BOARD AGENDA FACT SHEET

Imperial County Air Pollution Control District

February 9, 2016
Requested Board Date

1. Request:
   - Board Approval
   - Other (specify)
   - Information
     - Only/Presentation
   - Schedule Hearing
     - Time: 9:45

2. Requested Action: Type requested action below

Approval and adoption of the following: 1) Rule 101 - Definitions, 2) Rule 202 -
Exemptions, 3) Rule 217 - Large Confined Animal Facilities (LCAF) Permits Required,
and 4) approval of the associated staff report and findings for the amended rules.

3. Cost $__________________________ Source: __________________________

4. If approval of Contract, reviewed/approved by County Counsel on: _________________
   By: ____________________________ Action Request # ________________________
   Assigned by County Counsel's Office

5. If approval of position allocation change, approved by Human Resources on: _________________
   By: ____________________________

6. Electronic copy submittal date: ____________________________ By: ____________________________
   Department Head/Agency Representative

INSTRUCTIONS: Back-up must be submitted 11 BUSINESS days prior to requested date. Back-up
submitted must contain an Original and 6 copies. Back-up must be submitted in a PDF format to
cobstaff@co.imperial.ca.us.

CEO/CLERK USE ONLY: BOARD DATE: ____________________________
Action ______ Filing ______ Consent ______ Presentation ______
Hearing ______ CEO Approval ______ Other (specify) ____________________________

Review: Clerk ____________________________ Date ____________________________
CEO ____________________________ Date ____________________________
February 9, 2016

TO: Honorable Board of Directors

CC: Ralph Cordova Jr, CEO

FROM: Brad Poiriez, Air Pollution Control Officer

SUBJECT: Request the approval and adoption of the following: 1) Rule 101 - Definitions, 2) Rule 202 - Exemptions, 3) Rule 217 - Large Confined Animal Facilities (LCAF) Permits Required, and 4) approval of the associated staff report and findings for the amended rules.

The Imperial County Air Pollution Control District (Air District) respectfully requests approval and adoption of 3 amended rules: Rule 101 - Definitions, Rule 202 - Exemptions, Rule 217 - Large Confined Animal Facilities (LCAF) Permits Required, and approval of the associated staff report and findings for the amended rules.

The Air District is asking for the Board’s consideration in adopting the following:

1. Rule 101 – The proposed amendments to Rule 101 include new or revised definitions, consistent with the revisions proposed under Rule 217. Rule 101 includes 52 new definitions and a revision to the definition of Large Confined Animal Facilities, specifically the definition incorporates the amended thresholds for LCAF’s. Finally, administrative changes were made throughout the Rule correcting formatting and spelling.

2. Rule 202 – The proposed amendments to Rule 202 address the amended thresholds for LCAF’s.

3. Rule 217 – The proposed amendments are intended to reduce VOC and Ammonia from LCAF’s “as expeditiously as practicable” and the proposed amendments to Rule 217 are intended to support the attainment goals of the Air District’s 2006 24-hr PM$_{2.5}$ SIP.

4. One staff report was developed for the series of Rules associated with the Rule 217. The rules encompassing Imperial County Air District’s Rule 101, Rule 202 and Rule 217. The staff report contains specific information regarding applicability and findings.
Recommendations

Air District staff recommends Board adoption of items 1 through 4 listed above amendments to the Air District Rules.
RULE 217 LARGE CONFINED ANIMAL FACILITIES (LCAF) PERMITS REQUIRED
(Adopted 10/10/2006; Revised __/__/____)

A. Applicability General

A.1 Purpose

The purpose of this rule is to limit emissions of Volatile Organic Compounds (VOC) and Ammonia from Large Confined Animal Facilities (LCAF).

A.2 Applicability

This rule sets forth the permitting requirements for agricultural sources subject to permit as a result of amendments to California Health and Safety Code Section 40724.6 that became effective January 1, 2004. A written Permit to Operate shall be required for all Large Confined Animal Facilities.

B. Definitions

The following definitions apply to all terms applicable to this Rule. If a term is not defined in this Rule, then the definitions provided in Rule 101 shall apply.

B.1 AERATED STATIC PILE (ASP): a system designed, constructed, maintained, and operated for decomposing organic material in which the material is placed on top of perforated plates or pipes that are connected to blowers that either push or pull air through the piles.

B.2 AEROBIC DIGESTER: a basin or tank designed, constructed, maintained, and operated for the aerobic treatment of liquid or solid manure that is approved by the APCD, ARB, and EPA.

B.3 AEROBIC LAGOON: a lagoon designed, constructed, maintained, and operated in accordance with the applicable standards for aerobic lagoons in the Natural Resource Conservation Service (NRCS) California Field Office Technical Guide Conservation Practice Standard Code 359 or other applicable standards approved by the APCD, ARB, and EPA.

B.4 ALTERNATIVE MITIGATION MEASURES: a mitigation measure that is determined by the APCD, ARB, and EPA to achieve reductions that are equal to or exceed the reductions that would be achieved by other mitigation measures listed in this rule that owners/operators could choose to comply with rule requirements.
B.5 ANAEROBIC DIGESTER: a basin or tank designed, constructed, maintained, and operated for the anaerobic treatment of liquid or solid manure in accordance with the applicable standards for anaerobic digesters in the Natural Resource Conservation Service (NRCS) California Field Office Technical Guide Conservation Practice Standard Code 365 or 366 or other applicable standards approved by the APCD, ARB, and EPA.

B.6 ANAEROBIC TREATMENT: the decomposition of organic matter by microbes in the absence of oxygen. During this process four main reactions occur. In the first reaction, complex organic materials (e.g. carbohydrates, proteins, and fats) are hydrolyzed to form soluble organic molecules (e.g. sugars, amino acids, and fatty acids). In the second reaction, soluble organic molecules ferment to form acetic acid, formic acid, and volatile fatty acids. In the third reaction, volatile fatty acids undergo acetogenesis to form acetic acid and formic acid. In the fourth reaction, acetic acid and formic acid undergo methanogenesis to form methane and carbon dioxide.

B.7 ANAEROBIC TREATMENT LAGOON: a lagoon designed, constructed, maintained, and operated in accordance with the standards for anaerobic lagoons in the Natural Resource Conservation Service (NRCS) California Field Office Technical Guide Conservation Practice Standard Code 359 or other applicable standards approved by the APCD, ARB, and EPA.

B.8 BEEF FEEDLOT: a CAF that is primarily concerned with raising cattle for the production of meat for commercial purposes.

B.9 CDFA: California Department of Food and Agriculture or any person designed to act on its behalf.

B.10 CEREAL GRAINS: grasses (members of the monocot families Poaceae or Gramineae) cultivated for the edible components of their fruit. These grains include corn, rice, wheat, barley, sorghum, millet, oats, rye, triticale, and fonio. For the purpose of this rule, buckwheat and quinoa will also be considered cereal grains.

B.11 CERTIFIED NUTRITIONIST: a nutritionist certified by the American Registry of Professional Animal Scientists or who is approved by the APCD, ARB, and EPA.

B.12 COMPOSTING: the controlled biological decomposition of organic material, under aerobic (with air) or anaerobic (without air) conditions, to form a humus-like material.
B.13 CORRAL: an area where animals are confined without separate stalls in which the animals may rest. (also referred to as dry lot, pen, exercise pen, loafing barn, saudi barn or open lot).

B.14 DAY: a twenty-four hour period beginning at 12:00 a.m. and ending at midnight.

B.15 DRY MANURE/DRY SEPARATED SOLIDS: manure or separated solids with less than 50% moisture, by weight, not including any materials used for on-site composting operations.

B.16 DRYRolled Corn: any corn that is crushed between rollers without previous treatment with steam or another softening process.

B.17 EMISSION MITIGATION PLAN: a document that lists and describes all VOC mitigation measures to be implemented at the CAF.

B.18 FACILITY: a source or group of air pollution sources located on one or more properties that are contiguous, adjacent, or separated only by a public right-of- way and are under common ownership, common control, or operated by entities that are under common ownership or control. A facility includes, but is not limited to, all barns, buildings, coops, corrals, feed storage areas, installations, milking parlors, structures, and systems for the collection, distribution, storage, and treatment of manure on the properties.

B.19 FEED BUNK: the area where feed is placed for the animals to eat the feed.

B.20 FEEDAPRON: the area in which the animal stands while eating feed. This area may also be referred to as a flush or scrape concrete lane.

B.21 FREESTALL BARN: a structure for housing animals in which the animals are contained in pens under a roof and have free access to feed bunks, waterers, and stalls for resting.

B.22 HIGH MOISTURE CORN: corn which, at harvest, has a kernel moisture of greater than 25%.

B.23 IN-CORRAL MOUNDS: mounds of manure and/or soil which are constructed, designed, maintained, and operated by the owner/operator to allow animals to have a dry area to lay and rest during the wet season.

B.24 LAGOON: a basin constructed, maintained, and operated to store and treat manure. This does not include basins primarily used to collect...
runoff and storm water.

B.25 LARGE CAF: a CAF that maintains, on any one day, at least the following number of animals:

<table>
<thead>
<tr>
<th>Livestock Category</th>
<th>Large CAF Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef Feedlots</td>
<td>3,500 beef cattle</td>
</tr>
<tr>
<td>Dairy</td>
<td>500 milking cows</td>
</tr>
<tr>
<td>Other Cattle Facility</td>
<td>3,500 calves, heifers, or other cattle</td>
</tr>
<tr>
<td>Poultry Facility</td>
<td></td>
</tr>
<tr>
<td>Chicken</td>
<td>400,000 head</td>
</tr>
<tr>
<td>Duck</td>
<td>400,000 head</td>
</tr>
<tr>
<td>Turkey</td>
<td>100,000 head</td>
</tr>
<tr>
<td>Swine Facility</td>
<td>3,000 head</td>
</tr>
<tr>
<td>Horses Facility</td>
<td>2,500 head</td>
</tr>
<tr>
<td>Sheep and Goat Facilities</td>
<td>15,000 head of sheep, goats, or any combination of the two</td>
</tr>
<tr>
<td>Any livestock facility not listed above</td>
<td>30,000 head</td>
</tr>
</tbody>
</table>

B.26 LICENSED VETERINARIAN: a veterinarian licensed by the State of California or a veterinarian that is approved by the APCD, ARB, and EPA.

B.27 MATURE COW: a cow that has had at least one calf.

B.28 MEDIUM DAIRY CAF: a dairy CAF that maintains, on any one day, at least 500 milking cows, but is not a large dairy CAF.

B.29 MILKING COW: a cow that is currently producing milk (lactating).

B.30 MITIGATION MEASURE: an activity, practice, or technology that reduces VOC air pollutants emitted by or associated with a CAF.

B.31 MAXIMUM ONE-TIME CAPACITY: the maximum number of animals at the facility in each production stage (facility capacity).

B.32 MOLT: the periodic replacement of feathers by shedding old feathers while producing new ones.

B.33 NRC: the National Research Council of the United States of America.

B.34 NRCS: the Natural Resource Conservation Service operated under the United States Department of Agriculture.
B.35 PHOTOTROPIC LAGOON: a lagoon where at least 10% of the bacteria in the lagoon are photosynthetic bacterium; the bacteriochlorophyll a concentration is above 1081 g/L; or that is designed, constructed, maintained, and operated according to other standards approved by the APCD, ARB, and EPA.

B.36 POULTRY: any domesticated birds kept or raised for eggs or meat.

B.37 POULTRY LITTER: poultry excretions and bedding, including, but not limited to, dried solids, manure, urine and bedding from chickens, turkeys, geese, or ducks.

B.38 OVERALL VOC CAPTURE AND CONTROL

B.39 OXYGEN BARRIER FILM: a plastic film with an oxygen transfer rate not exceeding 200 cm$^3$/(m$^2$-24 hrs) – as measured by ASTM D3985 or a plastic film with an equivalent oxygen transfer rate as determined by methods approved by the APCO and EPA.

B.40 PHASE FEEDING: the feeding of multiple diets during the nursery stage and during the grower/finisher phase.

B.41 PROCESSED CEREAL GRAIN OR PROCESSED CORN: cereal grains or corn that have undergone one or more processes to changes the underlying chemical structure compared to the cereal grain or corn as harvested.

B.42 RAIN EVENT: precipitation greater than 0.1 inch in 24 hours at the facility.

B.43 SEPARATED SOLIDS: solids removed from manure by a solid separator system, not including any materials used for onsite composting operations.

B.44 SHADE STRUCTURE: a structure designed, constructed, installed, maintained, and operated to provide shade for livestock.

B.45 SOLID SEPARATOR SYSTEM: a system for separating solid manure from the liquid manure stream that is designed, installed, constructed, operated, and maintained in accordance with the applicable standards in California NRCS Field Office Technical Guide Conservation Practice Standard Code 632 or other applicable standards approved by the APCD, ARB, and EPA. Solid separator systems may include, but are not limited to, flat belt separators, roller press separators, vibrating screen separators, stationary inclined screen separators, weeping walls, and settling basins.
B.46 SPLIT-SEX FEEDING PROGRAM: a feeding program that separates make and female swine after they are moved from the nursery and feed different diets to more closely match the nutrient requirements of the different sexes.

B.47 STEAM-FLAKED CEREAL GRAINS: cereal grain that is processed by cooking the grain with steam under pressure and then flaking the resulting material through heated rollers.

B.48 STEAM-FLAKED CORN: corn that is processed by cooking the corn with steam under pressure and then flaking the resulting material through heated rollers.

B.49 STORAGE POND: a basin constructed, maintained, and operated, to store manure, after it has been treated or processed in a lagoon.

B.50 SWINE: for the purposes of this rule, and determination of the threshold in Table 2, any weaned pig of at least forty-five (45) pounds in weight, such as finishing pigs and breeding stock.

B.51 VOC CONTROL DEVICE: a device, into which captured air is vented, that reduces the VOC content in the air prior to the air being released into the atmosphere.

B.52 WEATHERPROOF COVERING/STORAGE STRUCTURE: A covering, such as a building or tarp, constructed, installed, maintained, and operated such that the material inside or underneath the covering is not moved or moistened by weather conditions outside of the covering including, but not limited, to wind and rain. The covering shall be maintained according to manufacturer recommendations and adhere to the applicable standards in NRCS California Field Office Technical Guide (FOTG) Conservation Practice Standard Code 313 or other applicable standards approved by the APCD, ARB, and EPA.

B.53 YEAR: any consecutive 365-day period.

C. Requirements

C.1 On or before January 1, 2007, an owner/operator shall obtain an Authority to Construct (ATC) or Permit to Operate (PTO) for the facility. Upon adoption of this rule, an owner or operator of a new or modified LCAF shall submit, for approval by the Air Pollution Control Officer District (APCDO), an Authority to Construct (ATC)/Permit to Operate (PTO) application for each LCAF. Additionally, each application shall include:
C.1.a The information that the APCOD, or his designee, determines is necessary to prepare an emissions inventory of all regulated air pollutants emitted from the operation, including, but not limited to, the provisions listed in C.1.b through C.1.e.

C.1.b List of all stationary combustion equipment. The applicant must provide the APCD with the frequency of the equipment usage of the equipment, including year and model of the equipment, capacity (Btu/hr, horsepower, etc.), hours of usage each year, and/or gallon of fuel consumption burned to determine the baseline emission factors.

C.1.c List of all other significant sources of air pollution, including but not limited to, stationary irrigation pumps, gasoline storage tanks, etc.

C.1.d The maximum one-time capacity of the facility regardless if the facility is operating at full production at the time the application is submitted. Total capacity of the facility in terms of commercial production animal and bird population.

C.1.e An Emissions Mitigation Plan that demonstrates that the facility will use RACT to reduce emissions of VOCs and Ammonia, according to the requirements of Section C.5. In addition, owner/operator of any LCAF shall implement all emission mitigation measures as contained in the permit application on the day operations of a LCAF commence. Pollutants that contribute to the non-attainment of any ambient air quality standard, and that are within the Air District’s regulatory authority.

C.1.f In addition, the dust control plan for beef feedlots shall adhere to the requirements within Rule 420.

C.1.g The owner/operator of LCAFs that are not a dairy, beef feedlot, swine, or poultry operations shall submit an Emissions Mitigation Plan demonstrating facility-wide reductions of at least 30% or submit an Emissions Mitigation Plan that adheres to all the applicable requirements of sections C.5.

C.2 The APCOD shall determine completeness for each ATC/PTO A application according to the requirements contained within Rule 206, Section A.2. The APCOD shall act upon an application pursuant to this rule within six months of receipt of a complete application. In the interim, current Livestock Feed Yard certificates and conditions shall be honored.

C.3 Operators of LCAFs shall implement the control measures identified in
their emissions mitigation plan which may be selected from the Air District's Policy Number 38, Recommended Mitigation Measures for Large Confined Animal Facilities.

C.3 Temporary Suspension of Mitigation Measures

An owner/operator may temporarily suspend utilization of a mitigation measure provided all of the following requirements are met:

C.3.a It is determined by a licensed veterinarian or certified nutritionist that the mitigation measure is detrimental to animal health or that suspension of the mitigation measure is necessary for the animal to molt, and

C.3.b The owner/operator notifies the APCD, within forty-eight (48) hours of the veterinarian’s or nutritionist’s determination that a measure is being temporarily suspended, and

C.3.c If such a situation exist, or is expected to exist for longer than thirty (30) days, the owner/operator shall, within that thirty (30) day period, submit another mitigation measure from the same section of the appropriate table to be implemented in lieu of the mitigation measure that suspended. Substituted measures shall be requested by submitting was an application to modify the mitigation plan.

C.3.d The APCD, 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.

C.4 The owner or operator of an LCAF shall adhere and apply to the selected control measures outlined in their mitigation plan pursuant to a six month schedule approved by the APCO.

C.45 On or before January 1, 2008, For each existing LCAF, three months after adoption of this rule and each year thereafter, the owner or operator of a LCAF shall submit an annual compliance Emissions Mitigation Plan that updates the information submitted pursuant to section C.1 and C.6. In addition, an owner/operator of an existing LCAF shall implement all emission mitigation measures as contained in the updated Emissions Mitigation Plan within 180 days of approval of this Rule. All modifications to LCAF’s shall follow Rule 207 procedures.

C.5 Facility Emission Mitigation Plan
The owner/operator shall submit a facility emission mitigation plan as part of the Permit to Operate application or Authority to Construct application.
The mitigation plan shall contain the following:

C.5.a The name, business address, and phone number of the owner/operator responsible for the preparation and the implementation of the mitigation measure listed in the mitigation plan.

C.5.b The signature of the owner/operator attesting to the accuracy of the information provided and adherence to implementing the activities specified in the mitigation plan at all times and the date that the application was signed.

C.5.c A list of all the mitigation measures from Section C.6 that the owner/operator will use to comply with Rule 217 requirements; including the number of animals and acreage subject to each control, as applicable.

C.6 Owners/operators of LCAFs shall implement control measures identified in their Emissions Mitigation Plan which shall include those applicable mitigation measures from the appropriate tables as follows:

C.5.a An owner/operator of a LCAF that is a Beef Feedlot shall comply with the following applicable requirements:

C.6.a Beef Feedlots: Owners/operators of a beef feedlot CAF shall comply with the mitigation measures in Table 2.1

Table 2.1 Beef Feedlot Mitigation Measures Requirements

<table>
<thead>
<tr>
<th>A. Feed:</th>
<th>An owner/operator of a beef feedlot CAF shall implement at least two (2) of the following feed mitigation measures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Feed according to National Research Council (NRC) guidelines.</td>
</tr>
<tr>
<td>2.</td>
<td>Feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains.</td>
</tr>
<tr>
<td>3.</td>
<td>Remove uneaten wet feed from feed bunks within twenty-four (24) hours after the end of a rain event.</td>
</tr>
<tr>
<td>4.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Silage:</th>
<th>An owner/operator of a beef feedlot CAF that feeds silage shall implement at least one (1) of the following silage mitigation measures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Operators selecting this option must choose mitigation measure 1a plus one (1) from mitigation measures 1b, 1c, 1d plus two (2) from mitigation measures 1e, 1f, 1g:</td>
</tr>
</tbody>
</table>
a. 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 five (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 seventy-two (72) hours of last delivery of material to the pile.

Choose one of the following:

b. 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 G; or
c. 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; or
d. Incorporate all of the following practices when creating silage piles:

   i. Harvest silage crop at ≥65% moisture for corn; and ≥60% moisture for alfalfa/ grass and other silage crops; and
   ii. Incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable, for the crop being harvested.

<table>
<thead>
<tr>
<th>Crop Harvested</th>
<th>TLC</th>
<th>Roller Opening (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn with no Processing</td>
<td>≤ ½ in</td>
<td>N/A</td>
</tr>
<tr>
<td>Processed Corn &lt;35% dry matter</td>
<td>≤ ¾ in</td>
<td>1-4 mm</td>
</tr>
<tr>
<td>Alfalfa/Grass</td>
<td>≤ 1.0 in</td>
<td>N/A</td>
</tr>
<tr>
<td>Wheat/Cereal/Other</td>
<td>≤ ½ in</td>
<td>N/A</td>
</tr>
</tbody>
</table>

iii. Manage silage material delivery such that no more than six (6) inches of material are un-compacted on top of the pile.

Choose two of the following:

e. Manage exposed silage (select 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; or
   ii. Manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet.

f. Maintain silage working face (select one of the following):
   i. Use a shaver/facer to remove silage from the silage pile; or
   ii. Maintain a smooth vertical surface on the working face of the silage
### Imperial County Air Pollution Control District Rule 217

**Final Draft February 9, 2016**

<table>
<thead>
<tr>
<th>217-11 Draft</th>
</tr>
</thead>
<tbody>
<tr>
<td>pile.</td>
</tr>
<tr>
<td>g. Silage Additives (select one of the following):</td>
</tr>
<tr>
<td>i. 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; or</td>
</tr>
<tr>
<td>ii. 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; or</td>
</tr>
<tr>
<td>iii. 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.</td>
</tr>
<tr>
<td>2. Utilize a sealed feed storage system (e.g., Ag-Bag) for silage.</td>
</tr>
<tr>
<td>3. Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

### C. Housing:

An owner/operator of a beef feedlot CAF shall implement mitigation measures 1, 2, 3, and 4 and at least one (1) additional mitigation measure in each of the animal housing structures (e.g. each corral, etc.):

| 1. | Scrape corrals twice a year with at least ninety (90) days between cleanings, excluding the removal of in-corral mounds; or |
| a. | Clean and remove manure from corrals every eighteen (18) months, including the removal on in-corral mounds. |
| 2. | Inspect water pipes and troughs and repair leaks at least once every seven (7) days. |
| 3. | Choose one of the following: |
| a. | Maintain corrals to ensure proper drainage preventing water from standing more than forty-eight (48) hours; unless standing water is the result of a rain event; or |
| b. | Harrow, rake, or scrape corrals sufficiently to maintain a dry surface, unless the corrals have not held animals in the last thirty (30) days; except moisture may be permitted in areas underneath shade structures or where animals commonly congregate in large groups. |
| 4. | If the CAF has shade structures, they must choose with one of the following: |
| a. | Install shade structures such that they are constructed with a light permeable roofing material; or |
| b. | Install all shade structures uphill of any slope in the corral; or |
| c. | Install shade structure so that the structure has a North/South orientation. |
| 5. | Manage corrals and concrete lanes such that the dry manure depth in the pen... |

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*Draft*

does not exceed twelve (12) inches at any time or point, except for in-corral mounds. Manure depth may exceed twelve (12) inches when corrals become inaccessible due to rain events. The facility must resume management of the manure depth of twelve (12) inches or lower immediately upon the corral becoming accessible.

6. 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 twelve (12) inches when corrals become inaccessible due to rain events. The facility must resume management of the manure depth of twelve (12) inches or lower immediately upon the corral becoming accessible.

7. Implement an alternative mitigation measure(s), not listed above.

D. Solid Manure/Separated Solids:
An owner/operator of a beef feedlot CAF that handles or stores solid manure or separated solids outside the animal housing shall implement at least one (1) of the following mitigation measures:

1. Choose one of the following:
   a. Within 72 hours of removal from animal housing, either remove dry manure from the facility or, during those months where rain occurs, 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.; or
   b. Manage moisture content of manure to less than 50%; or
   c. For solid manure stored on the facility and outside animal housing, utilize a third-party composting company that is equally covered under appropriate permits.

2. Implement an alternative mitigation measure(s), not listed above.

E. Liquid Manure:
An owner/operator of a beef feedlot CAF that handles manure in a liquid form shall implement at least one (1) of the following mitigation measures:

1. Use a phototropic lagoon.

2. Use an anaerobic treatment lagoon designed in accordance with NRCS Guideline No. 359.

3. Remove solids from the waste system with a solid separator system, prior to the waste entering the lagoon.

4. Maintain lagoon pH between 6.5 and 7.5.

5. Implement an alternative mitigation measure(s), not listed above.

F. Land Application:
An owner/operator of a beef feedlot CAF who land applies manure to crop land on the
C.6.b Dairy CAF: An owner/operator of a medium or large Dairy CAF shall comply with the mitigation measures in Table 2.2.

