SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report
Proposed Amended Rule 223 – Requirements For Confined Animal Facilities

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EXECUTIVE SUMMARY

South Coast Air Quality Management District (South Coast AQMD) Rule 223 – Emission Reduction Permits For Large Confined Animal Facilities (Rule 223) controls ammonia and volatile organic compounds (VOCs) emissions from large confined animal facilities. Rule 223 requires the owner or operator of a Large Confined Animal Facility (LCAF) to submit a permit application, obtain a permit and implement specified emission mitigation measures.

The South Coast Air Basin portion of the South Coast AQMD exceeds State and federal ambient air quality standards for PM2.5 (particulate matter less than 2.5 microns in diameter). Proposed Amended Rule 223 – Requirements for Confined Animal Facilities (PAR 223) focuses on reducing ammonia emissions, a precursor to PM2.5, to comply with the federal Clean Air Act Most Stringent Measures requirements for the 2012 Annual PM2.5 National Ambient Air Quality Standard (NAAQS). PAR 223 implements control measure (BCM-08 – Emissions Reductions from Livestock Waste at Confined Animal Facilities) from the 2024 PM2.5 Attainment Plan by lowering the rule applicability thresholds to align with the more stringent thresholds in San Joaquin Valley Air Pollution Control District (San Joaquin Valley APCD) and Imperial County Air Pollution Control District (Imperial County APCD).

PAR 223 would lower the applicability thresholds for dairy, poultry, and duck farms to 500 milking cows, 400,000 chickens, and 400,000 ducks, respectively. PAR 223 would subject an estimated 12 additional dairy facilities to South Coast AQMD permitting requirements. Facilities that will close or be under the applicability thresholds by 2029 can be relieved of the permitting requirements. No chicken or duck farms currently exceed the proposed thresholds. LCAFs are required to select from a menu of mitigation measures to reduce emissions from its operations, many of which are already being implemented as best practices or as required by other rules and regulations. PAR 223 is anticipated to have minimal cost impacts associated with permitting. It is estimated that PAR 223 will reduce ammonia emissions by 0.17 ton per day by 2029.

CHAPTER 1 – BACKGROUND

Introduction

Agricultural operations represent a significant source of air pollution throughout the state of California. Although the livestock industry in South Coast AQMD's jurisdiction is not growing, livestock waste emits significant amounts of ammonia that contributes to fine particulate emissions (PM2.5) via atmospheric reactions with NOx to form ammonium nitrate. It has been estimated that dairy cattle represent 80 percent of total livestock ammonia emissions.

Previously, Health and Safety Code Section 40724.6 mandated certain air districts to adopt a rule or regulation that required the owner or operator of a Large Confined Animal Facility (LCAF) to obtain a permit from the district to reduce, to the extent feasible, emissions of air contaminants from the facility. Rule 223 – Emission Reduction Permits for Large Confined Animal Facilities (Rule 223) was adopted in June 2006 to satisfy these statutory requirements.

Rule 223 requires the owner or operator of an LCAF to submit a permit application and obtain a permit to operate from South Coast AQMD. The permit application is required to include facility information, including total animal and bird population capacity, and a description of air pollution sources. Rule 223 also requires the submittal of a separate application for the emissions mitigation plan that is based on the menu of mitigation measures included in Appendix A of the Rule. Rule 223 defines an LCAF as a confined animal facility that maintains certain animal number thresholds on any one day. Additional information on existing regulations applicable to livestock operations is included under the heading, Regulatory History.

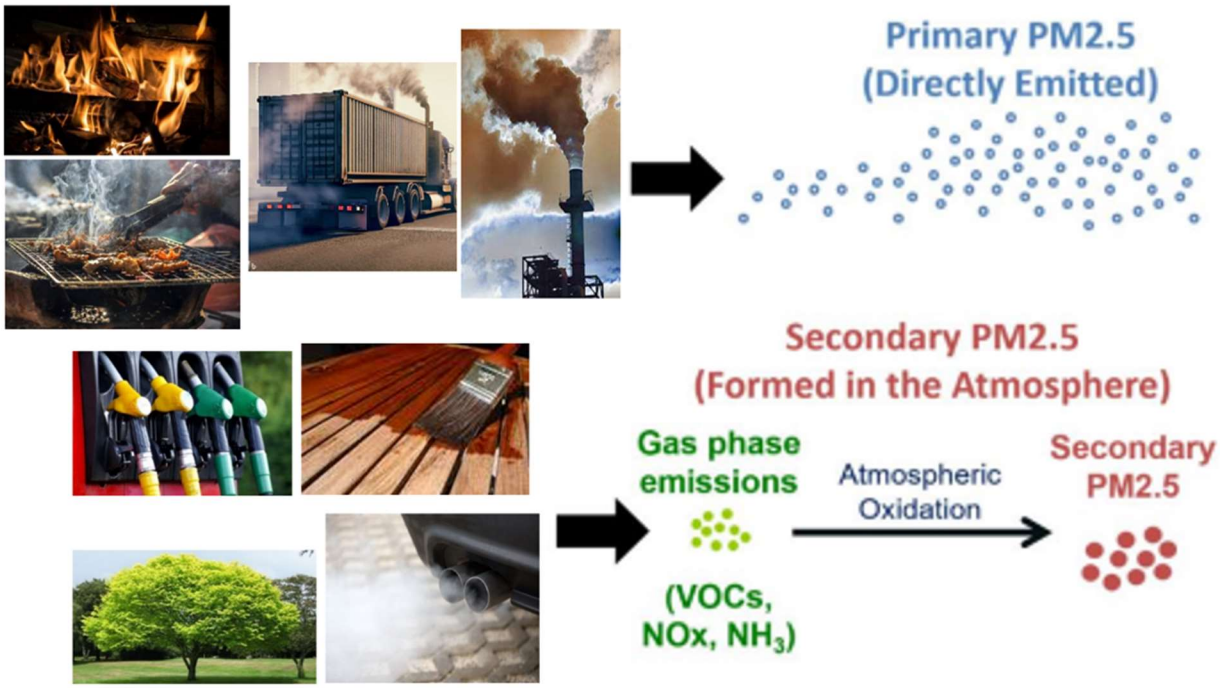
Federal Clean Air Act Requirements

The South Coast Air Basin has the worst levels of ground-level ozone (smog) in the country and among the highest levels of fine particulate matter, referred to as PM2.5 (**p**articulate **m**atter less than **2.5** microns in diameter). PM2.5 is an air pollutant that is either directly emitted into the atmosphere (primary particles) or formed in the atmosphere through chemical reactions (secondary particles). Primary PM2.5 includes road dust, diesel soot, combustion products, and other sources of fine particles. Secondary PM2.5 products, such as sulfates, nitrates, and complex organic compounds, are formed from reactions of oxides of sulfur (SOx), oxides of nitrogen (NOx), volatile organic compounds (VOCs), and ammonia (see Figure 1-1). High levels of particulate air pollution cause respiratory and cardiovascular disease, exacerbate asthma, and can lead to premature death.

The region continues to exceed state and federal air quality standards for PM2.5. The federal Clean Air Act requires areas that do not meet a National Ambient Air Quality Standard (NAAQS or air quality standards) to develop and implement strategies to reduce emissions so that healthful levels of air quality can be achieved in a timely manner. The strategy or attainment plan, along with other supporting elements, must be submitted to U.S. EPA for its review and approval into the State Implementation Plan. Regions must develop State Implementation Plan(s) to attain NAAQS by specific dates or face the possibility of sanctions by the federal government and other consequences under the federal Clean Air Act. California also has air quality standards for PM2.5 and under state law, the region is required to attain those standards as expeditiously as practicable.

Figure 1-1

PM2.5 Formation Mechanisms



The 2012 PM2.5 NAAQS level is set at 12 micrograms per cubic meter (µg/m^3). The South Coast Air Basin is classified as a "serious" PM2.5 non-attainment area for this standard, with an attainment date of December 31, 2025. In March 2023, South Coast AQMD withdrew the previous plan addressing the standard to avoid potential disapproval of the plan by U.S. EPA. Staff subsequently developed the South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard (2024 PM2.5 Plan)[1] that requests a 5-year extension and demonstrates attainment of the standard by December 31, 2030. Under section 188(e) of the federal Clean Air Act, areas classified as serious non-attainment seeking an extension of the attainment date are required to demonstrate that the attainment plan includes the Most Stringent Measures. U.S. EPA defines Most Stringent Measure as:

> *"The maximum degree of emission reduction that has been required or achieved from a source or source category in any other attainment plans or in practice in any other states and that can feasibly be implemented in the area seeking the extension."*

South Coast Air Basin Attainment Plan for 2012 Annual PM2.5 Standard (2024 PM2.5 Plan)

The 2024 PM2.5 Plan describes the control strategy and provides a demonstration that the proposed control strategy meets federal Clean Air Act requirements to implement Most Stringent

[1] South Coast Air Quality Management District, South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard, June 2024. Available at https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/2012-annual-pm2-5-plan.pdf

Measures (see Appendix III).[2] The 2024 PM2.5 Plan also included an analysis of precursor emissions that showed ammonia and NOx emissions are a significant contributor to PM2.5 (see Appendix VI – Precursor Demonstration).[3] South Coast AQMD Governing Board adopted the 2024 PM2.5 Plan in June 2024. The plan was subsequently approved by the California Air Resources Board (CARB) on June 27, 2024. CARB has submitted the plan to the U.S. EPA for approval and a request for incorporation into the State Implementation Plan.

Appendix IV-A of the 2024 PM2.5 Plan[4] identifies the South Coast AQMD's stationary source attainment strategy through source-specific control measures. Control measure BCM-08: Emission Reductions from Livestock Waste at Confined Animal Facilities describes the strategy to seek further ammonia emission reductions from livestock facilities. The control strategy is based on the 2024 PM2.5 Plan Most Stringent Measures analysis that identified two California air districts having livestock regulations with lower applicability thresholds than Rule 223. Table 1-1 includes a comparison of California air district livestock rule applicability thresholds.

