

**SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT**

For Agenda of **August, 24 2006**

To: Board of Directors
Sacramento Metropolitan Air Quality Management District

From: Larry Greene, Air Pollution Control Officer
Sacramento Metropolitan Air Quality Management District

Subject: New Rule 496, LARGE CONFINED ANIMAL FACILITIES

Recommendations

1. Approve the Negative Declaration for Rule 496 pursuant to the California Environmental Quality Act (CEQA); and
 2. Approve the attached resolution adopting Rule 496.
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Executive Summary

Staff is proposing to adopt new Rule 496, LARGE CONFINED ANIMAL FACILITIES to satisfy the requirements of the California Health and Safety Code (HSC), Section 40724.6, which requires a district rule to establish a permitting and mitigation plan approval process for large confined animal facilities as defined by the California Air Resources Board (CARB). For further discussion regarding permitting and HSC findings see the Rule 201/215 Board Package, an earlier item on the August 24, 2006 agenda.

There are two dairies and one turkey ranch In the District that meet this definition. The proposed Rule includes a range of mitigation measures that may be included in a facility's mitigation plan and visits to these facilities indicate that they currently comply with the mitigation requirements. The facilities will be required to enhance current recordkeeping activities.

Attachments

The table below identifies the attachments to this memo.

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Background

Ground level ozone is a secondary pollutant formed from photochemical reactions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. Ozone is a strong irritant that adversely affects human health and damages crops and other environmental resources. As documented by the U.S. Environmental Protection Agency (EPA) in the most recent Criteria Document for ozone (U.S. EPA 2006), both short-term and long-term exposure to ozone can irritate and damage the human respiratory system, resulting in:

- decreased lung function;
- development and aggravation of asthma;
- increased risk of cardiovascular problems such as heart attacks and strokes;
- increased hospitalizations and emergency room visits; and
- premature deaths.

The District is currently designated as a “serious” nonattainment area for both the state and federal ozone standards. Since VOCs are a precursor to ozone, one of the strategies to control ozone pollution is to reduce VOC emissions from existing stationary sources.

In addition, the proposed Rule 496 is necessary to meet the requirements of SB 700 (HSC Section 40724.6) and other provisions of state law. SB 700 also requires the District to submit the rule to U.S. Environmental Protection Agency for approval and inclusion in the state implementation plan. Rule 496 will limit VOC emissions and assist the District in its efforts to attain the state and federal ozone standards.

Summary of Proposed Rule

The CARB regulations (California Code of Regulations Title 17, Section 86500) define a large confined animal facility as any confined animal facility that maintains on any one day:

- 1,000 or more milk producing dairy cows;
- 3,500 or more beef cattle;
- 7,500 or more calves, heifers, or other cattle;
- 100,000 or more turkeys;
- 650,000 or more chickens other than laying hens;
- 650,000 or more laying hens;
- 3,000 or more swine;
- 15,000 or more sheep, lambs, or goats;
- 2,500 or more horses;
- 650,000 or more ducks;
- 30,000 or more rabbits or other animals.

The range of mitigation measures that may be selected by regulated facilities includes:

- 4 out of 7 feed measures (ex. periodic feed lane cleanings)
- 1 out of 3 silage measures (ex. cover silage)
- 1 out of 2 milking parlor measures (ex. hose parlor after milking)
- 2 out of 9 freestall measures (ex. use non-manure based bedding)
- 6 out of 12 corral measures (ex. keep manure height under 12 inches)
- 2 out of 7 solid animal waste measures (ex. cover waste stockpiles)
- 1 out of 8 liquid animal waste measures (ex. use a solid separator system)
- 2 out of 4 field application measures (ex. no standing liquid waste in fields)

Poultry ranches must also choose a specified number of mitigation measures from each category as shown:

- 5 out of 9 feed measures (ex. cleaning spilled feed)
- 4 out of 16 housing measures (ex. daily leak inspections)
- 1 out of 5 solid animal waste measures (ex. not using a liquid handling system)
- 1 out of 8 liquid animal waste measures (ex. having no lagoons on the facility)

Owner/operators of dairies and poultry ranches may create an alternative emission mitigation plan demonstrating equal or greater VOC reduction than the minimum that can be obtained by utilizing the list of mitigation measures. Every three years, the mitigation plans will be reviewed to determine if they are still compliant with best available retrofit technology. Additionally, recordkeeping will be required for keeping animal head counts for emission inventory purposes and maintaining information demonstrating that the emission mitigation plan is being implemented. The mitigation plan requirements must be included as conditions for receiving a permit under Rule 215 – AGRICULTURAL PERMIT REQUIREMENTS AND NEW AGRICULTURAL PERMIT REVIEW.

Impact on Businesses

Rule 496 applies to the livestock industry, specifically large confined animal facilities as defined by CARB. Staff has identified three stationary agricultural sources that fit the definition of a large confined animal facility. Two of these sources are dairies with over 1,000 milk-producing cows and the other is a poultry facility with over 100,000 turkeys.

Staff met with all affected sources and determined that all are currently performing the mitigation measures required under the proposed rule. Cost estimates in the attached staff report are based on information known before meeting with the sources and should be used as a worst case scenario. Based on the information Staff has gathered from meeting with the affected sources, additional costs per facility would be less than \$1,500 per year. These costs include recordkeeping and permitting fees for emission mitigation plan updates.