**Table 2.2 Dairy CAF Mitigation Measure Requirements**

**A. Feed:**
An owner/operator of a dairy CAF shall implement mitigation measures 1, 2, 3, and 4 and at least one (1) additional mitigation measure:

1. **Feed according to National Research Council (NRC) guidelines.**

2. **Push feed so that it is within three (3) feet of feedapron 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 cows.**

3. **Begin feeding total mixed rations within two (2) hours of grinding and mixing rations.**

4. **Store grain in a weatherproof storage structure or under a weatherproof covering from October through May.**

5. **Feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains.**

6. **Remove uneaten wet feed from feed bunks within twenty-four (24) hours after the end of a rain event.**

7. **For total mixed rations that contain at least 30% by weight of silage, feed animals total mixed rations that contain at least 45% moisture.**

8. **Implement an alternative mitigation measure(s), not listed above.**

**B. Silage:**
An owner/operator of a dairy CAF that feeds silage shall implement at least one (1) of the following silage mitigation measures:
Operators selecting this option must choose mitigation measure 1a plus one (1) from mitigation measures 1b, 1c, 1d plus two (2) from mitigation measures 1e, 1f, 1g:

a. 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 five (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 seventy-two (72) hours of last delivery of material to the pile.

Choose one of the following:
b. 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 G; or
c. 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; or
d. Incorporate all of the following practices when creating silage piles:
   i. Harvest silage crop at ≥65% moisture for corn; and ≥60% moisture for alfalfa/ grass and other silage crops; and
   ii. Incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable, for the crop being harvested.

<table>
<thead>
<tr>
<th>Crop Harvested</th>
<th>TLC</th>
<th>Roller Opening (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn with no Processing</td>
<td>≤ ½ in</td>
<td>N/A</td>
</tr>
<tr>
<td>Processed Corn &lt;35% dry matter</td>
<td>≤ ¾ in</td>
<td>1-4 mm</td>
</tr>
<tr>
<td>Alfalfa/Grass</td>
<td>≤ 1.0 in</td>
<td>N/A</td>
</tr>
<tr>
<td>Wheat/Cereal/Other</td>
<td>≤ ½ in</td>
<td>N/A</td>
</tr>
</tbody>
</table>

   iii. Manage silage material delivery such that no more than six (6) inches of material are un-compacted on top of the pile.

Choose two of the following:
e. Manage exposed silage (select 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; or
   ii. Manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet.
f. Maintain silage working face (select one of the following):
   i. Use a shaver/facer to remove silage from the silage pile; or
ii. Maintain a smooth vertical surface on the working face of the silage pile.

g. Silage Additives (select one of the following):
   i. 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; or
   ii. 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; or
   iii. 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.

2. Utilize a sealed feed storage system (e.g., Ag-Bag) for silage.

3. Implement an alternative mitigation measure(s), not listed above.

C. Milking Parlor:
An owner/operator of a dairy CAF shall implement at least one (1) of the following mitigation measures in each milking parlor:

1. Flush or hose milking parlor immediately prior to, immediately after, or during each milking.

2. Implement an alternative mitigation measure(s), not listed above.

D. Freestall Barn:
An owner/operator of a dairy CAF that houses animals in freestalls shall implement mitigation measures 1 and 2 and at least one (1) additional mitigation measure in each freestall barn:

1. Pave feedaprons, where present, for a width of at least eight (8) feet along the corral side of the feedapron fence for milk and dry cows and at least six (6) feet along the corral side of the feedapron for heifers.

2. Choose one of the following:
   a. Flush, scrape, or vacuum freestall flush lanes immediately prior to, immediately after, or during each milking; or
   b. Flush or scrape freestall flush lanes at least three (3) times per day.

3. Use non-manure-based bedding and non-separated solids based bedding for at least 90% of the bedding material, by weight, for freestalls (e.g. rubber mats, almond shells, sand, or waterbeds).

4. For a large dairy CAF, 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.

4. For a medium dairy CAF, remove manure that is not dry from individual cow freestall beds or rake, harrow, scrape, or grade freestall bedding at least once every fourteen (14) days.

5. Have no animals in exercise pens or corrals at any time.
6. Implement an alternative mitigation measure(s), not listed above.

### E. Corrals:
An owner/operator of a dairy CAF that houses animals in corrals shall implement mitigation measures 1, 2, 3, 4, 5, and 6 and at least one (1) additional mitigation measure in each corral where animals have been housed in the last thirty (30) days:

<table>
<thead>
<tr>
<th>1.</th>
<th>Pave feedaprons, where present, for a width of at least 8 feet along the corral side of the feedapron fence for milk and dry cows and at least 6 feet along the corral side of the feedapron for heifers.</th>
</tr>
</thead>
</table>
| 2. | Choose one of the following:  
   a. Clean manure from corrals at least four (4) times per year with at least sixty (60) days between cleaning; or  
   b. Clean corrals at least once between April and July and at least once between September and December. |
| 3. | Choose one of the following:  
   a. Scrape, vacuum, or flush concrete lanes in corrals at least once every day for mature cows and every seven (7) days for support stock; or  
   b. Clean concrete lanes such that the depth of manure does not exceed twelve (12) inches at any point or time. |
| 4. | Inspect water pipes and troughs and repair leaks at least once every seven (7) days. |
| 5. | Choose one of the following:  
   a. 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; or  
   b. Maintain corrals to ensure proper drainage preventing water from standing more than forty-eight (48) hours; or  
   c. Harrow, rake, or scrape corrals sufficiently to maintain a dry surface. |
| 6. | If the CAF has shade structures, they must choose one of the following:  
   a. Install shade structures such that they are constructed with a light permeable roofing material; or  
   b. Install all shade structures uphill of any slope in the corral; or  
   c. Clean manure from under corral shades at least once every fourteen (14) days, when weather permits access into the corral; or  
   d. Install shade structure so that the structure has a North/South orientation. |
<p>| 7. | 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. The facility must resume management of the manure depth of 12 inches or lower immediately upon the corral becoming accessible. |
| 8. | 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 |</p>
<table>
<thead>
<tr>
<th>9.</th>
<th>Choose one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Use lime or a similar absorbent material in the corrals according to the manufacturer’s recommendation; or</td>
</tr>
<tr>
<td>b.</td>
<td>Apply thymol to the feedlot soil in accordance with the manufacturer’s recommendation.</td>
</tr>
<tr>
<td>10.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>F. Solid Manure/Separated Solids:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners/operators of a large dairy CAF that handle or store solid manure or separated solids outside the animal housing shall implement at least one (1) of the following mitigation measures:</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>a.</td>
</tr>
<tr>
<td>b.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>a.</td>
</tr>
<tr>
<td>b.</td>
</tr>
<tr>
<td>3.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>G. Liquid Manure:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>An owner/operator of a dairy CAF that handles manure in a liquid form shall implement at least one (1) of the following mitigation measures:</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>H. Land Application:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>An owner/operator of a dairy CAF who land applies manure to crop land on the facility shall implement the following applicable mitigation measures:</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>a.</td>
</tr>
<tr>
<td>b.</td>
</tr>
<tr>
<td>c.</td>
</tr>
</tbody>
</table>
2. If the CAF applies liquid manure, choose one of the following:
   a. Only apply liquid manure that has been treated with an anaerobic treatment lagoon, aerobic lagoon, or digester system; or
   b. Allow liquid manure to stand in the fields for no more than twenty-four (24) hours after irrigation; or
   c. Apply liquid/slurry manure via injection with drag hose or similar apparatus; or
   d. Implement an alternative mitigation measure(s), not listed above.

C.6.c Other Cattle CAF: Owners/Operators of an other cattle CAF shall comply with the mitigation measures in Table 2.3

<table>
<thead>
<tr>
<th>Table 2.3 Other Cattle Mitigation Measure Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Feed:</strong> An owner/operator of an other cattle CAF shall implement at least two (2) of the following feed mitigation measures:</td>
</tr>
<tr>
<td>1. Feed according to National Research Council (NRC) guidelines.</td>
</tr>
<tr>
<td>2. Feed steam-flaked, dry rolled, cracked or ground corn or other steam-flaked, dry rolled, cracked or ground cereal grains.</td>
</tr>
<tr>
<td>3. Remove uneaten wet feed from feed bunks within twenty-four (24) hours after the end of a rain event.</td>
</tr>
<tr>
<td>4. Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
<tr>
<td><strong>B. Silage:</strong> An owner/operator of an other cattle CAF that feeds silage shall implement at least one (1) of the following silage mitigation measures:</td>
</tr>
<tr>
<td>Operators selecting this option must choose mitigation measure 1a plus one (1) from mitigation measures 1b, 1c, 1d plus two (2) from mitigation measures 1e, 1f, 1g:</td>
</tr>
<tr>
<td>1. 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 five (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 seventy-two (72) hours of last delivery of material to the pile.</td>
</tr>
<tr>
<td>Choose one of the following:</td>
</tr>
<tr>
<td>b. 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 G; or</td>
</tr>
<tr>
<td>c. 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; or</td>
</tr>
<tr>
<td>d. Incorporate all of the following practices when creating silage piles:</td>
</tr>
</tbody>
</table>
i. Harvest silage crop at ≥65% moisture for corn; and ≥60% moisture for alfalfa/ grass and other silage crops; and
ii. Incorporate the following parameters for Theoretical Length of Chop (TLC) and roller opening, as applicable, for the crop being harvested.

<table>
<thead>
<tr>
<th>Crop Harvested</th>
<th>TLC</th>
<th>Roller Opening (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn with no Processing</td>
<td>≤ ½ in</td>
<td>N/A</td>
</tr>
<tr>
<td>Processed Corn &lt;35% dry matter</td>
<td>≤ ¾ in</td>
<td>1-4 mm</td>
</tr>
<tr>
<td>Alfalfa/Grass</td>
<td>≤ 1.0 in</td>
<td>N/A</td>
</tr>
<tr>
<td>Wheat/Cereal/Other</td>
<td>≤ ½ in</td>
<td>N/A</td>
</tr>
</tbody>
</table>

iii. Manage silage material delivery such that no more than six (6) inches of material are un-compacted on top of the pile.

Choose one of the following:
e. Manage exposed silage (select 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; or
   ii. Manage multiple uncovered silage piles such that the total exposed surface area of all uncovered silage piles is less than 4,300 square feet.
f. Maintain silage working face (select one of the following):
   i. Use a shaver/facer to remove silage on the working face of the silage pile.
   ii. Maintain a smooth vertical surface on the working face of the silage pile.
g. Silage Additives (select one of the following):
   i. 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; or
   ii. 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; or
   iii. 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.

2. Utilize a sealed feed storage system (e.g., Ag-Bag) for silage.
3. Implement an alternative mitigation measure(s), not listed above.

C. Freestalls:
An owner/operator of an other cattle CAF that houses animals in freestalls shall implement mitigation measures 1 and 2 and at least one (1) additional mitigation.
measure in each freestall barn:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vacuum, scrape, or flush freestalls at least once every seven (7) days.</td>
</tr>
<tr>
<td>2</td>
<td>Pave feedaprons, where present, for a width of at least six (6) feet along the corral side of the feedapron.</td>
</tr>
<tr>
<td>3</td>
<td>Use non-manure-based bedding and non-separated solids based bedding for at least 90% of the bedding material, by weight, for freestalls (e.g. rubber mats, almond shells, sand, or waterbeds).</td>
</tr>
<tr>
<td>4</td>
<td>Remove manure that is not dry from individual cow freestall beds or rake, harrow, scrape, or grade bedding in freestalls at least once every seven (7) days.</td>
</tr>
<tr>
<td>5</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

**D. Corrals:**

An owner/operator of a other cattle CAF that houses animals in corrals shall implement mitigation measures 1, 2, 3, 4, and 5 and at least one (1) additional mitigation measure in each corral where animals have been housed in the last thirty (30) days:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scrape corrals twice a year with at least 90 days between cleanings, excluding in-corral mounds.</td>
</tr>
</tbody>
</table>
| 2 | Choose one of the following:  
   a. Scrape, vacuum, or flush concrete lanes in corrals at least once every seven (7) days; or  
   b. Clean concrete lanes such that the depth of manure does not exceed twelve (12) inches at any point or time. |
| 3 | Inspect water pipes and troughs and repair leaks at least once every seven (7) days. |
| 4 | Choose one of the following:  
   a. 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.  
   b. Maintain corrals to ensure proper drainage preventing water from standing more than forty-eight (48) hours; or  
   c. Harrow, rake, or scrape corrals and corrals sufficiently to maintain a dry surface, unless the corrals have not held animals in the last thirty (30) days. |
| 5 | If the CAF has shade structures, they must choose one of the following:  
   a. Install shade structures such that they are constructed with a light permeable roofing material; or  
   b. Install all shade structures uphill of any slope in the corral; or  
   c. Install shade structure so that the structure has a North/South orientation. |
| 6 | 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 twelve (12) inches when corrals become inaccessible due to rain events. The facility must resume management of the pen. |
7. Manure depth of twelve (12) inches or lower immediately upon the corral becoming accessible.

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 twelve (12) inches when corrals become inaccessible due to rain events. The facility must resume management of the manure depth of twelve (12) inches or lower immediately upon the corral becoming accessible.

8. Choose one of the following:
   a. Use lime or a similar absorbent material in the corrals according to the manufacturer's recommendation; or
   b. Apply thymol to the feedlot soil in accordance with the manufacturer's recommendation.

9. Implement an alternative mitigation measure(s), not listed above.

E. Solid Manure/Separated Solids:
An owner operator of an other cattle CAF that handles or stores solid manure or separated solids outside the animal housing shall implement at least one (1) of the following mitigation measures:

1. Within seventy-two (72) hours of removal from housing, either:
   a. Remove dry manure from the facility; or
   b. Cover dry manure outside the housing with a weatherproof covering from during those months where rain occurs, except for times when wind events remove the covering, not to exceed twenty-four (24) hours per event.

2. Within seventy-two (72) hours of removal from the drying process, either:
   a. Remove separated solids from the facility; or
   b. Cover separated solids 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.

3. Implement an alternative mitigation measure(s), not listed above.

F. Liquid Manure:
An owner/operator of an other cattle CAF that handles manure in a liquid form shall implement at least one (1) of the following mitigation measures:

1. Use a phototropic lagoon.

2. Use an anaerobic treatment lagoon designed in accordance with NRCS Guideline No. 359.

3. Remove solids from the waste system with a solid separator separation system.

4. Maintain lagoon pH between 6.5 and 7.5.

5. Implement an alternative mitigation measure(s), not listed above.

G. Land Application:
An owner/operator of an other cattle CAF who land applies manure to crop land on
the facility shall implement the following applicable mitigation measures:

<table>
<thead>
<tr>
<th></th>
<th>If the CAF applies solid manure, choose one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a. Incorporate all solid manure within seventy-two (72) hours of land application; or</td>
</tr>
<tr>
<td></td>
<td>b. Only apply solid manure that has been treated with an anaerobic treatment lagoon, aerobic lagoon, or digester system; or</td>
</tr>
<tr>
<td></td>
<td>c. Apply no solid manure with a moisture content of more than 50%; or</td>
</tr>
<tr>
<td></td>
<td>d. Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
<tr>
<td></td>
<td>If the CAF applies liquid manure, choose one of the following:</td>
</tr>
<tr>
<td>2.</td>
<td>a. Only apply liquid manure that has been treated with an anaerobic treatment lagoon, aerobic lagoon, or digester system; or</td>
</tr>
<tr>
<td></td>
<td>b. Allow liquid manure to stand in the fields for no more than twenty-four (24) hours after irrigation; or</td>
</tr>
<tr>
<td></td>
<td>c. Apply liquid/slurry manure via injection with drag hose or similar apparatus; or</td>
</tr>
<tr>
<td></td>
<td>d. Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

C.6.d Swine CAF: An owner/operator of a swine CAF shall comply with the mitigation measures in Table 2.4

### Table 2.4 Swine Mitigation Measure Requirements

#### A. Feed:
Owners/operators of a swine CAF shall implement at least two (2) of the following feed mitigation measures:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Use grain with an average particle size diameter between 300-800 microns.</td>
</tr>
<tr>
<td>2.</td>
<td>Utilize phase feeding and split-sex feeding programs to more closely match the nutrient requirements of animals.</td>
</tr>
<tr>
<td>3.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

#### B. Housing:
Owners/operators of a swine CAF shall implement at least three (3) of the following mitigation measures in each animal housing unit:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Use a slatted floor system (slatted floors over deep pits or shallow flush alleys), with daily manure removal for shallow flush alleys and weekly removal from deep pits.</td>
</tr>
<tr>
<td>2.</td>
<td>Manage pens such that the manure depth in the pen does not exceed twelve (12) inches at any time or point.</td>
</tr>
<tr>
<td>3.</td>
<td>Inspect water pipes and troughs and repair leaks at least once every seven (7) days.</td>
</tr>
<tr>
<td>4.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

#### C. Liquid Manure:
Owners/operators of a swine CAF that handle manure in a liquid form shall implement
<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>at least one (1) of the following mitigation measures:</td>
</tr>
<tr>
<td>1.</td>
<td>Use a phototropic lagoon.</td>
</tr>
<tr>
<td>2.</td>
<td>Use an anaerobic treatment lagoon designed in accordance with NRCS Guideline No. 359.</td>
</tr>
<tr>
<td>3.</td>
<td>Maintain lagoon pH between 6.5 and 7.5.</td>
</tr>
<tr>
<td>4.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

**D. Land Application:**
Owners/operators of a swine CAF who land apply liquid manure to crop land on the facility shall implement one (1) of the following mitigation measures:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Allow liquid manure to stand in the fields for no more than twenty-four (24) hours after irrigation.</td>
</tr>
<tr>
<td>2.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

**C.5.e Layer CAF:** An owner/operator of a layer CAF shall comply with the mitigation measures in Table 2.5.

**Table 2.5 Layer Mitigation Measures Requirements**

**A. Feed:**
Owners/operators of a layer CAF shall implement at least one (1) of the following feed mitigation measures:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Choose one of the following:</td>
</tr>
<tr>
<td></td>
<td>a. Feed according to NRC guidelines; or</td>
</tr>
<tr>
<td></td>
<td>b. Feed animals probiotics designed to improve digestion according to manufacturer recommendations; or</td>
</tr>
<tr>
<td></td>
<td>c. Feed animals an amino acid supplemented diet to meet their nutrient requirements; or</td>
</tr>
<tr>
<td></td>
<td>d. Feed animals feed additives such as amylase, xylanase, and protease, designed to maximize digestive efficiency according to manufacturer recommendations.</td>
</tr>
<tr>
<td>2.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

**B. Housing:**
Owners/operators of a layer CAF shall implement at least two (2) of the following housing mitigation measures:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Use drinkers that do not drip continuously.</td>
</tr>
<tr>
<td>2.</td>
<td>Inspect water pipes and drinkers and repair leaks daily.</td>
</tr>
<tr>
<td>3.</td>
<td>Implement an alternative mitigation measure(s), not listed above.</td>
</tr>
</tbody>
</table>

**C. Solid Manure/Separated Solids:**
Owners/operators of a layer CAF that handle or store solid litter/manure or separated solids outside the animal housing shall implement at least one (1) of the following mitigation measures:
1. Within seventy-two (72) hours of removal from housing, either:
   a. Remove all litter/manure from the facility; or
   b. Cover litter/manure outside the housing with a weatherproof covering during those months where rain occurs, except for times when wind events remove the covering, not to exceed twenty-four (24) hours per event.

2. Implement an alternative mitigation measure(s), not listed above.

D. Liquid Manure:
Owners/operators of a layer CAF that handle manure in a liquid form shall implement at least one (1) of the following mitigation measures:

1. Use a phototropic lagoon.
2. Use an anaerobic treatment lagoon designed in accordance with NRCS Guideline No. 359.
3. Maintain lagoon pH between 6.5 and 7.5.
4. Implement an alternative mitigation measure(s), not listed above.

C.6.d Broiler, Duck, or Turkey CAF: An owner/operator of a chicken broiler, duck, or turkey CAF shall comply with the mitigation measures in Table 2.6

Table 2.6 Broiler, Duck or Turkey Mitigation Measure Requirements

A. Feed:
Owners/operators of a broiler, duck, or turkey CAF shall implement at least one (1) of the following feed mitigation measures:

Choose one of the following:

1. a. Feed according to NRC guidelines; orb. Feed animals probiotics designed to improve digestion according to manufacturer recommendations; or
   b. Feed animals probiotics designed to improve digestion according to manufacturer recommendations; or
   c. Feed animals an amino acid supplemented diet to meet their nutrient requirements; or
   d. Feed animals feed additives such as amylase, xylanase, and protease, designed to maximize digestive efficiency according to manufacturer recommendations.

2. Implement an alternative mitigation measure(s), not listed above.

B. Housing:
Owners/operators of a broiler or duck CAF shall implement at least four (4) of the following housing mitigation measures:

Owners/operators of a turkey CAF shall implement at least five (5) of the following housing mitigation measures:
1. Use a dry housing cleaning method at all times, except when a wet cleaning method is required for animal health or biosecurity issues, pursuant to Section C.1.e.

2. Use drinkers that do not drip continuously.

3. Inspect drinkers at least once every seven (7) days and adjust the height, volume, and location of drinkers if necessary.

4. Inspect water pipes and drinkers and repair leaks daily.

5. If the facility houses turkeys in pens, install mounds or berms up gradient to prevent the runoff of storm water into pens.

6. Implement an alternative mitigation measure(s), not listed above.

**C. Solid Manure/Separated Solids:**

Owners/operators of a broiler, duck, or turkey CAF that handles or stores solid litter/manure or separated solids outside the animal housing shall implement at least one (1) of the following mitigation measures:

1. Within seventy-two (72) hours of removal from housing, either:
   a. Remove all litter/manure from the facility; or
   b. Cover litter/manure outside the housing with a weatherproof covering during those months where rain occurs, except for times when wind events remove the covering, not to exceed twenty-four (24) hours per event.

2. Implement an alternative mitigation measure(s), not listed above.

**D. Liquid Manure:**

Owners/operators of a broiler, duck, or turkey CAF that handles manure in a liquid form shall implement at least one (1) of the following mitigation measures:

1. Use a phototropic lagoon.

2. Use an anaerobic treatment lagoon designed in accordance with NRCS Guideline No. 359.

3. Maintain lagoon pH between 6.5 and 7.5.

4. Implement an alternative mitigation measure(s), not listed above.

**D. Exemptions**

Except for the recordkeeping requirements of Section F, the provisions of this rule shall not apply to a CAF, which remains at all times below all of the regulatory thresholds in Table 3:

<table>
<thead>
<tr>
<th>Livestock Category</th>
<th>Large CAF Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef Feedlots</td>
<td>3,500 beef cattle</td>
</tr>
<tr>
<td>Dairy</td>
<td>500 milking cows</td>
</tr>
<tr>
<td>Other Cattle Facility</td>
<td>3,500 calves, heifers, or other cattle</td>
</tr>
<tr>
<td>Poultry Facility</td>
<td></td>
</tr>
</tbody>
</table>
E. Monitoring Requirements

Owners/operators shall comply with the requirements of Section E.1 when implementing all applicable Mitigation Measures in Section C.6.

E.1 Lagoon Monitoring

Owners/operators using a mitigation measure for a lagoon in their approved emissions mitigation plan shall monitor the lagoon for the required parameter(s), as determined by the District and EPA, at least once every calendar quarter, with at least 30 days between monitoring tests.

F. Administrative Requirements

F.1 Records for Exempt CAFs

An owner/operator claiming exemption pursuant to section D shall maintain records on a quarterly basis of the number and type of animals and production group at the facility. Examples of records that may be used to show proof of exemption include, but are not limited to, Dairy Herd Improvement Association records and animal inventories maintained for financial purposes.

F.2 General Records for CAFs Subject to Section C Requirements

F.2.a Permits: Owners/operators shall maintain copies of all facility permits.

F.2.b Number of Animals: Owners/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.

F.2.c Owners/operators shall maintain records sufficient to demonstrate compliance with all applicable mitigation measures.

F.3 Records for Feed and Silage Mitigation Measures
F.3.a Feed Content/Feed Additive: Records of feed content, formulation, and quantity of feed additive utilized, sufficient to verify compliance with approved feed content and feed additive mitigation measures. Records may include laboratory test results and other test results.

F.3.b Feed Processing: Records sufficient to verify that feed was given to animals (for example, put in feed bunks) or disposed of within the time allowed by the approved mitigation measure.

F.3.c Feed Removal: Records demonstrating that feed is removed within the specified time period.

F.3.d Feed Storage: Records demonstrating that feed was kept in weatherproof storage for the required period. Records for feed storage shall be required when implementing the mitigation measures.

F.3.e Feed Moisture Content: Records for annual testing to determine moisture content of mixed ration food that contains at least 30% by weight of silage. Records for feed moisture content shall be required when implementing the mitigation measures.

F.3.f Silage Covers: Records demonstrating that silage was covered, including the thickness of the cover, in compliance with any silage mitigation measures chosen. Examples of records that show compliance include, but are not limited to, invoices demonstrating that silage covers were installed and maintained at the facility, cover thickness, records demonstrating the thickness of the silage cover, and maintenance records for repair or replacement of damaged covers.

F.3.g Silage Pile Bulk Density at Pile Formation: Records of required practices used to ensure adequate bulk density of silage piles and/or measured bulk density of silage piles. Records for silage bulk density shall be required when implementing the mitigation measures.

F.3.h Silage Pile Formation: Records demonstrating that silage piles were formed in compliance with any silage mitigation measures chosen. Examples of records that show compliance include, but are not limited to, moisture content of silage pile material, records of the length of cut for the crop being harvested, records of silage material delivery date, records that there are no more than six inches of material un-compacted on top of the pile of silage piles. Records for
silage pile formation shall be required when implementing the mitigation measures.