Table 1-1

Comparison of Livestock Regulation Applicability Thresholds

Agency	Rule	Relevant Applicability Thresholds
South Coast AQMD	223	Dairy Cows – 1,000 milking cows Poultry – 650,000 chickens/laying hens Ducks – 650,000 ducks
Imperial County APCD	217	Dairy Cows – 500 milking cows Poultry – 400,000 chickens Ducks – 400,000 ducks
San Joaquin Valley APCD	4750	

As noted above, San Joaquin Valley APCD Rule 4570 and Imperial County APCD Rule 217 have more stringent applicability thresholds than South Coast AQMD Rule 223 (500 vs. 1,000 milking cows, and 400,000 vs. 650,000 birds). Proposed Amended Rule 223 (PAR 223) therefore seeks to lower LCAF applicability thresholds to match those in other adopted regulations, to meet federal Clean Air Act requirements by adopting the most stringent measures.

In addition to lowering Rule 223 applicability thresholds, control measure BCM-08 identified two other potential control strategies to further reduce livestock ammonia emissions: 1) incorporation of solid manure within 24 hours, and 2) acidifying poultry litter. Soil incorporation of the manure on agricultural lands reduces ammonia emissions by decreasing the exposed surface area of manure. Rule 223 currently requires land incorporation of all manure within 72 hours of removal as a mitigation measure for dairy farms. Decreasing the land incorporation time of solid manure from the current Rule 223 requirement of 72 hours to 24 hours could potentially reduce ammonia, however, dairy industry association representatives have noted that a significant portion of dairy manure is either transported out of the region or sent to composting facilities for processing and very little land application occurs in this region. As this control strategy has not been adopted into other California air district rules and is not a Most Stringent Measures requirement this control strategy is not included in PAR 223.

[2] https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm_msm.pdf

[3] https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-vi---precursor-demonstration.pdf

[4] https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iv-a-control-measures.pdf

Treating poultry litter to reduce ammonia emissions can be achieved by application of additives to poultry litter to reduce the pH level of the litter. Reducing the pH level binds ammonia and reduces its volatilization. Studies on this process have, however, focused on broiler poultry house facilities[5] (where chickens are raised for meat) while commercial poultry farms in the South Coast Air Basin are cage-free layer houses. Additionally, a 2023 California Air Resources Board (CARB) and San Joaquin Valley APCD report that evaluated adding amendments to poultry litter noted potential water quality concerns from additives that use salts to change pH level.[6] Due to these findings and because treating poultry litter at layer hen houses is not a requirement in other California air district livestock rules, PAR 223 does not include this control strategy. PAR 223 includes the most stringent control strategies identified for this source category.

Confined Animal Facility Operations

Dairy Facilities

Dairying practices differ throughout the state, country and world. In the San Joaquin Valley and northern California, the majority of the dairies are flush lane operations which means that the manure in the milking parlors and free stall barns are flushed with recycled lagoon water into the lagoons. Waste from the lagoons is land applied as a nutrient source to local farmland. Most dairy farms in South Coast AQMD are "dry lot corral" dairies. Dairy cows live in open corrals, with feed lanes usually along one side of the corral. Manure is generally cleared from the feed lane into the corral, and then periodically removed from the corral, either to on-site stockpiles or off-site. Under General Waste Discharge Requirements,[7] farms are required to clear on-dairy manure twice a year. Due to urbanization and economic reasons, some dairy and other livestock operations are leaving the South Coast AQMD area and are relocating to other areas such as the San Joaquin Valley, the northwestern United States, and Texas.

According to the Santa Ana Regional Water Quality Control Board's annual inventory of the dairy industry, in 2023, there were 63 dairy cattle farms in the South Coast Air Basin with a total of 40,446 milking cows, 9,048 dry cows, 16,480 heifers and 13,776 calves.[8] Of the 65 dairy cattle farms, 42 farms have milking cows. Based on 2023 data, 383,275 tons of manure (the primary source of ammonia emissions) was reported in the manure manifests submitted to the Santa Ana Regional Water Quality Control Board. There are 16 dairy farms that are currently permitted under Rule 223.

Poultry Facilities

In 2018, voters in California approved Proposition 12, also known as the Farm Animal Confinement Initiative. Proposition 12 requires that animals held in buildings, such as laying hens, breeding sows, or veal calves, "be housed in confinement systems that comply with specific standards for freedom of movement, cage-free design, and minimum floor space."[9]

[5] https://www.ars.usda.gov/research/publications/publication/?seqNo115=283454 and https://www.nacaa.com/file.ashx?id=43e522f7-6583-4e60-bc0f-59eea5e2d1b0

[6] https://ww2.arb.ca.gov/sites/default/files/2023-04/AmmoniaSupplementalInformation.pdf

[7] https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2018/r8-2018-0001.pdf

[8] Calves are cows up to 12 months old, heifers are cows from 12 to 24 months old, or until first breeding, milking cows are adult cows that are lactating and dry cows are adult cows that are not milked, generally 45 to 60 days before giving birth.

[9] https://www.cdfa.ca.gov/AHFSS/AnimalCare/background.html

Implementation of the law began on January 1, 2022, and as a result all eggs produced in California must be procured only from hens in cage-free housing. High-rise hen houses in which egg-laying hens are kept in cages are no longer legal in California.

According to the United States Department of Agriculture, there are approximately 1.8 million laying hens in Los Angeles, Orange, Riverside and San Bernardino Counties.[10] There is one poultry farm that is currently permitted under Rule 223.

Regulatory History

To minimize VOC and NH3 emissions from livestock operations, LCAFs are subject to South Coast AQMD Rule 223 and Rule 1127 – Emission Reductions from Livestock Waste.

Rule 223 - Emission Reduction Permits for Large Confined Animal Facilities

Agricultural operations represent a significant source of air pollution throughout the state. Senate Bill (SB) 700, which was enacted into law as of January 1, 2004, eliminated the exemption from air districts' permit systems for agricultural operations in the farming of crops or raising of fowl or animals. The bill amended air pollution control requirements in the Health and Safety Code to include requirements for agricultural sources of air pollution. In response to SB 700, the South Coast AQMD Governing Board adopted Rule 223 in June 2006. Rule 223 requires the owner or operator of an LCAF to submit an application for a permit that includes:

i. The information that the Executive Officer determines is necessary to prepare an emissions inventory of all regulated air pollutants emitted from the operation, including, but not limited to, precursor and fugitive emissions, using emission factors approved by CARB in a public hearing
ii. List of all equipment and the regulating South Coat AQMD rules
iii. List of all other sources of air pollution, including but not limited to animals, birds, and lagoons
iv. Total capacity of the facility in terms of animal and bird population; and
v. An emissions mitigation plan that demonstrates that the facility will use Best Available Retrofit Control Technology (BARCT) to reduce emissions of pollutants that contribute to the non-attainment of any ambient air quality standard. A plan application is required for the emissions mitigation plan.

Appendix A of Rule 223 contains a list of the emission mitigation measures and LCAF operators select the applicable mitigation measures for implementation. The list of Rule 223 mitigation measures was developed in consultation with stakeholders, including Western United Dairymen, Milk Producers Council, Inland Empire Poultrymen, Inc., and Pacific Egg and Poultry Association. In addition, most of the measures are based on an extensive study conducted by the Dairy Permitting Advisory Group (DPAG) that identified and recommended emission mitigation measures for the San Joaquin Valley APCD during their rulemaking.

Rule 223 defines an LCAF as a confined animal facility as one that meets or exceeds the Table 1-2 thresholds on any one day.

[10] United States Department of Agriculture, 2022 Census of Agriculture, Table 19. Poultry – Inventory

Table 1-2

Rule 223 – Existing Large Confined Animal Facility Thresholds

Animal Facility Type	Population	Animal Facility Type	Population
Milk-producing dairy cows	1,000	Swine	3,000
Beef cattle	3,500	Sheep, lambs, or goats	15,000
Calves, heifers, or other cattle	7,500	Horses	2,500
Turkeys	100,000	Ducks	650,000
Chickens other than laying hens	650,000	Rabbits	30,000
Laying hens	650,000		

Presently, there are 16 dairy facilities and one poultry facility that are LCAFs subject to South Coast AQMD Rule 223.

A form was prepared and is currently used to assist facilities in providing the required facility permit application information (see Appendix C of staff report). In addition to the Rule 223 emission mitigation measures, operators must also comply with Rule 1127 and any other applicable South Coast AQMD rules.

Rule 1127 - Emission Reductions from Livestock Waste

Rule 1127 applies to dairy and related operations such as heifer and calf farms. It also applies to manure processing operations, such as anaerobic digesters and composting facilities as it requires that manure is either processed through these operations or through land application. The Rule also requires on-dairy best management practices (BMPs) to reduce PM10 (particulate matter 10 microns or less in diameter) dust and excess corral water and, beginning in January 2005, removal of surplus manure from corrals and stockpiles four times per year.

Other Regulations for Large Confined Animal Facilities

National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements

Manure and wastewater from confined animal facilities have the potential to contribute to water pollutants such as nitrogen, phosphorus, organic matter, sediments, pathogens, nutrients, salts, metals, and other constituents. The Santa Ana Regional Water Quality Control Board has issued General Waste Discharge Requirements to regulate several types of confined animal facilities, including dairies, feedlots, horse facilities, and poultry facilities. The majority of the Santa Ana and San Jacinto watersheds, which comprise the Santa Ana Regional Water Quality Control Board jurisdiction, lie within the South Coast Air Basin. All of the dairy operations under the Santa Ana Regional Water Quality Control Board jurisdiction are located within the South Coast Air Basin.

