California Environmental Protection Agency
Air Resources Board

Final Statement of Reasons for Rulemaking
Including Summary of Comments and Agency Responses

PUBLIC HEARING TO CONSIDER THE
LARGE CONFINED ANIMAL FACILITY DEFINITION

Public Hearing Date: June 23, 2005
Agenda Item No: 05-6-2

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State of California
AIR RESOURCES BOARD

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PUBLIC HEARING TO CONSIDER THE ADOPTION OF A REGULATION ESTABLISHING A DEFINITION FOR "LARGE CONFINED ANIMAL FACILITY"

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I. GENERAL

In this rulemaking, the Air Resources Board (the Board or ARB) is adopting a definition of "large confined animal facilities" as required by Health and Safety Code (HSC) Section 40724.6. Pursuant to this statutory provision, local air districts designated as nonattainment for the national ambient air quality standard for ozone as of January 1, 2004, must adopt rules for inclusion into the State Implementation Plan, by July 1, 2006, requiring such facilities to obtain an air permit. Local air districts not so designated must also adopt regulations, unless certain findings are made.

This rulemaking was initiated by the May 6, 2005, publication of a notice for a public hearing scheduled on June 23, 2005. The staff report: Initial Statement of Reasons for Rulemaking Public Hearing to Consider the Large Confined Animal Facility Definition (Staff Report or ISOR) was also made available for public review and comment beginning on May 6, 2005. The Staff Report, which is incorporated by reference herein, discussed the rationale for the proposal. The Staff Report and all other regulatory documents for this rulemaking are available on the ARB's website at: http://www.arb.ca.gov/regact/lcaf05/lcaf05.htm

The Board's Action. At the conclusion of the public hearing on June 23, 2005, the Board adopted Resolution 05-35 which approved adoption of Sections 86500 and 86501, title 17, division 1, chapter 1, of the California Code of Regulations (CCR), to define large confined animal facilities for California. At the hearing, the Board directed staff to make an adjustment, if appropriate, to the large confined animal facility (large CAF) definition for beef feedlots to more accurately reflect the size distribution of cattle at beef feedlots consistent with methods used to establish the other large CAF definitions. The Board also directed staff to make any modified text available for a supplemental comment period, and then to take appropriate final action adopting the regulations.

Fifteen-Day Changes. In accordance with section 11346.8 of the Government Code, the Resolution directed the Executive Officer to incorporate the modification into the regulatory text, and to make the modified text available for a supplemental comment period of at least 15 days. Text of the modifications to the originally proposed regulation was made available for a supplemental 15-day comment period by issuance of a "Notice of Public Availability of Modified Text and Additional Document and Information." This 15-day notice and a copy of the Resolution 05-35 were released on September 7, 2005.

Only one modification to the regulatory text was proposed. The proposed change pertains to the number of beef cattle qualifying a confined animal facility as "large" and is based on new beef feedlot manure output data. For specified ozone nonattainment areas in California, the revised large CAF definition for beef feedlots is proposed to be 3,500 head, versus the 2,500 head in the original proposal. For other regions of the State, the large CAF definition for beef feedlots is proposed to be 7,000 head, versus 5,000 head in the original proposal. Specific details regarding the change and the rationale for the modifications are provided in the 15-day notice.

Two comments were received during the supplemental comment period that ran from September 7, 2005 through September 22, 2005. Both comments support the recommended modification. After considering these comments, the Executive Officer issued Executive Order R-05-009, adopting the amendments to CCR, title 17, because these comments supported the modifications, they are not included in the summary of comments and agency response section of this document.

Fiscal Impacts. The Board has determined that this regulatory action will not result in a mandate to any local agency or school district the costs of which are reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

Consideration of Alternatives. The Board has further determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

Corrections to Reference Dates. There are three corrections to the reference dates in the ISOR. The corrections concern the difference between the dates of the reference copies, submitted with the ISOR, and the dates cited in the ISOR reference lists. The reasons for the differences are as follows, with the corrections in **bold** type:

CPF 2005a. Poultry broiler statistics provided by California Poultry Federation by letter from Bill Mattos to Mike FitzGibbon (ARB), April 1, 200**4**.

(The citation in the ISOR should have been April 1, 2004, not April 1, 2005.)

EPA 2004. National Emission Inventory – Ammonia Emissions from Animal Husbandry Operations, Draft Report. January **3**0, 2004. United States Environmental Protection Agency. http://www.epa.gov/ttn/chief/ap42/ch09/index.html

(The citation in the ISOR should have been January 30, 2004, not January 20, 2004.)