F.3.i Silage Leachate: Records demonstrating that the leachate was collected either by an active or passive system and the system was maintained in a manner approved by the APCO and EPA. Examples of records that show compliance include, but are not limited to, design specification for the system and a maintenance checklist for inspections and repairs.

F.3.j Exposed Silage: Records demonstrating that silage piles are managed such that exposed surface area is in compliance with any silage mitigation measures chosen. Records for exposed silage shall be required when implementing the mitigation measures.

F.3.k Silage Inoculation: Records demonstrating silage inoculation with either homolactic lactic acid bacteria, propionic acid, benzoic acid, sorbic acid sodium benzoate, or potassium sorbate. Records shall include rate specified by manufacturer and rate applied by operator/owner, date of inoculation and date of silage pile formation completion. Records for silage inoculation shall be required when implementing the mitigation measures.


F.3.m Weatherproof Coverings: Records verifying that any covers used are installed, used, and maintained in accordance with manufacturer recommendations and any applicable standard approved by the APCO and EPA. For covers removed by wind events, an estimate of when the cover was removed and documentation of when the cover was replaced.

F.3.n Alternative Feed or Silage Mitigation Measures: Records sufficient to verify compliance with each approved alternative mitigation measure to the satisfaction of the APCO and EPA.

F.4 Records for Milking Parlor Mitigation Measures

F.4.a Records verifying that the milking parlor was flushed or hosed immediately prior to, immediately after, or during each milking.

F.5 Records for Freestall/Corral/Animal Housing

F.5.a Bedding Material: Records of the material(s) used for animal
bedding, including the percentage of non-manure. Records for bedding material shall be required when implementing the mitigation measures.

F.5.b Clean/Scrape/Flush/Vacuum: Records sufficient to demonstrate that the removal of manure/bedding was performed as required in the approved mitigation measure. This may be a log when owners/operators initial that they performed all applicable practices.

F.5.c Depth of Manure: Records demonstrating the measurement of the manure depth and measures taken to remove material greater than the amount allowed by the mitigation measure.

F.5.d Foggers: Records, such as design specifications, demonstrating that foggers used to comply with rule requirements meet the required standards.

F.5.e Lime, Thymol, and Eugenol: Records of the quantity of material applied and the area over which it was applied. Owners/operators shall also maintain manufacturer’s product application recommendations to demonstrate compliance with the recommendations.

F.5.f Litter Additives: Records, including a copy of the manufacturer’s recommendations, which demonstrate litter additives used to comply with rule requirements are administered in accordance with manufacturer’s specifications.

F.5.g Roof Structure/Runoff: Records such as design specifications and maintenance logs demonstrating that any roof runoff structures used to comply with rule are in compliance with applicable standards in NRCS Field Office Technical Guide Code 558 or other applicable standards approved by the APCO and EPA.

F.5.h Shade Structures: Records, such as design specifications, demonstrating that any shade structures used to comply with rule requirements meet the required standards.

F.5.i Slope/Drainage: Records sufficient to verify that harrowing and sloping of corrals used to comply with rule requirements are implemented as required in the rule.

F.5.j Vacuum/Land Apply Cattle Waste: Records showing time of vacuuming and time of land application of the vacuumed solids.

F.5.k VOC Emission Control Systems: Source test results.
monitoring/inspection logs and maintenance logs.

F.5.l Water Pipes, Drinkers, and Water Troughs: Records of inspections performed and repairs completed.

F.5.m Wet Feed Removal: Records verifying that animal housing was inspected for wet feed after a rain event/inspection and that the wet feed was removed.

F.5.n Alternative Freestall/Corral/Animal Housing Mitigation Measure: Records that demonstrate compliance with each approved alternative mitigation measure to the satisfaction of the APCO and EPA.

F.6 Records for Solid Manure/Separated Solids Outside of Animal Housing

E.6.a Aerated Static Pile: Records of monitoring/inspection logs and maintenance logs.

F.6.b Removal of Manure/Separated Solids: Records sufficient to verify when the waste was removed from freestall/corral/animal housing and when the waste was either removed from the facility or land incorporated.

F.6.c Storage of Manure/Separated Solids in an Aerobic/Anaerobic Digester.

F.6.c.1 Records, such as design specifications and maintenance logs, demonstrating that any aerobic/anaerobic digesters used to comply with rule requirements meets the standards in NRCS Field Office Technical Guide Code 366 or 365 or other applicable standards approved by the APCO and EPA.

F.6.c.2 Records of the quantity of manure/separated solids, as needed, to comply with the approved mitigation measure.


F.6.e Weatherproof Coverings: Records verifying that any covers used are installed, used, and maintained in accordance with manufacturer recommendations and any applicable standard approved by the APCO and EPA. For covers removed by wind events, an estimate of when the cover was removed and
documentation of when the manure/separated solid piles were recovered.

F.6.f  Alternative Solid Manure/Separated Solids Mitigation Measure: Records that demonstrate compliance with each approved alternative mitigation measure to the satisfaction of the APCO and EPA.

F.7 Records for Liquid Manure

F.7.a Lagoons

F.7.a.1 Test results of the approved monitoring parameter and records of measures taken to bring the parameter within specified limits.

F.7.a.2 Design specifications demonstrating that the lagoon meets the requirements listed in the NRCS Field Office Technical Guide for the lagoon type or other applicable standards approved by the APCO and EPA.

F.7.b Solids Separator System

F.7.b.1 Records, such as design specifications and maintenance logs, demonstrating that the solids separator system meets the approved mitigation measure specifications and is operated and maintained as recommended by the manufacturer.

F.7.b.2 Non-Standard Chemicals: Record the quantity of material used. Owners/operators shall also maintain manufacturer’s product usage recommendations to demonstrate compliance with the manufacturer’s recommendations.

F.7.b.3 Non-Standard Equipment for Solid Separator System: Records, such as design specifications and maintenance logs, demonstrating that the solids separator equipment meets the approved mitigation measure specifications and is operated and maintained as recommended by the manufacturer.

F.7.c  VOC Emission Control Systems, including biofilters and other VOC emission control systems: source test results, monitoring/inspection logs and maintenance logs.
F.7.d Alternative Liquid Manure Mitigation Measures: Records that demonstrate compliance with the approved alternative mitigation measure, to the satisfaction of the APCO and EPA.

F.8 Records for Land Application of Manure

F.8.a Time to Incorporate Manure: Records indicating the time the manure was applied and when the waste was incorporated into the soil.

F.8.b Lagoon-Treated or Digester-Treated Manure: Records that demonstrate that the applied manure came from an aerobic lagoon, an anaerobic treatment lagoon or a digester system.

F.8.c Liquid Waste Standing in Field: Records that demonstrate that liquid manure does not remain in the field for longer than twenty-four (24) hours after application.

F.8.d Moisture Content of Solid Manure: Records of the moisture content of applied solid manure.

F.9 Source Testing Requirements

F.9.a Owners/operators shall conduct an initial source test of all VOC control devices and aerated static piles used to comply with rule requirements not later than six (6) months after the date of installation, and at least once every twelve (12) months thereafter unless the APCO, ARB, and EPA determines more frequent testing is required to demonstrate compliance with rule requirements.

F.9.b Owners/operators using phototropic lagoons as a mitigation measure in their emission mitigation plan shall test lagoons for bacteria concentration, bacteriochlorophyll concentration, or a surrogate parameter determined by the APCO, ARB, and EPA not later than six (6) months after the date of issuance of the permit, and least once every twelve (12) months thereafter unless the APCO, ARB, and EPA determines more frequent testing is required to demonstrate compliance with rule requirements.

F.9.c Owners/operators using aerobic lagoons as a mitigation measure in their emission mitigation plan shall test lagoons for dissolved oxygen content not later than six (6) months after the date of issuance of the permit, and at least once every twelve (12) months thereafter, unless the APCO, ARB, and EPA determines more frequent testing is required to demonstrate compliance with rule requirements.
requirements.

F.9.d Owners/operators using mechanically aerated lagoons as a mitigation measure in their emission mitigation plan shall test lagoons for biological oxygen demand within six (6) months after the date of issuance of the permit, and at least once every twelve (12) months thereafter, unless the APCO, ARB, and EPA determines more frequent testing is required to demonstrate compliance with rule requirements.

F.9.e Owners/operators using lagoon pH as a mitigation measure in their emission mitigation plan shall test lagoons for pH within six (6) months after the date of issuance of the permit, and at least once every twelve (12) months thereafter, unless the APCO, ARB, and EPA determines more frequent testing is required to demonstrate compliance with rule requirements.

F.9.f Owners/operators shall test any other parameters determined necessary by the APCO, ARB, and EPA to demonstrate compliance with rule requirements as frequently as determined necessary by the APCO, ARB, and EPA.

G. Test Methods

Owners/operators shall conduct applicable testing using the following methods or any other alternative test method approved by the APCD and EPA. Test methods referenced shall be the latest approved version.


G.3 Biological Oxygen Demand - EPA Method 405.1 (Biochemical Oxygen Demand (5 days, 20ºC)).

G.4 Bulk Packing Density of Silage Piles - Remove representative samples of known volume using a forage probe or other instrument and weighing the samples. Bulk density is the weight of the sample divided by the volume of material removed from the pile. The bulk
density shall be determined as the average of the least three representatives samples per silage pile.

G.5  Biofilter Control Efficiency - The control efficiency of a biofilter shall be determined using SCAQMD Method 25.3 (Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources). The SCAQMD Method 25.3 apparatus should be connected to sample directly inside the flux chamber or duct as applicable. Compost emissions are considered as water soluble sources where the 50 ppm applicability limit of Method 25.3 does not apply. Samples from more than one location may be combined (composited) per SCAQMD Rule 1133.2 Attachment A Section 8.

G.6  Non-Biofilter Control Efficiency - The control efficiency of a VOC emission control system that is not a biofilter shall be determined using:

G.6.a  EPA Methods 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type s Pitot Tube)), 2A (Volume Meters, or 2D (Rate Meters) for measuring flow rates.

G.6.b  EPA Methods 25, 25A, or 25B for measuring total gaseous organic concentrations at the inlet and outlet of the control device.

G.6.c  EPA Method 18 or ARB Method 422 shall be used to determine the emissions of exempt compounds.

G.7  Dissolved Oxygen - EPA Method 360.1 (Oxygen, Dissolved (Membrane Electrode)) or 360.2 (Oxygen, Dissolved (Modified Winker, Full-Bottle Technique)).

G.8  Moisture Content for Biofilters - Test Methods for the Examination of Compost and Composting (TMECC) Method 3.09 (Total Solids and Moisture at 70±5 degrees Centigrade).

G.10 Organic Loading - Standard Methods of the Examination of Water and Wastewater Method 2540G - Solids.

G.11 pH - EPA Method 150.2 (pH, Electrometric) or TMECC Method 04.11-A (1:5 Slurry pH)

G.12 Temperatures - EPA Method 170.1 (Temperature - Thermometric)

G.13 Alternatives Test Methods - An operator may use an alternative test method to those listed in Sections G through G.12 for which written approval of the APCD and EPA has been obtained.

H. Compliance Determination

H.1 Any violation of this underlying LCAF permit constitutes a violation of Rule 217.

H.2 Pursuant to District Rule 212, the APCD may update LCAF permits upon annual renewal, or as necessary, to include conditions necessary for compliance.

I. Annual Renewal Permits

Annual Renewal Permits to Operate for LCAF shall be renewed according to the conditions set forth within Rule 206 and Rule 301.

J. Recordkeeping

All owners of confined animal facilities, regardless of size, shall keep records that specify the daily number and type of animals maintained at the facility, in each production stage, the current ATC or PTO permit, the current Facility Mitigation Plan and other records necessary to demonstrate compliance. Current records shall be maintained and kept on-site for two years, except for major sources where records shall be maintained and kept on-site for 5 years, after the date of each entry and shall be presented to the APCD, or his designee, within 72 hours of notice to the owner or operator.

K. Public Review

Noticing prior to issuing any permit for LCAF, the draft permit shall be available for public review and inspection for a period of no less than 30 calendar days. To identify the location, the public notice shall include only the property address, city and state of the LCAF, as well as any other relevant permit information.

L. Non-duplication
Information required to be submitted pursuant to other Air District Rules and Regulations that are applicable to a LCAF, may be excluded from the mitigation measures specified in section C.1.e of this rule, as determined by the APCD.

M. Other Provisions

Any permit issued to a LCAF is subject to all applicable provisions of the California Health & Safety Code and the Air District Rules and Regulations.
RULE 101 DEFINITIONS
(Adopted 7/28/81; Revised 9/14/99; 1/16/2001; 12/11/2001; 08/13/02;
01/11/2005; 10/10/2006; 02/23/2010; 10/22/2013;__/____/___)

Except where the context otherwise indicates, the following definitions shall govern the
implementation of these Rules and Regulations. Also, pursuant to Rule 115, definitions
contained in applicable sections of the California Health and Safety Code and Title 17 of
the California Code of Regulations, as well as the Federal Clean Air Act and
implementing regulations, may be used even when not set forth herein.

ACCELERATED VEHICLE RETIREMENT PROGRAM: a program creating Actual
Emission Reductions by the accelerated retirement of on-road motor vehicles for
purposes of establishing Mobile Source Emission Reduction Credits (MSERC) pursuant
to Rule 214.1.

ACTUAL EMISSIONS: measured or calculated emissions which most accurately
represent the emissions from an Emissions Unit. Determination of Actual Emissions
must be based on average actual production rates, fuel consumption and/or throughput
rates from the last consecutive 24 months. Emission factors shall be established by
Source testing or obtained from AP-42 or other approved sources.

ACTUAL EMISSIONS REDUCTIONS (AER): reductions of Actual Emissions from an
Emissions Unit, calculated pursuant to Section E.2 of Rule 207, which are Real,
Quantifiable, Surplus, Permanent and Enforceable.

ACTUAL INTERRUPTIONS OF POWER: the interruption of electrical service by an
unforeseeable event.

ADDITIVE: any substance added in small quantities to another substance or mixture in
order to increase volume and/or change the physical properties of the mixture.

ADHESION PROMOTER: a Coating, which is labeled and formulated to be applied to
uncoated plastic surfaces to facilitate bonding of subsequent Coatings, and on which, a
subsequent Coating is applied.

ADHESIVE: any chemical substance that is applied for the purpose of bonding two
surfaces together other than by mechanical means.

ADHESIVE BONDING PRIMER: a Coating applied in a very thin film to aerospace
adhesive bond detail components for corrosion inhibition and adhesion of the
subsequently applied adhesive.

ADHESIVE BONDING PRIMER, STRUCTURAL: an adhesive bonding primer used in
conjunction with structural adhesives to form load carrying aircraft components.
ADHESIVE BONDING PRIMER FOR ELASTOMERS AND ELASTOMERIC ADHERENTS: an adhesive bonding primer applied to elastomers or nonmetallic substrates for adhesion of the subsequently applied adhesive.

ADMINISTRATOR: the Administrator of the United States Environmental Protection Agency (US EPA).

AEROSPACE COMPONENT: any fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle.

AEROSOL COATING PRODUCT: a pressurized Coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand held application, or for use in specialized Equipment for ground traffic/marking applications.

AFFECTED POLLUTANTS: pollutants for which an Ambient Air Quality Standard (AAQS) have been established by the United States Environmental Protection Agency (US EPA) or the California Air Resources Board (CARB) and the Precursors to such pollutants, and those pollutants regulated by the US EPA under the Clean Air Act (CAA) or by the CARB under the Health and Safety Code (H&SC), except for greenhouse gases and hazardous air pollutants, including but not limited to Volatile Organic Compounds (VOC), nitrogen oxides (NOx), sulfur oxides (SOx), Particulate Matter with an aerodynamic diameter equal to or less than 10 micrometers (PM\textsubscript{10}), Particulate Matter with an aerodynamic diameter equal to or less than 2.5 micrometers (PM\textsubscript{2.5}), carbon monoxide (CO), lead, fluorides, sulfuric acid mist, hydrogen sulfide, and total reduced sulfur compounds. The term Affected Pollutant shall not include any or all hazardous air pollutants either listed in Section 112 of the CAA or added to the list pursuant to Section 112(b)(2) of the CAA, and which have not been delisted pursuant to Section 112(b)(3) of the CAA, unless the listed hazardous air pollutant is also regulated as a constituent or Precursor of a general pollutant listed under Section 108 of the CAA.

AGRICULTURAL BURNING: open outdoor fires used in agricultural operations in the growing of crops or raising of fowls or animals, or open outdoor fires used in forest management, range improvement, or the improvement of land for wildlife and game habitat, or disease or pest prevention.

AGRICULTURAL BURNING: also means open outdoor fires used in the operation or maintenance of a system for the delivery of water for the purposes specified above.

AGRICULTURAL BURNING: also means open outdoor fires used in wild land vegetation management burning. Wild land vegetation management burning is the use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass, or standing brush. Prescribed burning is the planned application of fire to vegetation to achieve any specific objective on lands selected in advance of that application. The planned application of fire may also include natural or
accidental ignition.

AGRICULTURAL SOURCE: means a Source of air pollution or a group of Sources used in the production of crops, or the raising of fowl or animals located on Contiguous Property under common ownership or control that meets any of the following criteria;

1. is a Confined Animal Facility, including, but not limited to, any structure, building, installation, barn, corral, coop, feed storage area, milking parlor, or system for the collection, storage, treatment, and distribution of liquid and solid manure, if domesticated animals, including, but not limited to, cattle, calves, horses, sheep, goats, swine, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

2. is an Internal Combustion Engine used in the production of crops or the raising of fowl or animals, including, but not limited to, an engine subject to Article 1.5 (commencing with Section 41750) of Chapter 3 of Part 4 of Division 26 of the Health & Safety Code except an engine that is used to propel implements of husbandry.

3. is a Title V Source, or is a Source that is otherwise subject to regulation by the District or the Clean Air Act.

AIR CONTAMINANT: any discharge, release, or other propagation into the Atmosphere and includes, but is not limited to, smoke, charred paper, Dust, soot, grime, carbon, fumes, gases, odors, Particulate Matter, acids, or any other combination thereof. For the purposes of Rule 403, the definition applies only to materials which are solid or liquid at Standard Conditions (60 degrees Fahrenheit, 760 mm Hg).

AIR POLLUTION CONTROL OFFICER (APCO): the person appointed by the Air Pollution Control Board and assigned to manage and direct the business and operations of the District, or their designee.

ALTERNATIVE FUEL: any fuel used for certifying a low emission vehicle, other than gasoline or diesel fuel.

ALUMINUM ROOF COATING: a Coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per liter of Coating (at least 0.7 pounds per gallon). Pigment content shall be determined in accordance with South Coast Air Quality Management District (SCAQMD) Method 318-95, incorporated by reference in Rule 424, subsection G.5.d.

AMBIENT AIR QUALITY STANDARDS: for the purposes of these regulations an Ambient Air Quality Standard (AAQS) shall be interpreted to include State and National AAQS. For the purposes of submittal of this Rule to the US EPA for inclusion in the California State Implementation Plan (SIP) all references in this Rule to AAQS shall be
interpreted as National AAQS.

ANNUAL CAPACITY FACTOR (ACF): means the ratio of the amount of fuel burned by a unit in a calendar year to the amount of fuel it could have burned if it had operated at the heat input rating for 8,760 hours during the calendar year.

ANTENNA COATING: a Coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

ANTIFOULING COATING: a Coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling Coating, the Coating must be registered with both the US EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code. Subsection 135, et seq.) and with the California Department of Pesticide Regulation. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

ANTI-GLARE/SAFETY COATING: a Coating which does not reflect light.

APPLICATION EQUIPMENT: for the purposes of Rule 425, means Equipment used for applying Coating to a substrate. Application Equipment includes Coating distribution lines, Coating hoses, equipment used in hand application methods, and equipment used in mechanically operated application methods, including but not limited to spray guns, spinning disks, and pressure pots.

APPROVED IGNITION DEVICES: includes those instruments or materials that will ignite agricultural waste without the production of black smoke by the ignition device. This would include such items as liquid petroleum gas, butane, propane, and flares, but does not include the use of tires, tar paper, oil, and other similar materials.

APPURTENANCES: any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

ARCHITECTURAL COATINGS: a Coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are
not considered Architectural Coatings for the purposes of this Rule.

ASPHALT: the dark-brown to black cementitious material (solid, semi-solid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

ASSEMBLY LINE: an arrangement of industrial equipment and workers in which the product passes from one specialized operation to another until complete, by either automatic or manual means.

ASSOCIATED PARTS AND COMPONENTS: structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of motor vehicles or mobile equipment that are designed to be a part of motor vehicles or mobile equipment but which are not attached to motor vehicles or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. “Associated Parts and Components” does not include circuit boards.

ATMOSPHERE: the air that envelopes or surrounds the earth. When air pollutants are emitted into or within a building, such emission into or within the building shall be considered an emission into the Atmosphere unless the building is designed specifically as a piece of air pollution control equipment.

AUTHORITY TO CONSTRUCT: a written permit issued by the District for the Construction, installation, assembly, Modification, or replacement of any facility, article, machine, Equipment, or other contrivance.

AUTOMOTIVE COATING: any Coating or Coating component used or recommended for use in Motor Vehicle or Mobile Equipment Refinishing, service, maintenance, repair, restoration, or Modification, except metal plating activities. Any reference to automotive Refinishing or Automotive Coating made by a Person on the container or in product literature constitutes a recommendation for use in Motor Vehicle or Mobile Equipment Refinishing.

AUTOMOTIVE COATING COMPONENT: any portion of a Coating, including, but not limited to, a Reducer or thinner, toner, hardener, and Additive, which is recommended by any Person to distributors or end-users for use in an Automotive Coating, or which is supplied for or used in an Automotive Coating. The raw materials used to produce the components are not considered Automotive Coating Components.

AUTOMOTIVE REFINISHING FACILITY: any shop, business, location, or parcel of land where Motor Vehicles or Mobile Equipment or their associated parts and components are coated including auto body collision repair shops. “Automotive Refinishing Facility” does not include the original Equipment manufacturing plant where the Motor Vehicle or Mobile Equipment is completely assembled.
BANKING: the District's system of quantifying, certifying, recording, and storing Emission Reduction Credits for future use or Transfer. This system shall be called Emission Reduction Credit Banking or Mobile Source Emission Reduction Credit.

BANKING REGISTER: the document that records all Emission Reduction Credits deposits, withdrawals, Transfers, and transactions.

BASEMENT SPECIALTY COATING: a clear or opaque Coating that is labeled and formulated for application to concrete and masonry surfaces to provide a hydrostatic seal for basements and other below-grade surfaces. Basement Specialty Coatings must meet the following criteria:

1. Coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with ASTM D7088-04, which is incorporated by reference in Rule 424, subsection G.5.n.

2. Coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of 8 or more, as determined in accordance with ASTM D3273-00 and ASTM D3274-95, incorporated by reference in Rule 424, subsection G.5.t.

BEEF FEEDLOT: a lot, fenced area, or facility used for the feeding or holding of more than ten (10) cattle, except for Grazing Land as defined herein.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT): for any Emissions Unit the more stringent of:

1. the most effective emission Control Device, emission limit, or technique which has been achieved in practice for such class or category of Source.

2. any other alternative emission Control Device, emission control technique, basic Equipment, fuel, or process determined to be technologically feasible and cost-effective by the APCO. Cost-effectiveness analyses shall be performed in accordance with methodology and criteria specified in the Best Available Control Technology Guideline for the South Coast Air Quality Management District, or an alternative methodology and criteria acceptable to the APCO.

3. under no circumstances shall BACT be determined to be less stringent than the emission control required by any applicable provision of law or regulation of the District, State and federal government, or the most stringent emissions limitation which is contained in the implementation plan of any State, unless the applicant demonstrates to the satisfaction of the APCO that such limitations are not technologically achievable. In no event shall the application of BACT result in the emissions of any pollutant which exceeds the emissions allowed by any applicable New Source Performance Standard (40 CFR, part 60) or National Emission Standard for Hazardous Air Pollutants (40 CFR, part 61 or part 63).
BEST AVAILABLE RETROFIT CONTROL TECHNOLOGY (BARCT): the most stringent and cost effective of the following control options:

1. the most effective elements of the related suggested control measure.

2. the most effective limits in effect in any regulation in California, in the United States, or in any other country for that Source category with such limits resulting from the application of retrofit control technologies judged by the APCO to be demonstrated and reliable.

3. the most effective limit for Source category determined to a reasonable degree of certainty, to be achievable in the near future.

4. any combination of control technologies that will achieve emission reductions equivalent to that resulting from the most stringent option listed above.

BIOMASS: material derived from the harvesting of crops or removal of vegetation, including timber, except for material from processed dimensional timber.

BITUMENS: black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

BITUMINOUS ROOF COATING: a Coating which incorporates Bitumens that is labeled and formulated exclusively for roofing.

BITUMINOUS ROOF PRIMER: a Primer which incorporates Bitumens that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered or aged surface or improving the adhesion of subsequent surfacing components.

BOARD: the Air Pollution Control Board of the Imperial County Air Pollution Control District.

