Central California Environmental Justice Network

October 22, 2024

Submitted via
https://ww2.arb.ca.gov/public-comments/dairy-sector-workshop-public-comments

Short-Lived Climate Pollutants (or CARB Staff)
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments Regarding California's Dairy Sector Workshop August 22, 2024

Dear CARB Staff:

We submit these comments to the California Air Resources Board (CARB) on behalf of the Central California Environmental Justice Network in connection with CARB's request for feedback on the California Dairy Sector Workshop held August 22, 2024. These comments highlight opportunities for regulation improvement given CARB's missions to:

- Reduce methane to mitigate the worst effects of climate change,
- Protect public health by reaching National Ambient Air Quality Standards, and
- Protect our ecological resources.

We believe this can be accomplished better by addressing the items that follow.

Fulfill Existing Enforcement

While new rules and regulations are important to reduce methane emissions, it is just as important that existing rules and regulations are properly enforced to ensure methane is controlled as currently required. The San Joaquin Valley Air Pollution Control District (the "District") is currently responsible for regulating, permitting, and enforcing rules and regulations for the dairy sector in the San Joaquin Valley Air Basin. While methane emission reductions are important for climate change, we believe CARB can use the State Implementation Plan (SIP) process to assist in reducing methane emissions.

Per Clean Air Act Section 110(a)(2)(E)(iii), each implementation plan "shall provide necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision." Below, we will share instances of incomplete or incorrect interpretation and evaluation of rules and regulations included in the District SIP that govern the dairy sector ("dairy" in

this letter refers to confined animal facilities that contain dairy milk cows, dairy dry cows, heifers, calves, beef cattle at beef feedlots, and other cattle facilities that contain cows). We believe SIP approved rules listed below give CARB the necessary authority to implement our recommendations through the above reference.

Best Available Control Technology (BACT) Guidelines

The SJV Air District's dairy-related BACT Guidelines have been rescinded online since August 16, 2023. This means dairy-related permitting actions requiring a BACT analysis have had project specific BACT analyses completed. The previously approved dairy-related BACT Guidelines were out of date and needed to be updated. By not making official BACT determinations for dairy-related emission sources and publicly noticing them, the District is avoiding outside comment on their determinations and continuing the use of their outdated and incorrect BACT determinations by completing project specific BACT analysis. We ask CARB to demand the District complete and publish BACT determinations for all dairy-related emission sources. We also ask CARB to not allow the District to issue any dairy-related Authority to Construct (ATC) permits that trigger BACT until said BACT Guidelines are publicly posted.

Re-Evaluation of Exemptions

The following facilities are currently exempt from District Rule 4570:

- Dairies below 500 milking cows
- Beef Feedlots below 3,500 beef cattle
- Other Cattle Facilities below 7,500 calves, heifers, or other cattle

We contend these limits, especially for beef feedlots and other cattle facilities, are too high to exempt confined animal operations from the minimum requirements of District Rule 4570 and are not consistent with CARB's methane goals. We would like CARB to require the District to either remove the exemptions or submit a report showing the emissions (including methane) associated with confined animal operations of these sizes, the tool used to estimate emissions, and a list of all facilities using these exemptions so that CARB can accurately assess the impact of methane emissions from these exemptions. We would like CARB to make this evaluation accessible to the public.

If CARB chooses not to address the unjustified exemptions, we would like CARB to explain how not addressing a completely unknown amount of methane emissions from the largest methane source category in California is consistent with the Assembly and Senate Bills listed in the Diary Sector Workshop presentation (slide 6).[1]

Realized Emission Reductions and Digester Permanency

[1] A staff report for Rule 2020 or Rule 4570 that justifies or evaluates the exemptions listed here does not exist.

Liquid manure from a dairy is traditionally controlled with a storage pond or lagoon. Digesters are being installed at dairies since they are much more efficient at controlling emissions from liquid manure. In air permitting, mechanisms exist to assist in ensuring the most efficient emission control devices are installed. As an example, a woodworking operation replaces an older dust-collecting cyclone with a more efficient baghouse dust collection system. The woodworking operation is permitted with the new, more efficient baghouse, and the cyclone is removed from service. However, this is not the case with dairy digesters.

When a dairy installs a digester, the liquid manure handling permit is updated to allow the new digester, but the dairy operation is not required to remove the old, less efficient method of controlling liquid manure from their permit or permitted emissions.[2] This means that at some point in the future, the dairy owner or operator could choose to remove the digester and revert back to the less efficient control method. Since the originally allowed and permitted emissions are not reduced due to the increased efficiency of the digester, the digester could be removed and the old liquid manure control method could again be used through an administrative action or a non-New Source Review (NSR) permitting action.