OEHHA 2005. Office of Health Hazard Assessment, California Environmental Protection Agency. Cal/EPA - OEHHA Toxicity Criteria Database. April **18**, 2005. http://www.oehha.ca.gov/risk/ChemicalDB/index.asp and Tables of Acute and Chronic Reference Exposure Levels (RELs) at http://www.oehha.ca.gov/air.html

(The citation in the ISOR should have been April 18, 2005, not April 7, 2005.)

Miscellaneous. Minor renumbering modifications were made to section 86500 of the Final Regulation Order by adding parenthetical Arabic numbers before each listed item in subsections (a) and (b).

Also in the Final Regulation Order section 86500 subsection (a) first sentence the words "for ozone" were deleted because they were redundant.

II. SUMMARY OF COMMENTS AND AGENCY RESPONSE TO THE ORIGINAL PROPOSAL AND NOTICE OF MODIFIED TEXT

The Board received several written and oral comments during the 45-day comment period, at the June 23, 2005, hearing for this regulatory action, and during the 15-day supplemental comment period. A list of commenters is set forth below with the date and form of all comments that were timely filed. Responses to comments received follow.

The comments have been grouped by topic wherever possible. Comments not involving objections or recommendations specifically directed toward the rulemaking are not summarized below.

Summary of Those Submitting Comments During the 45-day Public Comment Period and the Supplemental 15-day Comment Period

Abbreviation	Commenter
AUC	Arthur Unger, Citizen oral testimony: June 23, 2005
BMC	Braulio Martinez, Citizen Center for Race, Poverty, and the Environment oral testimony: June 23, 2005
CAPCOA	Harry Krug, President California Air Pollution Control Officers Association written comments: received June 23, 2005 oral testimony: June 23, 2005
CARES	J. P. Cativiela, Program Coordinator Community Alliance for Responsible Environmental Stewardship written comments: June 23, 2005 oral testimony: June 23, 2005
CCA	Nidia Bautista Coalition for Clean Air oral testimony: June 23, 2005
CCAS-1	Tracy K. Schohr, Director of Industry Affairs California Cattlemen's Association written comments: June 21, 2005 oral testimony: June 23, 2005

CCAS-2

Tracy K. Schohr, Director of Industry Affairs
California Cattlemen's Association
written comments: September 20, 2005

CDC	Kevin Abernathy California Dairy Campaign written comments: received June 23, 2005 oral testimony: June 23, 2005
CEERT	John Shears The Center for Energy Efficiency and Renewable Technologies oral testimony: June 23, 2005
CFBF-1	Noelle G. Cremers, Director Natural Resources and Commodities California Farm Bureau Federation written comments: June 21, 2005 oral testimony: June 23, 2005
CFBF-2	Noelle G. Cremers, Director California Farm Bureau Federation written comments: September 22, 2005
CMCAP	Kevin Hamilton CMC Asthma Program oral testimony: June 23, 2005
CRPE-1	Brent Newell, Staff Attorney, et al. Center on Race, Poverty, and the Environment written comments: June 22, 2005 oral testimony: June 23, 2005
CRPE-2	Mariel Kusano Center on Race, Poverty, and the Environment oral testimony: June 23, 2005
CWE	Teresa DeAnda Committee for Wellbeing of Earlimart oral testimony: June 23, 2005
DSC	Daniela Simunovic, Citizen oral testimony: June 23, 2005
ED	Kathryn Phillips Environmental Defense oral testimony: June 23, 2005
EMC	Esther Martinez, Citizen oral testimony: June 23, 2005
FMM	Carolina Simunovic Fresno Metro Ministry oral testimony: June 23, 2005
GEN	Mark Stout Green Energy Network

	oral testimony: June 23, 2005
HCC	D. Denise Mullinax, Dairy Environmental & Quality Coordinator Hilmar Cheese Company written comments: June 21, 2005 oral testimony: June 23, 2005
JTC	Jim Tully, Citizen oral testimony: June 23, 2005
KF	Susan Frank Kirsch Foundation oral testimony: June 23, 2005
NRDC	Diane Bailey, Staff Scientist, et al. Natural Resources Defense Council written comments: June 22, 2005 oral testimony: June 23, 2005
RCI	Dr. David Lighthall Relational Culture Institute oral testimony: June 23, 2005
SC	Carl Zichella Sierra Club oral testimony: June 23, 2005
SJVUAPCD	David Warner, Director of Permit Services San Joaquin Valley Unified Air Pollution Control District written comments: May 26, 2005
TFC	Tom Frantz, Citizen oral testimony: June 23, 2005
TSC	Todd Stroup, Citizen oral testimony: June 23, 2005
WCDC	William C. Descary, Citizen written comments: June 21, 2005 oral testimony: June 23, 2005
WUD-1	Michael L. H. Marsh, CPA, CEO Western United Dairymen written comments: June 20, 2005
WUD-2	Paul Martin Western United Dairyman oral testimony: June 23, 2005