BOILER OR STEAM GENERATOR: means any combustion Equipment fired with gaseous and/or liquid fuel and used to produce steam or to heat water. “Boiler” or “Steam Generator” shall not include waste heat recovery Boilers that are used to recover heat from the exhaust of Stationary Gas Turbines or Internal Combustion Engines, or any unfired waste heat recovery Boiler that is used to recover sensible heat from the exhaust of any combustion Equipment.

BOND BREAKER: a Coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.
BOTTOM LOADED: a Gasoline Delivery Vessel shall be considered to be Bottom Loaded when the fuel transfer and vapor return lines have separate, independent, and dedicated attachments on the delivery vessel, when the inlet is flush with the bottom of the storage device, and when the delivery vessel hatches remain closed during fuel transfer.

BREAKDOWN: an unforeseeable failure or malfunction of 1) any air pollution control Equipment, or related operating Equipment, which causes a violation of any emission limitation or restriction prescribed by these rules and regulations, or by State law, or 2) any monitoring Equipment, where such failure or malfunction is not the result of neglect or disregard of any air pollution control law or rules or regulations, is not intentional or the result of negligence, is not the result of improper maintenance, does not constitute a nuisance, and is not a recurrent breakdown of the same Equipment.

BRITISH THERMAL UNIT (Btu): means the amount of heat required to raise the temperature of one pound of water from 59F to 60F at one Atmosphere.

BURN DAY: any day on which Agricultural Burning is not prohibited by the Air Resources Board and/or the Imperial County Air Pollution Control District.

CALIFORNIA AIR RESOURCES BOARD (CARB): the California Air Resources Board or any Person authorized to act on its behalf.

CAMOUFLAGE COATING: a Coating applied on Motor Vehicles, or Mobile Equipment to conceal such vehicles or Equipment from detection and/or to provide resistance to chemical agents.

CARB CERTIFIED VAPOR RECOVERY SYSTEM: is any Phase I or Phase II Vapor Recovery System which has been certified by the California Air Resources Board pursuant to Section 41954 of the California Health and Safety Code.

CARGO CARRIERS: Cargo Carriers are trains dedicated to a specific Stationary Source. For purposes of this Rule, the term "trains dedicated to a specific Stationary Source" shall not include any train for which the prime mover is owned and operated by a common carrier, and by which cargo is delivered to or from the Stationary Source under a contract of common carriage. The emissions from all trains dedicated to a specific Stationary Source, while operating in the District, including directly emitted and Fugitive Emissions, shall be considered as emissions from the Stationary Source.

CATALYST: a substance whose presence initiates/enhances the reaction between chemical compounds.

CERTIFICATE: a District issued document specifying information regarding an ERC/MSERC/ABERC including but not limited to the legal owner(s), certificate identification number, date of issuance, pollutant(s) reduced, type of pollutant, quantity
of Actual Emission Reduction, time period for which the ERC/MSERC/ABERC is Valid and any other records as may be required as a condition of ERC/MSERC/ABERC issuance.

CLASS I AREA: any area listed as Class I in 40 CFR Part 81 Subpart D, including Section 81.405, or an area otherwise specified as Class I in the legislation that creates a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore.

CLEAN AIR ACT (CAA): the Federal Clean Air Act (42 United States Code section 7401 et seq.) and implementing regulations. (see also Federal Clean Air Act)

CLEANING OPERATIONS: the removal of loosely held uncured Adhesives, inks, Coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from Motor Vehicles, Mobile Equipment, associated parts and components, substrates, parts, products, tools, machinery, Equipment, or general work areas.

CLEAR BRUSHING LACQUERS: clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, which are intended exclusively for application by brush, and which are labeled as specified in Rule 424, subsection E.6. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

CLEAR COATING: any Coating that contains no pigments and is labeled and formulated for application over a color Coating or clear Coating.

CLEAR WOOD COATINGS: clear and semi-transparent Coatings, including Lacquers and Varnishes, applied to Wood Substrates, to provide a transparent or translucent solid film. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

COATING: a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to paints, Varnishes, sealers, and Stains. For purposes of Rule 427, Coating shall mean a material which is applied to a surface and forms a film in order to beautify, preserve, repair, or protect such a surface.


COLD CLEANER: any batch loaded, non-boiling Organic Solvent Degreaser.
COLORANT: a concentrated pigment dispersion in water, Solvent, and/or binder that is added to an Architectural Coating after packaging in sale units to produce the desired color.

COLOR COATING: any pigmented Coating, excluding Adhesion Promoters, primers, and Multi-Color Coatings, that requires a subsequent Clear Coating and which is applied over a Primer, Adhesion Promoter, or Color Coating. Color Coatings include metallic/iridescent Color Coatings.

COLOR MATCH: the ability of a repair Coating to blend into an existing Coating so that color difference is not visibly detectable.

COMBUSTIBLE REFUSE: any solid or liquid combustible waste material containing carbon in a free or combined state.

COMBUSTION CONTAMINANT: solid or liquid particles discharged into the Atmosphere from the burning of any kind of material containing carbon in a free or combined state.

COMPLETE APPLICATION: completeness of an application for an Authority to Construct a new or modified Emissions Unit shall be evaluated on the basis of a list of required information which has been adopted by the District.

CONCRETE CURING COMPOUND: a Coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:

1. retard the evaporation of water; or
2. harden or dustproof the surface of freshly poured concrete.

CONCRETE/MASONRY SEALER: a clear or opaque Coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:

1. prevent penetration of water; or
2. provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or
3. harden or dustproof the surface of aged or cured concrete

CONDENSER EQUIPMENT: any Equipment, such as refrigerated or non-refrigerated freeboard chillers, condenser coils, or water jackets, used to condense Organic Solvent vapor in a vapor Degreaser.

CONDENSER FLOW SWITCH: safety switch which shuts off pump heat if condenser
water fails to circulate or if condenser water temperature rises above designated operating temperature.

CONFINED ANIMAL FACILITY (CAF): a Source or group of Sources of air pollution at an Agricultural Source for the raising of fowl or animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including but not limited to, cattle, calves, horses, sheep, goats, swine, rabbits, chickens, turkeys, or ducks corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

CONSTRUCTION: any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or Modification of an Emissions Unit) which would result in a change in emissions.

CONTAMINATED SOIL: for purposes of Rule 412, soil which indicates 50ppm by volume, or greater of ROC (measured as hexane) at a distance of three inches above the surface with a ROC analyzer.

CONTIGUOUS PROPERTY: two or more Parcels of land with a common boundary or separated solely by a public or private roadway or other public right-of-way.

CONTROL DEVICE: any device for reducing emissions into the Atmosphere.

CONTROL EFFICIENCY: the percentage of emissions removed by an existing emission Control Device or estimated to be removed by a proposed emission Control Device. The estimated control efficiency of the proposed air pollution control technology which will be incorporated, by means of Enforceable permit condition(s), in the Authority to Construct and Permit to Operate. Emission reductions attributed to lowering throughput rates or operating reductions attributed to lowering throughput rates or operating hours shall not be considered in determining Control Efficiency.

CONTROL EQUIPMENT: air pollution Control Equipment that eliminates, reduces or controls the issuance of air emissions.

CONVEYORIZED DEGREASER: any continuously loaded, conveyorized Organic Solvent Degreaser, either boiling or non-boiling.

COOLING TOWERS: open water re-circulating devices that use fans or natural draft to draw or force air through the device to cool water by evaporation and direct contact. This includes, but is not limited to, evaporative condensers, quench or cooling towers used for heating ventilation air conditioning (HVAC) and/or industrial cooling processes.

CREMATORIES AND PATHOLOGICAL INCINERATORS: for the purposes of Rule 302, Schedule 10, Crematories and Pathological Incinerators are any Furnace or similar
enclosed fire chamber burning human or animal tissue or cremating human or animal remains.

CUTBACK ASPHALT: paving grade Asphalts liquefied with petroleum distillate and as further defined by American Society for Testing and Materials (ASTM) specifications as follows:

Rapid Cure Type: ASTM D2028-76
Medium Cure Type: ASTM D2027-76

DAILY EMISSIONS LIMIT: one or a combination of permit conditions, specific to an Emissions Unit, which restricts its maximum daily emissions, in pounds per day, at or below the emissions associated with the maximum design capacity. A daily emissions limitation must be:

1. contained in and Enforceable by the latest Authority to Construct or the latest Permit to Operate for the Emissions Unit, and
2. Enforceable on a daily basis, and
3. established pursuant to a permitting action occurring after September 7, 1993.

DAIRY: a Confined Animal Facility (CAF) with operations centered around the production of milk, butter, or cheese for commercial purposes.

DECONTAMINATION: for purposes of Rule 412, removal of ROC from contaminated soil by aeration, or District approved treatment process.

DEGREASER: tank, tray, drum, or other container in which objects to be cleaned are exposed to a liquid or vapor degreasing Organic Solvent

DISTRICT: the Imperial County Air Pollution Control District (ICAPCD).

DRIVEWAY SEALER: a Coating labeled and formulated for application to worn Asphalt driveway surfaces to perform one or more of the following functions:

1. fill cracks; or
2. seal the surface to provide protection; or
3. restore or preserve the appearance.

DRY FOG COATING: a Coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface Coating activity.
DUST: minute solid particles released into the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, and demolishing.

ELECTROSTATIC APPLICATION: a sufficient charging of atomized paint droplets to cause deposition, principally by electrostatic attraction.

ELECTROSTATIC DISCHARGE COATING: electrically conductive Coating which prevents the build-up of static charge on the surface of an Aerospace Component. Applications include, but are not limited to, composites, space vehicles, missiles, and helicopter blades.

ELECTROSTATIC SPRAY APPLICATION: any method of spray application of Coatings where an electrostatic attraction is created between the part to be coated and the paint particles.

EMERGENCY STANDBY TANK: a standby tank used in an emergency to store organic liquids during the draining of the primary tank or for use when the operator is granted breakdown relief.

EMISSION CONTROL SYSTEM: for the purpose of Rule 427, means any combination of capture systems and Control Devices used to reduce VOC emissions from an Automotive Refinishing Operation.

EMISSION REDUCTION CREDITS (ERCs): reductions of Actual Emissions from an Emissions Unit that are registered with the District in accordance with the requirements of Rule 214.

EMISSIONS INCREASE: for the purpose of Rule 207, means any increase in a Stationary Source or an Emissions Unit’s Potential to Emit, calculated pursuant to Rule 207 Section E.3.

EMISSIONS UNIT: an identifiable operation or piece of process Equipment, such as an article, machine, or other contrivance, which emits, has the Potential to Emit, or results in the emissions of any air pollutant directly or as Fugitive Emissions.

EMULSIFIED ASPHALT: any Asphalt liquefied with water containing an emulsifier, either anionic or cationic.

ENCLOSED GUN CLEANER: a device that is used for the cleaning of spray guns that is not open to the ambient air when in use and has a mechanism to force the cleanup material through the gun while the cleaner is in operation.

ENFORCEABLE: means certain actions which are assured by verifiable and legally binding conditions in an Authority to Construct and/or Permit to Operate.

EQUIPMENT: includes any article, machine, or contrivance that emits, has the Potential
to Emit, or reduces emissions of any air pollutant emitted directly or as Fugitive Emissions.

ERC: see Emission Reduction Credits

ERC CERTIFICATE: a document identifying the quantity and type of ERCs issued by the District to the individual(s) or Source(s) identified on the certificate.

ESSENTIAL PUBLIC SERVICES: the following Sources shall be considered Essential Public Services:

1. sewage treatment operations which are publicly owned and operated consistent with the approved General Plan; or
2. prison, jail, correctional facility; or
3. police or fire fighting facility; or
4. school or hospital; or
5. landfill gas control or processing system which is publicly owned and operated; or
6. water delivery operations which are publicly owned and operated consistent with the approved General Plan; or
7. cleanup operations to remove contaminants from soil or water, mandated by the Regional Water Quality Control Board, California Department of Health Services, Environmental Protection Agency or any other State or Federal law.

EXCAVATION: for purposes of Rule 412, removal of contaminated soil for the purpose of decontamination. Excavated soil may have become contaminated by leaking underground or above ground tank, loading rack, spillage, pipeline leak, accidental spill, or any other Source.

EXEMPT COMPOUND: a compound identified as exempt under the definition of Volatile Organic Compound (VOC). Exempt compound content of a Coating shall be determined by US EPA Method 24 or South Coast Air Quality Management District (SCAQMD) Method 303-91 (Revised 1993), incorporated by reference in Rule 424, subsection G.5.j.

EXTREME PERFORMANCE COATING: Coating that encounters acute or chronic exposure to salt water, corrosives, caustics, acids, oxidizing agents, wind- or ocean-driven debris, or electromagnetic pulses.

FAUX FINISHING COATING: a Coating labeled and formulated to meet one or more of the following criteria:
1. a glaze or textured Coating used to create artistic effects, including, but not limited to: dirt, suede, old age, smoke damage, and simulated marble and wood grain; or

2. a decorative Coating used to create a metallic, iridescent, or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of Coating as applied (at least 0.4 pounds per gallon); or

3. a decorative Coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of Coating as applied (less than 0.4 pounds per gallon), when tested in accordance with South Coast Air Quality Management District (SCAQMD) method 318-95, incorporated by reference in Rule 424, subsection G.5.d; or

4. a decorative Coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of Coating as applied (greater than 0.4 pounds per gallon) and which requires a clear topcoat to prevent the degradation of the finish under normal use conditions. The metallic pigment content shall be determined in accordance with SCAQMD method 318-95, incorporated by reference in Rule 424, subsection G.5.d; or

5. a clear topcoat to seal and protect a Faux Finishing Coating that meets the requirements of subsections 1 thru 4 of this definition. These clear topcoats must be sold and used solely as part of a Faux Finishing Coating system, and must be labeled in accordance with Rule 424, subsection E.4.


FEDERAL LAN MANAGER: the Secretary of the Department with authority over the specified federal lands.

FINISH: the Coating of incomplete vehicles, their parts and components, or Mobile Equipment for which the original Coating was not applied from an original Equipment manufacturer (OEM) plant Coating assembly line.

FIRE RESISTIVE COATING: a Coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. The fire resistive category includes sprayed fire resistive materials and intumescent Fire Resistive Coatings that are used to bring structural materials into compliance with federal, state, and local building code requirements. Fire Resistive Coatings shall be tested in accordance with ASTM E119-07, incorporated by reference in Rule 424, subsection G.5.b. Fire Resistive Coatings and testing agencies must be approved by building code officials.
FIRE RETARDANT COATING: a Coating labeled and formulated to retard ignition and flame spread, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing building and construction materials into compliance with federal, state and local building code requirements. The Fire Retardant Coating and the testing agency must be approved by building code officials. The Fire Retardant Coating shall be tested in accordance with ASTM E84-07, incorporated by reference in Rule 424, subsection G.5.a.

Effective January 1, 2011, the Fire Retardant Coating category is eliminated and Coatings with fire retardant properties will be subject to the VOC limit of their primary category (e.g., Flat, Nonflat, etc.).

FIXED COVER: any cover made out of metal(s), polymer(s) or other material, and installed in a permanent position over the liquid.

FLAT COATING: a Coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM D 523-89 (1999), incorporated by reference in Rule 424, subsection G.5.c.

FLEET VEHICLE: one of a group of ten (10) or more Motor Vehicles under common ownership or control and dispatched from a location within Imperial County.

FLIGHT TEST COATINGS: a temporary Coating applied to test aircraft to protect from corrosion and to provide required markings during flight test evaluation.

FLOATING COVER: any cover made out of metal(s), polymer(s) or other material, which is in contact with a liquid surface at all times.

FLOOR COATING: an opaque Coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches steps, garage floors, and other horizontal surfaces which may be subject to foot traffic.

FLOW COATING: a Coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective Coating systems present on utility transformer units. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

FLUORIDES: elemental fluorine and all fluoride compounds.

FORM RELEASE COMPOUND: a Coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.
FREEBOARD HEIGHT:

1. for a Cold Cleaning Degreaser, distance from the top of the Organic Solvent, or the Organic Solvent drain to the top of the Degreaser, based on the inside tank dimensions.

2. for a Remote Reservoir Degreaser, the distance from the Organic Solvent drain to the top of the Degreaser, based on the inside dimensions.

3. for a vapor Degreaser, the distance from the Organic Solvent air-vapor interface to the top of the basic Degreaser tank, based on the inside tank dimensions.

FREEBOARD RATIO: freeboard height divided by the smaller of the length or width of the Degreaser.

FROST PROTECTION: the protection of agricultural crops against damage from frost or cold weather.

FUEL BURNING EQUIPMENT: the minimum number of boilers, furnaces, jet engines or other Fuel Burning Equipment, the simultaneous operations of which are required for the production of useful heat or power. Equipment which burns fuel and serves primarily as air pollution control Equipment by using a combustion process to destroy air contaminants shall not be considered "Fuel Burning Equipment."

FUEL CHANGE: means the transitory operating period when a switch occurs between liquid or gaseous fuels, or any combination thereof.

FUEL TANK COATING: a Coating applied to the interior of a fuel tank of an aircraft or space vehicle to protect it from corrosion.

FUGITIVE EMISSIONS: those emissions which cannot reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

FUMES: small particles resulting from chemical reaction or from the condensation of vapors produced in combustion, distillation or sublimation, or other above ambient temperature process.

FURNACE: means any enclosed structure in which heat is produced by the combustion of any fuel.

GASEOUS FUEL: means natural gas, digester gas, landfill gas, methane, ethane, propane, butane, or any gas stored as a liquid at high pressure such as liquefied petroleum gas.

GASOLINE: any petroleum distillate having a Reid Vapor pressure of 4.0 pounds or greater.
GASOLINE BULK PLANT: an intermediate gasoline loading facility where delivery to the facility's storage containers and delivery from the facility is by truck.

GASOLINE DELIVERY VESSEL: a truck, trailer, or railroad car with a storage device containing Gasoline, or Gasoline Vapors, used to transport fuel or other petroleum products.

GASOLINE TERMINAL: a gasoline loading facility where delivery to the facility's storage containers is by means other than truck.

GASOLINE THROUGHPUT: for the purposes of Rule 415, means the volume of gasoline dispensed at a gasoline dispensing facility.

GASOLINE VAPORS: the Reactive Organic Compounds in the displaced vapors, including any entrained liquid gasoline.

GRAPHIC ARTS COATING OR SIGN PAINT: a Coating labeled and formulated for hand-application by artists using brush, airbrush, or roller techniques to indoor and outdoor signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

GRAPHIC ARTS OPERATION: the application of logos, letters, numbers, or graphic to a painted surface by brush, roller, or airbrush.

GRAPHIC DESIGN APPLICATION: the application of logos, letters, numbers, and graphics to a painted surface, with or without the use of a template.

GRAZING LAND: open range or fenced fields where animals feed on crops or grasses which grow naturally or are planted.

GROUP I VEHICLES: public transit buses and mobile Equipment.

GROUP II VEHICLES: passenger cars, large/heavy duty truck cabs and chassis, light and medium duty trucks and vans, and motorcycles.

HALOGENATED HYDROCARBONS: all Halogenated Hydrocarbons listed as exempt under the definition of Volatile Organic Compounds.

HAND APPLICATION METHODS: the application of Coatings by nonmechanical hand-held Equipment including but not limited to paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

HEARING BOARD: the Hearing Board of the Air Pollution Control District of Imperial County.

HEAT INPUT: means the heat derived from the combustion of a fuel in a unit, calculated using the higher heating value, excluding the heat input from preheated combustion air, re-circulated flue gases, or exhaust gases from other Sources, including but not limited to, Stationary Gas Turbines, Internal Combustion Engines and Kilns.

HEAT INPUT RATING: means the maximum steady state heat input capacity of a unit, in BTU per hour, as specified by the manufacturer, or as limited by an Authority to Construct or a Permit to Operate.

HEAVY DUTY ENGINE: an engine which is used to propel a Heavy Duty Vehicle.

HEAVY DUTY VEHICLE: any Motor Vehicle having a manufacturer's gross vehicle weight rating greater than 6,000 pounds, except passenger cars (Title 13, California Code of Regulations, Section 1900 [13 CCR. 1900].)

HEXAVALENT CHROMIUM-CONTAINING WATER TREATMENT CHEMICALS: water treatment Additives which contain Hexavalent Chromium (Chrome VI), alone or in combination with other water treatment chemicals.

HIGH TEMPERATURE COATING: a high performance Coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 240°C (400°F).

HIGH TEMPERATURE RESISTANT, THERMAL FLASH RESISTANT, RAIN EROSION RESISTANT COATING: for the purposes of Rule 425, means a fluoroelastomeric Coating that is designed specifically to protect aerospace vehicles from thermonuclear flash, erosion from airborne particles such as rain, ice, sand, etc., and temperatures above 450 degrees Fahrenheit resulting from aerodynamic heating.

HIGH VOLATILITY SOLVENT: any Organic Solvent that is not a low volatility Solvent.

HIGH-VOLUME, LOW-PRESSURE (HVLP): spray Equipment permanently labeled as such and which is designed and operated between 0.1 and 10 pounds per square inch, gauge, (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

HIGHER HEATING VALUE: means the total heat liberated, including the heat of condensation of water, per mass of fuel burned (BTU per pound) when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to standard conditions.

HISTORIC ACTUAL EMISSIONS: Actual Emissions from an existing Emissions Unit averaged over a 24 month period immediately preceding the date of application. The
APCO may approve another 24 month period within the last 60 months, if the APCO determines that the other period is more representative of normal operations. Where an Emissions Unit has been in operation for less than 24 months a shorter averaging period of at least 12 months may be used providing it represents the full operational history of the Emission Unit. The Historic Actual Emissions from Emission Units which have been in operation for less than 12 months shall be equal to zero. Historic Actual Emissions are to be calculated in pounds per quarter for each calendar quarter. Historic Actual Emissions in quarters 2 or 3 may be lowered by transferring these emissions to quarters 1 or 4, provided that the resulting emissions in quarters 1 or 4 are no higher than the higher of quarters 2 or 3.

HISTORIC EMISSIONS: the Potential to Emit of an existing Emissions Unit prior to Modification. For a new Emissions Unit Historic Emissions are equal to zero.

HYDROCARBON VAPORS: the Reactive Organic Compounds in the vapors, including any entrained organic liquid.

IDENTICAL REPLACEMENT UNIT: a replacement Emissions Unit which is the same as the original unit in all respects except for the serial number.

IMPERVIOUS BARRIER: for purposes of Rule 412, physical covering for contaminated soil which controls ROC emissions to the extent a ROC analyzer detects less than 50ppm by volume ROC (measured as hexane) at a distance of three inches above the surface.

IMPLEMENTS OF HUSBANDRY: is a vehicle which is used exclusively in the conduct of agricultural operations. An Implement of Husbandry does not include a vehicle if its existing design is primarily for the transportation of persons or property in a highway.

INCINERATOR: any Furnace or similar enclosed fire chamber, with or without a draft control, used for burning refuse or other waste material and where the products of combustion are channeled through a flue.

INDUSTRIAL MAINTENANCE COATING: a high performance Architectural Coating, including Primers, Sealers, Undercoaters, intermediate coats, and topcoats formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed below and labeled as specified in Rule 424, subsection E.5.

1. immersion in water, wastewater or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation; or

2. acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, chemical mixtures or solutions; or

3. frequent exposure to temperatures in excess of 250°F (121°C); or
4. frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial Solvents, cleansers or scouring agents; or

5. exterior exposure of metal structures and structural components.

INTERNAL COMBUSTION ENGINE: any spark or compression ignited reciprocating Internal Combustion Engine that is attached to a foundation at a location, or is portable and operated at a location for more than 90 days in any consecutive twelve month period, excluding engines used for self propulsion of a vehicle.

KILN: means an oven, Furnace, or heated enclosure used for processing a substance by burning, firing, or drying.

LACQUER: a clear or opaque wood Coating, including clear lacquer Sanding Sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

LARGE CONFINED ANIMAL FACILITY (LCAF): any Confined Animal Facility that maintains on any one day: 4,000 500 or more milk-producing dairy cows; or 3,500 or more beef cattle, calves, heifers, or other cattle; or 100,000 or more turkeys; or 650,000 400,000 or more chickens other than laying hens; or 650,000 400,000 or more laying hens; or 3,000 or more swine; or 15,000 or more sheep, lambs, or goats; or 2,500 or more horses; or 650,000 400,000 or more ducks; or 30,000 or more rabbits or other animals.

LARGE/HEAVY DUTY TRUCKS: any truck having a manufacturer's gross vehicle weight rating of over 10,000 pounds.

LEAK OF REACTIVE ORGANIC COMPOUNDS: an emission of a liquid containing Reactive Organic Compounds at a rate of more than 3 drops per minute, as a continuous stream, or as a visible mist; or an emission of a gas containing Reactive Organic Compounds which causes an appropriate analyzer sampling 1 centimeter from a Source to register at least 10,000ppm as methane as determined by US EPA Reference Method 21.

LEAK-FREE: for the purposes of Rule 415, means a liquid leak of no more than three drops per minute excluding losses which occur upon disconnecting transfer fittings. Provided such disconnect losses do not exceed 10 milliliters (0.34 fluid ounces) per disconnect, averaged over three disconnects.

LEAN-BURN ENGINE: any spark or compression ignited Internal Combustion Engine that is operated with an exhaust gas stream oxygen concentration of four percent (4%) by volume, or greater. The exhaust gas oxygen content shall be determined from the
uncontrolled exhaust gas stream.

LIGHT DUTY TRUCK: any Motor Vehicle, rated at 6,000 pounds gross vehicle weight or less, which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use (13 CCR 1900.)