We ask that CARB research this aspect of dairy permitting and then require the District to re-permit all existing digesters such that the emission reductions are realized and the current permit does not allow the operation to simply revert to the previous liquid manure control method. We also ask CARB to ensure all future digesters are similarly permitted. A dairy should only be allowed to remove a digester if the permitting action evaluates the increase in emissions in going from operating a digester to operating the same operation without a digester and existing rules and regulations allow said increase in emissions.

<u>Initial Diary Permit Issuance</u>

Per District Rule 2020, Section 9.0,

> *The owner or operator of an emissions unit that was exempt from written permits at the time of installation, which becomes subject to the provisions of Rule 2010 (Permits Required), through loss of exemption, shall submit an application for a Permit to Operate within six months from the date of adoption of this rule and shall not be subject to Rule 2201 (New and Modified Stationary Source Review Rule), until such time that the emissions unit is modified.*

Dairies became subject to District regulation in 2010. During this initial permitting process, dairies were permitted as they were constructed and operated. They were not

[2] The only time a digester is required control technology is if the proposed permitting action only passes a health risk assessment with a digester as a required control technology.

restricted from being permitted based on herd size or health risk to nearby people. As dairies were modified or installed new equipment, they would be required to go through District permitting requirements. However, all operations must always be in compliance with District Rule 4000 series prohibitory rules. Therefore, a dairy issued a permit because they just become subject to District rules should be in compliance with District Rule 4570, Confined Animal Facilities. However, we have learned this is not the case, and in fact, dairies continue to receive this initial permit long after it was known dairies require air permits. This process in effect "grandfathers in" a dairy many, many years after permits were required. It permits the dairy as it is currently operating, and these dairies are not required to initially comply with all dairy-related NBC NBC NBC NBCUniversal FM n m and regulations. This permits a diary with no mitigation measures, allowing much more methane to be emitted than compliance with current rules would allow.[3]

We encourage CARB to look into this methane reduction loophole by asking the District for a list of all dairies issued initial permits long after permits were required, such as 2015 or 2020 to learn the extent of this problem. We encourage CARB to put a stop to permits being issued that are not compliant with District 4000 series prohibitory rules.

Grimmius Cattle Company – West Ranch (Facility C-8547) under project C-1210116 exemplifies this issue.[4] CARB can research this permitting action and identify the problems listed above. We would also be happy to have our staff walk you through this permitting example or the initial issuing of permits as discussed above.

Corral Size Circumvention

BACT (Best Available Control Technology) is a requirement to ensure permitted operations are using and proposing the best available control technology. However, in order to trigger the requirements of BACT, an "emission unit" must emit more than 2.0 pounds per day of a pollutant. For dairy cow housing, the District has determined an "emission unit" is a housing structure. One example of a cow housing structure is an open corral, which is a fenced in area that may or may not have a structure that provides shade for the cows. Original dairy permits have open corrals that always housed 100 cows or more. However, if dairy owners/operators house few enough cows in a corral, the emissions from that corral can be less than 2.0 pounds per day, and the corral will not trigger BACT. This process of intentionally sizing a corral to get out of control measures is a clear example of circumvention (District Rule 1110).

We encourage CARB to investigate recent cow housing modifications in which facilities are expanding and proposing large numbers of new corrals or rearranging their herd

[3] Please review this District issued permit with no Rule 4570 requirements, https://apps.valleyair.org/PublicPermits/Permit/DocumentContents?PermitID=C-8146-2-0.
[4] District publicly noticed permitting document, https://ww2.valleyair.org/media/ywddb200/packet.pdf.

size and splitting large, older corrals up into smaller corrals. In the application reviews for these permitting actions, we suggest staff look in the Dairy Calculator Appendix under the Post-Project Worst Case BACT Calculations worksheets for existing and new cow housing.

Grimmius Cattle Company – West Ranch (facility C-8547) is again a clear example.[5] In this permitting action (project C-1210116), the facility is, among other things, increasing their herd size and constructing 48 new shaded corrals. On page 134 of the application review file, BACT for the new cow housing units is calculated and shown below for your convenience. As you can see, the corrals were designed to hold 71 and 72 cows. By choosing these numbers, the VOC emissions are 2.0 pounds per day exactly. Since this is not greater than 2.0 pounds per day, the facility is not required to propose BACT for VOC emissions.

Post-Project Worst Case BACT Calculations - New Cow Housing

This table uses the worst case emission factor for each cow type and the maximum design capacity of the housing unit. This should only be used for BACT calculation purposes.