A. Facility Headcount versus Facility Emissions for Definition

Several comments were received stating the definition for large CAFs should be based on actual individual facility emissions, rather than the number of animals (headcounts) at the facility. (WUD-1, HCC, WUD-2, JTC, CARES, CDC) A comment was also received stating that using a definition based on animal headcounts goes against the intention of SB 700 to use "scientific information" in the determination. (HCC)

In addition, a series of comments were received stating that the definition for large CAFs should be based on the number of animals at commercial livestock facilities. (CAPCOA, WCDC, CRPE-1, NRDC, CWE, FMM, CCA, GEN)

Agency Response: The format of the large CAF definition was considered carefully. Key factors in developing the definition include certainty, consistency, ease of understanding, and enforceability in the definition. Basing the large CAF definition on the number of animals at confined animal facilities provided a basis for the definition that is easy to understand and relies on information maintained by livestock producers in their normal business practices. The approach also provides a dependable definition for both industry and the regulatory agencies, and ensures that the largest livestock facilities, containing the majority of the animals in the state, are included in the definition.

Staff does not believe it is appropriate to base the large CAF definition on individual facility emissions. A definition based on individual facility emissions poses several problems. First, there is no consensus on the best data or methods to be used in estimating livestock emissions. This creates a definition with significant uncertainties.

Further, it is expected that ongoing studies will provide several updates to the livestock emission estimates in the coming years. Each of these emission updates would produce periodic changes in a large CAF definition based on source specific emissions, thus subjecting facilities to the possibility of a fluctuating standard. This would create substantial and unnecessary complexities for both the livestock industry and regulatory agencies.

Finally, livestock facility operators do not have information readily available regarding their facility emissions. An emissions based definition would require each California livestock facility to compute their emissions to determine their applicability to the large CAF definition, creating additional regulatory workload for the facilities.

Staff disagrees with the comment that using a definition based on animal headcounts goes against the "intention" of SB 700. As required by SB 700, staff considered available scientific information in developing the large CAF definition and determined that basing the definition on the number of animals at livestock facilities provides the fairest, most scientifically defensible, and most consistent approach to defining large confined animal facilities. No requirement was specified in SB 700 regarding the form of the large CAF definition related to facility emissions, facility size, or other factors, so it is fully within the bounds of

the regulatory language to use the number of animals at facilities to develop a large CAF definition.

B. Higher or Lower Headcounts for Large CAF Definition

Dairies

Multiple comments were received to both lower the proposed large CAF definition to be more stringent, as well as to raise the definition to be less stringent. For example, comments were received that the large CAF definition for dairies in ozone nonattainment regions should be set to 700 milking cows. (CRPE-1, NRDC, BMC, CWE, EMC, TFC, CEERT, SC, FMM, CCA, GEN, RCI, ED, DSC, KF)

It was suggested that the ARB has underestimated dairy emissions, leading to a definition that is too low (SJVUAPCD), and the definition should be 500-to-700 head. (SJVUAPCD, CMCAP) A comment was also received that the large confined animal facility definition for dairies should be set at 1,000 milking cows (WCDC), and that the definition should be consistent with federal confined animal feeding operations to provide a consistent multi-media approach to confined animal facility regulation. (CRPE-1)

It was also suggested that the large CAF definition for dairies be set at 2,500 head versus 1,000 head. The rationale for this suggestion is that the average dairy size is about 1,000 head, so defining a 1,000 head facility as "large" seems inconsistent. (WUD-1, WUD-2)

Agency Response: Developing the large CAF definition for California required consideration of several factors. To achieve the highest potential air quality benefits, it was important to include as many of the livestock animals as possible. However, it was also important to not unnecessarily burden those livestock facilities producing relatively minor air quality impacts. For dairies, it was determined that 1,000 milking cows for the areas of the state with the most significant air pollution will capture the dairies responsible for the bulk of the emissions while minimizing the burden on the smaller dairies. For example, in the San Joaquin Valley, dairies with 1,000 or more milking cows include about 72% of the cows in the Valley while affecting only 36% of the dairies (Reference: Staff Report, Table 4). In Southern California, the State's other main dairy region, dairies with 1,000 or more milking cows include about 75% of the cows in the region and 49% of the dairies (Reference: Staff Report, Table 6).