LIQUID FUEL: means any fuel which is a liquid at standard conditions including but not limited to distillate oils, kerosene and jet fuel. Liquefied gaseous fuels are not liquid fuels.

LOADING FACILITY: any aggregation or combination of gasoline loading Equipment which is both (1) possessed by one person, and (2) located so that all the gasoline loading outlets for such aggregation or combination of loading Equipment can be encompassed within any circle of 300 feet in diameter.

LOW EMISSION VEHICLE: any vehicle certified by the California Air Resources Board (CARB) to the transitional, low, ultra low, or zero emission vehicle standards established in 13 CCR 1960.1

LOW SOLIDS COATING: a Coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of Coating material as recommended for application by the manufacturer. The VOC content for Low Solids Coatings shall be calculated in accordance with the definition of VOC Actual.

LOW VOLATILITY SOLVENT: any Organic Solvent, including emulsions containing no more than 2% Reactive Organic Compounds (ROC) by weight as determined by US EPA test method 24.

LOWEST ACHIEVABLE EMISSION RATE (LAER): for any Stationary Source or Modification the more stringent of:

1. the most stringent emissions limitation which is contained in the implementation plan of any state for such class or category of Stationary Source, unless the Owner or Operator of the proposed Stationary Source demonstrates that such limitations are not achievable; or

2. the most effective emissions control technique which has been achieved in practice, for such class or category of Source as determined by the APCO; or

3. the emission limitation specified for such class or category of Source under applicable federal New Source Performance Standards pursuant to Section 111 of the Clean Air Act; or

4. any other emissions control technique found after public hearing, by the APCO or the California Air Resources Board to be technologically feasible and cost effective.
for such class or category of Sources or for a specific Source.

MAGNESITE CEMENT COATING: a Coating labeled and formulated for application to Magnesite Cement decking to protect the Magnesite Cement substrate from erosion by water.

MAJOR MODIFICATION: a Modification to a Major Stationary Source which results in a Significant Emissions Increase and a Significant Net Emissions Increase of the pollutant for which the Stationary Source is classified as a Major Stationary Source.

MAJOR PROJECT: for the purpose of Rule 206 and 301 means a Project which will emit pollutants under any of the following conditions: 250 or more lbs/day controlled for any single pollutant; 100 or more tons/yr uncontrolled for any single pollutant; 250 or more tons/yr uncontrolled for all emissions combined.

MAJOR STATIONARY SOURCE: means a Stationary Source which emits, or has the Potential to Emit 100 tons per year (tpy) or more of Volatile Organic Compounds or Oxides of Nitrogen, or 70 tpy or more of PM_{10}, or a PM_{10} Precursor or 100 tpy or more of PM_{2.5} or a PM_{2.5} Precursor. In addition, any physical change occurring at a Stationary Source which is not already a Major Stationary Source, and which Modification would constitute a Major Stationary Source by itself, makes the Source a Major Stationary Source.

MAKE-UP SOLVENT: Organic Solvent added to a Degreaser to replace Organic Solvent lost through evaporation, carry-out, splashing, leakage, or disposal.

MANUFACTURER’S MAXIMUM THINNING RECOMMENDATION: the maximum recommendation for thinning that is indicated on the label or lid of the Coating container.

MANURE: the accumulated animal excrement in or around a livestock feed yard that does not undergo decomposition as would occur on open grazing land or natural habitat. This definition includes feces or urine which may be mixed with bedding materials, with spilled feed or with soil.

MASKANT: a Coating applied directly to a metal part or other surface to protect surface areas during chemical milling, anodizing, aging, bonding, plating, etching, or other chemical surface operations.

MASTIC TEXTURE COATING: a Coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

MEDIUM DENSITY FIBERBOARD (MDF): a composite wood product, panel, molding, or other building material composed of cellulosic fibers (usually wood) made by dry forming and pressing of a resinated fiber mat.
MEDIUM DUTY VEHICLE: any pre-1995 model year Heavy-Duty Vehicle having a manufacturer's gross vehicle weight rating of 8,500 pounds or less; any 1992 through 2006 model-year heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in section 1960.1(h)(2) of the California Code of Regulations (CCR) having a manufacturer's gross vehicle weight rating of 14,000 pounds or less; any 1995 through 2003 model-year heavy-duty vehicle certified to the standards in section 1960.1(h)(1) of the CCR having a manufacturer's gross vehicle weight rating of 14,000 pounds or less; and any 2000 and subsequent model heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in Section 1961(a)(1), 1962, or 1962.1 having a manufacturer's gross vehicle weight rating between 8,501 and 14,000 pounds. (California Code of Regulations Title 13, Division 3, Chapter 1, Article 1, §1900)

METALLIC/IRIDESCENT COLOR COATING: any Coating that contains more than 0.042 pounds per gallon (5 grams per liter) of metal or iridescent particles as applied, where such particles are visible in the dried film.

METALLIC PIGMENTED COATING: a Coating that is labeled and formulated to provide a metallic appearance. Metallic Pigmented Coatings must contain at least 48 grams of elemental metallic pigment (excluding zinc) per liter of Coating as applied (at least 0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, incorporated by reference in Rule 424, subsection G.5.d. The Metallic Pigmented Coating category does not include Coatings applied to roofs or Zinc-Rich Primers.

MILITARY BASE: means a Military Base that is designated for closure or downward realignment pursuant to the Defense Base Closure and Realignment Act of 1988 (P.L. 100-526) or the Defense Base Closure and Realignment Act of 1990 (10 United States Code Sec. 2687 et seq.).

MINOR PROJECT: for the purpose of Rules 206 and 301, a Project for which uncontrolled emissions will not exceed 35 lbs/day of any pollutant, and for which there will be no emission of pollutants which are toxic Air Contaminants or for which the District has been designated nonattainment.

MOBILE EQUIPMENT: for the purposes of Rule 427 is any device that may be drawn and/or driven on rails or a roadway including, but not limited to, trains, railcars, truck trailers, mobile cranes, bulldozers, street cleaners, and Implements of Husbandry for agriculture.

MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC): Actual Emission Reductions which have been recognized by the District as being banked and registered with a MSERC certificate issued in accordance with the requirements of Rule 214.1.

MOBILE TRANSPORT TANK: any tank truck or trailer, railroad tank car, or tanker used to transport reactive organic liquids.
MODELING: use of an air quality simulation model, based on specified assumptions and data, which has been approved in writing by the executive officer of the California Air Resources Board.

MODIFICATION: any physical change, change in method of operation of, or addition to, an existing Emissions Unit, or any change in hours of operation or production rate which would necessitate a change in permit conditions.

Unless previously limited by a permit condition, the following shall not be considered a Modification:

1. change in ownership of an existing Stationary Source with valid Permit(s) to Operate.
2. routine maintenance or repair.
3. an Identical Replacement Unit, if the Modification does not result in a Major Modification.

A Modification of an Emissions Unit also occurs when there is an increase in emissions from such a unit caused by a Modification of the Stationary Source and the Emissions Unit is not subject to a Daily Emissions Limit.

A Modification to a Stationary Source shall include any Modification of its permitted Emissions Unit(s) or the addition of any new Emissions Unit(s).

A Reconstructed Stationary Source shall be treated as a new Stationary Source and not as a Modification.

MOTOR VEHICLE: any self-propelled vehicle, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks, and armored personnel carriers.

MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC) PROGRAM: as recognized by the California Air Resources Board, any activity undertaken by a Person which produces actual Mobile Source Emission Reductions within Imperial County for purposes of establishing ERC’s pursuant to Rules 214 and 214.1. A program can be a onetime action, a series of one time actions or a continuous set of actions.

MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC) REGISTRY: a tracking maintained by the District which records all MSERC deposits, withdrawals, transfers and transactions as required by Rule 214.1.

MULTI-COLOR COATING: a Coating that is packaged in a single container and that is labeled and formulated to exhibit more than one color when applied in a single coat. For purposes of Rule 427, means any Coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surface
defects on areas of heavy use, and which is applied over a Primer or Adhesion Promoter.

MULTIPLE-CHAMBER INCINERATOR: any article, machine, Equipment, contrivance, structure or any part of a structure used to dispose of combustible refuse by burning, consisting of three or more refractory walls, interconnected by gas passage ports or ducts, and employing adequate design parameters necessary for maximum combustion of the material to be burned.

NO-BURN DAY: any day on which Agricultural Burning is prohibited by the California Air Resources Board or by the District.

NO-BURN LIST: a list of fields for which ERC's have been applied and on which burning will not be allowed.

NONATTAINMENT AREA: an area designated by a state or federal agency as exceeding a state or National Ambient Air Quality Standard.

NONATTAINMENT POLLUTANT: any pollutant or Precursor which has been designated "nonattainment" by the US EPA as codified in 40 CFR Section 81.305, or that has been designated "nonattainment" by the CARB pursuant to H&SC Section 39607.

NONFLAT COATING: a Coating that is not defined under any other definition in this Rule and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to ASTM D523-89 (1999), incorporated by reference in Rule 424, subsection G.5.c.

NONFLAT-HIGH GLOSS COATING: a Nonflat Coating that registers a gloss of 70 or greater on a 60-degree meter according to ASTM D523-89 (1999), incorporated by reference in Rule 424, subsection G.5.c. Nonflat–High Gloss Coatings must be labeled in accordance with Rule 424, subsection E.12.

NON-PERMITTED EMISSIONS: for the purpose of Rule 214, Non-Permitted Emissions are emissions which are not governed under a District permit.

OFFSET: the use of an emission decrease to compensate for an Emission Increase from a new or modified Stationary Source subject to the requirements of Rule 207.

OFFSET FILL LINE: any liquid fill line which contains one or more pipe bends, and the horizontal distance between the truck delivery connection and the storage container fill opening is 6.1 meters (20 feet) or greater.

OIL-EFFLUENT WATER SEPARATOR: any device or piece of Equipment used to remove petroleum compounds or associated chemicals from effluent water.
OPACITY: the degree to which emissions reduce the transmission of light and obscure the view of the background.

OPAQUE STAINS: all Stains that are not classified as Semi-Transparent Stains.

OPAQUE WOOD PRESERVATIVES: all Wood Preservatives not classified as clear or Semi-Transparent Wood Preservatives or as below ground Wood Preservatives.

OPEN BURNING IN AGRICULTURAL OPERATIONS IN THE GROWING OF CROPS OR RAISING OF FOWLS OR ANIMALS:

1. the burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowls or animals for the primary purpose of making a profit, providing a livelihood, or of conducting agricultural research or instruction by an educational institution; and

2. the burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation in connection with operations qualifying under 1 above; and

3. the burning of materials not produced wholly from such operations, but which are intimately related to the growing or harvesting of crops and which are used in the fields, except as prohibited by District regulations. Examples are trays for drying raisins, date palm protection paper, and fertilizer and pesticide sacks or combustible containers, where the sacks or combustible containers are emptied in the field, or other reasonable nearby location under the direct control of the farm operator. This does not include products made from rubber.

OPEN OUTDOOR FIRE: the complete or partial burning or smoldering of any combustible refuse or other material of any type, directly exposed to the Atmosphere, whether or not enclosed in a fireproof container, where the products of combustion are not channeled through a flue.

OPEN-TOP VAPOR DEGREASER: any batch loaded, boiling Organic Solvent Degreaser.

ORCHARD OR CITRUS GROVE HEATER: any article, machine, Equipment, or other contrivance, burning any type of fuel, capable of emitting Air Contaminants, used or capable of being used for the purpose of giving protection from frost damage. Contrivances commonly known as wind machines are not included.

ORGANIC CONTENT: for purposes of Rule 412, degree of contamination used to limit daily rate contaminated soil may be added to an active soil aeration pile.

ORGANIC MATERIALS: chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates and ammonium carbonate.
ORGANIC SOLVENTS: includes diluents and thinners and are defined as organic materials which are liquids at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

OTHER CATTLE FACILITY: a Confined Animal Facility (CAF) housing cattle which does not meet the definition of a Beef Feedlot or Dairy.

OWNER OR OPERATOR: includes, but is not limited to, any Person who owns, leases, supervises or operates Equipment.

PARCEL: a legally subdivided piece of land or combined lands under common ownership.

PARTICLEBOARD: a composite wood product panel, molding, or other building material composed of cellulosic material (usually wood) in the form of discrete particles, as distinguished from fibers, flakes, or strands, which are pressed together with resin.

PARTICULATE MATTER: any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions. Dust shall also be considered as Particulate Matter.

PARTICULATE MATTER (PM$_{10}$): Particulate Matter with an aerodynamic diameter equal to or less than 10 micrometers. Gaseous emissions which condense to form Particulate Matter at ambient temperatures shall be included.

PARTICULATE MATTER (PM$_{2.5}$): Particulate Matter with an aerodynamic diameter equal to or less than 2.5 micrometers. Gaseous emissions which condense to form Particulate Matter at ambient temperatures shall be included.

PASSENGER CAR: “any motor vehicle designed primarily for transportation of persons and having a design capacity of twelve persons or less” (California Code of Regulations Title 13, Division 3, Chapter 1, Article 1, §1900)

PEARLESCENT: exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

PERMANENT: the actual emission reductions that continue or endure for the duration of any Project utilizing the resulting ERC’s as Offsets.

PERMISSIVE-BURN DAY: any day on which Agricultural Burning is not prohibited by the California Air Resources Board or the District.

PERMIT TO OPERATE: the written permit issued by the District for the operation of any facility, article, machine, Equipment, Emission Unit or other contrivance.

PERSON: any person, firm, association, organization, partnership, business trust,
corporation, company, limited liability company, contractor, supplier, installer, user or owner, or any federal, state or local government agency, public district, or any officer or employee thereof.

PHASE I VAPOR RECOVERY SYSTEM: a system which recovers the hydrocarbon vapors resulting from the transfer of Reactive Organic Compounds into a Stationary Tank or Mobile Transport Tank.

PHASE II VAPOR RECOVERY SYSTEM: a gasoline vapor recovery system that recovers vapors during the fueling of Motor Vehicles from stationary storage tanks.

PHOTOCHEMICALLY REACTIVE SOLVENT: any Solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of Solvent:

1. a combination of hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 percent;
2. a combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent;
3. a combination of ethylbenzene, ketones having branched hydrocarbon structures, or toluene: 20 percent.

PLYWOOD: a panel product consisting of layers of wood veneers or composite core pressed together with resin. Plywood includes panel products made by either hot or cold pressing (with resin) veneers to a platform.

PM$_{2.5}$ NONATTAINMENT AREA: that portion of Imperial County which lies within the line described as follows: (San Bernardino Base and Meridian) Beginning at the intersection of the United States-Mexico Border and the southeast corner of T17S R11E, then north along the range line of the eastern edge of range R11E, then east along the township line of the southern edge of T12S to the northeast corner of T13S R15E, then south along the range line common to R15E and R16E, to the United States-Mexico border.

POST-CONSUMER COATING: finished Coatings generated by a business or consumer that have served their intended end uses, and are recovered from or otherwise diverted from the waste stream for the purpose of recycling.

POTENTIAL EMISSIONS: the sum of the maximum emissions from all Emissions Units at a Stationary Source, based on the maximum design capacity, unless otherwise limited by practically and legally Enforceable conditions contained in the Authority to Construct and/or Permit to Operate, expressed in terms of pounds per quarter. (Pounds per quarter for PM$_{10}$, PM$_{2.5}$ and sulfur oxides shall be determined by multiplying the
Daily Emission Limit, in pounds per day, by the permitted operating days per quarter.)

POTENTIAL TO EMIT: the maximum capacity of an Emissions Unit to emit an Affected Pollutant based on its physical and operational design. Any physical or operational limitation on the capacity of the Emission Unit to emit a pollutant, including air pollution Control Equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is incorporated into the applicable permit as a practically and legally Enforceable permit condition.

POWER RATING: means the maximum, continuous power output of a Stationary Gas Turbine(s), in megawatts (MW) or equivalent, as certified by the manufacturer unless limited by a condition in a District Authority to Construct or a Permit to Operate. Power augmentation shall not be included in Power Rating.

PRECURSOR: a directly emitted Affected Pollutant that, when released into the Atmosphere, forms or causes to be formed or contributes to the formation of a secondary pollutant for which a state or National AAQS has been adopted, or whose presence in the Atmosphere will contribute to the violation of one or more state or National AAQS. The following Precursor secondary pollutant relationships shall be used for the purposes of these regulations:

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<th>PRECURSORS</th>
<th>SECONDARY POLLUTANTS</th>
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| Hydrocarbons and substituted hydrocarbons (Volatile Organic Compounds.) | a) Photochemical Oxidant (Ozone)  
| | b) The organic fraction of PM$_{10}$  
| | c) Organic fraction of PM$_{2.5}$, if Volatile Organic Compounds are determined to be a necessary part of the PM$_{2.5}$ control strategy in the attainment demonstration approved by the US EPA in the SIP.  
| Nitrogen Oxides (NOx) | a) Nitrogen Dioxide (NO$_{2}$)  
| | b) The nitrate fraction of PM$_{10}$  
| | c) Photochemical Oxidant (Ozone)  
| | d) The nitrate fraction of PM$_{2.5}$  
| Sulfur Oxides (SOx) | a) Sulfur Dioxide (SO$_{2}$)  
| | b) Sulfates (SO$_{4}$)  
| | c) The sulfate fraction of PM$_{10}$  
| | d) The sulfate fraction of PM$_{2.5}$  
| Ammonia | a) Organic fraction of Nitrate, if ammonia is determined to be a necessary part of the PM$_{2.5}$ control strategy in the attainment demonstration approved by the US EPA in
PREPREG COMPOSITE MATERIAL: for the purposes of Rule 425, means, a reinforcing material impregnated with partially polymerized organic resins and ready for application.

PRESSURE TANK: a tank which maintains working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss into the Atmosphere.

PRE-TREATMENT WASH PRIMER: a Primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM D1613-06, incorporated by reference in Rule 424, subsection G.5.e that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

PRETREATMENT COATING: for the purposes of Rule 427, any Coating that contains a minimum of one-half (0.5) percent acid by weight and not more than 16 percent solids by weight necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.

PRIMER, SEALER, AND UNDERCOATER: for purposes of Rule 424, a Primer, Sealer, and Undercoater is a Coating labeled and formulated for one or more of the following purposes;

1. to provide a firm bond between the substrate and the subsequent Coatings; or
2. to prevent subsequent Coatings from being absorbed by the substrate; or
3. to prevent harm to subsequent Coatings by materials in the substrate; or
4. to provide a smooth surface for the subsequent application of Coatings; or
5. to provide a clear finish coat to seal the substrate; or
6. to block materials from penetrating into or leaching out of a substrate.

PRIMER: for purposes of Rule 427, Primer is any Coating which is labeled and formulated for application to a substrate to provide:

1. a bond between the substrate and subsequent coats
2. corrosion resistance
3. a smooth substrate surface, or
4. resistance to penetration of subsequent coats, and on which a subsequent Coating
is applied.

Primers may be pigmented.

PRIMER SEALER: for purposes of Rule 427, a Primer Sealer is any Coating which is labeled and formulated for application prior to the application of a color Coating for the purpose of color uniformity, or to promote the ability of the underlying Coating to resist penetration by the color Coating.

PRIMER SURFACER: any Coating applied prior to the application of a Topcoat for the purpose of corrosion resistance, adhesion of the Topcoat, and which promotes a uniform surface by filling in surface imperfections.

PRIORITY RESERVE: a depository of emission reductions for loan to applicable priority sources for use as Offsets.

PROCESS HEATER: means any combustion Equipment fired with liquid and/or gaseous fuel and which transfers heat from the combustion gases to water or processes stream. Heaters used for swimming pools, spas and/or therapy pools shall be considered Process Heaters. “Process Heater” shall not include any combustion Equipment where the material being heated is in direct contact with the products of combustion, such as Furnaces or Kilns, or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion Equipment.

PROCESS WEIGHT PER HOUR: the total weight of all materials introduced into any specific process which process may cause any discharge into the Atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. "The Process Weight Per Hour" will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the Equipment is idle. Cooling air and cooling water will not be considered as part of the process weight.

PROJECT: activity, for which a permit is required, or that has the Potential to Emit Air Contaminants. A project includes all of the Emission Units associated with the scope of the preconstruction application for a new or modified Stationary Source and any Emissions Unit(s) indirectly affected.

PROPOSED EMISSIONS: the Potential to Emit for a new or post Modification Emissions Unit.

QUANTIFIABLE: means a reliable, replicable and accurate basis for calculating the amount, rate, nature and characteristic of an emission reduction by adhering to a quantification protocol that can be established, considering US EPA, CARB and District policies and procedures.
QUARTERLY: the calendar quarter beginning in January 1, April 1, July 1, and October 1.

QUICK-DRY ENAMEL: a Nonflat Coating that is labeled as specified in Rule 424, subsection E.9 and that is formulated to have the following characteristics:

1. is capable of being applied directly from the container under normal conditions with ambient temperatures between 60ºF and 80ºF (16ºC and 27ºC).

2. when tested in accordance with ASTM D 1640-95, incorporated by reference in Rule 424, section G.5.f, sets to touch in 2 hours or less, is tack free in 4 hours or less, and dries hard in 8 hours or less by the mechanical test method; and

3. has a dried film gloss of 70 or above on a 60 degree meter.

Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

QUICK-DRY PRIMER, SEALER AND UNDERCOAT: a Primer, Sealer or Undercoat that is dry to the touch in 30 minutes and can be recoated in 2 hours when tested in accordance with ASTM D1640-95, incorporated by reference in Rule 424, section G.5.f. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

RAINY PERIOD: for the purpose of Rule 420, when the twenty-four (24) hour measured rainfall amount ending at 4 a.m. is between 0.20 inches and 0.75 inches.

RANGE IMPROVEMENT BURNING: the use of open outdoor fires to remove vegetation for a wildlife, game or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land.

RATED BRAKE HORSEPOWER: the maximum Rated Brake Horsepower specified for the engine by the manufacturer and listed on the nameplate for the unit, regardless of any derating, unless limited by the engine's Permit to Operate (PTO).

REACTIVE ORGANIC COMPOUND (ROC): see Volatile Organic Compound (VOC) definition.

REACTIVE PENETRATING SEALER: a clear or pigmented Coating that is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including, but not limited to, alkalis, acids, and salts. Reactive Penetrating Sealers must penetrate into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. Reactive Penetrating Sealers line the pores of
concrete and masonry substrates with a hydrophobic Coating, but do not form a surface film. Reactive Penetrating Sealers must meet all of the following criteria:

1. the Reactive Penetrating Sealer must improve water repellency at least 80 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards, incorporated by reference in Rule 424, subsection G.5.u, ASTM C67-07, or ASTM C97-02, or ASTM C140-06; and

2. the Reactive Penetrating Sealer must not reduce the water vapor transmission rate by more than 2 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens in accordance with ASTM E96/E96M-05, incorporated by reference in Rule 424, subsection G.5.v; and

3. products labeled and formulated for vehicular traffic surface chloride screening applications must meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), incorporated by reference in Rule 424, subsection G.5.w.

Reactive Penetrating Sealers must be labeled in accordance with Rule 424, subsection E.10.

REAL: a "real" emission reduction means that actual air emissions are reduced and that they are actually occurring and not artificially devised.

REASONABLE FURTHER PROGRESS: annual incremental reductions in emissions required for the purpose of ensuring attainment of state or federal Ambient Air Quality Standards by the applicable date.

REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT): is the most stringent of the following control options:

1. the most effective emission limits in existing regulations that are currently in effect in any District whose nonattainment status is designated as moderate, with such limits resulting from the application of retrofit technologies judged by the APCO to be demonstrated and reliable.

2. emission limits identified in existing Suggested Control Measures (SCM's), model rules, the US EPA's Control Techniques Guidelines (CTG's) or other such documents.

3. emission limits in new (post 1988) SCM's and the technical review group of the California Air Pollution Control Officers Association approved Reasonably Availability Control Technology/Best Available Retrofit Control Technology (RACT/BARCT) determinations, which are not identified as BACT and are less
stringent than BACT.

4. the lowest emission limit that can be achieved by the specific Source by the application of control technology taking into account environmental impacts, technological feasibility, cost-effectiveness, and the specific design features or extent of necessary Modifications to the Source. Emission limits for existing specific Sources may be found in the field studies and evaluations of District regulations conducted by the US EPA and the CARB.

5. the lowest emission limit achieved for the Source category that is technically feasible, economically reasonable and achieved in practice anywhere (including outside the United States), with such limits resulting from the application of retrofit control technologies judged by the APCO to be demonstrated and reliable.

6. any combination of control technologies that will achieve emission reductions equivalent to that resulting from the most stringent option listed above.

REBUILT EQUIPMENT: for the purposes of Rule 415, means any component of a Vapor Recovery System that has undergone repair or replacement of any or all of its internal parts.

RECONSTRUCTED STATIONARY SOURCE: any Stationary Source undergoing physical Modification where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new Stationary Source. Fixed capital cost means that capital needed to provide all the depreciable components.

RECYCLED COATING: an Architectural Coating formulated such that it contains a minimum of 50% by volume post-consumer Coating, with a maximum of 50% by volume secondary industrial materials or virgin materials.

REDUCER: the Solvent used to thin enamel.

REDUCTION OF ANIMAL MATTER: processing animal matter by any process, including rendering, cooking, drying, dehydration, digestion, and evaporation, but not including any processing of food for human consumption.