Post-Project Potential to Emit - Cow Housing: New Freestalls at Existing Dairy

	Housing Name(s) or #(s)	Type of Cow	Capacity per housing unit	Controlled VOC EF (lb/hd-yr)	Controlled NH3 EF (lb/hd-yr)	Controlled PM10 EF (lb/hd-yr)	VOC (lb/day)	VOC (lb/yr)	NH3 (lb/day)	NH3 (lb/yr)	PM10 (lb/day)	PM10 (lb/yr)	BACT Triggered for VOC?	BACT Triggered for NH3?	BACT Triggered for PM10?	
1	Pens 63 - 86	support stock	71	10.09	25.06	2.88	2.0	716	4.9	1,779	0.6	204	No	Yes	No	*
2	Pens 87-110	support stock	72	10.09	25.06	2.88	2.0	726	4.9	1,804	0.6	207	No	Yes	No	*
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
							4.0	1,442	9.8	3,583	1.2	411				

*Multiple emissions units (freestalls, corrals, calf hutch areas, etc.) are combined in these rows. BACT applicability has been calculated for EACH emissions unit in this row.

Post-Project Totals

VOC (lb/day)	VOC (lb/yr)	NH3 (lb/day)	NH3 (lb/yr)	PM10 (lb/day)	PM10 (lb/yr)
88.6	32,312	219.9	80,254	32.1	11,735

Calculations:

Annual PE 2 for each pollutant (lb/yr) = Controlled EF (lb/hd-yr) x # of cows (hd)
Daily PE2 for each pollutant (lb/day) = [Controlled EF (lb/hd-yr) x # of cows (hd)] ÷ 365 (day/yr)

Since the District has not posted an updated BACT Guideline for dairies and did not evaluate BACT for VOC in this permitting action, we cannot tell exactly what the facility would have needed to do in order to comply with BACT for VOC.

Proper Use of Computer-Aided Tools in Analysis

Different charts throughout the public workshop gave different numbers for the total dairy digesters, but they ranged between 100 and 238 digesters. The California Dairy and Livestock Database (CADD) appears it will be a useful tool. However, when trying to answer the question if dairy digesters result in increased herd size, why not just complete a manual analysis that will result in 100% certain of its findings instead of trying to infer the answer from a new database? As an observer, it appeared CARB staff went through a very drawn out, statistically methodology in order to be able to say

[5] Publicly posted Application Review, https://ww2.valleyair.org/media/ywddb200/packet.pdf.

herd sizes have not increased due to digesters when a definitive answer can be obtained. We encourage CARB to manually look at the herd sizes of dairies associated with digesters 1-2 years before digesters were proposed and compare with the herd size now. Please keep in mind that it is not uncommon for dairies surrounding a digester to also send their waste to a dairy with a digester near them, so please review all dairies surrounding digesters.

Cost Effective Analysis

During the Dairy Sector public workshop, both Chair Randolph and Secretary Ross addressed the profits companies are receiving versus the emissions these companies are putting into our environment. In future dairy sector methane work completed by CARB, we would like CARB to include how profits versus emissions are being incorporated into their decision-making processes.

Methane Reduction Goals and State Implementation Plans

District Rule 4570 mitigation measures have remained mostly unchanged for years. The mitigation measures are organized by emission source and allow a cafeteria-style selection method. While methane emissions are the source of this public comment period, we would like to add that the District and State are also required to ensure every source of emissions within the San Joaquin Valley has the most stringent measures found in another state implementation plan or are achieved in practice in any state. Ensuring this SIP requirement is fulfilled will also assist CARB with methane-reduction goals. We encourage CARB to review the South Coast SIP and associated dairy rules to ensure the District's are as stringent.

One example is that South Coast Rule 1127, Emission Reductions from Livestock Waste, is subject to all dairy farms with 50 animals or more. The South Coast definition of a dairy farm also includes heifer ranches and what the SJV District considers Other Cattle Facilities. Therefore, the South Coast exemption limit of 50 animals is less the SJV APCD's milk cow limit of 500 cows and much less than the 3,500 beef cattle limit or 7,500 animal limit for Other Cattle Facilities. If District Rule 4570 was required to be as stringent as South Coast Rule 1127 when it comes to liquid and solid manure, California methane would be substantially reduced in the dairy sector while simultaneously complying with mandatory SIP requirements.

CARB Referenced Material

As a general comment, we would encourage CARB to site all research studies, literature reviews, measurement campaigns, and model development efforts within the presentation or listed in a separate document. As participants, we would appreciate being able to locate and review these documents. We would also encourage CARB to site fact-based statements in their presentations and reports. As an example, we are unable to locate the source of the Methane Emissions in California pie charts.

Presenters directed us to the 2022 Scoping Plan during the workshop but the pie charts are similarly included without a reference or source.
We thank you for the opportunity to help guide potential future rulemaking, and we welcome any comments, questions, or requests for participation during the process.

Respectfully submitted,
Genevieve Amsalem
Director, Air and Climate Justice Team
Central California Environmental Justice Network