. Permittee shall maintain weekly and annual records of amount of biogas processed in MMscf. [District Rule 1070 and 2201]
15. 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]
16. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-18-0

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

1026 BHP CUMMINS MODEL 680F (SERIAL # 5069FF) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE  
POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. This IC engine shall only be used for the growing of crops or raising of fowl or animals. [District Rules 4701 and 4702]
7. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
8. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
9. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 4801 and 17 CCR 93115]
10. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [District Rule 4702]
11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



13. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
14. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702]
16. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-5058-19-1

**EXPIRATION DATE:** 12/31/2015

**EQUIPMENT DESCRIPTION:**

SIERRA CATTLE CO. HEIFER RANCH FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARN AND SILAGE PILES

## PERMIT UNIT REQUIREMENTS

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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. Permittee shall implement and maintain all the mitigation measures contained in this permit no later than March 21, 2013. [District Rule 4570]
4. Mitigation measures that are currently being implemented as required by Phase I of Rule 4570 should continue to be implemented until the mitigation measures required under this permit are implemented. [District Rule 4570]
5. 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 or necessary for the animal to molt, the owners/operators 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]
6. Permittee shall feed all animals according to National Research Council (NRC) guidelines. [District Rule 4570]
7. Permittee shall maintain records of feed content, formulation, and quantity of feed additive utilized, to demonstrate compliance with National Research Council (NRC) guidelines. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]
8. Permittee shall push feed so that it is within three feet of feedlane fence within two hours of putting out the feed or use a feed trough or other feeding structure designed to maintain feed within reach of the animals. [District Rule 4570]
9. Permittee shall maintain an operating plan/record that requires feed to be pushed within three feet of feedlane fence within two hours of putting out the feed, or use of a feed trough or other structure designed to maintain feed within reach of the animals. [District Rule 4570]
10. Permittee shall begin feeding total mixed rations within two hours of grinding and mixing rations. [District Rule 4570]
11. Permittee shall maintain an operating plan/record of when feeding of total mixed rations began within two hours of grinding and mixing rations. [District Rule 4570]
12. Permittee shall store grain in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570]
13. Permittee shall maintain records demonstrating grain is/was stored in a weatherproof storage structure or under a weatherproof covering from October through May. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. Permittee shall feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. [District Rule 4570]
15. Permittee shall maintain records to demonstrate animals are fed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]
16. For bagged silage/feedstuff, permittee shall utilize a sealed feed storage system (e.g., ag bag). [District Rule 4570]
17. Permittee shall cover all silage piles, except for the area where feed is being removed from the pile, with a plastic tarp that is at least five (5) mils (0.005 inches) thick, multiple plastic tarps with a cumulative thickness of at least 5 mils (0.005 inches), or an oxygen barrier film covered with a UV resistant material. Silage piles shall be covered within seventy-two (72) hours of last delivery of material to the pile. Sheets of material used to cover silage shall overlap so that silage is not exposed where the sheets meet. [District Rule 4570]
18. Permittee shall maintain records of the thickness and type of cover used to cover each silage pile. Permittee shall also maintain records of the date of the last delivery of material to each silage pile and the date each pile is covered. [District Rule 4570]
19. Permittee shall select and implement one of the following mitigation measures for building each silage pile at the facility: Option 1) build the silage pile such that the average bulk density is at least 44 lb/cu ft for corn silage and 40 lb/cu ft for other silage types, as measured in accordance with Section 7.11 of District Rule 4570; Option 2) Adjust filling parameters when creating the silage pile to achieve an average bulk density of at least 44 lb/cu ft for corn silage and at least 40 lb/cu ft for other silage types as determined using a District-approved spreadsheet; or Option 3) build silage piles using crops harvested with the applicable minimum moisture content, maximum Theoretical Length of Chop (TLC), and roller opening identified in District Rule 4570, Table 4.1, 1.d and manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. Records of the option chosen as a mitigation measure for building each silage pile shall be maintained. [District Rule 4570]
20. For each silage pile that Option 1 (Measured Bulk Density) is chosen as a mitigation measure for building the pile, records of the measured bulk density shall be maintained. [District Rule 4570]
21. For each silage pile that Option 2 (Bulk Density Determined by Spreadsheet) is chosen as a mitigation measure for building the pile, records of the filling parameters entered into the District-approved spreadsheet to determine the bulk density shall be maintained. [District Rule 4570]
22. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall harvest corn used for the pile at an average moisture content of at least 65% and harvest other silage crops for the pile at an average moisture content of at least 60%. [District Rule 4570]
23. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records of the average percent moisture of crops harvested for silage shall be maintained. [District Rule 4570]
24. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall adjust setting of equipment used to harvest crops for the pile to incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable: 1) Corn with no processing: TLC not exceeding 1/2 inch, 2) Processed Corn: TLC not exceeding 3/4 inch and roller opening of 1-4 mm, 3) Alfalfa/Grass: TLC not exceeding 1.0 inch, 4) Other silage crops: TLC not exceeding 1/2 inch. [District Rule 4570]
25. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, records that equipment used to harvest crops for the pile was set to the required TLC and roller opening for the type of crop harvested shall be maintained. [District Rule 4570]
26. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall manage silage material delivery such that the thickness of the layer of un-compacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. For each silage pile that Option 3 (Moisture, TLC, Roller Opening, & Material Delivery) is chosen as a mitigation measure for building the pile, the permittee shall maintain a plan that requires that the thickness of the layer of uncompacted material delivered on top of the pile is no more than six (6) inches. [District Rule 4570]
28. Permittee shall select and implement at least two of the following mitigation measures for management of silage piles at the facility: Option 1) manage silage piles such that only one silage pile has an uncovered face and the total exposed surface area is less than 2,150 square feet, or manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet; Option 2) use a shaver/facer to remove silage from the silage pile, or shall use another method to maintain a smooth vertical surface on the working face of the silage pile; or Option 3) inoculate silage with homolactic lactic acid bacteria in accordance with manufacturer recommendations to achieve a concentration of at least 100,000 colony forming units per gram of wet forage, apply propionic acid, benzoic acid, sorbic acid, sodium benzoate, or potassium sorbate at the rate specified by the manufacturer to reduce yeast counts when forming silage piles, or apply other additives at rates that have been demonstrated to reduce alcohol concentrations in silage and/or VOC emissions from silage and have been approved by the District and EPA. Records of the options chosen for managing each silage pile shall be maintained. [District Rule 4570]
29. If Option 1 (Limiting Exposed Area of Silage) is chosen as a mitigation measure for managing silage piles, the permittee shall calculate and record the maximum (largest part of pile) total exposed area of each silage pile. Records of the maximum calculated area shall be maintained. [District Rule 4570]
30. For each silage pile that Option 2 (Shaver/Facer or Smooth Face) is chosen as a mitigation measure for building the pile, the permittee shall maintain records that a shaver/facer was used to remove silage from the pile or shall visually inspect the pile at least daily to verify that the working face was smooth and maintain records of the visual inspections. [District Rule 4570]
31. For each silage pile that Option 3 (Silage Additives) is chosen as a mitigation measure for building the pile, records shall be maintained of the type additive (e.g. inoculants, preservative, other District & EPA-approved additive), the quantity of the additive applied to the pile, and a copy of the manufacturers instructions for application of the additive. [District Rule 4570]
32. Permittee shall keep and maintain all records for a minimum of five (5) years and shall make records available to the APCO and EPA upon request. [District Rule 4570]
33. This permit does not authorize the violation of any conditions established for this facility 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. [Public Resources Code 21000-21177: California Environmental Quality Act]

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