REFINISHING: any Coating of vehicles, their parts and components, or Mobile Equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original Coating applied at an original Equipment manufacturing (OEM) plant Coating assembly line.

REMOTE RESERVOIR: liquid Organic Solvent tank which is completely enclosed except for a Solvent return opening no larger than 100 cm² (15 in²) which allows used Organic Solvent to drain into it from a separate Organic Solvent sink or work area and which is not accessible for soaking parts.
RESIDENTIAL: areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

RESIDENTIAL RUBBISH: refuse originating from Residential uses and includes wood, paper, cloth, cardboard, tree trimmings, leaves, lawn clippings, and dry plants, but not household garbage.

RETAIL FACILITY OR RETAIL SERVICE STATION: is any Motor Vehicle refueling facility subject to payment of California sales tax on gasoline sales.

RICH BURN ENGINE: any spark or compression ignited Internal Combustion Engine that is operated with an exhaust gas stream oxygen concentration of less than four percent (4%) by volume. The exhaust gas oxygen content shall be determined from the uncontrolled exhaust gas stream.

ROAD OILS: slow cure asphalts.

ROC ANALYZER: hydrocarbon analyzer satisfying United States Environmental Protection Agency Method 21, 40 CFR Part 60.

ROOF COATING: a non-bituminous Coating labeled and formulated for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.

RULE: a Rule of the Air Pollution Control District of Imperial County.

RUST PREVENTATIVE COATING: a Coating formulated to prevent the corrosion of metal surfaces for one or more of the following applications:

1. direct-to-metal Coating; or

2. Coating intended for application over rusty, previously coated surfaces.

The Rust Preventative category does not include the following:

3. Coatings that are required to be applied as a topcoat over a Primer; or

4. Coatings that are intended for use on wood or any other non-metallic surface.

Rust Preventative Coatings are for metal substrates only and must be labeled as such, in accordance with the labeling requirements in Rule 424, subsection E.7.

SANDING SEALER: a clear or semi-transparent Wood Coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of Coatings. A Sanding Sealer
that also meets the definition of a Lacquer is not included in this category, but is included in the Lacquer category. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

SEASONAL SOURCE: any Stationary Source with more than 75 percent of its annual operating hours within a consecutive 120 day period.

SECONDARY EMISSIONS: means emissions which would occur as a result of the Construction or operation of a Stationary Source or Modification, but do not come from the Stationary Source or Modification itself. Secondary emissions must be specific, well defined, Quantifiable, and impact the same general area as the Stationary Source or Modification which causes the Secondary Emissions. Secondary Emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the Construction or operation of the Stationary Source. Secondary Emissions do not include any emissions which come directly from a mobile source such as emissions from the tailpipe of a Motor Vehicle, from a train, or from a vessel.

SECONDARY INDUSTRIAL MATERIALS: products or by-products of the paint manufacturing process that are of known composition and have economic value but can no longer be used for their intended purpose.

SEMITRANSPARENT COATING: a Coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.

SEMI-TRANSPARENT STAINS: Coatings which are formulated to change the color of a surface but not conceal the surface.

SEMI-TRANSPARENT WOOD PRESERVATIVES: Wood Preservative Stains formulated and used to protect exposed wood from decay or insect attack by the addition of a Wood Preservative chemical registered by the California Department of Food and Agriculture, which change the color of a surface but do not conceal the surface, including clear Wood Preservatives.

SHELLAC: a clear or opaque Coating formulated solely with the resinous secretions of the lac beetle (Laciffer lacca), and formulated to dry by evaporation without a chemical reaction.

SHOP APPLICATION: application of a Coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original Equipment manufacturing Coatings).

SHUTDOWN: means an action necessary to cease operation of an Emissions Unit and includes the amount of time needed to safely do so. For the purposes of calculating
ERC’s, means the Permanent cessation of emissions from an emitting unit and the surrender of the operating permit.

SIGNIFICANT: in reference to an Emissions Increase or the potential of a Source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

1. PM$_{2.5}$: 10 tpy of direct PM$_{2.5}$ or 40 tpy of sulfur dioxide emissions or 40 tpy of nitrogen oxide emissions.
2. Nitrogen oxides: 40 tpy
3. Sulfur dioxide: 40 tpy
4. VOC's: 40 tpy; and
5. PM$_{10}$: 15 tpy

SIGNIFICANT EMISSIONS INCREASE: an increase in emissions that is Significant for that pollutant.

SIGNIFICANT NET EMISSIONS INCREASE: an increase in net emissions that is Significant for that pollutant. The “net emissions increase” shall be determined as defined in 40 CFR 51.165.

SINGLE-STAGE COATING: any pigmented Coating, excluding Primers and Multi-Color Coatings, labeled and formulated for application without a subsequent clear coat. Single-stage Coatings include single-stage metallic/iridescent Coatings.

SOAP BUBBLE SCORE: the magnitude of a leak as indicated by the size of bubble formation resulting from spraying the suspected area with a standard solution. Soap scores are assigned following six seconds of observation as follows:

<table>
<thead>
<tr>
<th>Soap Score</th>
<th>Estimate Bubble Volume (cc/6 Sec.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No detectable bubbling</td>
</tr>
<tr>
<td>1</td>
<td>0 to 1 cc per 6 sec.</td>
</tr>
<tr>
<td>2</td>
<td>1 to 10 cc per 6 sec.</td>
</tr>
<tr>
<td>3</td>
<td>10 to 100 cc per 6 sec.</td>
</tr>
<tr>
<td>4</td>
<td>Greater than 100 cc per 6 sec.</td>
</tr>
</tbody>
</table>

SOLICIT: to require for use or to specify, by written or oral contract.

SOLVENT: for purposes of Rule 427, a VOC-containing fluid used to perform cleaning operations.
SOURCE: a specific device, article, or piece of Equipment from which Air Contaminants are emitted, or the distinct place (such as with fires or other chemical activity) from which Air Contaminants are emitted. A Project or facility may have more than one Source and the term may be used to describe a group of "Sources."

SPACE VEHICLE: a vehicle designed for use beyond the earth's Atmosphere.

SPECIALTY COATING: a Coating used for limited, specialty applications, such as Camouflage Coatings or extreme performance Coatings. Such Coatings frequently have no complying counterpart, and often must be used to fulfill specific performance requirements of the particular Coating application.

SPECIALTY PRIMER, SEALER, AND UNDERCOATER: a Coating that is formulated for application to a substrate to block water-soluble Stains resulting from: fire damage; smoke damage; or water damage. Specialty Primers, Sealers, and Undercoaters must be labeled in accordance with Rule 424, subsection E.8. Until January 1, 2012, the Specialty Primer, Sealer, and Undercoater includes Coatings formulated to seal excessively chalky surfaces. An excessively chalky surface is one that is defined as having a chalk rating of four or less as determined by ASTM D4214-98, incorporated by reference in Rule 424, subsection G.5.g.

SPOT REPAIR: repair of an area on a Motor Vehicle, piece of Mobile Equipment, or associated parts or components of less than 1 square foot (929 square centimeters).

SPRAY SAFETY SWITCH: safety switch which cuts off the spray applicator pump if vapor levels drop below a specific level.

STACK-GAS OXYGEN SYSTEM: means a system of monitors that is used to maintain excess air at the desired level. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

STAIN: a semi-transparent, or opaque Coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

STANDARD CONDITIONS: a gas temperature of 60 degrees Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute. Results of all analyses and tests shall be calculated or reported at this gas temperature and pressure.

STARTUP: means an action necessary to begin operation of a unit and includes the amount of time needed for a unit and ancillary Equipment to achieve stable operations.

STATE BOARD: the California Air Resources Board, or any Person authorized to act on its behalf.
STATIONARY GAS TURBINE(S): means any gas turbine system, with or without power augmentation, which is permanently attached to a foundation, or is not a portable gas turbine. Two or more gas turbines powering a common shaft shall be treated as one gas turbine.

STATIONARY SOURCE: any building, structure, facility, Equipment, or Emissions Unit which emits or may emit any Affected Pollutant directly or as a Fugitive Emission. Building, structure, or facility includes all pollutant emitting activities, including Emission Units, which:

1. are located on one or more contiguous or adjacent properties, and
2. are under the same or common ownership or operation, or which are owned or operated by entities which are under common control, and
3. belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial classification code or by virtue of being part of a common production process, industrial process, manufacturing process, or connected process involving a common raw material.

STATIONARY TANK: any tank, reservoir or other container used to store, but not transport, Reactive Organic Compounds.

STENCIL COATING: for the purposes of Rule 425, means an ink or Coating which is rolled, sprayed with an airbrush or a touch-up gun with a capacity of 8 ounces (236.4 ml) or less, or brushed using a template to add identifying letters and/or numbers to Aerospace Component.

STONE CONSOLIDANT: a Coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. Stone Consolidants must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. Stone Consolidants must be specified and used in accordance with ASTM E2167-01, incorporated by reference in Rule 424, subsection G.5.x. Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in Rule 424, subsection E.11.

STRIPPER: a Reactive Organic Compound liquid applied to remove a Maskant, paint, paint residue or temporary protective Coating.

SUBMERGED FILL PIPE: any permanent fill pipe which has its discharge opening entirely submerged when the liquid level is six inches above the bottom of the tank. “Submerged Fill Pipe” when applied to a tank which is loaded from the side means any fill pipe which has its discharge opening entirely submerged when the liquid level is 18 inches above the bottom of the tank.
SURFACE PREPARATION SOLVENT: any Solvent used primarily for the conditioning of a surface to receive a Coating.

SURPLUS: the amount of emission reductions that are, at the time of generation of an ERC, not otherwise required by federal, State, or local law, not required by any legal settlement or consent decree, and not relied upon to meet any requirement related to the California SIP. For the purpose of Rule 207, sections C.2.c and C.2.d, "Surplus" means the amount of emission reductions that are, at the time of use of an ERC, not otherwise required by federal, State, or local law, not required by any legal settlement or consent decree, and not relied upon to meet any requirement related to the California SIP. However, emission reductions required by a state statute that provides that the subject emission reductions shall be considered Surplus may be considered Surplus for purposes of Rule 207 if those reductions meet all other requirements of Rule 207. Examples of federal, State, and local laws and of SIP-related requirements include, but are not limited to, the following:

1. the federally-approved California SIP;

2. other adopted State air quality laws, and regulations not in the SIP, including but not limited to, any requirement, regulation, or measure that: (1) the District or the State has included on a legally-required and publicly-available list of measures that are scheduled for adoption by the District or the State in the future; or (2) is the subject of a public notice distributed by the District or the State regarding an intent to adopt such revision;

3. any other Source or Source-category specific regulatory or permitting requirement, including, but not limited to, RACT, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Best Available Control Measures (BACM), BACT, and the Lowest Achievable Emission Rates (LAER); and

4. any regulation or supporting documentation that is required by the CAA but is not contained or referenced in 40 CFR Part 52, including but not limited to: assumptions used in attainment and maintenance demonstrations (including Reasonable Further Progress demonstrations and milestone demonstrations), including any proposed control measure identified as potentially contributing to an Enforceable near-term emissions reduction commitment; assumptions used in conformity demonstrations, and assumptions used in emissions inventories.

5. emission reductions produced by monies from any public air quality related funding program including but not limited to the Carl Moyer Memorial Air Quality Standards Attainment Program and the vehicle registration surcharge fee.

SWIMMING POOL COATING: a Coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. Swimming Pool Coatings included Coatings used for swimming pool repair and maintenance.
SWIMMING POOL REPAIR AND MAINTENANCE COATING: a rubber based Coating labeled and formulated to be used over existing rubber based Coatings for the repair and maintenance of swimming pools. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

SWITCH LOADING: the loading of organic liquids with a Reid vapor pressure of less than 4.0 pounds into a delivery vessel where the previous load was gasoline.

TACK COAT: any application of Asphalt applied to an existing surface to provide a bond between new surfacing and an existing surface and to eliminate slippage planes where the new and existing surfaces meet.

TANK REPLACEMENT: the replacement of one or more stationary Gasoline storage tanks at an existing Gasoline dispensing facility, or, the excavation of 50 percent or more of an existing Gasoline dispensing facility's total underground liquid Gasoline piping from the stationary storage tanks to the Gasoline dispensers.

TEMPERATURE-INDICATOR SAFETY COATING: a Coating labeled and formulated as a color-changing indicator Coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying Equipment, and for application to substrates exposed continuously or intermittently to temperatures above 400°F (204°C). Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

TEMPORARY PROTECTIVE COATING: for the purposes of Rule 427, any Coating which is labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.

THERMAL OXIDIZER: means combustion Equipment fired with Gaseous Fuel and used to control emissions of Air Contaminants from industrial or commercial processes.

THERMO CONTROL COATING: a Coating applied to Space Vehicle components to reflect heat and formulated to give specific heat reflectance, absorption and emissivity properties, or a Coating required for aerospace engine components to delay component failure due to fire.

TINT BASE: an Architectural Coating to which colorant is added after packaging in sale units to produce a desired color.

TOPCOAT: a Coating applied over a Primer as the final coat for purposes such as appearance, identification, or protection.

TOTAL REDUCED SULFUR COMPOUNDS: the sulfur compounds methyl mercaptan,
dimethyl sulfide, dimethyl disulfide, carbon disulfide, and carbonyl sulfide.

TOUCH-UP COATING: for the purposes of Rule 425, means a Coating that is used for that portion of the Coating operation which is incidental to the main Coating process but necessary to cover minor imperfections or to achieve coverage as required. A touch-up Coating may include small amounts of Solvent, applied by hand, used to attach Coating patches exhibiting inadequate adhesion.

TOXIC AIR CONTAMINANT: an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness or which may pose a present or potential hazard to human health. This includes, but is not limited to, hazardous air pollutants listed in Section 112(b) of the Clean Air Act, which is incorporated by reference.

TRAFFIC MARKING COATING: a Coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

TRANSFER: in reference to ERC's, means the conveyance of an ERC from one entity to another

TRANSFER EFFICIENCY: is the amount of Coating solids adhering to the object being coated divided by the total amount of Coating solids sprayed, expressed as a percentage.

TREATED BRUSH: material to be burned that has been felled, crushed or uprooted with mechanical Equipment, or desiccated with herbicides.

TRUCK BED LINER COATING: any Coating, excluding clear, color, multi-color, and single stage Coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.

TUB AND TILE REFINISH COATING: a clear or opaque Coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish Coatings must meet all of the following criteria:

1. the Coating must have a scratch hardness of 3H or harder and a gouge hardness of 4H or harder. This must be determined on bonderite 1000, in accordance with ASTM D3363-05, incorporated by reference in Rule 424, subsection G.5.p and

2. the Coating must have a weight loss of 20 milligrams or less after 1000 cycles. This must be determined with CS-17 wheels on bonderite 1000, in accordance with ASTM D4060-07 incorporated by reference in Rule 424, subsection G.5.q and

3. the Coating must withstand 1000 hours or more of exposure with few or no #8
blisters. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99 and ASTM D714-02e1, incorporated by reference in Rule 424, subsection G.5.r and  

4. the Coating must have an adhesion rating of 4B or better after 24 hours of recovery. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99 and ASTM D3359-02, incorporated by reference in Rule 424, subsection G.5.o.

ULTRASONIC: enhancement of cleaning process by vibrating Organic Solvent with high frequency sound waves, causing implosion of microscopic vapor cavities within liquid Organic Solvent.

UNDERBODY COATING: for purposes of Rule 427, any Coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the Motor Vehicle.

UNIFORM FINISH COATING: for purposes of Rule 427, any Coating labeled and formulated for application to the area around a Spot Repair for the purpose of blending a repaired area’s color or clear coat to match the appearance of an adjacent area’s existing Coating.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US EPA): the Administrator or appropriate delegate of the "United States Environmental Protection Agency."

UNRESERVED FUND BALANCE: the excess of the assets of a governmental fund or trust fund over its liabilities and fund balance reserved accounts.

UPWIND: the area bounded by a line drawn perpendicular to the predominant wind flow line passing through or nearest to the site of the new source or Modification and extending to the boundaries of the same or adjoining counties within the same air basin except where the APCO determines that for reasons of topography or meteorology such a definition is inappropriate.

VAPOR LEVEL CONTROL THERMOSTAT: safety switch which turns off sump heater if temperature rises above design operating level at center of air-vapor interface.

VAPOR RECOVERY SYSTEM: a vapor-gathering system capable of collecting organic vapors and gases emitted during the operation of Equipment.

VAPOR TIGHT: for the purposes of Rule 415, means a leak of less than 100 percent of the lower explosive limit on a combustible gas detector measured at a distance of 2.5 cm (1 in) from the Source or no visible evidence of air entrainment in the sight glasses of liquid delivery hoses.
VARIANCE: an authorization by the Hearing Board to permit, for a specified limited period of time, some act contrary to the requirements specified by the District Rules and regulations.

VARNISH: a clear or semi-transparent Wood Coating, excluding Lacquers and Shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the Finish. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

VEHICLE CLASS: either a Passenger Car, Light Duty Truck, Medium Duty Vehicle or Heavy Duty Vehicle as defined in Title 13 California Code of Regulation section 1900.

VENEER: thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated Veneer lumber, or other products.

VIRGIN MATERIALS: materials that contain no post-consumer Coatings or secondary industrial materials.

VOLATILE FUEL: any fuel having a Reid vapor pressure of greater than 3.0 pounds per square inch when tested pursuant to the American Society of Testing and Materials (ASTM) Reid Vapor Pressure test method, or having a true vapor pressure of greater than 3.0 pounds per square inch absolute at 100°F if the ASTM Reid Vapor Pressure test is not applicable.

VOLATILE ORGANIC COMPOUND (VOC): any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

1. methane;
   methylene chloride (dichloromethane);
   1,1,1-trichloroethane (methyl chloroform);
   trichlorofluoromethane (CFC-11);
   dichlorodifluoromethane (CFC-12);
   1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
   1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
   chloropentafluoroethane (CFC-115);
   chlorodifluoromethane (HCFC-22);
   2,2-dichloro-1,1,1-trifluoroethane (HCFC-123);
   2-chloro-1,1,2,2-tetrafluoroethane (HCFC-124);
   1,1-dichloro-1-fluoroethane (HCFC-141b);
   1-chloro-1,1-difluoroethane (HCFC-142b);
   trifluoroethane (HFC-23);
   pentafluoroethane (HFC-125);
   1,1,2,2-tetrafluoroethane (HFC-134);
1,1,1,2-tetrafluoroethane (HFC-134a);
1,1,1-trifluoroethane (HFC-143a);
1,1-difluoroethane (HFC-152a);
cyclic, branched, or linear completely methylated siloxanes;
the following classes of perfluorocarbons:

(A) cyclic, branched, or linear, completely fluorinated alkanes;
(B) cyclic, branched, or linear, completely fluorinated ethers with no
unsaturations;
(C) cyclic, branched, or linear, completely fluorinated tertiary amines with no
unsaturations; and
(D) sulfur-containing perfluorocarbons with no unsaturations and with the
sulfur bonds only to carbon and fluorine; and

2. the following low Reactive Organic Compounds which have been exempted by
the US EPA:
acetone;
ethane;
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);
perchloroethylene;
methyl acetate;
propylene carbonate and
dimethyl carbonate

3. Perfluorocarbon and Methylated Siloxane compounds shall be assumed to be
absent from any product or process unless the manufacturer or operator
indicates which specific, individual compounds from these broad classes are
present, indicated the amount(s) present, and demonstrates the availability of a
test method approved by the US EPA, the CARB, and the District for verifying
the amount(s) present quantitatively.

4. Tertiary-Butyl Acetate (also known as t-butyl acetate, TBAC or TBAc) shall be
considered exempt as a VOC only for purposes of VOC emissions limitations or
VOC content requirements, but will continue to be a VOC for purposes of all
recordkeeping, emissions reporting, photochemical dispersion modeling, and
inventory requirements with apply to VOC's.

VOC ACTUAL: VOC Actual is the weight of VOC per volume of Coating and it is
calculated with the following equation:

\[
\text{VOC Actual} = \frac{(W_s - W_w - W_{ec})}{(V_m)}
\]

Where:
\(W_s\) = the grams of VOC per liter of Coating (also known as “Material
VOC”)
Ws = weight of volatiles, in grams  
Ww = weight of water, in grams  
Wec = weight of exempt compounds, in grams  
Vm = volume of Coating, in liters

VOC CONTENT: the weight of VOC per volume of Coating. VOC Content is VOC Regulatory, as defined within this rule under VOC Regulatory, for all Coatings except those in the Low Solids category. For Coatings in the Low Solids category, the VOC Content is VOC Actual, as defined within this rule under VOC Actual. If the Coating is a multi-component product, the VOC content is VOC Regulatory as mixed or catalyzed. If the Coating containssilanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.

VOC REGULATORY: VOC Regulatory is the weight of VOC per volume of Coating, less the volume of water and exempt compounds. It is calculated with the following equation:

\[
\text{VOC Regulatory} = \frac{\text{Ws} - \text{Ww} - \text{Wec}}{\text{Vm} - \text{Vw} - \text{Vec}}
\]

Where:

- VOC Regulatory = grams of VOC per liter of Coating, less water and exempt compounds (also known as “Coating VOC”)
- Ws = weight of volatiles, in grams
- Ww = weight of water, in grams
- Wec = weight of exempt compounds, in grams
- Vm = volume of Coating, in liters
- Vw = volume of water, in liters
- Vec = volume of exempt compounds, in liters

WASTE HEAT RECOVERY BOILER: means Waste Heat Recovery Boilers used to recover sensible heat from unfired Waste Heat Recovery Boilers and from the exhaust of any combustion Equipment.

WATER TREATMENT ADDITIVES: any combination of chemicals used to treat cooling tower water. They include, but are not limited to, corrosion inhibitors antiscalants, dispersants and biocides.

WATERPROOFING CONCRETE/MASONRY SEALER: a clear or pigmented film-forming Coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.
WATERPROOFING MEMBRANE: a clear or opaque Coating that is labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into the substrate. Waterproofing Membranes are intended for the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials. Waterproofing Membranes must meet the following criteria:

1. Coating must be applied in a single coat of at least 25 mils (at least 0.025 inch) dry film thickness; and

2. Coatings must meet or exceed the requirements contained in ASTM C836-06, incorporated by reference in Rule 424, subsection G.5.s.

The Waterproofing Membrane category does not include Topcoats that are included in the Concrete/Masonry Sealer category (e.g., parking deck Topcoats, pedestrian deck Topcoats, etc.).

WATERPROOFING SEALER: a Coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water. Effective January 1, 2011, a Coating meeting this definition will be subject to the applicable category in Table 424-2, except as provided in subsection D.2, Most Restrictive VOC Limits found in Rule 424.

WIPE CLEANING: method of cleaning which utilizes a cloth, cotton swab or other material, wetted with an Organic Solvent, which is physically rubbed on surface to be degreased.

WOOD COATINGS: Coatings labeled and formulated for application to Wood Substrates only. The Wood Coatings category includes the following clear and semitransparent Coatings: Lacquers; Varnishes; Sanding Sealers; penetrating oils; clear Stains; wood conditioners used as undercoats; and wood sealers used as Topcoats. The Wood Coatings category also includes the following opaque wood Coatings: opaque Lacquers; opaque Sanding Sealers; and opaque Lacquer undercoaters. The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or Coatings intended for substrates other than wood.

Wood Coatings must be labeled “For Wood Substrates Only”, in accordance with Rule 424, subsection E.13.

WOOD PRESERVATIVE: a Coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the US EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code (U.S.C.) Section 136, et seq.) and with the California Department of Pesticide Regulation.
WOOD SUBSTRATE: a substrate made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with exposed wood grain. Wood Products do not include items comprised of simulated wood.

ZINC-RICH PRIMER: a Coating that meets all of the following specifications:

1. Coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and

2. Coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of Coatings; and

3. Coating is intended for professional use only and is labeled as such, in accordance with the labeling requirements in Rule 424, subsection E.14.
RULE 202 EXEMPTIONS
(Adopted prior to 11/19/85; Revised 9/7/93; 9/14/99; 10/10/2006; __/____/___)

A. An Authority to Construct or Permit to Operate shall not be required for any process, article, machine, Equipment, or other contrivance listed in Section E unless:

A.1 The process, article, machine, Equipment, or other contrivance is subject to New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAPS) or a Source specific prohibitory rule, or

A.2 The process, article, machine, Equipment, or other contrivance emits, in quantities determined to be appropriate for review by the Air Pollution Control Officer, substances identified as Toxic Air Contaminants or which are under review as candidate Toxic Air Contaminants by the California Air Resources Board, or

A.3 The Air Pollution Control Officer makes a determination that a permit shall be required because the Equipment may not operate in compliance with all Air Pollution Control District rules and regulations.

B. An Authority to Construct or Permit to Operate shall not be required for any process, article, machine, Equipment, or other contrivance with uncontrolled emissions of Affected Pollutants less than or equal to two pounds in any 24-hour period.

C. An otherwise exempt piece of Equipment requires a permit if it is part of a process that requires a permit.

D. Appropriate recordkeeping shall be required to verify and maintain any exemption.

E. Unless otherwise specified in sections A or B, an Authority to Construct or Permit to Operate shall not be required for the following Equipment:

E.1 Combustion and Heat Transfer Equipment

E.1.a Internal Combustion Engines and Gas Turbines: Piston type internal combustion engines with a manufacturer's maximum continuous rating of 50 brake horsepower (bhp) or less or gas turbine engines with a maximum heat input rate of 3 million British thermal units (Btu) per hour or less at ISO Standard Day Conditions. The ratings of all engines or turbines used within a
Stationary Source will be accumulated to determine whether this exemption applies.