Need for Proposed Amended Rule 223

Although farms and animal populations have declined in the region, ammonia emissions are still generated from livestock operations and their byproducts such as manure. The nitrogen in animal manure can be converted to ammonia by a combination of mineralization, hydrolysis, and volatilization. Once emitted, the ammonia can be rapidly converted to ammonium nitrate and ammonium aerosols by reactions with acidic species (nitric acid, sulfuric acid and ammonium bisulfate). Thus, the ammonia emissions contribute directly to the formation of secondary particulate PM2.5 in the air and can also impact atmospheric visibility. As described in Appendix VI of the 2024 PM2.5 Plan, air quality modeling indicates that ammonia emissions are a significant contributor to PM2.5 levels. Manure also emits VOCs through the processes of anaerobic and aerobic decomposition.

To meet Clean Air Act requirements, Appendix III of the 2024 PM2.5 Plan included a review of emission reduction strategies from livestock waste based on two components. The first component addressed lower applicability thresholds in South Coast AQMD Rule 223 to align with the more stringent thresholds found in San Joaquin Valley APCD Rule 4570 and Imperial County APCD Rule 217 (1,000 milk cows in South Coast AQMD vs. 500 milk cows in other air districts, and 650,000 birds in South Coast AQMD vs. 400,000 birds in other air districts). The second component considered more stringent requirements to reduce ammonia emissions at dairies and other Confined Animal Facilities (CAFs). The Appendix III discussion noted that it is not feasible for all CAFs to implement the same mitigation measures due to various factors, such as infrastructure, conditional use permits, water quality regulations, production contracts, and other limitations. Furthermore, CAFs in this region face unique challenges including hot, dry summers, drought conditions, and strict water regulations, which render some measures infeasible. It was also noted that the mitigation measures included in Rule 223 provide the owners and operators of CAFs much needed flexibility to choose the mitigation measures that make the best environmental and economic sense for their facility, while maximizing the amount of emission reductions.

Accordingly, the focus of PAR 223 is to lower the applicability thresholds to align with applicability thresholds in other California air district rules to reduce ammonia emissions while providing facilities with compliance options.

Affected Facilities

The facilities subject to PAR 223 were identified by reviewing information obtained from South Coast AQMD databases, the local Santa Ana Regional Water Quality Control Board (Region 8), and trade group representatives, such as the Milk Producers Council. PAR 223 will affect facilities with animal populations that are within the proposed lower thresholds for LCAFs. Rule 223 also requires facilities that are classified as CAFs to conduct animal population recordkeeping. CAFs are defined as facilities with 3,360 or more fowl or 50 or more animals that are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing. PAR 223 does not change the existing requirements for CAFs.

Based on the search process described above, it is estimated that out of 63 dairy cattle farms, 12 dairy farms would be newly subject to PAR 223 requirements. Of the estimated 12 dairy farms, five are within Riverside County and seven are located within San Bernardino County. As mentioned above, no poultry farms have been identified that would be affected by the updated PAR 223 applicability thresholds.

Public Process

The development of PAR 223 has been conducted through a public process. A Working Group was formed to allow the public and stakeholders to discuss details of PAR 223 and provide South Coast AQMD staff with input during the rule development process. The Working Group includes business representatives, environmental and community groups, public agencies, and consultants. As part of the public process, staff consulted with an industry association for dairy farms (the Milk Producers Council) to help notify their members of the working group meeting. Staff also mailed a notice about the PAR 223 rule development process to local dairies identified through South Coast AQMD permits and data provided by the Santa Ana Regional Water Quality Control Board. South Coast AQMD held a Working Group Meeting on January 8, 2025, via Zoom videoconference and teleconference. A Public Workshop was held on March 26, 2025, via Zoom to present preliminary draft rule language for PAR 223 and receive public comment. Responses to a written comment letter are included in Appendix A. The South Coast AQMD Stationary Source Committee received a PAR 223 briefing at a public meeting on June 20, 2025.

CHAPTER 2 – SUMMARY OF PROPOSED AMENDED RULE 223

Overall Approach

Rule 223 addresses emissions from confined animal facilities and establishes requirements for large confined animal facilities to obtain a permit to operate and implement an emissions mitigation plan. PAR 223 will lower applicability thresholds by redefining what constitutes a large confined animal facility. For this chapter, when referring to PAR 223 specific terms that are defined in the rule language, the terminology will be capitalized.

The following is a summary for the proposed amendments to Rule 223.

Rule Title

The title of the rule will be changed from Emission Reduction Permits for Large Confined Animal Facilities to Requirements for Confined Animal Facilities. The proposed change clarifies that there are additional requirements other than permitting requirements and better summarizes the broader scope of the rule.

Applicability – Subdivision (a)

A minor clarification is added to subdivision (a) as PAR 223 is necessary to meet State and federal Clean Air Act provisions.

Definitions – Subdivision (b)

Large Confined Animal Facility

PAR 223 will amend the definition of Large Confined Animal Facility (LCAF) to lower the applicability threshold for three categories of livestock: dairy, poultry, and ducks. This definition is proposed to align with the thresholds used by San Joaquin APCD Rule 4570 – Confined Animal Facilities and Imperial County APCD Rule 217 – Large Confined Animal Facilities (LCAF) Permits Required. The applicability thresholds are based on the number of animals on one day so a facility that exceeds the identified threshold number is considered a LCAF.

Dairy

The applicability threshold will be amended from 1,000 milk-producing dairy cows to 500 milking cows. The term Milking Cow will be used for consistency and clarity.

Poultry

The applicability threshold will be amended from 650,000 chickens other than laying hens; or 650,000 or more laying hens to 400,000 chickens including laying hens. This aligns with San Joaquin APCD Rule 4570 and Imperial County APCD as they do not differentiate between laying hens and broiler chickens raised for meat.

Ducks

The applicability threshold will be amended from 650,000 ducks to 400,000 ducks.

PAR 223 also includes other amendments to subdivision (b) to improve rule clarity.

Requirements – Subdivision (c)

Paragraph (c)(1) currently prohibits an owner or operator of an LCAF from operating without first obtaining a permit to operate, after January 15, 2007. PAR 223 would lower the livestock animal applicability thresholds resulting in additional dairy facilities being required to obtain a permit to operate. To allow time for these dairy facilities to obtain a permit, paragraph (c)(6) establishes a separate compliance timeline so that these facilities have time to prepare and submit the permit application. Paragraph (c)(1) has been updated to remove the January 15, 2007 deadline date and to reference paragraph (c)(6) provisions. LCAFs that meet the current Rule 223 thresholds are required to comply with paragraph (c)(1). The timeline established in paragraph (c)(6) and the alternative compliance schedule in subdivision (j) do not apply to facilities with 1,000 or more milking cows, 650,000 chickens including laying hens, or 650,000 ducks.

Subparagraphs (c)(1)(B) to (c)(1)(E) list what is required along with the permit application, including an Emissions Mitigation Plan. Subparagraph (c)(1)(B) is clarified for owners or operators to only list applicable equipment that requires a South Coast AQMD permit to operate and applicable South Coast AQMD rules. Additional proposed changes include administration changes and clarifications.

Paragraph (c)(2) requires South Coast AQMD to act upon an application for a permit submitted pursuant to this rule within six months of the deemed complete date receipt of a complete application. This was originally crafted to comply with Health and Safety Code Section 40724.6 provisions. However, PAR 223 is not being developed pursuant to Health and Safety Code Section 40724.6. Instead, PAR 223 is being developed to meet federal Clean Air Act requirements. Accordingly, text is added to clarify that paragraph (c)(2) requirements do not apply to an LCAF that maintains 500 to 999 Milking Cows, or 400,000 to 649,999 chickens including laying hens, or 400,000 to 649,999 ducks.

Paragraph (c)(3) requires mitigation measures to be implemented within one year of the date the measures are approved. To improve clarity, paragraph (c)(3) is updated to require implementation of control measures identified in the Emissions Mitigation Plan within 12 months from the date the permit is approved.

Paragraph (c)(4) currently requires that on or before January 15, 2008, the owner or operator of an LCAF submit an annual compliance plan to provide updates regarding information required in paragraph (c)(1). This existing provision was intended to meet Health and Safety Code 40724.6 provisions that require air districts to periodically review and update the permits to reflect changes in the operation or the feasibility of mitigation measures. South Coast AQMD is required by state and federal statutes to review stationary source emission inventories, including emission inventories for confined animal facilities. Additionally, permits issued to livestock operations include a permit condition that requires operations to be in accordance with all data included in the permit application unless otherwise noted in subsequent permit conditions. A review of existing dairy facility permits indicates there are additional permit conditions that limit the maximum number of animals maintained at the facility on a daily basis and require recordkeeping of the number of animals maintained at the facility. If an owner or operator wants to change facility operations that result in an increase in emissions from what is specified by an existing permit, a permit modification is required. As such, the mandated programs combined with existing permitting practices achieve the intent of Health and Safety Code 40724.6 provisions to periodically review livestock control strategies. Accordingly, PAR 223 updates paragraph (c)(4)

to remove the annual compliance plan submittal requirements and instead is proposing to require facilities to submit an updated Emissions Mitigation Plan if there are changes in the facility operation or in the mitigation measures implemented.

Changes in the facility operation include an increase in the number of animals as identified in the permit to operate or changes to the mitigation measures. For example, if a dairy operator is no longer able to implement the two selected mitigation measures under the Handling of Solid Manure or Separate Solids source category, an updated Emissions Mitigation Plan would need to be submitted.

Paragraph (c)(5) is updated with administrative changes for clarity.

Subparagraph (c)(6)(A) is a new provision that applies only to an owner/operator of an LCAF that maintains 500 to 999 Milking Cows or 400,000 to 649,999 chickens including laying hens, or 400,000 to 649,999 ducks. Subparagraph (c)(6)(A) requires that these facilities submit a completed permit application no later than January 1, 2027, that includes the information required by subparagraphs (c)(1)(A) through (c)(1)(E) or utilize the alternative compliance pathway in subdivision (j). Subparagraph (c)(6)(B) specifies that submitting a permit application including the information required by subparagraphs (c)(1)(A) through (c)(1)(E) and obtaining a permit to operate is required on or after January 1, 2029. As previously mentioned, under paragraph (c)(3), the facilities required to obtain a permit as a result of PAR 223 would be required to implement the mitigation measures within 12 months of the permit approval date.

