

# San Joaquin Valley Air Pollution Control District

[www.valleyair.org](http://www.valleyair.org)

## Phase II Rule 4570 Permit Application Form Beef Feedlot Confined Animal Feeding (CAF) Mitigation Measures 3,500 Beef Cattle or More (Beef used for production of meat for commercial purposes)

Facility Name:	_____
Facility Location:	_____
Mailing Address:	_____
Phone No.: (____) ____ - ____	Cell Phone No.: (____) ____ - ____
Owner/Operator: _____	Title: _____
Signature: _____	Date: _____

<b>Instructions</b>	<ol style="list-style-type: none"><li>1. Please completely fill out the tables included on the following pages of this form indicating the mitigation measures that you will be utilizing to comply with Rule 4570.</li><li>2. <b>If your facility at this location has submitted an application along with the filing fees for the initial Permit to Operate, and no Permit to Operate has been issued, no additional payment is required at this time.</b> Filing fees of \$71 per permit unit (i.e., cow housing, liquid manure handling, solid manure handling, feed and storage handling) and hourly processing fees not to exceed 10 hours unless notified, will be invoiced at the time the permit is issued.</li><li>3. Does your facility have any existing permits with the District at this location? If yes, please provide your facility ID # if known: _____</li><li>4. Mitigation measures in the following tables are categorized by type of operation. Carefully read each section to determine how many of the options to select within each category.</li></ol>
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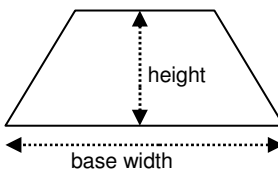
FOR APCD USE ONLY:

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____
	DATE PAID: _____
	PROJECT #: _____ FACILITY ID: _____

Northern Regional Office \* 4800 Enterprise Way \* Modesto, California 95356-8718 \* (209) 557-6400 \* FAX (209) 557-6475  
Central Regional Office \* 1990 East Gettysburg Avenue \* Fresno, California 93726-0244 \* (559) 230-5900 \* FAX (559) 230-6061  
Southern Regional Office \* 34946 Flyover Court \* Bakersfield, California 93308 \* (661) 392-5500 \* FAX (661) 392-5585

## Beef Feedlot Feed and Silage Information

Please fill out the Feed and Silage information in the section below if you have not provided it previously to the District.

<b>Feed &amp; Silage Information</b>		<input type="checkbox"/> Check here if this section does not apply	
What methods are used to store feed? (check all that apply) <input type="checkbox"/> Covered Feed Storage/Commodity Barns <input type="checkbox"/> Covered Silage Piles (except the face) <input type="checkbox"/> Completely Uncovered Silage Piles <input type="checkbox"/> Ag Bags <input type="checkbox"/> Dry Grain Tanks <input type="checkbox"/> Silos <input type="checkbox"/> Other _____			
<b>If silage piles are used</b> , complete the following table:			
Feed type (e.g. corn, alfalfa)	Number of Piles (Max # in one calendar year)	Maximum Pile Dimensions  height (ft), base width (ft)	How many piles of this type will have an open face at any given time (maximum number)?
		_____ ft, _____ ft	
		_____ ft, _____ ft	
		_____ ft, _____ ft	
		_____ ft, _____ ft	
		_____ ft, _____ ft	
		_____ ft, _____ ft	

## Rule 4570 Mitigation Measures

<b>Feed Mitigation Measures</b>	<p><b>Beef feedlot owners/operators must select at least <u>two</u> of the following feed mitigation measures:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Feed according to National Research Council (NRC) guidelines.</li> <li><input type="checkbox"/> Feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains.</li> <li><input type="checkbox"/> Remove uneaten wet feed from feed bunks within 24 hours after the end of a rain event.</li> <li><input type="checkbox"/> Implement an alternative mitigation measure(s), not listed above. <i>Please provide details on an attached Alternate Mitigation Measures supplemental application form.</i></li> </ul>
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**Silage Mitigation Measures**

Do not feed silage  Not Applicable  
 Do not store silage  Not Applicable

**Beef Feedlot owners/operators must select at least one of the following silage mitigation measures:**

- Utilize a sealed feed storage system (e.g., Ag-Bag) for silage.
- Silage Pile Management - Selection of this measure requires multiple measures to be selected as follows:

**The following measure is required to be implemented.**

- Cover the surface of silage piles, except for the area where feed is being removed from the pile, with a plastic tarp that is at least 5 mils thick (0.005 inches), 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 within 72 hours of last delivery of material to the pile.