E.1.b (reserved)

E.1.c Steam generator, steam superheaters, water boilers, water heaters, steam cleaners, and closed indirect heat transfer systems which have a maximum input heat rating of 5,000,000 Btu per hour (gross) or less and are equipped to be fired exclusively with Public Utilities Commission regulated natural gas, liquefied petroleum gas or any combination thereof.

E.1.d Portable equipment holding a valid registration under the Statewide Portable Equipment Registration Program pursuant to Title 13, Article 5, Sections 2450 - 2465 of the California Code of Regulations.

E.2 Vehicles

E.2.a Motor Vehicles as defined by the Vehicle Code of the State of California but not including any article, machine, Equipment, or other contrivance mounted on such vehicle, that would otherwise require a permit under the provisions of these rules and regulations.

E.2.b Locomotives, airplanes and watercraft used to transport passengers or freight. This exemption is not intended to apply to Equipment used for the dredging of waterways or to Equipment used in pile driving adjacent to or in waterways.

E.3 Residential Structures

E.3.a Any structure designed for and used exclusively as a dwelling for not more than four families and any Incinerator used exclusively in connection with such a structure.

E.4 Cooling Towers

E.4.a Water Cooling Towers that have a circulation rate of less than 10,000 gallons per minute and which are not used for cooling of process water, water from barometric jets or water from barometric condensers.

E.5 Printing and Reproduction Equipment
E.5.a Printing and related Coating or laminating Equipment not using more than 2 gallons of graphic arts material per day. Graphic arts materials are any inks, Coatings, Adhesives, fountain solutions, thinners, retarders, or cleaning solutions used in printing or related Coating or laminating processes. (Does not include Equipment associated with wood flat stock Coating operations.)

E.6 Food Processing

E.6.a Equipment, excluding boilers, used in eating establishments or other retail establishments for the purpose of preparing food for human consumption.

E.6.b Mixers and blenders used in bakeries where the products are edible and intended for human consumption. Ovens at bakeries whose total production is less than 1,000 pounds of product per operating day.

E.6.c Equipment used exclusively to grind, blend or package tea, cocoa, spices or roasted coffee and Control Equipment venting exclusively such Equipment.

E.6.d Smokehouses for preparing food in which the maximum horizontal inside cross-section area does not exceed 20 square feet (or 2 square meters).

E.6.e Barbecue Equipment.

E.7 Plastic/Rubber Processing

E.7.a General - The following uncontrolled Equipment or process, located at the same Stationary Source, using material containing ROCs, when aggregated emissions of ROCs from the Equipment or process do not exceed 5 pounds in any one day:

- Foam manufacturing or application
- Fiberglass reinforced plastic fabrication
- Plastics manufacturing

E.7.b Presses - Equipment used exclusively for extruding rubber products or plastic where no plasticizer or blowing agent is
present, or for pelletizing polystyrene foam scraps except Equipment used to extrude or to pelletize acrylics, polyvinyl chloride, polystyrene, and their copolymers.

E.7.c Ovens - Ovens used exclusively for the curing, softening, or annealing of plastics. Does not apply to ovens used to cure fiberglass reinforced plastics.

E.8 Storage and Transfer Equipment

E.8.a Unheated solvent dispensing containers with capacity not more than 250 gallons.

E.8.b Mobile Transport Tanks or delivery tanks or cargo tanks on vehicles for delivery of VOCs except Asphalt tankers used to transport and transfer hot Asphalt for roofing applications.

E.8.c Equipment used exclusively for the storage of unheated Organic Material with an initial boiling point of 150 C (302 F) or greater, or with an organic vapor pressure of 5 mm Hg (0.1 psi) absolute or less at 21.1 C (70 F) as determined by the following ASTM test methods:


E.8.d Equipment used exclusively for the unheated underground storage of 23,000 liters (6,077 gallons) or less of organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psi) absolute or less at actual storage conditions. Equipment used exclusively for the transfer to or from such storage of organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psi) absolute or less at actual storage conditions. Vapor pressure to be determined by ASTM D 2879-86, "Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope".

E.9 Surface Coating and Cleaning Operations

E.9.a Application Equipment for architectural surface Coatings used
for commercial or residential applications. Architectural surface Coating is defined as any Coating applied to stationary structures and their Appurtenances, to mobile homes, to pavements, or to curbs.

E.9.b Unheated non-conveyorized, cleaning Equipment: (Does not include control enclosures)

E.9.b.1 With an open surface area of 1.0 square meters (10.8 sq. feet) or less and an internal volume of 350 liters (92.5 gal.) or less, and

E.9.b.2 Using only Organic Solvents with an initial boiling point of 160 C (302 F) or greater as determined by ASTM test method 1078-86, "Standard Test Method for Distillation Range of Volatile Organic Liquids", and

E.9.b.3 Less than 25 gallons of solvent per year are lost to the Atmosphere from all such Equipment. Solvent lost shall not include solvent that is recycled or disposed of properly. Any Person claiming exemption pursuant to this subsection shall maintain adequate monthly records to substantiate their exempt status.

E.9.c Surface Coating Equipment using a combined total of one gallon per day or less of Coating material and solvent. Coatings applied by means of non-refillable aerosol cans shall not be included in the daily usage determination for purposes of determining the one gallon per day limit.


E.10 Agricultural Sources

E.10.a Stationary combustion agricultural sources with combined actual emissions of less than one half of any applicable emissions threshold for a major source.

E.10.b Any confined animal facility that maintains on any one day less than 4,000 milk producing cows; or less than 3,500 beef cattle, calves, heifers, or other cattle; or less than 100,000 turkeys or less than 650,000 chickens other than laying hens; or less than 650,000 laying hens; or less than 3,000 swine; or less than 15,000 sheep, lambs or goats; or less than 2,500 horses or less than 650,000 ducks or less
than 30,000 rabbits or other animals.

E.11 Repairs or Maintenance

Routine repairs or maintenance not involving structural changes to any Equipment for which a permit has been granted.
I  BACKGROUND

The Imperial County is currently designated as a nonattainment area for the federal ozone, PM$_{10}$ and PM$_{2.5}$ standards. The Imperial County Air Pollution Control (Air District) maintains the responsibility of regulating air pollution from all sources within the County of Imperial. As required under state law, the Air District adopts rules to achieve ambient air quality standards and enforces the provisions of local, state, and federal air quality laws.

On December 2, 2014, the Air District adopted the Imperial County 2013 PM$_{2.5}$ State Implementation Plan for the PM$_{2.5}$ Nonattainment (NA) demonstrating that Imperial County is in attainment “but-for” emissions from Mexico and as such ammonia emissions do not need to be reduced to address PM$_{2.5}$ standard. However, to improve the public health and further reduce VOC and ammonia emissions to prepare for the new annual PM$_{2.5}$ NAAQS, the Air District had committed to the United States Environmental Protection Agency (U.S. EPA) to examine the potential role of ammonia within the Imperial County PM$_{2.5}$ NA. The Air District has identified three main sources of ammonia emissions.

• Confined Animal Facilities (Air District Rule 217)
• Composting Facilities (Permitted Facilities)
• Agricultural Fertilizers

To address emissions from Confined Animal Facilities, on October 10, 2006, the Air District adopted the current version of Rule 217, Large Confined Animal Facilities (LCAF) Permits Required. Rule 217 was adopted in response to legislative enactment of Senate Bill 700 (SB700) – Florez – Agricultural Sources. The purpose of Rule 217 is to limit emissions of VOC’s and ammonia from Large Confined Animal Facilities (LCAF). This Rule applies to facilities operations that are corralled, penned, or otherwise restricted to areas of defined dimension and are fed by means other than grazing. Such facilities include, but are not limited to, cattle, calves, chickens, ducks, goats, horses, sheep, swine, rabbits, and turkeys. The Imperial County mainly has 2 types of facilities: Beef Operations and Dairy Operations.
The Air District proposes to amend Rule 217 to further reduce Volatile Organic Compound (VOCs) and Ammonia emissions to improve public health and to prepare for the annual PM$_{2.5}$ NAAQS which will require the Air District to develop a new PM$_{2.5}$ SIP. The proposed amendment to this rule would strengthen the current rule requirements, lower threshold limits, and tighten mitigation measures. In addition, clarifying and compliance language was added including monitoring, testing, and recordkeeping sections to improve enforcement of the rule.

In addition, the threshold for LCAF’s has been revised to reflect the threshold proposed by the San Joaquin’s Rule 4570 and with direction of the U.S. EPA and California Air Resources Board (CARB). Therefore, the Air District is also amending Rule 101 – Definitions and Rule 202 – Exemptions to reflect the revised thresholds where applicable.

The Air District has been working closely with U.S. EPA - Region IX and CARB representatives to address any deficiencies in the proposed Rule. The proposed rule contains required elements that would improve the rule and assist with meeting federal requirements.

The proposed revision is expected to have a net positive environmental impact, and no significant adverse economic impacts. The proposed revision also complies with restrictions imposed by California law that prohibit the Air District from adopting changes to certain rules that make them less stringent.

II REASON FOR RULE AMENDMENT

Air monitoring data in Imperial County indicates high levels of PM$_{2.5}$ that exceeds the PM$_{2.5}$ National Ambient Air Quality Standard (NAAQS). As a result, the U.S. EPA classified a portion of Imperial County as “moderate” nonattainment for PM$_{2.5}$. Nonattainment areas are required by the Federal Clean Air Act to develop State Implementation Plans (SIP) to achieve attainment of the National Ambient Air Quality Standards (NAAQS) and protect public health and welfare. Table 2 identifies the number of days over the Federal PM$_{2.5}$ Standard.

<table>
<thead>
<tr>
<th>Year</th>
<th>Calculated Number of Days over the Federal PM$_{2.5}$ Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2</td>
</tr>
<tr>
<td>2013</td>
<td>1</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
</tr>
<tr>
<td>2010</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2, Number of Days over the Federal PM$_{2.5}$ Standards.
On December 2, 2014, Air District adopted the 2013 SIP for the 2006 24-hr PM$_{2.5}$ Moderate Nonattainment Area (2006 24-hr PM$_{2.5}$ SIP). The Air District PM$_{2.5}$ SIP is comprised of regulatory measures to reduce emissions of VOC and Ammonia which are precursors of PM$_{2.5}$. The proposed amendments to Rule 217 are intended to support the attainment goals of the Air District 2013 24-hr PM$_{2.5}$ SIP. The proposed amendments are intended to reduce VOC and Ammonia from LCAFs “as expeditiously as practicable”.

To address VOC and Ammonia Emissions, on October 10, 2006, the Air District adopted Rule 217 – Large Confined Animal Facilities. The purpose of the Rule 217 is to limit emissions of VOC’s and ammonia from Large Confined Animal Facilities (LCAF). This Rule applies to facilities operations that are corralled, penned, or otherwise restricted to areas of defined dimension and are fed by means other than grazing. Such facilities include, but are not limited to cattle, calves, chickens, ducks, goats, horses, sheep, swine, rabbits, and turkeys. The Imperial County mainly has 2 types of facilities: Beef Operations and Dairy Operations. After adoption by our Air Board, Rule 217 was submitted to U.S. EPA to be included into the Imperial County SIP; however, the U.S. EPA and CARB identified some deficiencies in this rule and recommended to withdraw and revised this rule with an enhanced version which can meet SIP approval. On May 3, 2013, the Air District requested the withdrawal of Rule 217 from SIP submittal.

Amending Rule 217 will enhance reductions of VOC and ammonia emissions, which is an important control measure for the Annual PM$_{2.5}$ SIP. Therefore, the Air District proposes to revise Rule 217, to further reduce Volatile Organic Compound (VOCs) and Ammonia emissions. The Air District will submit the revised Rule 217 to be included into the Imperial County’s SIP. The U.S. EPA has recommended that the proposed Rule 217 be revised following San Joaquin APCD’s CAFs Rule.

Amendments to Rule 101 Definitions

Due to the thresholds for proposed amended Rule 217 for dairy, chicken, and duck being proposed to be decreased, Rule 101 will be amended to be consistent the proposed Rule 217 thresholds. The amendment will be in particular for the Large Confined Animal Facility (LCAF) definition under Rule 101.

Amendments to Rule 202 Exemptions

Similarly to Rule 101, Section E.10 Agricultural Sources, section E.10.b of Rule 202 will be amended to be consistent with the thresholds for the proposed amended Rule 217 for dairy, chicken, and duck.
III EMISSIONS AND EMISSION REDUCTION ANALYSIS

VOCs are the principal category of pollutants emitted from Confined Animal Facilities (CAFs). Research is continuously being carried-out in order to determine and analyze emission factors of VOCs from livestock operations, especially in regards to dairies and beef feedlots operations. The VOC emission factors from Air District, 11 lbs/head-year for beef feedlots and 13.94 lb/head-year for dairies, were also used to evaluate VOC emissions for the Imperial County. The Air District has estimated VOC reductions of 6.9 tons per year for dairies and 452.7 tons per year for beef feedlots due to the application and enforcement of the control measures proposed in Rule 217 (Appendix A). Appendix A thoroughly discusses the emission factors and control efficiency for VOC for the proposed Rule 217.

Increases in atmospheric ammonia emissions have been reported in recent years in areas of animal agriculture. Ammonia is a common by-product of animal waste due to the conversion of feed nitrogen into animal product. Livestock and poultry are often fed high-protein feed, which contains surplus nitrogen, to ensure that the animals' nutritional requirements are met. Nitrogen that is not metabolized into animal protein (i.e., milk, meat, or eggs) is excreted in the urine and feces of livestock and poultry where further microbial action releases ammonia into the air during manure decomposition.

Currently, ammonia emissions from animal agriculture are not directly regulated. However, in 1997, the U.S. EPA issued national Ambient Air Quality Standards (NAAQS) for PM$_{2.5}$. Because a portion of PM$_{2.5}$ is derived from ammonia, regulations aimed at reducing PM$_{2.5}$ concentrations and emissions will require reductions in ammonia emissions from animal production operations.

Ammonia emissions occur at several different stages of livestock production. These emissions vary significantly among farms due to differences in methods of collecting, storing, and treating manure. In general, the greatest ammonia emissions are associated with land application of manure and housing. Significant emissions can also occur from grazing land, if applicable, and manure storage. As a result, the amended Rule 217 provides opportunities to reduce ammonia emissions from animal operations.

It is estimated that amended Rule 217 should generate reductions of 452.7 tons per year of VOC, refer to Table 3. A more detailed summary of the reductions may be found in Appendix A. Appendix A summarizes VOC emissions for the proposed amended Rule 217.
Table 3: Summary of Reductions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>VOC Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dairy</td>
</tr>
<tr>
<td>Uncontrolled Emissions (tons/day)</td>
<td>0.08</td>
</tr>
<tr>
<td>Controlled Emissions (tons/day)</td>
<td>0.06</td>
</tr>
<tr>
<td>Reductions from Proposed Control Requirements (tons/day)</td>
<td>0.02</td>
</tr>
<tr>
<td>Reductions from Proposed Control Requirements (tons/year)</td>
<td>6.9</td>
</tr>
</tbody>
</table>

**IV PROPOSED RULE AMENDMENTS:**

The proposed rule amendments will strengthen the rule by lowering the threshold limits, proposing additional mitigation measures, and add compliance language including exemptions, monitoring requirements, administrative requirements, test methods, and recordkeeping to improve enforceability. The Air District is proposing the rule applicability thresholds shown in Table 5:

Table 5 – LCAF Proposed Thresholds

<table>
<thead>
<tr>
<th>Livestock Category</th>
<th>Large CAF Definition By Livestock Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef Feedlots</td>
<td>3,500 beef cattle</td>
</tr>
<tr>
<td>Dairy</td>
<td>500 milking cows</td>
</tr>
<tr>
<td>Other Cattle Facility</td>
<td>3,500 calves, heifers, or other cattle</td>
</tr>
<tr>
<td>Poultry Facility</td>
<td></td>
</tr>
<tr>
<td>Chicken</td>
<td>400,000 head</td>
</tr>
<tr>
<td>Duck</td>
<td>400,000 head</td>
</tr>
<tr>
<td>Turkey</td>
<td>100,000 head</td>
</tr>
<tr>
<td>Swine Facility</td>
<td>3,000 head</td>
</tr>
<tr>
<td>Horses Facility</td>
<td>2,500 head</td>
</tr>
<tr>
<td>Sheep and Goat Facilities</td>
<td>15,000 head sheep, goats, or any combination of the two</td>
</tr>
<tr>
<td>Any livestock facility not listed above</td>
<td>30,000 head</td>
</tr>
</tbody>
</table>

During the workshop, stakeholders, which were either owners or operators of LCAF’s, mentioned that Feedlots and calf operations in Imperial County feed dry grains which does not include silage. Therefore, emissions from the feed from feedlot and calf operations are assumed negligible. However, the proposed rule amendments include a silage category as precaution should a silage type feed is fed to the animals. Where applicable, facilities where silage is fed must comply...
with the silage mitigation measures to ensure that emissions are being controlled.

The inclusion of the menu options of mitigation measures for the amended Rule 217, are applicable to LCAFs the day of the adoption of the rule. The proposed mitigation measures are more stringent than the current measures in the rule. The impacts to the owner and operators as well as to the public and the industry in general, due to the rulemaking process and the amendments of this rule will be minimal.

A. Beef Feedlots
   - The silage mitigation measures would reduce VOC emissions through a combination of compaction standards, silage quality, and face and pile size management.
   - Options require multiple required measures as well as frequent monitoring.

B. Dairies
   - The regulatory threshold has been modified from 1,000 milking cows to 500 milking cows.
   - The silage mitigation measures would reduce VOC emission through a combination of compaction standards, silage quality, and face and pile size management.
   - Menu options are mandatory for feed and housing mitigation measures.
   - Solid manure handling menu are required for dairy LCAFs.

C. Other Cattle
   - The silage mitigation measures would reduce VOC emission through a combination of compaction standards, silage quality, and face and pile size management.
   - Options require multiple required measures as well frequent monitoring.

D. Swine
   - Mitigation measures provide potential measures from a mandatory list of required measures.

E. Layer
   - Mitigation measures provide potential measures from a mandatory list of required measures.

F. Broiler, Duck, or Turkey
   - Mitigation measures provide potential measures from a mandatory list of required measures.
The regulatory threshold has been modified from 600,000 to 400,000 for chicken and duck.

G. Exemptions
- Except for recordkeeping, LCAFs below the threshold at all times are exempt from administrative requirements.

H. Monitoring Requirements
- Monitoring requirements section was included for the enforcement purposes of the mitigation measures in the Emission Mitigation Plan.

I. Administrative Requirements
- Detailed requirements were included to the records for each mitigation measure, to ensure measures were utilized regularly.

J. Test Methods
- Test methods section was included to ensure the proper and approved method was utilized when testing.

K. Compliance Determination
- Clarifying language was added to this section.

L. Recordkeeping
- Clarifying language was added to this section.

V. CATEGORY BACKGROUND

There are 5 Categories that were either amended or are new to Rule 217. These categories are: Beef Cattle, Dairy Cattle, Other Cattle, Swine, and Poultry. Each category has a set of mitigation measures from which some are mandatory.

A. BEEF CATTLE FEEDING OPERATIONS
   Beef cattle operations include adult beef cattle such as heifers and steers. Beef cattle feeding operations is the largest source for Imperial County Large Confined animal facilities. Beef operations have approximately 357,888 head count based on 2013 Imperial County Agriculture Crop & Livestock Report. Due to the National Beef Company processing facility closure, the Imperial County does not boast a slay operation currently.

B. DAIRY CATTLE OPERATIONS
   Dairy Cattle Operations are operations that produce milk or animals for facilities that produce milk. The Imperial County has one Dairy operation (Bullfrog) with a head count of approximately 4,000. The information was
gathered from the Imperial County Air Pollution Control District source files.

C. OTHER CATTLE OPERATIONS
The “Other Cattle Operations”, captures cattle in Confined Animal Facilities that do not fit in the definition of dairy or feedlots operations. For instance, heifers and calf ranches fit the definition of Other Cattle Operations. Heifers and Calf ranches raise young female dairy until the cow is mature enough to breed. At this stage she is moved to a dairy for breeding.

D. SWINE OPERATIONS
Swine operations are operations that produce pigs or hogs. The production cycle includes the traditional approach from birth to finish hog production (all stages from breeding until slaughter). Breeder facilities produce pigs from birth and raise the pigs to 40 to 60 pounds. The grower/finisher facilities raise the pigs from 60 pounds to market weight of 250 pounds. Currently there no such operations in Imperial County are under permit.

E. POULTRY OPERATIONS
Poultry Operations is the raising birds such as chickens, ducks, and turkeys for the purpose of farming meat or eggs for the fresh meat market. Layer ranches raise chickens for eggs while broiler ranches raise chicken for meat. Currently there no such operations in Imperial County are under permit.

VI. PROPOSED RULE 217 STRUCTURE

A. Menu Approach
Rule 217 amendments contain menu options for mitigation measures for each category: Beef, Dairy, Other Cattle, Swine, and Poultry. The mitigation measures are more stringent than the previous version of Rule 217. Several categories have mitigation measures that are mandated for various LCAFs. However, the Air District acknowledges that not all facilities operate in the same manner due various reasons such as infrastructure, permit conditions, soil types, production contracts, and other limitations. Therefore, as categories have mandated mitigation measures, there are also mitigation measures by which owners/operators may choose that provide flexibility to the various Imperial County LCAF operations.

B. Section B – Definitions
In this section, 53 definitions were added for the purpose of this rule. Any other definitions not included in this rule are found in the Air District Rule
101. The purpose of the definitions is for clarity and specification purposes for current and new control requirements.


C. Section C - Requirements
The requirement section includes specification to facility mitigation plans and permit requirements. Rule 217 amendments propose the all mitigation measures as contained in the permit applications must be implemented the day operations at a LCAF commence. In addition, Emission Mitigation Plans must be submitted by owner/operators of a non dairy, beef feedlot, swine, or poultry operations which demonstrate facility wide reductions or an Emission Mitigation Plan that adheres to requirements of a Facility Emission Mitigation Plan found in section C.5.

D. Section D - Exemptions
The exemption section is for facilities meeting the definition of exemptions which remain below the regulatory thresholds at all times. However, owner/operators will still need to comply with Administrative Requirements found in section F of the rule.

E. Section E - Monitoring Requirements
Owners/Operators shall comply with the requirements of Lagoon Monitoring if applicable.

F. Section F - Administrative Requirements
This section provides details for the Administrative Requirements for each mitigation measure category. Records must be maintained on a quarterly basis. Examples of records that are permitted are records for the purpose of animal inventories maintained for financial purposes and the Cattlemen’s Association Records, and Water Board records.
G. **Section G - Test Methods**
   This section provides the certified and approved versions of test methods.

H. **Section H - Compliance Determination**
   Language was included to clarify the need of permits renewals and or updates.