Compliance Determination – Subdivision (d)

Administrative changes are proposed for clarity.

Annual Permit Renewal – Subdivision (e)

A clarification is proposed to revise the name of this subdivision from Annual Renewal to Annual Permit Renewal. Administrative changes are proposed for clarity.

Recordkeeping – Subdivision (f)

Subdivision (f) is updated to clarify all owners or operators of a CAF shall keep records of the monthly average number of animals maintained at the facility and the records shall be maintained and kept at the facility for a minimum of three years or a minimum of five years if it is a Title V facility. A monthly average is required rather than a daily average for feasibility and to not put an overly burdensome recordkeeping requirement on facilities. Since it is a monthly average, it is possible for the average to be below the LCAF threshold definition, however, the facility would still be considered an LCAF at all times if the LCAF threshold definition was exceeded on any one calendar day.

Noticing – Subdivision (g)

Subdivision (g) requires that a draft permit is available for public review and inspection for at least 30 days prior to permit issuance. This requirement was originally crafted to comply with Health and Safety Code Section 40724.6 provisions. However, PAR 223 is not being developed pursuant to Health and Safety Code Section 40724.6. Instead, PAR 223 is being developed to meet federal Clean Air Act requirements. Accordingly, a statement is added to exclude an LCAF that maintains

500 to 999 Milking Cows, or 400,000 to 649,999 chickens including laying hens, or 400,000 to 649,999 ducks from the requirement in subdivision (g).

Existing Permitted Facilities

Subdivision (i) required that operators that have obtained an LCAF permit on or before June 2, 2006, or submitted a complete application to South Coast AQMD to obtain an LCAF permit on or before June 2, 2006 satisfy the information requirements of subparagraphs (c)(1)(A) through (c)(1)(D) of this rule. This subdivision is being removed as it no longer applies.

Other Provisions – Subdivision (i)

This was previously subdivision (j) and administrative changes are proposed for clarity. Additionally, the requirement that any permit issued to an LCAF is subject to all applicable provisions of the California Health & Safety Code and the South Coast AQMD District Rules and Regulations will be removed. This is because an LCAF is subject to California Health & Safety Code and the South Coast AQMD District Rules and Regulations regardless of whether it is in the rule.

Alternative Compliance Pathway – Subdivision (j)

Subdivision (j) is being added to provide a compliance pathway for a facility that will close or no longer meet the definition of an LCAF by January 1, 2029. This provision is specifically for an LCAF that maintains 500 to 999 Milking Cows or 400,000 to 649,999 chickens including laying hens, or 400,000 to 649,999 ducks. If a facility chooses to utilize subdivision (j), a notification form will need to be submitted to South Coast AQMD by January 1, 2027 to demonstrate that the facility is committing to cease operations or no longer meet the definition of LCAF by January 1, 2029. Submittal of this notification will alleviate a facility from the permit application requirements under paragraph (c)(6). Beginning January 1, 2029, a facility will need to either cease operations, no longer meet the definition of LCAF, or operate only after submitting a permit application with the information listed in subparagraphs (c)(1)(A) to (c)(1)(E) and obtaining a permit to operate. A draft example of the notification form can be found in Appendix B of the staff report. Theres is no application fee associated with the notification form. The notification form will be submitted by email to Rule223@aqmd.gov (email also listed on the form) and will be received by South Coast AQMD.

CHAPTER 3 – IMPACT ASSESSMENT

Affected Sources

It is estimated that 12 dairy farms with 500 to 999 dairy cows will become subject to PAR 223 as a result of the new proposed definition of Large Confined Animal Facility (LCAF). No poultry facilities have been identified that will become subject to PAR 223. Facilities that primarily engage in the milking of dairy cattle are classified by North American Industry Classification System (NAICS) as Dairy Cattle and Milk Production (NAICS 112120). Some of the facilities subject to PAR 223 may be classified as small businesses. Of the currently identified facilities anticipated to be subject to PAR 223, five are located in Riverside County, and seven are located in San Bernardino County.

Emissions and Emissions Reductions

Ammonia Emissions from PAR 223 Facilities

There are four types of dairy cattle: milking cows, dry cows, heifers, and calves. Emissions can either be estimated for each type of cattle or by using a single weighted emission factor. For the purposes of this analysis, the single weighted emission factor is used. This is because the 12 affected LCAFs have more than one type of cattle in addition to milking cows. As shown in Table 3-1, the weighted emission factor was calculated by dividing the total ammonia emissions (2,093.52 tons per year) from all dairy cattle in the South Coast Air Basin by the total number of dairy cattle (79,750 dairy cattle) and multiplying it by 2000 to convert from tons to pounds. Table 3-1 depicts the emission factors for each cattle type, throughput of all dairy cattle in South Coast Air Basin, and total ammonia emissions in tons per day. Based on the data included in Table 3-1, the weighted emission factor is 52.5 pounds of ammonia per head per year.

Table 3-1

Dairy Farm Emissions

Type	Emission Factor (lb/hd/yr)*	2023 Throughput For All Dairy Cattle in South Coast Air Bain	2023 Emissions (tons per year)	Weighted Emission Factor (lb/hd/yr)
Milking Cows	74	40,446	1,496.50	
Dry Cows	45.4	9,048	205.39	
Heifers	27.8	16,480	229.07	
Calves	23.6	13,776	162.56	
	Total:	**79,750**	**2,093.52**	**52.5**

* Based on South Coast AQMD October 2011 Technical Assessment report.[11]

[11] South Coast Air Quality Management District, TECHNOLOGY ASSESSMENT– 2007 AQMP CM# MCS-05: Updated Emissions Inventory and Recommendations Regarding Implementation of 2007 AQMP Control Measure MCS-05 – Emission Reductions from Livestock Waste, October 2011

The next step involves calculating ammonia emissions for the 12 facilities affected by PAR 223. Ammonia emissions can be calculated by the following equation:

Emission (tons per day) = Throughput × Weighted Emission Factor / 2000 / 365

The 12 affected facilities are currently subject to South Coast AQMD Rule 1127. With the implementation of Rule 1127, ammonia emissions from these facilities are estimated to be reduced by 26 percent based on the South Coast AQMD October 2011 Technical Assessment.[11] To ensure the emission reductions achieved through PAR 223 will not overlap with emission reductions achieved through Rule 1127, emissions are adjusted downward by 26 percent to account for emission reductions from Rule 1127. Table 3-2 depicts the throughput for each dairy cattle type from the 12 affected facilities based on the data provided by the Santa Ana Regional Water Quality Control Board, baseline ammonia emissions per day, and total ammonia emissions after reducing it by 26 percent due to implementation of Rule 1127.

Table 3-2

Impacted Facilities Emissions

Type	2023 Throughput For the 12 Affected Facilities (Number of Heads)	2023 Emissions based on Weighted Emission Factor of 52.5 lbs/head (tons per day)	2023 Emissions with Rule 1127 Implementation (tons per day)
Milking Cows	9,387	0.675	0.499
Dry Cows	1,517	0.109	0.08
Heifers	4,582	0.329	0.243
Calves	575	0.041	*0.03*
Total	**16,061**	**1.154**	**0.852**

As shown in Table 3-2, the 12 impacted farms are currently estimated to emit 0.852 tons per day of ammonia emissions after accounting for implementation of Rule 1127.

Emission Reductions from PAR 223

Mitigation measures in PAR 223 are broken down into seven source categories: feed and silage operations, milk parlor, freestall barns, corrals, handling of solid manure or separated solids, handling manure in liquid form, and land application of solid or liquid manure. Each mitigation measure was analyzed to determine what ammonia reductions can be achieved. Many of the assumptions reference existing South Coast AQMD permit data, and the ammonia reduction analysis conducted during the rulemaking of San Joaquin Valley APCD Rule 4570. PAR 223

allows facilities to choose mitigation measures from a menu of options, and emission reductions vary depending on the measures facilities choose to implement. Because it is uncertain which mitigation measures facilities will choose, the following analysis is based on a review of a representative sample of 11 existing permitted facility data and the assumption that the 12 newly impacted facilities would follow the same approach.

Feed and Silage Operations

In San Joaquin Valley APCD's ammonia reduction analysis[12], it was assumed that the owner or operator will feed their animals based on the most recent National Research Council (NRC) guidelines to achieve ammonia reductions. NRC guidelines recommend feed formulations based on different requirements for nutrients such as vitamins, carbohydrates, and proteins, while considering environmental concerns, animal productivity, animal health, and energy concerns. Reducing protein content in feed is an example of implementing NRC guidelines. The analysis references a South Coast AQMD Tetra Tech Report which showed that there is approximately 28 percent reduction in ammonia emissions from reducing the protein content in feed by 4 percent. Another study, "Feeding High Moisture Corn Instead of Dry Rolled Corn Reduces Odor Production in Finishing Beef Cattle Manure Without Sacrificing Performance" by S.L. Archibeque et al showed that use of high moisture instead of dry rolled corn reduced emissions by 46 percent. When looking at existing permits, out of the 11 menu options, two out 11 facilities chose to implement feeding according to NRC Guidelines and three out of 11 facilities choose to feed cows with high moisture corn. Ammonia emission reductions for this mitigation measure were calculated using the following equations:

Emission reduction (NRC Guideline) = 28% × (portion of facilities using mitigation measure)

Emission reduction (NRC Guideline) = 28% × (2/11) = 5.1%

Emission reduction (high moisture corn) = 46% × (portion of facilities using mitigation measure)

Emission reduction (high moisture corn) = 46% × (3/11) = 12.5%

Total Emission Reduction = 5.1% + 12.5%

The estimated ammonia reductions if facilities choose to either feed according to NRC Guidelines or feed high moisture corn is 17.6 percent.

Milk Parlor

The ammonia emission reduction analysis conducted by San Joaquin Valley APCD's did not identify quantifiable ammonia reductions from these mitigation measures. Therefore, ammonia reductions are not estimated.