Decreasing the large CAF definition to 700 head would affect 84% of the cows and 50% of the facilities in the San Joaquin Valley, and 89% of the cows and 70% of the facilities in Southern California. This level of stringency results in significant additional facilities without providing commensurate air quality benefits.

Further, local air districts have the discretion under SB 700 to develop more stringent large CAF definitions if needed to meet their air quality objectives. Increasing the large CAF definition to 2,500 head or other higher levels for

dairies would exclude most of California's dairies, providing very limited potential air quality benefits.

After substantial public, regulatory, and industry input, the large CAF definition of 1,000 milking cows was determined to be the most effective large CAF definition for California dairies. Similar logic was applied in developing the large CAF definitions for other livestock categories.

Poultry Operations

Related to chickens, we received the comment that the LCAF definition for layer chickens should be set to no more than 325,000 head, to make it consistent with the relative emissions to broiler chickens. This is based on the assertion that the per-animal emissions from egg layer chickens are the same as the per-animal emissions from broiler chickens (SJVUAPCD). We also received the comment that the proposed large CAF definition for broiler and layer chickens will allow significant ammonia emissions without the facilities being subject to best available retrofit control technology. (CRPE-1)

Agency Response: There is insufficient information regarding the relative rates of emissions of organic compounds between layers and broilers. In the absence of this information, staff relied on the poultry manure output values as a surrogate for comparing layer and broiler chicken emissions. Based on a report by the American Society of Agricultural Engineers referenced in the Staff Report, broilers and layers produce similar quantities of manure on an average daily basis. This information was used to justify applying the same large CAF definitions for both layers and broilers. As with the dairy cows, the layer and broiler large CAF definition was also based on an analysis of the number livestock and facilities captured under the definition. For example, at 650,000 head, about 62% of the broiler chickens are included in the definition, which includes 30% of the farms. The definition includes 58% of the layers and 12% of the layer farms (Reference: Staff Report, Table 13). These definitions provide for control of most of the poultry livestock and a majority of the potential emissions, including ammonia. As needed, local air districts are allowed under SB 700 to develop more stringent definitions.

Other Cattle

For the livestock category of "other cattle," the large CAF definition of 7,500 head for ozone nonattainment regions is too high. (SJVUAPCD)

Agency Response: ARB staff believe the definition of 7,500 head for "other cattle" is appropriate. The "other cattle" category is provided to include calf ranches, heifer ranches, or other operations that are not specifically classified as dairies or beef feedlots. The value of 7,500 head was derived as a hybrid of the various potential mixes of animals in these types of facilities and is based on animal manure outputs ranging from 8 to 48 pounds per day, with an average of about 25 pounds of manure per day. For reference, the manure output of an adult beef cow is assumed to be 64 lbs of manure per day. Because the per animal manure output from the 'other' cattle is roughly 1/3 of an adult beef cow,

and air emissions are related to manure output, the 'other cattle' definition was set at 7,500 head, which is three times the beef cow definition. Also note that the 'other cattle' category in California includes a very small fraction of the total cattle within California, so this definition of 7,500 head affects only a small proportion of the total cattle in the State.

C. Regional Variations in Large CAF Definitions

ARB received comments recommending that ARB assign identical large CAF definitions in ozone attainment and nonattainment regions. It was suggested that the difference in the definition could lead to facilities locating to ozone attainment regions to avoid the stricter definition and associated environmental standards in the nonattainment regions. (CRPE-1, CRPE-2) We also received comments recommending that in developing the definitions for large CAFs, a two-tiered approach should be used with differing threshold limits based on ozone attainment classifications. The two tiers should be severe and extreme ozone attainment areas versus all other areas. (CAPCOA, WCDC)

Agency Response: To make the large CAF definition responsive to the varying air quality needs of different regions, two tiers of definitions were developed. Those regions with the most significant air quality problems have the most stringent definitions, and regions with better air quality have a less stringent definition. It is also important to note that nearly all of the dairy cows (over 90%) are in ozone nonattainment regions, and are therefore subject to the more stringent large CAF definition. Most other California livestock, such as chickens, are also in these ozone nonattainment regions.