**Must also implement one from the following (a, b, or c):**

- a. Build silage piles such that the average bulk density of silage piles 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 7.10 of Rule 4570 (<http://www.valleyair.org/rules/1ruleslist.htm#reg4>).
- b. When creating a silage pile, adjust filling parameters to assure a calculated average bulk density of at least 44 lb/cu ft for corn silage and at least 40 lb/cu ft for other silage types, using a spreadsheet approved by the District (one available on District website, [http://www.valleyair.org/General\\_Info/AGLoader.htm](http://www.valleyair.org/General_Info/AGLoader.htm)).
- c. Incorporate the following practices when creating silage piles:
  - Harvest silage crop at  $\geq 65\%$  moisture for corn; and  $\geq 60\%$  moisture for alfalfa/grass and other silage crops; and
  - Manage silage material delivery such that no more than six (6) inches of materials are un-compacted on top of the pile.
  - Incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable, for the crop being harvested:

Crop Harvested	TLC (inches)	Roller Opening(mm)
Corn with no processing	$\leq 1/2$ in	N/A
Processed Corn <35% dry matter	$\leq 3/4$ in	1 – 4 mm
Alfalfa/Grass	$\leq 1.0$ in	N/A
Wheat/Cereal Grains/Other	$\leq 1/2$ in	N/A

**Must select two measures from the following d, e, or f:**

- d.  Manage exposed silage (select only one of the following):
  - i.  Manage silage piles such that only one silage pile has an uncovered face and the uncovered face has a total exposed surface area of less than 2,150 square feet.
  - ii.  Manage multiple uncovered silage piles such that the total exposed surface area of all silage piles is less than 4,300 square feet.
- e.  Maintain silage working face: (select only one of the following):
  - i. Use a shaver/facer to remove silage from the silage pile.
  - ii. Maintain a smooth vertical surface on the working face of the silage pile.
- f.  Silage Additives (select only one of the following):
  - i.  Inoculate silage with homolactic acid bacteria in accordance with manufacturer recommendations to achieve a concentration of at least 100,000 colony forming units per gram of wet forage.
  - or
  - Apply propionic acid, benzoic acid, sorbic acid, sodium benzoate, or potassium sorbate at a rate specified by the manufacturer to reduce yeast counts when forming silage pile.
  - ii.  Apply other additives at specified 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.

Implement an alternative mitigation measure(s), not listed above. *Please provide details on an attached Alternate Mitigation Measures supplemental application form.*