Freestall Barns

Dairy farm practices differ throughout the state. Based on information provided by an industry association, dairy farms in the South Coast AQMD jurisdiction do not utilize freestall barns.

[12] San Joaquin Valley Air Pollution Control District, Appendix F Ammonia Reduction Analysis for Proposed Rule 4570 (Confined Animal Facilities), June 15, 2006, https://downloads.regulations.gov/EPA-R09-OAR-2023-0263-0427/attachment_15.pdf

Therefore, these mitigation measures do not apply and there are no ammonia emission reductions to quantify.

Corrals

South Coast AQMD Rule 1127 applies to all dairy farms with at least 50 cows and establishes best management practices for corrals. It is expected that reductions in ammonia emissions from this source category are already accounted for in Rule 1127. Therefore, no additional ammonia emission reduction is expected from PAR 223.

Handling of Solid Manure or Separated Solids

In March 2023, CARB and San Joaquin Valley APCD[13] released a supplemental control strategy document for attainment of the 15 μg/m^3 Annual PM2.5 Standard which stated that storage of solid manure and separated solids constituted 2 percent of all dairy emissions. The document also identified that covering solid manure sources with sheeting can reduce ammonia emissions by up to 90 percent. When looking at existing South Coast AQMD permits, six out of 11 facilities opted to cover manure piles from October to May. Ammonia emission reductions for this mitigation measure were calculated using the following equations:

Emission Reduction = 2% × (control efficiency of mitigation measure) × (portion of facilities using mitigation measure)

Emission Reduction = 2% x 90% × (6/11) = 0.98%

The estimated ammonia reductions if facilities choose to cover dry manure or dry separated solids out the pen from October to May is 0.98 percent.

Handling Manure in Liquid Form

Ammonia emission reductions for handling manure in liquid form are dependent on how the farm manages its lagoons. Ammonia emission reductions can be achieved if the farm either utilizes a phototrophic lagoon system or a solid separator system prior to sending waste into the lagoon. Through a review of existing South Coast AQMD permits, no facilities utilize either of these methods. As such, it is assumed that none of the impacted facilities will choose to utilize a phototrophic lagoon system or solid separator system and no ammonia emission reductions are expected.

Land Application of Solid or Liquid Manure

Dairy farms can implement various strategies to handle manure: land incorporation, sending manure to a third party agricultural farm, or sending manure to a manure composting facility. The following control measures under Rule 223 would result in emission reductions in ammonia: rapidly land incorporate manure, only apply manure that has been anaerobically treated, or only apply manure with moisture content less than 50 percent. In the staff report for San Joaquin Valley APCD Rule 4570 it was previously estimated that these land application strategies would result in a 7 percent reduction in ammonia emissions. This is the assumption used for this analysis as well.

[13] https://ww2.arb.ca.gov/sites/default/files/2023-04/AmmoniaSupplementalInformation.pdf

Based on a review of existing South Coast AQMD permits, four out of 11 facilities chose to rapidly land incorporate manure within 72 hours and only apply manure with moisture content less than 50 percent. Ammonia emission reductions for this mitigation measure were calculated as follows:

Emission reduction = 7% × (portion of facilities using mitigation measure)

Emission reduction = 7% × (4/11) = 2.55%

The estimated ammonia emission reductions are 2.55 percent if facilities choose to rapidly land incorporate manure within 72 hours and only apply manure with moisture content less than 50 percent.

Total Ammonia Emission Reductions

Based on the aforementioned detailed analysis, ammonia emission reductions can be achieved through three mitigation measures: feeding according to NRC guidelines or high moisture corn, covering manure piles, and rapidly land incorporating manure. Because multiple mitigation measures can impact a single emission source, the total ammonia emission reductions are cumulative and presented in Table 3-3.

Table 3-3

Emissions Reductions

Control	Reduction	Cumulative Reduction (ton/day)
Feed and Silage Operation	17.6%	0.852* x 0.176 = **0.150**
Handling of Manure	0.98%	(0.852* – 0.150) x 0.0098 = **0.00688**
Land Application	2.55%	(0.852* – 0.150 – 0.00688) x 0.0255 = **0.0177**
		Total Reductions = 0.174 tons/day

*Baseline emissions

As shown in Table 3-3, PAR 223 is estimated to reduce ammonia emissions by 0.17 tons per day from the 2023 baseline emissions by 2029.

In addition to ammonia, VOCs are also emitted from livestock operations. Although PAR 223 may result in a co-benefit of VOC emission reductions relative to its baseline, an analysis for VOC emission reductions was not conducted due to the small amount of VOC emissions from this universe.

Cost and Cost-Effectiveness

Compliance Costs

Based on industry representative consultations, dairy farms are presently implementing best management practices that are comparable to the Rule 223 mitigation measures. Therefore, the operational costs from implementing PAR 223 mitigation measures are expected to be minimal. Since PAR 223 would require the 12 affected dairy farms to become permitted, the costs that the dairy farms would incur are associated with the preparation of the Emissions Mitigation Plan and the associated permitting fees.

As previously described, the Rule 223 Emissions Mitigation Plan consists of identification by the facility owner of the applicable mitigation measures for each source category. Since facility operators can select from a menu of applicable measures it is anticipated that preparation costs will be minimal. In addition to the Emissions Mitigation Plan, facility operators provide general facility information (see Appendix C) as part of the permitting process. To be conservative, it is estimated that preparation of the necessary forms and the Emissions Mitigation Plan would involve 20 hours of staff time. Based on South Coast AQMD Rule 301 – Permitting and Associated Fees, confined animal facilities are subject to a Schedule A permit fee rate ($2,483.17. for fiscal year 2025-2026). Rule 301 includes provisions that fees are 50 percent of the Table Fee Rate-A for a permit application submitted by a small business as defined by South Coast AQMD Rule 102 – Definition of Terms.[14] A review of the 12 facilities that would be subject to PAR 223 indicates at least one facility would likely qualify as a small business and the information for seven facilities is not sufficient to make the determination. Rule 301 also establishes annual renewal fees and the amount for a Schedule A facility is $565.63 for fiscal year 2025-2026. Submittal of the Emissions Mitigation Plan has a one-time $217 filing fee and an evaluation fee of $758 under Rule 306 – Plan Fees.

Cost-Effectiveness

The total first year (one-time) compliance cost for PAR 223 is based on permit preparation, permit processing fees, and Emissions Mitigation Plan submittal fees. Permit preparation fees are estimated at $800 per facility, based on 20 hours of staff time at $40 per hour. Permit processing fees are estimated at approximately $2,483 per facility. Emissions Mitigation Plan submittal fees are estimated at approximately $975 per facility. As previously discussed, it is anticipated that at least one facility is likely classified as a small business and eligible for reduced permitting fees, however, to be conservative, this analysis does not account for reduced permitting fees. Together, the one-time costs for all 12 facilities are estimated to be approximately $51,096. Total annual (recurring) costs for permit renewal fees are estimated at $6,792 ($566 per facility x 12 facilities).

As the emissions inventory for this source category has been developed using the emission factor approach (i.e., not actual emissions), and the control measures implemented under Rule 223 are enforceable through permit conditions, emissions reduction from the baseline emissions inventory can be quantified. It is estimated that PAR 223 will result of 0.17 tons per day of ammonia emission reductions from the 2023 baseline emissions based on the previously described methodology.

[14] SMALL BUSINESS means a business which is independently owned and operated and meets the following criteria, or if affiliated with another concern, the combined activities of both concerns shall meet these criteria: (A) the number of employees is 10 or less; and (B) the total gross annual receipts are $500,000 or less; or (C) not-for-profit training center.

An estimate of cost-effectiveness is provided based on the methodology developed for South Coast AQMD Rule 1127, assuming a 10-year lifetime for a dairy farm.[15] The cost-effectiveness analysis uses the Discounted Cash Flow (DCF) method to compute the present value of the proposed rule amendment's costs over a 10-year period with a 4 percent real interest rate, which gives the present value factor of 8.111. DCF cost-effectiveness can then be calculated as:

$$\textit{Cost-Effectiveness} = \frac{\textit{One Time Costs + Recurring Cost} \times 8.111}{\textit{PAR223 Emission Reductions}_{tons/year} \times 10 \textit{ years}}$$

Where:

1. *One-time costs + Recurring cost × 8.11 = 51,096 + (6,792 × 8.11)*
   =$106,179
2. *PAR 223 Emission Reductions = (Annual Emission Reductions × 10 years)*
   =635.1 tons

The PAR 223 cost-effectiveness, as determined by the DCF method described above, is $167 per ton of ammonia reduced.

Incremental Cost-Effectiveness

Health and Safety Code Section 40920.6(a)(3) requires the calculation of incremental cost-effectiveness for potential control options, when South Coast AQMD adopts "rules or regulations to meet the requirements for best available retrofit control technology (BARCT) pursuant to Health and Safety Code Sections 40918, 40919, 40920 and 40920.5, or for a feasible measure pursuant to Section 40914…"

Incremental cost-effectiveness is intended to measure the change in costs, in dollars per year, and emission reductions, in tons of emissions reduced per year, between two progressively more effective control technologies. As mentioned earlier in this Staff Report, Rule 223 as adopted in June 2006 contains a menu of existing mitigation measures for facilities to implement which already implement BARCT and PAR 223 does not include new BARCT requirements or feasible measures. Therefore, the requirement to conduct an analysis of incremental cost-effectiveness is not applicable to PAR 223. Accordingly, an incremental cost-effectiveness analysis was not conducted.