A single statewide large CAF definition would place unnecessary regulatory burdens on livestock facilities in regions with relatively good air quality, where reductions in livestock emissions would not necessarily provide meaningful air quality benefits. However, these regions are allowed under SB 700 to adopt stricter large CAF definitions if the facilities are shown to negatively impact air quality. ARB received no evidence indicating that relocation based on the large CAF definition alone would occur. Based on business practices of the livestock industry, it currently seems unlikely that facilities will locate to ozone attainment regions only to avoid air quality regulations. Many issues are included in such a facility citing decision such as land prices, access to feed, access to markets, and other factors.

D. Differences in Manure Output by Animals

A series of comments were received suggesting that the definition should be modified to take into account the potential variations in different animal types. For example, the comment was received that using a definition based on animal headcounts incorrectly assumes that all milk breeds and types of milk cows contribute the same amount to air pollution and that scaling needs to be included to account for breed differences. (HCC) Also, it was suggested that Jersey cows

should be considered 70 percent of a Holstein cow for emission estimation purposes. (TSC)

For beef cows, a comment was received that, based on revised manure output values and other changes, the definition for large confined animal facilities for beef feedlots should be increased to 5,000 head for ozone nonattainment (CCAS-1), and that the CAF definition for feedlot cattle should be based on the most recent and complete manure output data available for the California beef feedlot industry (CCAS-1). Also, in performing emission estimates for feedlot cattle, it was recommended to use total solids as the basis of scaling manure output between animals versus total manure. (CCAS-1)

Agency Response: Regarding the first comment, it is impractical and imposes an unnecessary regulatory burden on facility operators to base the large CAF definition on specific animal breed manure output rates. Not only does manure output vary by breed, but it can also vary by diet, animal age, the gestational state of the animal, and other factors. To expect dairymen or other livestock operators to account for each of these factors and then compute the composite manure output for their entire herd or flock is unrealistic and unnecessary. Using a consistent definition based on the number of animals at a facility may provide some minor inequities between different animal breeds or husbandry practices, but staff believes that these potential inequities are inconsequential when weighed against the benefits of adopting a large CAF definition that is consistent, easy to understand, and enforceable.

Regarding the second comment for beef feedlots and updating the manure output values, we agree with the comment and released a 15-day change notice to update the originally proposed beef feedlot definitions using more recent beef manure output data. After analysis of the new data, the large CAF definition for beef feedlots was changed from 2,500 head in ozone nonattainment regions to 3,500 head, and from 5,000 head to 7,000 head in ozone attainment regions. This change in the definition was noticed during a 15-day comment period. There was insufficient data to support raising the large CAF definition to the suggested 5,000 head beef feedlots in ozone nonattainment regions because it would create inequities in the large CAF definition with the other livestock categories, and there was insufficient data to use total solids for manure output scaling. No negative comments were received on the proposed beef feedlot change during the 15-day comment period.

E. Ammonia Emissions

A comment was received asserting that the effects of ammonia as a toxic gas and PM2.5 precursor have been minimized by the ARB staff report and should be considered more fully (CRPE-1, TFC), and the health impacts of ammonia emitted by confined animal facilities should be considered (CRPE-1). Another comment received stated that pollutants such as hydrogen sulfide and particulate matter were not addressed in developing the large CAF definitions (CRPE-1).

Agency Response: The definition used for the large CAF definition is based on the number of animals at livestock facilities and is not tied to any specific pollutant. Those facilities that are defined as large are required to submit emission mitigations plans to reduce emissions of pollutants that "contribute to the nonattainment of any ambient air quality standard, and are within the district's regulatory authority." (H&SC Section 40724.6(d)(1)(b)) In cases where livestock ammonia or other pollutants contribute to nonattainment of air quality standards, those emissions will need to be addressed. Based on the form of the large CAF definition, pollutants such as ammonia or hydrogen sulfide are not ignored.

F. Other Comments

Comment: ARB has not complied with the statutory mandate to "review all available scientific information including emission factors, for confined animal facilities." (CARES)

Agency Response: Staff performed a complete and comprehensive analysis of scientific information in developing the large CAF definition. This assessment included livestock emission factors, the number and types of livestock facilities within the State, the potential impacts of the facilities on air quality, livestock manure output levels, and other factors described in the Staff Report. Staff has complied with the statutory mandate.