<p style="text-align: center;"><b>Housing Mitigation Measures</b></p>	<p><b>Beef Feedlot owners/operators are required to implement the following four mitigation measures for each corral:</b></p> <ul style="list-style-type: none"> <li>• Scrape corrals twice a year with at least 90 days between cleanings, excluding the removal of in-corral mounds.</li> <li>• Inspect water pipes and troughs and repair leaks at least once every seven (7) days.</li> <li>• <b>Must select one of the following three mitigation measures:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Slope the surface of the corrals at least 3% where the available space for each animal is 400 square feet or less. 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.</li> <li><input type="checkbox"/> Maintain corrals to ensure proper drainage preventing water from standing more than forty-eight hours.</li> <li><input type="checkbox"/> Harrow, rake, or scrape corrals sufficiently to maintain a dry surface, unless the corrals have not held animals in the last thirty (30) days.</li> </ul> </li> <li>• <b><u>If the facility has shade structures you must select from one of the following mitigation measures:</u></b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Install shade structures such that they are constructed with a light permeable roofing material.</li> <li><input type="checkbox"/> Install all shade structures uphill of any slope in the corral.</li> <li><input type="checkbox"/> Install shade structure so that the structure has a North/South orientation.</li> </ul> </li> </ul> <p><b>Beef Feedlot owners/operators must also select at least one of the following housing mitigation measures:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Manage corrals and concrete lanes such that the dry manure depth in the pen does not exceed twelve (12) inches at any time or point, except for in-corral mounds. Manure depth may exceed 12 inches when corrals become inaccessible due to rain events. The facility must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible.</li> <li><input type="checkbox"/> Knockdown fence line manure build-up prior to it exceeding a height of twelve (12) inches at any time or point. Manure depth may exceed 12 inches when corrals become inaccessible due to rain events. The facility must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible.</li> <li><input type="checkbox"/> Implement an alternative mitigation measure(s), not listed above. <i>Please provide details on an attached Alternate Mitigation Measures supplemental application form.</i></li> </ul>
<p style="text-align: center;"><b>Solid Manure Mitigation Measures</b></p>	<p><b>Beef Feedlot owners/operators which handle or stores solid manure or separated solids outside the animal housing must select at least one of the following solid manure mitigation measures:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Within seventy-two (72) hours of removal from animal housing, either remove dry manure from the facility or during the months of October through May, cover dry manure pile with a weatherproof covering, except for times, not to exceed twenty-four (24) hours per event, when wind events remove the covering.</li> <li><input type="checkbox"/> Manage moisture content of manure to less than 50%.</li> <li><input type="checkbox"/> Implement an alternative mitigation measure(s), not listed above. <i>Please provide details on an attached Alternate Mitigation Measures supplemental application form.</i></li> <li><input type="checkbox"/> <b>Not Applicable – No solid manure handled</b></li> </ul>
<p style="text-align: center;"><b>Liquid Manure Mitigation Measures</b></p>	<p><b>Beef feedlot owners/operators which handle liquid manure must select at least one of the following liquid manure mitigation measures:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Use phototrophic lagoon. (Please note: Testing per Section 7.10 of Rule 4570 will be required.)</li> <li><input type="checkbox"/> Use an anaerobic treatment lagoon designed according to NRCS Guideline No. 359.</li> <li><input type="checkbox"/> Remove solids from the waste system with a solid separator system, prior to the waste entering the lagoon.</li> <li><input type="checkbox"/> Maintain lagoon pH between 6.5 and 7.5.</li> <li><input type="checkbox"/> Implement an alternative mitigation measure(s), not listed above. <i>Please provide details on an attached Alternate Mitigation Measures supplemental application form.</i></li> <li><input type="checkbox"/> <b>Not Applicable – No liquid waste handled</b></li> </ul>

**Land  
Application  
Mitigation  
Measures**

**Beef Feedlot owners/operators which land apply solid or liquid manure to crop land must select the following land application mitigation measures:**

**If the CAF applies solid manure, select one of the following:**

- Incorporate all solid manure within seventy-two (72) hours of land application.
- Only apply solid manure that has been treated with an anaerobic treatment lagoon, aerobic lagoon or digester system.
- Apply no solid manure with a moisture content of more than 50%.
- Implement an alternative mitigation measure(s), not listed above. *Please provide details on an attached Alternate Mitigation Measures supplemental application form.*
- Not Applicable – No solid manure application to land**

**If the CAF applies liquid manure, select one of the following:**

- Only apply liquid manure that has been treated with an anaerobic treatment lagoon, aerobic lagoon, or digester system.
- Allow liquid manure to stand in the fields for no more than twenty-four (24) hours after irrigation.
- Apply liquid/slurry manure via injection with drag hose or similar apparatus.
- Implement an alternative mitigation measure(s), not listed above. *Please provide details on an attached Alternate Mitigation Measures supplemental application form.*
- Not Applicable – No liquid manure application to land**