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 223) is exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3) and 15308. Further, there is no substantial evidence that the exceptions to the categorical exemption, as set forth in CEQA Guidelines Section 15300.2, apply to the proposed project. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062. If the proposed project is approved, the Notice of Exemption will be filed for posting with the county

[15] South Coast AQMD, Draft Final Staff Report, Proposed Rule 1127 – Emissions Reductions from Livestock Waste, August 6, 2004.

clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

Socioeconomic Impact Assessment

On March 17, 1989, the South Coast Air Quality Management District (South Coast AQMD) Governing Board adopted a resolution which requires an analysis of the socioeconomic impacts associated with adopting and amending rules and regulations. In addition, Health and Safety Code Sections 40440.8 and 40728.5 requires a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. Thus, this Socioeconomic Impact Assessment has been prepared in accordance with Health and Safety Code and South Coast AQMD Governing Board requirements. The type of industries or businesses affected, and the range of probable costs, are addressed in this chapter. Additional information and analysis on the cost-effectiveness, discussion of potential emission reductions, and the necessity of amending the rule are included elsewhere in this report.

Introduction

PAR 223 is designed to implement control measure BCM-08 from the 2024 PM2.5 Attainment Plan by lowering the applicability thresholds for certain facilities. Specifically, PAR 223 reduces the threshold for dairy farms to 500 milking cows and reduces the thresholds for poultry farms to 400,000 chickens and 400,000 ducks. Facilities that meet or exceed these revised thresholds will be required to submit a permit application with an Emissions Mitigation Plan comprised of mitigation measures from a prescribed list. A full list of these measures is included in Appendix A from the preliminary draft of PAR 223.[16] All of the facilities currently identified as being affected by PAR 223 are dairy farms. Consultations with industry representatives indicate that many of the mitigation measures described in PAR 223 are already being implemented as part of routine dairy operations. As a result, the socioeconomic impact assessment does not account for any additional costs associated with implementing these measures at the affected facilities.

Legislative Mandates

The legal mandates directly related to the socioeconomic impact assessment of PAR 223 include South Coast AQMD Governing Board resolutions and various sections of the Health and Safety Code.

South Coast AQMD Governing Board Resolution

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution that requires an analysis of the economic impacts associated with adopting and amending rules and regulations that considers all of the following elements:

- Affected industries;
- Range of probable costs;
- Cost-effectiveness of control alternatives; and
- Public health benefits.

[16] South Coast AQMD, Preliminary Draft Rule Language for Proposed Amended Rule 223 – Emission Reduction Permits for Large Confined Animal Facilities, https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-223, accessed May 2025.

Health and Safety Code Requirements

The state legislature adopted legislation which reinforces and expands the South Coast AQMD Governing Board resolution requiring socioeconomic impact assessments for rule development projects. Health and Safety Code Section 40440.8 requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which "will significantly affect air quality or emissions limitations."

To satisfy the requirements in Health and Safety Code Section 40440.8, the scope of the socioeconomic impact assessment should include all of the following information:

- Type of affected industries;
- Impact on employment and the regional economy;
- Range of probable costs, including those to industry;
- Availability and cost-effectiveness of alternatives to the rule;
- Emission reduction potential; and
- Necessity of adopting, amending, or repealing the rule in order to attain state and federal ambient air quality standards.

However, a job impact analysis is not conducted for any project with annual costs less than one million U.S. dollars, as the modeling tool is unable to accurately assess macroeconomic effects that are minimal in scale compared to the broader economic forecast.

Health and Safety Code Section 40728.5 requires the South Coast AQMD Governing Board to: 1) actively consider the socioeconomic impacts of regulations; 2) make a good faith effort to minimize adverse socioeconomic impacts; and 3) include small business impacts. To satisfy the requirements in Health and Safety Code Section 40728.5, the socioeconomic impact assessment should include the following information:

- Type of industries or business affected, including small businesses; and
- Range of probable costs, including costs to industry or business, including small business.

Finally, Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes BARCT or “all feasible measures” requirements relating to emissions of ozone, CO, SOx, NOx, VOC, and their precursors.

However, an incremental cost-effectiveness analysis consistent with Health and Safety Code Section 40920.6 is not required for PAR 223 because the proposed project does not impose additional BARCT or feasible measure requirements beyond what are contained in Rule 223.

Affected Facilities and Industries

Based on available information, PAR 223 would apply to 12 additional dairy facilities classified under the Dairy Cattle and Milk Production category by the North American Industry Classification System (NAICS 112120). Of the 12 dairies, seven are located in San Bernardino County, and five are located in Riverside County.

Small Business Analysis

The South Coast AQMD defines a "small business" in Rule 102 for purposes of fees as one which employs 10 or fewer persons and which earns less than $500,000 in gross annual receipts. The South Coast AQMD also defines "small business" for the purpose of qualifying for access to services from the South Coast AQMD's Small Business Assistance Office as a business with an annual receipt of $5 million or less, or with 100 or fewer employees. In addition to the South Coast AQMD's definition of a small business, the United States (U.S.) Small Business Administration and the federal 1990 Clean Air Act Amendments (1990 CAAA) each have their own definition of a small business.

The 1990 CAAA classifies a business as a "small business stationary source" if it: 1) employs 100 or fewer employees; 2) does not emit more than 10 tons per year of either VOC or NOx; and 3) is a small business as defined by the U.S. Small Business Administration. Based on firm revenue and employee count, the U.S. Small Business Administration definition of a small business varies by six-digit NAICS codes.[17] For example, according to the U.S. Small Business Administration definition, a business that generates less than $3.75 million in yearly revenue in the Dairy Cattle and Milk Production industry (NAICS 112120) is classified as a small business.

South Coast AQMD mostly relies on Dun and Bradstreet data to conduct small business analyses for private companies. In cases where the Dun and Bradstreet data are unavailable or unreliable, other external data sources such as Manta, Hoover, LinkedIn, and company website data will be used. The determination of data reliability is based on data quality confidence codes in the Dun and Bradstreet data as well as staff's discretion. Revenue and employee data for publicly owned companies are gathered from Securities and Exchange Commission (SEC) filings. Since subsidiaries under the same parent company are interest-dependent, the revenue and employee data of a facility's parent company will be used for the determination of its small business status. Employment and revenue estimates from 2024 Dun and Bradstreet data as well as other external sources are available for seven of the 12 affected facilities. Note that although the employment and revenue data for some facilities are unknown or missing, the current data used for this small business analysis represents the most thorough and accurate information obtainable as of the date of this draft report. Of the seven facilities with available data, up to three may qualify as small businesses. Some of the three facilities meet the criteria under multiple definitions. The number of affected facilities classified as small businesses under each definition is shown in Table 3-4.

[17] U.S. Small Business Administration, 2023 Small Business Size Standards, https://www.sba.gov/document/support-table-sizestandards, accessed March 7, 2025.

Table 3-4

Number of Small Businesses Based on Various Definitions

Small Business Definitions	Number of Facilities
South Coast AQMD Rule 102	1
South Coast AQMD Small Business Assistance Office	3
U.S. Small Business Administration	3
1990 CAAA	2

Compliance Costs

The costs associated with implementing PAR 223 are primarily due to one-time fees for permit processing, plan evaluations, and plan filing when the initial Emissions Mitigation Plans are submitted. Additional costs include the labor required for preparing each Emissions Mitigation Plan, and the annual permit renewal fees. The following section discusses the anticipated costs associated with PAR 223, presented in 2024 dollars.

One-Time Permit Application Fee

Each facility that will be affected by PAR 223 must pay a one-time permit processing fee when submitting the permit application. According to South Coast AQMD Rule 301 – Permitting and Associated Fees, the permit fee rates for confined animal facilities follow the Schedule A permit fee structure.[18] These rates are outlined in Table Fee Rate-A for fiscal year (FY) 2025-26, which details the permit fees for processing, changes of conditions, and alterations or modifications. The permit processing fee for each affected confined animal facility is approximately $2,483.

One-Time Filing Fees and Evaluation Fees for Emissions Mitigation Plan

Additionally, each affected facility is subject to a one-time plan filing and evaluation fee when submitting the Emissions Mitigation Plan. According to South Coast AQMD Rule 306 – Plan Fees, the plan filing and evaluation fees for FY 2025-26 are approximately $217 and $758, respectively.[19] The combined plan filing and evaluation fees for each affected confined animal facility will be approximately $975.

Labor Associated with Preparation of Emissions Mitigation Plan

The preparation of an Emissions Mitigation Plan involves each affected facility identifying which of the applicable mitigation measures per source category that will be implemented. Additionally, each affected facility will provide general facility information in the permit application. It is estimated that the preparation of an Emissions Mitigation Plan, along with the completion of the necessary forms, will require approximately 20 hours of labor. With an assumed hourly labor rate

[18] South Coast AQMD Rule 301 – Permitting and Associated Fees, Table Fee Rate-A. FY 2025-26 and thereafter, Summary Permit Fee Rates – Permit Processing, Change of Conditions, Alteration/Modification, p. 68, https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/rule-301.pdf, accessed July 2025.

[19] South Coast AQMD Rule 306 – Plan Fees, Payment of Fees, Plan Filing and Evaluation Fees, p. 5, https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/rule-306.pdf, accessed July 2025.

of $40, the total one-time labor cost for preparing each Emissions Mitigation Plan is estimated to be $800 per affected facility.

Permit Renewal Fees

PAR 223 affected facilities will need to pay an annual operating permit renewal fee. The permit renewal fee for a Schedule A facility is approximately $566, per South Coast AQMD Rule 301.[20]

Annual Average Compliance Cost

The analysis in this Socioeconomic Impact Assessment relies on discount rates which consider the real rate of return on long-term U.S. government debt, risk and the long period of analysis among others, which is consistent with guidance provided in Circular No. A-4.[21]

The cost estimates for implementing PAR 223 are based on a ten-year analysis period from 2026 to 2035. This timeframe aligns with the cost-effectiveness analysis of PAR 223 discussed in this chapter. The analysis accounts for the labor required to complete the Emissions Mitigation Plans, along with one-time costs in 2026 for permit processing, plan filing, and plan evaluation. The analysis also includes the annual permit renewal fees that will apply to the affected facilities beginning in 2027. The total present value of the compliance cost of PAR 223 is estimated to be $114,938 and $97,657 at a 1 % and 4% discount rate, respectively. The average annual compliance cost of implementing PAR 223 is estimated to range from $11,450 to $12,166 at a 1% to 4% real interest rate, respectively. Table 3-5 presents both the present value and annual average cost for each equipment category of PAR 223.