I. **Section I - Annual Renewal Permits**
   No changes were proposed to this section.

J. **Section J - Recordkeeping**
   Clarifying language in recordkeeping information was included to this section.

K. **Section K - Public Review**
   Clarifying language was included in this section.

L. **Section L - Non-duplication**
   No changes were proposed to this section.

M. **Section M - Other Provisions**
   No changes were proposed to this section.

### Feedlot Mitigation Measures

<table>
<thead>
<tr>
<th>Area</th>
<th>Amended Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>Requires implementation of 2 measures from the 4 practices.</td>
</tr>
<tr>
<td>Silage</td>
<td>Requires implementation of 1 measure from the 3 practices.</td>
</tr>
<tr>
<td>Housing</td>
<td>Requires implementation of 4 mandatory measures plus 1 additional practice from the 7 practices.</td>
</tr>
<tr>
<td>Solid Manure</td>
<td>Requires implementation of 1 measure from the 2 practices.</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>Requires implementation of 1 measure from the 5 practices.</td>
</tr>
<tr>
<td>Land Application</td>
<td>Requires implementation of 2 measures from the 2 practices.</td>
</tr>
<tr>
<td>Total</td>
<td>12 of 23</td>
</tr>
</tbody>
</table>

### Dairy CAF Mitigation Measures

<table>
<thead>
<tr>
<th>Area</th>
<th>Amended Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>Requires Implementation of 4 mandatory measures plus 1 additional practice from the 8 practices.</td>
</tr>
<tr>
<td>Area</td>
<td>Amended Rule</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Silage</td>
<td>Requires implementation of 1 measure from the 3 practices.</td>
</tr>
<tr>
<td>Milking Parlor</td>
<td>Requires implementation of 1 measure from the 2 practices.</td>
</tr>
<tr>
<td>Freestall Barn</td>
<td>Requires Implementation of 2 mandatory measures plus 1 additional practice from the 6 practices.</td>
</tr>
<tr>
<td>Corrals</td>
<td>Requires Implementation of 6 mandatory measures plus 1 additional from the 10 practices.</td>
</tr>
<tr>
<td>Solid Manure</td>
<td>Requires Implementation of 1 measure from the 3 practices.</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>Requires Implementation of 1 measure from the 5 practices.</td>
</tr>
<tr>
<td>Land Application</td>
<td>Requires Implementation of 2 measures from the 2 practices.</td>
</tr>
<tr>
<td>Total</td>
<td>21 of 39</td>
</tr>
</tbody>
</table>

### Other Cattle Mitigation Measures

<table>
<thead>
<tr>
<th>Area</th>
<th>Amended Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>Requires Implementation of 2 measures from the 4 practices.</td>
</tr>
<tr>
<td>Silage</td>
<td>Requires implementation of 1 measure from the 3 practices.</td>
</tr>
<tr>
<td>Freestall Barn</td>
<td>Requires Implementation of 2 mandatory measures plus 1 additional practice from the 5 practices.</td>
</tr>
<tr>
<td>Corrals</td>
<td>Requires Implementation of 5 mandatory measures plus 1 additional from the 9 practices.</td>
</tr>
<tr>
<td>Solid Manure</td>
<td>Requires Implementation of 1 measure from the 3 practices.</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>Requires Implementation of 1 measure from the 5 practices.</td>
</tr>
<tr>
<td>Land Application</td>
<td>Requires Implementation of 2 measures from the 2 practices.</td>
</tr>
<tr>
<td>Total</td>
<td>16 of 31</td>
</tr>
</tbody>
</table>

### Swine Mitigation Measures

<table>
<thead>
<tr>
<th>Area</th>
<th>Amended Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>Requires implementation of 2 measures from the 3 practices.</td>
</tr>
<tr>
<td>Housing</td>
<td>Requires implementation of 3 measures from the 4 practices.</td>
</tr>
<tr>
<td>Area</td>
<td>Amended Rule</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>Requires implementation of 1 measure from the 4 practice.</td>
</tr>
<tr>
<td>Land Application</td>
<td>Requires implementation of 1 measure from the 2 practices.</td>
</tr>
<tr>
<td>Total</td>
<td>7 of 13</td>
</tr>
</tbody>
</table>

### Layer Mitigation Measure

<table>
<thead>
<tr>
<th>Area</th>
<th>Amended Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>Requires implementation of 1 measure from the 2 practices.</td>
</tr>
<tr>
<td>Housing</td>
<td>Requires implementation of 2 measures out of the 3 practices.</td>
</tr>
<tr>
<td>Solid Manure/Separated Solids</td>
<td>Requires implementation of 1 measure out of the 2 practice.</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>Requires implementation of 1 measure from the 4 practices.</td>
</tr>
<tr>
<td>Total</td>
<td>5 of 11</td>
</tr>
</tbody>
</table>

### Broiler, Duck or Turkey Mitigation Measures

<table>
<thead>
<tr>
<th>Area</th>
<th>Amended Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>Requires Implementation of 1 measure out of the 2 practices.</td>
</tr>
<tr>
<td>Housing</td>
<td>Requires implementation of 4 measures out of the 6 practices.</td>
</tr>
<tr>
<td>Solid Manure/Separated Solids</td>
<td>Requires Implementation of 1 measure out of the 2 practices.</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>Requires Implementation of 1 measure out of the 4 practices.</td>
</tr>
<tr>
<td>Total</td>
<td>7 of 13</td>
</tr>
</tbody>
</table>

### VII PUBLIC PARTICIPATION

The Air District conducted two public workshops to collect comments from the regulated community and the general public. A first workshop was conducted on January 12, 2015. The general public was given an opportunity to comment on the rule. As a result to the input and comments provided by the stakeholders such as the California Air Resources Board (CARB) and the Environmental Protection Agency (U.S. EPA); Cattleman’s Association; Imperial County Farm Bureau; and Coalition of Labor, Agriculture, and Business or COLAB; the Air
District revised Rule 217. Several subsequent meetings were held with different stakeholders to gain a better understanding of the operations. In addition, Air District held meetings with Federal and State agencies to have input and guidance to the Rule amendments and mitigation measures.

Due to the extensive revisions made to proposed Rule 217, the Air District conducted a second public workshop on September 24, 2015 to present the revised rule and seek comments from the public and stakeholders. Public comments were included in the proposed Rule 217 as appropriate.

The notices for the workshops were conducted according to policy thus advertisements were placed January 7, 2015, September 13, 2015 and September 20, 2015 in the Imperial Valley Press announcing the workshops as well the Imperial County Air Pollution Control Website.

The proposed Rule 217 and Final Draft Staff Report will be brought before the Imperial County Air Pollution Board of Directors on February 9, 2016 for their consideration and approval.

VIII STAFF RECOMMENDATIONS:

APCD ADVISORY BOARD:

The Air Pollution Control Air District Advisory Board met to discuss the revised rules on December 2, 2015. The APCD Advisory Board recommended the approval of the proposed rule.

STAFF:

The Imperial County Air Pollution Control staff recommends adoption of the amended Rules 217, 202 and 101 along with the accompanying staff report, appendix, and its findings.

IX DECLARATION OF FINDINGS:

The Imperial County Air Pollution Control District Board hereby finds as follows:

The adoption of the staff report and it’s findings are exempt from the requirements of Public Resources Code Section 21000 et seq. under California Environmental Quality Act (CEQA) guidelines, in the California Code of Regulations Section 15061 (b)(3).

The Air District is a regulatory agency and the public agency with the principle responsibility for carrying projects related to Air Pollution and the control thereof.
Clean air is a valuable and essential natural resource.

The staff report and its findings described herein will not significantly affect air quality or emissions limitations and therefore is exempt from Health and Safety Code (HSC) Section 40728.5, which requires a socioeconomic analysis of the proposed action to be performed.

There has been no evidence presented to suggest that the implementation of the staff report and its findings will lead to or result in cumulative adverse impacts.

Health and Safety Code Sections 40701.5 and 40702 provide the authority to the Air District to enact this staff report and its findings.

The findings within the staff report are clear and capable of being understood by those persons directly affected by it.

The staff report and its findings do not conflict with or contradict any existing statute, court decision, or state or federal regulation.

The findings of the staff report are not duplicative of any existing state or federal regulation.

The Imperial County has a population of less than 500,000 people.
EMISSION REDUCTION ANALYSIS FOR PROPOSED AMENDED RULE 217 (Large Confined Animal Facilities Permits Required)

I. SUMMARY

This staff report appendix A details the estimated emission reductions generated by implementation of Proposed Amended Rule 217, Large Confined Animal Facilities Permits Required. Currently there are 26 beef feedlots and 1 dairy under the Imperial County Air Pollution Control District's (Air District) jurisdiction. The Imperial County does not currently house any poultry farms or egg ranches. Therefore, this document evaluates only emissions produced by dairy and beef feedlot facilities. Table 1 summarizes the results of the detailed calculations, which are fully displayed in later sections of this document. Based on the data analyzed herein, the practices listed within proposed Rule 217 would produce an estimated reduction of 452.7 tons of VOC per year.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>VOC Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dairy</td>
</tr>
<tr>
<td>Uncontrolled Emissions (tons/day)</td>
<td>0.08</td>
</tr>
<tr>
<td>Controlled Emissions (tons/day)</td>
<td>0.06</td>
</tr>
<tr>
<td>Reductions from Proposed Control Requirements (tons/day)</td>
<td>0.02</td>
</tr>
<tr>
<td>Reductions from Proposed Control Requirements (tons/year)</td>
<td>6.9</td>
</tr>
</tbody>
</table>

II. INTRODUCTION

The proposed amended rule would require dairy and beef feedlot facilities above the exemption threshold to implement multiple mitigation measures to offset VOC emissions. The California Air Resources Board’s (CARB) definition of a Large Confined Animal Facility (LCAF) was used as the applicability threshold to satisfy state and federal requirements. Air District staff performed a preliminary VOC emissions reduction analysis for proposed amended Rule 217 based on the information that is currently readily available. This evaluation is based on San Joaquin Valley Unified Air Pollution Control District’s (San Joaquin APCD) permitting emission factors for dairy and beef feedlot operations. Table 2 presents a list of mitigation measures proposed by Rule 217 to reduce VOC emission for each emission unit at dairy and beef feedlot facilities.
Table 2: Amount of Mandatory Mitigation Measures from each Emission Unit for Dairy and Beef Feedlot Facilities

<table>
<thead>
<tr>
<th></th>
<th>Beef Feedlot</th>
<th>Dairy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>2 of 4</td>
<td>5 of 8</td>
</tr>
<tr>
<td>Silage</td>
<td>1 of 3</td>
<td>1 of 3</td>
</tr>
<tr>
<td>Milk Parlor</td>
<td>0 of 0</td>
<td>1 of 2</td>
</tr>
<tr>
<td>Freestall Barns</td>
<td>0 of 0</td>
<td>3 of 6</td>
</tr>
<tr>
<td>Housing</td>
<td>5 of 7</td>
<td>7 of 10</td>
</tr>
<tr>
<td>Solid Manure</td>
<td>1 of 2</td>
<td>1 of 3</td>
</tr>
<tr>
<td>Liquid Manure</td>
<td>1 of 5</td>
<td>1 of 5</td>
</tr>
<tr>
<td>Land Application</td>
<td>2 of 2</td>
<td>2 of 2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12 of 23</td>
<td>21 of 39</td>
</tr>
</tbody>
</table>

III. EMISSION REDUCTION ANALYSIS

A. Background

In performing the emission reduction analysis, several assumptions were made to reflect conservative emission reduction results. These include:

- All mitigation measures achieve creditable VOC reductions from all facilities that use the mitigation measures. Although many of these mitigation measures are currently being implemented, it is assumed a future reduction of VOC emissions would be accomplished due to the mitigation options regardless of whether or not they were in practice prior to rule adoption. This assumption is made due to the fact that without the presence of proposed Rule 217, these facilities could cease the usage of the mitigation measures at any time. Thus, the rule achieves reductions by prohibiting the owner/operator from suspending the implementation of VOC mitigation measures.

- In some cases, no data could be found in the literature search on how to base a control efficiency factor for these practices. The Air District has conservatively assumed a minimal 10% control efficiency. As information becomes available, it will be added to this methodology.

- Based on the information provided by our Technical Advisory Committee (TAC), an assumption is made to the effect that no single dairy in Imperial County has freestalls installed within its facilities. In addition, during the workshop, stakeholders mentioned that feedlots and dairies in Imperial County feed dry grains which do not include silage. Therefore, emissions from the feed from feedlot and calf operations are assumed negligible.
Based on the three major assumptions above, the Air District analyzed the efficiency of the least expensive mitigation measures options that owners/operators would more than likely choose for adoption.

**B. Emission Factors for Dairies and Beef Feedlots**

The Air Resources Board has developed emission factors to estimate TOG and ROG emission from dairy and beef feedlot facilities. These emission factors are not based on recent numbers or California specific test data. Therefore, the Air District has opted to use for this evaluation the current emission factors used in San Joaquin APCD. The Air District chose to use San Joaquin’s APCD emission factors due to the following reasons: (a) they are accepted by the Air Resources Board, and (b) they are divided into emission units which facilitates VOC emission evaluation. The values in Table 3 for: manure & feed in housing; enteric emissions in housing; manure emissions in milking center; manure emissions in milking center; liquid manure handling; and land application subtotal the current emission factors used for permitting purposes in San Joaquin APCD. According to the Emission Reduction Analysis for Proposed Rule 4570 (Confined Animal Facilities), Appendix B, the emission factors used by San Joaquin APCD did not include all emission sources. Two sources in which emissions were not counted were the solid bedding storage piles and the feed piles outside of the animal housing. Since there is research documenting emissions these sources and the various VOC control options, San Joaquin APCD staff estimated the emissions from these sources by using data from Schmidt's research. These emission factors are only used for calculating reductions from mitigation measures that control VOC emissions from solid bedding or feed storage piles.

According to the information obtained from our Technical Advisory Committee, none of the dairies in Imperial County have installed freestalls. Therefore, within this evaluation it is assumed that dairies operate without the usage of freestalls. In addition, during the workshop, stakeholders mentioned that feedlots and dairies in Imperial County feed dry grains which do not include silage. Therefore, emissions from the feed from feedlot and calf operations are assumed negligible. Emissions for dairies are shown in the subsequent chart below, Table 3. These factors were used to calculate the control factors for dairy control measures.

The Air District also used San Joaquin APCD permitting emission factors to evaluate emissions from dairy and beef feedlots. Based on American Society of Agricultural and Biological Engineers (ASAE) Publication D384.1, manure from beef cattle in confinement (adult and growing cattle) contains 68% of the amount of volatile solids found in a mature dairy cow (lactating and dry cattle). Since the amount of volatile solids in the manure is a function of diet and amount of manure, emission factors for dairy cattle were multiplied by 0.68 to estimate the emissions for beef cattle and are shown in Table 3. These factors were used to calculate the control factors for beef feedlot control measures.
The calculations for dairies and beef feedlots are based on the following breakdown of the emission factor by source category:

### Table 3: Emission Factors for Dairies and Beef Feedlots

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Dairy Emission Factors (Dairies without Freestalls)</th>
<th>Beef Feedlots Emission Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enteric Emissions in Housing</td>
<td>4.1 lb/hd-yr</td>
<td>5.2 lb/hd-yr</td>
</tr>
<tr>
<td>Milk Parlor(s)</td>
<td>0.03 lb/hd-yr</td>
<td>0.0 lb/hd-yr</td>
</tr>
<tr>
<td>Corral/Pens</td>
<td>6.6 lb/hd-yr</td>
<td>3.3 lb/hd-yr</td>
</tr>
<tr>
<td>Lagoons, Storage Ponds</td>
<td>1.3 lb/hd-yr</td>
<td>0.0 lb/hd-yr</td>
</tr>
<tr>
<td>Liquid Manure Land Application</td>
<td>1.4 lb/hd-yr</td>
<td>0.0 lb/hd-yr</td>
</tr>
<tr>
<td>Solid Manure Land Application</td>
<td>0.3 lb/hd-yr</td>
<td>0.0 lb/hd-yr</td>
</tr>
<tr>
<td>Separated Solid Piles</td>
<td>0.06 lb/hd-yr</td>
<td>0.0 lb/hd-yr</td>
</tr>
<tr>
<td>Solid Manure Storage</td>
<td>0.15 lb/hd-yr</td>
<td>2.5 lb/hd-yr</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13.94 lb/hd-yr</strong></td>
<td><strong>11.0 lb/hd-yr</strong></td>
</tr>
</tbody>
</table>

### C. Control Efficiency Calculation for Dairies

#### 1. ENTERIC EMISSIONS

Option 1: Feeding according to NRC guidelines

This practice is intended to minimize the excess nutrients fed to the animals at the site. Based on research suggesting that nitrogen content in feed is directly proportional to nitrogen content in manure, the Air District believes that feeding according to the NRC guidelines, which minimizes excess nutrients in the diet, would reduce VOC emissions. Following San Joaquin’s APCD rule evaluation, a 5% reduction is assumed. Given that this practice reduces the content of VOC precursors fed to the animal (entering the animal), it will reduce the VOC precursors exiting the animal and those being treated in each animal waste system. In addition, reductions will occur from feed in the housing and stockpiles because there will be less VOC precursors in the feed, which could eventually decompose. As a result, the 5% reduction figure again was applied to the facility wide emission factors. This is expected to be used by all facilities since reductions in excess nutrients in feed, such as protein, would not increase costs significantly. Any further labor employed to determine what feed formulations would meet NRC guidelines would likely be offset by lower costs for feed due to lower nutrient content. The reduction calculations are:

The baseline is 4.1 lb/hr/yr. yet there are fewer emissions due to the use of the NRC feed guidelines. The reduction per measure is:

Reductions = 4.1 lb/hd-yr x 95% (emissions remaining after implementing Option
1) = 3.90 lb/hd-yr

**Option 2, 3 and 4: Three mitigation measures for cleaning feed from housing**

These measures are intended to minimize moisture, surface area for VOCs to move from the feed to the atmosphere, and anaerobic digestion due to wet conditions and thick depths of animal waste. Data suggests that these practices would minimize VOC emissions; however there are no peer-reviewed articles that quantify this. Therefore, the Air District assumed a default reduction of 5% for each measure. Yet, this assumption only affects the emissions from feed and these emissions were already reduced by Option 1.

2. **MILK PARLOR PRACTICES**

Flush/clean milk parlor after each milking

Within the studies performed for the determination of the emission factor for this option, this practice was already being carried out. Therefore, the baseline assumes that all facilities implement this practice. Thus, no reduction from the baseline is anticipated. This measure was included to ensure all current and future facilities implement practices accounted for in the baseline emission estimate. Following San Joaquin APCD rule evaluation, the baseline is 0.03 lb/hd-yr.

Reductions = 0.03 lb/hd-yr x 95% (emissions remaining after implementing Option 1) = 0.03 lb/hd-yr

3. **FREESTALL PRACTICES**

None of the dairies in Imperial County is constructed with freestalls; consequently, no reductions are anticipated by freestall practices. However, Rule 217 includes mitigation measures for facilities constructed with freestalls with the anticipation that future facilities may construct freestalls at their site.

4. **CORRAL PRACTICES**

Option 1 through 6: All housing measures to clean corals, manage manure depth, and minimize moisture are now mandatory. These measures are intended to minimize moisture and anaerobic digestion due to wet conditions or thick depths of manure that prevents the manure from drying completely and oxygen continuing to come in contact with all animal waste in the pens and corrals. Data suggests that this would minimize VOC emissions. Following San Joaquin’s APCD rule evaluation, a baseline emissions factor of 6.6 lb/hd-yr and a 27.3% reduction is assumed (Corrals 22.3% + 5% Feed NRC). The reduction per these
measures is:

\[ \text{Corral emissions} = 6.6 \text{ lb/hd-yr} \times 27.3\% \text{ (emissions from corrals)} = 4.8 \text{ lb/hd-yr from corrals} \]

5. LIQUID MANURE PRACTICES

All of the lagoon control options AEM, 3/03, Vol 69, pg 1710-1720, indicates a 80-93% decrease in emissions from swine phototrophic lagoons; ILOC, 1995, pg 80-85, DiSpirito, found the same in swine lagoons; and JFB, 70:39-44, Hiraishi, found the same in sewage wastewater lagoons. The loading rate contributing to a phototrophic are typically found in lagoons utilizing a solid separator, NRCS guidelines for anaerobic lagoon design, and microaerobic nutrient management. However, these studies were for swine and not cattle. Based on AP42 by U.S. EPA, swine emit 63.5% of the volatile solids that cattle do. Therefore, in order to be conservative, staff assumed that cattle lagoons are 63.5% as efficient as swine lagoons (63.5% x 80% = 50%). According to San Joaquin APCD rule evaluation, the baseline is 1.3 lb/hr/yr. yet there are fewer emissions due to the use of the NRC feed guidelines. The reduction per measure is:

\[ \text{Reductions} = 1.3 \text{ lb/hd-yr} \times 95\% \text{ (emissions remaining after implementing Option 1)} = 1.24 \text{ lb/hd-yr} \]

6. SOLID MANURE STORAGE/SEPARATED SOLIDS PRACTICES

Cover piles outside the pens

This measure is intended to minimize moisture and anaerobic digestion due to wet conditions. There is no data regarding the amount of emissions from the manure storage piles, therefore staff conservatively estimated the separated solids and the manure piles emit approximately the same amount of VOC. Since there is little data regarding reductions, staff assumed a default reduction of 10% for cover piles mitigation measure. The reduction per measure is:

\[ \text{Separated solid Practice Piles} = 0.06 \text{ lb/hd-yr} \times 95\% \text{ (emissions remaining after implementing Option 1)} = 0.06 \text{ lb/hd-yr} \]

\[ \text{Solid Manure Storage} = 0.15 \text{ lb/hd-yr (piles)} \times 85\% \text{ (10% emissions remaining after implementing Cover Piles Measure + 5% Option 1)} = 0.13 \text{ lb/hd-yr reductions.} \]

7. SOLID MANURE LAND APPLICATION PRACTICES

These practices are intended to rapidly land incorporate the manure or waste
water. The soil is expected to act as a biofilter since it is an organic media with significant microbial populations and airflow. Research suggests biofilters range in efficiency from 10% to 90% depending on how they are maintained. Conservatively staff assumed 50% control. The baseline emissions from crop application are 0.3 lb/hd-yr.

The reduction per measure is = 0.3 lb/hd/year x 95% (emissions remaining after implementing Option 1) = 0.3 lb/hd-yr

8. TOTAL REDUCTIONS

The total percent reductions can be calculated by assuming the percent reductions for each mitigation measure above.

Controlled Emission Factor = 10.46 lb/hd-yr

The total percent reduction = ((13.94 – 10.46)/13.94) x 100

The total percent reduction = 25%

D. Control Efficiency Calculation for Beef Feedlots

1. ENTERIC EMISSIONS

Option 1: Feeding according to NRC guidelines

This practice is intended to minimize the excess nutrients fed to the animals at the site. Based on research suggesting that nitrogen content in feed is directly proportional to nitrogen content in manure, the Air District believes that feeding according to the NRC guidelines, which minimizes excess nutrients in the diet, would reduce VOC emissions. Following San Joaquin APCD rule evaluation, a 5% reduction is assumed. Given that this practice reduces the content of VOC precursors fed to the animal (entering the animal), it will reduce the VOC precursors exiting the animal and those being treated in each animal waste system. In addition, reductions will occur from feed in the housing and stockpiles because there will be less VOC precursors in the feed, which could eventually decompose. As a result, the 5% reduction figure again was applied to the facility wide emission factors. This is expected to be used by all facilities since reductions in excess nutrients in feed, such as protein, would not increase costs significantly. Any further labor employed to determine what feed formulations would meet NRC guidelines would likely be offset by lower costs for feed due to lower nutrient content. The reduction calculations are:

The baseline is 5.2 lb/hr/yr. yet there are fewer emissions due to the use of the NRC feed guidelines. The reduction per measure is:
Reductions = 5.2 lb/hd-yr x 95% (emissions remaining after implementing Option 1) = 4.94 lb/hd-yr

Option 2, 3 and 4: Three mitigation measures for cleaning feed from housing

These measures are intended to minimize moisture, surface area for VOCs to move from the feed to the atmosphere, and anaerobic digestion due to wet conditions and thick depths of animal waste. Data suggests that these practices would minimize VOC emissions; however there are no peer-reviewed articles that quantify this. Therefore, the Air District assumed a default reduction of 5% for each measure. Yet, this assumption only affects the emissions from feed and these emissions were already reduced by Option 1.

2. CORRAL PRACTICES

Option 1 through 4: All housing measures to clean corrals, manage manure depth, and minimize moisture. These are intended to minimize moisture and anaerobic digestion due to wet conditions or thick depths of manure that prevents the manure from drying completely and oxygen continuing to come in contact with all animal waste in the pens and corrals. Data suggests that this would minimize VOC emissions. A baseline emission factor of 3.3 lb/hd-yr is assumed. Following San Joaquin APCD rule evaluation, a 27.3% reduction is assumed (Corrals 22.3% + 5% Feed NRC). The reduction per these measures is:

\[
\text{Corral emissions} = 3.3 \text{ lb/hd-yr} \times 27.3\% \times (1-0.273) = 2.4 \text{ lb/hd-yr}
\]

3. SOLID MANURE LAND APPLICATION PRACTICES

Option 9 & 10: All methods for crop application.

These practices are intended to rapidly land incorporate the manure or waste water. The soil is expected to act as a biofilter, since both biofilters and soil are organic media with significant microbial populations and airflow. Research suggests biofilters range in efficiency from 10% to 90% depending on how they are maintained. Conservatively, staff assumed 50% control. The baseline emission factor from crop application is 2.5 lb/hd-yr. The seven moisture minimization practices utilized as mitigation measures for animal housing means there is less moisture in the manure and therefore less potential for VOC emissions. There also lies less potential for VOC emissions due to the implementation of a NRC diet. Thus, the baseline emissions should also be reduced by 10%, which is the control efficiency of having a diet based on the NRC guidelines. The reduction per measure is:

\[
\text{Options 9 & 10 Reductions} = 2.5 \text{ lb/hd/year} \times 90\% \times 50\% = 1.13 \text{ lb/hd-yr}
\]
5. TOTAL REDUCTIONS

Controlled Emission Factor = 8.47 lb/hd/year

The total percent reductions can be calculated by summing the percent reductions for each mitigation measure above.

The total percent reduction = ((11 – 8.47)/11) x 100

The total percent reduction = 23%

E. Rule 217 Emissions and Reductions

As previously stated, 26 beef feedlots and 1 dairy operate within the jurisdiction of the Air District, with a total cattle population, as of 2013, of 361,888 heads. This figure, along with San Joaquin APCD emission factors and control efficiency, formed the basis for estimating total VOC reductions in Imperial County due to the implementation of the various mitigation measures found within proposed Rule 217. Based on this information, it is estimated that a VOC reduction from dairies will be 6.96 tons per year, whereas beef feedlots will see a reduction of 452.7 tons per year. Table 4 summarizes the emission reduction calculations from the control measures included in the rule:

<table>
<thead>
<tr>
<th>Source Category</th>
<th>Dairy Cattle</th>
<th>Beef Feedlot</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Cattle Population</td>
<td>4,000</td>
<td>357,888</td>
</tr>
<tr>
<td>Uncontrolled Emission Factor</td>
<td>13.94</td>
<td>11.0</td>
</tr>
<tr>
<td>(lbs VOC/head/year)</td>
<td></td>
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<tr>
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<td>Control Efficiency of Mitigation</td>
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<td>Controlled Emission Factor</td>
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<td>VOC Reductions</td>
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