Using the cost estimate performed in the staff report, the overall cost effectiveness of this rule is at most \$4,393 per ton of VOC reduced (\$2.20 per pound of VOC reduced). Using the new cost estimate as discussed above the cost effectiveness of this rule becomes approximately \$550 per ton of VOC reduced.

District Impacts

The proposed rule is not expected to result in any significant additional workload for district staff. The cost of administering the large confined animal facility permitting program and the emission mitigation updates will be partially recovered through Rule 310, PERMIT FEES – AGRICULTURAL SOURCES. See Rule 215, AGRICULTURAL PERMIT REQUIREMENTS AND NEW AGRICULTURAL PERMIT REVIEW staff report for discussion of permitting and inspection costs for all agricultural facilities.

Emission Impacts

The proposed rule will achieve reduction in the current projected emission inventory of at least 8.2 tons per year of VOC.

Environmental Review and Compliance

The District's environmental coordinator has determined that proposed Rule 496 is subject to the provisions of the California Environmental Quality Act (CEQA). Pursuant to section 15063 of the state CEQA Guidelines, the District conducted an initial study to determine if the project could have a significant adverse effect on the environment. Based on the findings of the initial study, the District's Environmental Coordinator has determined that the proposed rule will not have a significant effect on the environment. A Negative Declaration was prepared for this rule. A notice was published in the Sacramento Bee for a thirty day comment period regarding the adoption of the Negative Declaration and Staff received no comments during this period.

Public Outreach

Below is a summary of the public outreach undertaken by Staff to ensure that affected businesses are aware of proposed Rule 496.

- Staff conducted a public workshop on July 6, 2006, which was held in Wilton, a location more accessible for the agricultural community than the District Offices in the evening to promote increased attendance. Staff published the notice of public workshop in the Sacramento Bee, and sent the notice to all identified confined animal facilities and other agricultural facilities.
- Staff visited each affected source to tour the facility and talk one-on-one with the owner or operator about the requirements of the rule and to take input on the proposal. Staff reviewed the individual mitigation measures with each facility defining what measures were already being performed and what additional measures and recordkeeping will be required to perform.
- During the rule development phase, Staff attended workshops in the San Joaquin Valley related to the CAF measure proposed in their district.

- Staff contacted members of interested groups such as Western United Dairymen, California Dairy Campaign, California Poultry Federation, and Foster Farms to gain input on the rule requirements.
- A meeting was held before the public workshop with Supervisor Don Nottoli, Agricultural Commissioner Frank Carl, Charlotte Mitchell of the Sacramento County Farm Bureau, and Cynthia Cory of the California Farm Bureau to go over requirements of the rule and answer any questions.
- A notice for the public hearing was published in the Sacramento Bee on July 24, 2006. The notice was also mailed to attendees of the public workshop, all affected sources, other agricultural facilities, and persons who have requested rulemaking notices.

Public Comments

Staff received several comments at the workshop, from meetings with affected sources, phone conversations with interested parties, and from the US EPA. These comments, together with the Staff responses, are presented in Appendix E of the Staff Report (page 31 of this Board Package). Several changes were made to the proposed rule and staff report in response to these comments:

- Allows a proprietary poultry feed supplier to certify that the feed meets the mitigation measures selected in the emission mitigation plan, rather than the farmer. The supplier must also notify the farm owner/operator 90 days before the feed no longer meets the requirements of the mitigation measure(s). The feed supplier is responsible for resulting violations from noncompliance.
 - Adjusted the feed content recordkeeping requirement to allow for an owner/operator to keep the quarterly certifications on site instead of the feed content and formulation records. Also allows the District to request feed content and formulation records from the supplier.
 - Reduced slightly the animal count recordkeeping requirement to allow the total animal numbers to be updated once per day if needed, rather than continuous updates.
 - Reorganized recordkeeping section to group together requirements similar to the grouping for the mitigation measures.
 - Eliminated recordkeeping requirements for mitigation measures that are preformed continuously throughout the day such as hosing the milking parlor. Such mitigation measures can easily be verified upon inspection.
 - Adjusted recordkeeping requirements so only the necessary recordkeeping would need to be kept to show compliance with the mitigation measures.
 - Created a comparison chart (Appendix D of the Staff Report) to show what recordkeeping requirements were associated with each mitigation measure.
 - Adjusted approval, mitigation measure, and monitoring language based on comments received from the US EPA.
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Conclusion

The proposed Rule 496 will satisfy the requirements of state law (Health and Safety Code Section 40724.6) and achieve VOC reductions. Staff recommends that the Board approve the negative declaration and approve the attached resolution adopting Rule 496 as proposed.

Respectfully Submitted

Larry Greene; Air Pollution Control Officer
Sacramento Metropolitan
Air Quality Management District

Approved as to form:

Kathy Pittard, District Counsel
Sacramento Metropolitan
Air Quality Management District

Attachments

Attachment A

Board Resolution

Attachment B

Draft Rule 496

Attachment C

Staff Report

Attachment D
Written Comments

Attachment E

Environmental Impact Analysis

Attachment F
Evidence of Public Notice