[20] South Coast AQMD Rule 301 – Permitting and Associated Fees, Annual Operating Fees, p. 18, https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/rule-301.pdf , accessed July 2025.

[21] Circular No. A-4 Regulatory Analysis November 9, 2023, p. 76, https://whitehouse.gov/wp-content/uploads/2023/11/CircularA-4.pdf, accessed July 2025.

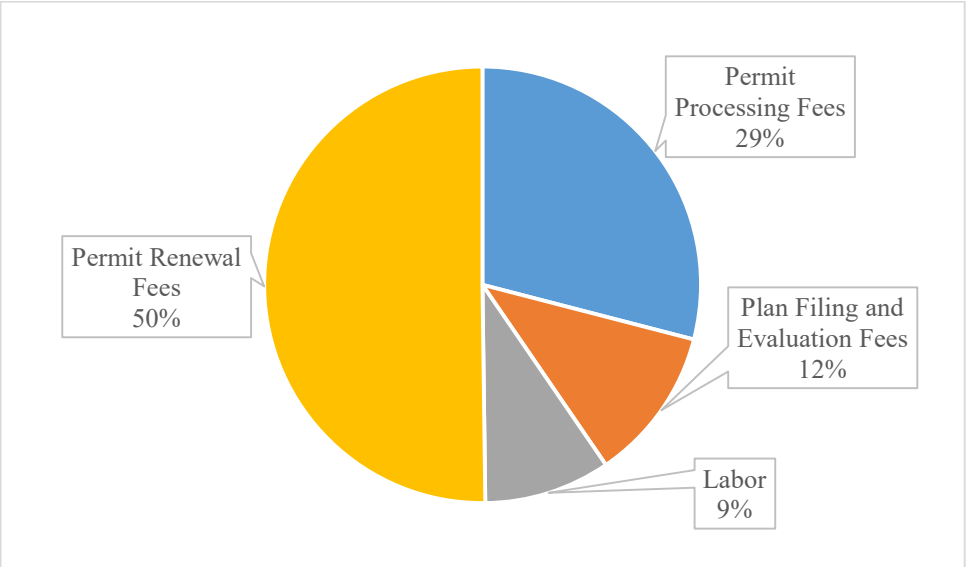
Table 3-5

Annual Average Cost by Category

Cost Categories	Present Worth Value (2025)		Annual Average (2026-2035)	
	1% Discount Rate	4% Discount Rate	1% Real Interest Rate	4% Real Interest Rate
Capital Costs				
Permit Processing	$33,458	$28,652	$3,115	$3,533
Plan Filing and Evaluation Fees	$13,134	$11,248	$1,223	$1,387
Labor	$10,779	$9,231	$1,004	$1,138
Recurring Costs				
Permit Renewal	$57,567	$48,527	$6,109	$6,109
Total	**$114,938**	**$97,657**	**$11,450**	**$12,166**

Figure 3-1 presents the estimated annual compliance cost of PAR 223 by cost categories. Permit renewal fees are the largest proportion of the estimated average annual compliance costs (50%), followed by permit processing fees for the emission mitigation plan (29%) and Plan filing and evaluation fees associated with the emissions mitigation plan (12%).

Figure 3-1 Average Annual Estimated Costs of PAR 223 by Cost Category (%)



Macroeconomic Impacts On The Regional Economy

Regional Economic Models, Inc. (REMI) developed the Policy Insight Plus Model (PI+ v3), which is a tool that South Coast AQMD typically uses to assess the impacts of rule development projects on the job market, prices, and other macroeconomic variables in the region when the average annual compliance cost is greater than one million current U.S. dollars ($1 MM).[22] However, when the average annual compliance cost of a project is less than $1 MM, the model cannot reliably determine the macroeconomic impacts, because resultant impacts from the project would be too small relative to the baseline economic forecast.

Since the total annual compliance cost of PAR 223 is estimated to be $11,450 to $12,166 at a 1% and 4% real interest rate respectively, which is less than the $1 MM threshold, a macroeconomic impact analysis was not conducted for PAR 223.

Draft Findings under Health and Safety Code Section 40727

Requirements to Make Findings

Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

[22] Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3. 2023.

Necessity

PAR 223 is needed to reduce ammonia emissions, a PM2.5 precursor, to meet the Most Stringent Measures requirement under the federal Clean Air Act by implementing Control Measure BCM-08: Emission Reduction from Livestock Waste at Confined Animal Facilities from the South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard.

Authority

The South Coast AQMD Governing Board has authority to adopt PAR 223 pursuant to the Health and Safety Code Sections 40000, 40001, 40440, 40441 and 40702.

Clarity

PAR 223 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PAR 223 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PAR 223 will not impose the same requirements as any existing state or federal regulations. The proposed rule is necessary and proper to execute the powers and duties granted to, and imposed upon, South Coast AQMD.

Reference

By adopting PAR 223, the South Coast AQMD Governing Board will be implementing, interpreting, and making specific provisions of the Health and Safety Code Sections 40001 (rules to achieve ambient air quality standards) and 40440(a) (rules to carry out the AQMP).

Comparative Analysis

Under Health and Safety Code Section 40727.2, South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines that are applicable to the same source type (i.e., livestock facilities) as PAR 223. As required by Health and Safety Code Section 40727.2, the purpose of this analysis is to identify and compare any other AQMD or federal regulations that apply to the same operations or source type. With the exception of South Coast AQMD Rule 1127, staff has not identified existing federal regulations or any other South Coast AQMD requirements that apply to dairy operations with regard to VOC and ammonia emissions. Other federal, state and local requirements not directly associated with air emissions have been summarized in the Background and Legal Authority sections. PAR 223 is specific to confined animal facilities and requires large confined animal facilities to have a permit in order to operate

and implement an emission mitigation plan. The mitigation plan focuses on different livestock sources such as feed, milk parlors, corrals, and manure.

Rule 1127 focuses on reducing ammonia, VOC, and PM10 emissions from livestock waste. Requirements include that manure be processed through anaerobic digestors, composting facilities, or land application and also requires best management practices to reduce PM10 dust and excess corral water and removal of surplus manure from corrals and stockpiles. Table 3-6 provides a comparative analysis matrix between PAR 223 and Rule 1127.

Table 3-6

Comparative Analysis

Subdivision	PAR 223	Rule 1127
Applicability	Confined Animal Facility: facility raising 3,360 or more fowl or 50 or more animals Large Confined Animal Facility: an animal facility that maintains on any one calendar day: • 500 or more Milking Cows or • 3,500 or more beef cattle; or • 7,500 or more calves, heifers, or other cattle; or • 100,000 or more turkeys; or • 400,000 or more chickens including laying hens; or • 3,000 or more swine; or • 15,000 or more sheep, lambs, or goats; or • 2,500 or more horses; or • 400,000 or more ducks; or • 30,000 or more rabbits or other animals.	Dairy farms and related operations such as heifer and calf farms and manure processing operations, such as composting operations and anaerobic digesters.
Permit Requirements	Large confined animal facilities are required to have a permit to operate and implement an emissions mitigation plan	Manure processing operations are required to submit an application and have a permitted anaerobic digester, composting operation registered according to Rule 1133, or alternative manure composting operation registered according to Rule 1133.2.
Feed and silage Requirements	Incorporate at least 5 of the following:	None

Subdivision	PAR 223	Rule 1127
	1. Feed accordingly to the National Research Council (NRC) guidelines 2. Feed animals high-moisture corn or steam-flaked corn 3. Removed spoiled feed from feed lane at least once every 7 days 4. Remove spilled feed from feed alleyways at least bi-weekly (once every 14 days) 5. Remove uneaten wet feed from feed bunks within 24 hrs of a rain event 6. Feed or dispose of rations within 48 hrs of grinding and mixing rations 7. Store grain in a weatherproof storage from Oct. thru May 8. Cover the surface of silage piles, except for the area where feed is being removed 9. Send leachate collected from the silage piles to a waste treatment system (i.e., lagoon) at least once every 24 hrs 10. Implement alt. mitigation measures, subject to EO's approval Enclose silage in a silage bag; OR · Enclose silage in a weatherproof structure and vent to a control device with at least 80% control efficiency; OR · Eliminate silage from animal diet	
Milk Parlor Requirements	Incorporate at least 1 of the following: 1. Flush or hose milk parlor immediately prior to, immediately after, or during each milking in accordance with the NRC guidelines 2. Implement alt. mitigation measures, subject to EO's approval 3. Enclose and vent the milk parlor to a control device with at least 80% CE (Class II measures)	None
Freestall Barn Requirements	Incorporate at least 2 of the following: 1. Vacuum or scrape freestalls during, after, or prior to each milking 2. Inspect water pipes and troughs, and repair leaks at least once a day 3. Use non-manure-based bedding, at least 90% of the bedding material, by weight 4. Remove wet manure from individual cow freestall beds at least once a day 5. Rake, harrow, scrape, and/or grade bedding in freestalls at least twice every 7 days	None