Comment: ARB should use a scientific review process to determine facility thresholds. (CFBF-1, CCAS-1)

Agency Response: Staff agrees and employed such a process. As required by the SB 700 legislation, the ARB staff used a comprehensive and detailed scientific process to determine the large CAF definitions. This included a full analysis of the types and sizes of livestock facilities within California, their overall emissions, livestock specific emissions and manure generation rates, and other data as provided in the Staff Report.

Comment: ARB has failed to adequately review the nature or quantity of VOC emissions from dairies or how those emissions may affect ambient ozone levels. (CARES)

Agency Response: There is ongoing uncertainty related to the quantity and constituents of volatile organic compound (VOC) emissions from dairies. However, using currently available data, staff analyzed dairy and other livestock emissions relative to other emission sources. This analysis clearly showed that livestock are a significant source of VOC emissions in the San Joaquin Valley and the South Coast Air Quality Management District, regions of the State with the worst air quality. These livestock VOC emissions can contribute to high ozone levels in the region. In addition, to more completely address the nature and quantity of dairy VOC emissions on ambient ozone levels, staff developed a 2-tiered definition so regions with the worst air quality have the most stringent definition, and regions with better air quality have a less stringent definition.

Comment: Setting the large CAF definitions at the proposed levels will set the permitting thresholds for livestock far below that of all other agricultural sources. (CARES)

Agency Response: Under the large CAF definition, livestock facilities are treated equitably when compared to other agricultural sources. Air districts are required to consider reasonable and cost effective emission reductions from all agricultural (and other) sources, so it is consistent and reasonable that various emission sources may have varying permitting and control thresholds. Finally, SB 700 singles out large CAF facilities to be treated differently from agricultural sources, so there is not a legislative need that all emission sources be treated the same.

Comment: ARB should review dairy research and update dairy estimates using new data as soon as practicable. (CARES)

Agency Response: Staff agrees and is in the process of sponsoring and coordinating dairy research efforts to better understand the quantity, nature, and sources of dairy emissions. These new data will be incorporated into future emission estimates as it is accepted by stakeholder groups including the regulators, industry, environmentalists, and community groups.

Comment: Proposed section 86500 of Title 17 should be clarified to include the meaning of agricultural stationary source and animal facility. (CRPE-1)

Agency Response: An "Agricultural source of air pollution" or "agricultural source" is currently defined in H&SC 39011.5(a), therefore it is not necessary to provide additional definition.

Comment: The ARB should review scientific data every three years and evaluate the appropriateness of the large CAF definitions. (CFBF-1, CCAS-1)

Agency Response: Staff agrees and this has been reflected in the adopted ARB resolution number 05-35.

Comment: The large CAF definition needs to ensure that the entire operation or groups of options on contiguous property and under common ownership and control are defined as a single LCAF. (CRPE-1)

Agency Response: The specifics of implementing SB 700 are the responsibility of local air districts. This is appropriate because of their detailed local knowledge of specific facilities and ownership issues that are not readily available at the State agency level.

Comment: The cumulative impacts of clustered livestock facilities should be considered in determining the large confined animal facility definitions. The proposed definitions are not low enough to address the air pollution problems of areas exposed to multiple facilities. (CRPE-1, NRDC, CEERT, SC, CCA)

Agency Response: This issue is most appropriately addressed by local planning agencies and air districts, and not within the definition of large CAFs. These local agencies have the specific local information needed to address the potential impacts of groups of facilities. In addition, the large CAF definition is designed to address those facilities and livestock animals within a region that may contribute to exceedances of regional air quality standards. The definition is not directly focused on the near-scale cumulative impacts of several facilities. However, any facility that meets the large CAF definition, whether it is isolated or part of a larger cluster of facilities, will be required to submit an emission reduction plan. Further, local air districts are allowed under SB 700 to adopt a more stringent large CAF definition to address local issues such as clustered facilities.

Comment: More data is needed on dairy herd size and location in the San Joaquin Valley and South Coast Air basins. (CRPE-1)

Agency Response: We concur. As part of district permitting and regulatory programs, this detailed facility-specific information is now being collected.

Comment: The current per-cow emission factor used to compute dairy emissions should be rejected. (CARES)

Agency Response: Research is ongoing to more fully understand and quantify dairy emissions. This research will include improved emissions information for specific dairy processes as well as better information on the exact chemical constituents produced by dairy operations. However, while this work is being performed, the current per-cow emission factor is adequate for the purposes of defining a large confined animal facility.