Subdivision	PAR 223	Rule 1127
	6. Use dry manure handling system (i.e., scraping) instead of liquid manure handling (i.e., flush system) 7. Have no animals in exercise pens, corrals, and dry lots at any time 8. Flush freestalls more frequently than the milking schedule 9. Implement alt. mitigation measures, subject to EO's approval	
Corral Requirements	Incorporate at least 6 of the following: 1. Harrow, rake, or scrape pens sufficiently 2. Clean manure at least 4 times/year (with at least 60 days between cleaning); OR · Clean corrals at least once between April and July, and at least once between Oct. and Dec.; OR · Clean concrete areas so that manure depth remains < 12 in.; OR · Manage corrals so that manure depth remains < 12 in (except for in-corral mounding) 3. Knockdown fence line manure build-up prior to its exceedance of 12-in. height 4. Scrape or flush aprons in all corrals at least once per 7 days. 5. Slope the surface of the pens (at least 1.5% if the available space for each animal is > 400 sq. feet, and at least 3% if this space is ≤ 400 sq. feet) 6. Ensure corral's drainage and prevent water from standing more than 48 hrs after a storm. Maintain corrals and dry lots so that there are no indentions in the surface 7. Inspect water pipes and troughs and repair leaks at least once a day 8. Install floats on the troughs to prevent overflow or spill onto the ground 9. Use lime, thymol, or eugenol, or similar absorbent materials to minimize moisture 10. Implement alt. measures approved by the EO 11. Install shade structures 12. House animals in an enclosure vented to a control device with a minimum of 80 % CE.	1. Scrape or harrow before 9 am unless manure moisture is > 20%; OR Clear corrals and do not scrape down to soil level; OR Water corrals before manure removal (not required for lactating cows) 2. Minimize excess water. Eliminating water leaks from trough and trough piping. Complying with corral drainage standards 3. Pave feedlanes (at lease 8 ft on the corral side of the feedlane fence) 4. Clear accumulated manure in excess
Manure Handling Requirements	Incorporate at least 2 of the following: 1. Cover dry, outside manure and any solid piles from Oct. through May	Manure moisture readings required

Subdivision	PAR 223	Rule 1127
	2. Remove manure from facility within 72 hrs of removal from the corrals or pens 3. Implement alt. measures approved by the EO 4. Compost manure with an aerated static pile vented to a biofilter or other control device with at least 80% CE 5. Store all manure in an enclosure with at least 80% CE 6. Send at least 51% of the waste to a digester with an 80% CE, within 72 hrs of removal from the housing	
Manure Processing Requirements	Incorporate at least 2 of the following: 1. Land incorporate all manure within 72 hours of removal from sites 2. Only apply treated manure (by lagoons or digesters) 3. Apply manure with moisture content less than 50% 4. Implement alt. measures approved by the EO	Remove manure to an approved manure processing operation and/or agricultural land
Recordkeeping	Monthly average animal count	Annual Reporting Manure processing operation to submit a notification with facility information
Exemptions	Paragraph (c)(2) and subdivision (g) shall not apply to an owner or operator of an LCAF that maintains 500 to 999 Milking Cows, or 400,000 to 649,999 chickens including laying hens, or 400,000 to 649,999 ducks	Rule doesn't apply to dairy farms with less than 50 cows, heifers, and/or calves

APPENDIX A – RESPONSE TO COMMENTS

PUBLIC COMMENTS AND RESPONSES

A Public Workshop was held for PAR 223 on March 26, 2025. Staff received a written comment letter specific to PAR 223 during a comment period that closed on April 23, 2025. A copy of comment letter received and South Coast AQMD staff responses are provided.

Written Comments

Letter Received

1. Milk Producers Council (4/23/25)

MILK PRODUCERS COUNCIL

Serving the Dairy Industry for More Than 70 Years

April 23, 2025

Tiffani To
Air Quality Specialist
South Coast Air Quality Management District (SCAQMD)

Re: Milk Producers' Council Comments on SCAQMD Proposed Amended Rule (PAR) 223 Preliminary Draft Staff Report and 3/26/2025 Public Workshop

Dear Tiffani,

Milk Producers Council is a nonprofit organization representing dairy families throughout California. Since 1949, our board of directors and staff have worked on behalf of our members on local, state, and national issues, with topics ranging from milk pricing policies to environmental regulations and any other regulatory and policy challenges facing dairy families today.

We have worked with the SCAQMD since 1994, supporting the first emissions studies of ammonia and VOCs from sources on local dairies. We have worked with the SCAQMD through the development of rules required by SB700 (e.g., Rules 1186 (direct PM), 1127 (ammonia) and Rule 223 (VOCs and permitting). We and other trade organizations were also involved in the San Joaquin Valley Air Pollution Control District's (SJVAPCD's) Dairy Permitting Advisory Group (DPAG) process, which comprehensively evaluated dairy studies that were used to establish dairy emission and control factors for regulations throughout the state. It is important to note that since 2002, dairy cattle population in the Basin fell over 80% through 2023, and the small number of remaining dairies have moved eastward. Thus, they are now downwind (not upwind) of elevated ambient PM2.5 levels. After over two decades of the remaining dairies complying with these rules, we understand that USEPA has told the SCAQMD that smaller dairies (500-1000 milking cows) must now be subject to Rule 223 (beyond already being subject to Rule 1127 and 1186). Our specific requests after the Public Workshop are:

1-1

- We are asking that SCAQMD return to discussions with USEPA Region 9 staff about whether a PM2.5 Most Stringent Measures (MSM) analysis and rulemaking is appropriate, based on the information we present in this letter. Specifically, ammonia emissions from dairies no longer have an impact on PM2.5 exceedances that led to them originally being regulated and that the study used to ascribe ammonia emission reductions to the Rule 223 VOC-reduction mitigation measures has not been reviewed through the standard peer and regulatory review used to establish emission-reduction factors for dairies.

P.O. Box 4030, Ontario, CA 91761 ~ phone: (909) 628-6018 ~ fax: (909) 591-7328
office@milkproducers.org ~ http://www.milkproducers.org

- If the SCAQMD goes ahead with rulemaking, we are asking that the implementation time for these small dairies be extended. We are not convinced that this amendment is necessary, as these smaller dairies are already in compliance with the Rule 223 VOC mitigation measures and no impact on actual ammonia emissions is expected. But the new permitting fees may lead to some of these dairies to leave earlier than they would have intended. Because the dairies are on leased land, we would like to work with staff to harmonize any implementation timeline to prevent the imposition of permitting application and annual fees on dairies that will leave. 1-2

We appreciate how responsive staff has been and look forward to continuing to work with them.

Detailed Comments and Requests

Based on a review of the Preliminary Draft Staff Report and information from the Public Workshop and meetings with SCAQMD staff, we have the following recommendations and comments:

- We strongly recommend that SCAQMD staff confer with USEPA Region 9 staff on their current assessment of whether a PM2.5 Most Stringent Measures (MSM) rulemaking for PR223 is appropriate given that its requirements and applicability thresholds were developed only to meet SB700 requirements for ozone precursors (e.g., VOCs), not ammonia. 1-3
    - SCAQMD's own AQMPs and Plans show that additional dairy ammonia reductions will have little or no effect on secondary PM2.5 and no effect on peak PM2.5 areas. The original dairy control measures were established in the mid-1990s; for example, the 1997 AQMP showed peak PM areas were downwind of the dairies and speciation showed large secondary PM (e.g., ammonium nitrate) occurring when there were ~390,000 dairy cattle in western Riverside and San Bernardino counties.[1] The 2022 AQMP and 2024 PM2.5 Plan show that non-attainment areas of PM2.5 are UPWIND of the remaining dairy locations, and ammonium nitrate chemistry and meteorology show that the few remaining dairies (~126,000 cows that have moved further east due to urbanization) do not contribute to exceedances.[2] For 2025, the Preliminary Staff Report notes that there are 79,750 milking cows in the Basin. This is a reduction of over 80% from the early 2000s and over 36% since the early 2018. For this and other reasons, we believe that there is a case to be made that lowering the Rule 223 threshold based on other areas is not required and CAA-appropriate analysis and arguments can be presented to EPA to support this conclusion.
    - If USEPA is relying at all upon the old reports cited in the Staff Report, we would ask that they review them again based on the specific concerns listed in the next bulleted item.

[1] SCAQMD. 1997 AQMP. See Figures 2-14 and 2-15. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/1997-air-quality-management-plan/1997-aqmp-appendix-ii.pdf?sfvrsn=1b011d61_8 Accessed April 2025.

[2] SCAQMD. 2022 AQMP. See Figure 2-9. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/05-ch2.pdf?sfvrsn=99c5bd61_12. Accessed April 2025.
SCAQMD. 2024 PM2.5 Plan. See Figure 2-5. https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/chapter-2---air-quality.pdf?sfvrsn=cb518a61_6. Accessed April 2025.

- The ammonia-reduction potential of the VOC mitigation measures has not gone through the standard regulatory process for use in dairy emission inventories or rule requirements such as the DPAG process[3] (see also sub-bullets below). The implications are statewide, as we have not found any air district (including the SCAQMD before this proposed rulemaking) that has approved and/or incorporated these ammonia reductions into their inventories. As this current rulemaking would set a precedent for the attribution of ammonia emissions to regulatory inventories, we highly recommend that SCAQMD inform other air districts with dairy populations, statewide dairy stakeholders, and agricultural scientists so that they can evaluate the older cited studies with the latest information regarding current practices, scientific/technical studies, etc. so that any appropriate control effectiveness can be applied consistently.
    - The SJVAPCD estimates of ammonia-reduction potential were only used in assessing potential co-benefits of SJVAPCD Rule 4570, which was and is a permitting rule based on the ozone reduction requirements of SB700. To our knowledge, the emission reduction potential has not been applied to ammonia emission inventories in the SJVAPCD or other districts.
    - The Schmidt Report cited in staff report was originally conducted as part of SCAQMD's analysis during Rule 1127 and Rule 1133 (at the time) ammonia reduction rulemaking in the 2000-2006 timeframe. We note that despite certain studies indicating potential ammonia emission reductions from the VOC mitigation measures, SCAQMD did NOT incorporate them into Rule 1127, which was specifically being developed to reduce ammonia emissions from dairies. Based on our review of the most recent SCAQMD's AER guidance, SCAQMD does not ascribe ammonia reductions to these measures, even though it does account for ammonia emission reductions from Rule 1127 mitigations.
    - We believe that SCAQMD cannot rely upon these studies to quantity ammonia emissions reductions from these VOC mitigation measures until a full analysis is done, such as in the DPAG process. As noted in the 2010 SJVAPCD 4570 Board package, "Perhaps the most important finding of all is that CAFs are extraordinarily complex sources of air emissions, varying not only season to season, but from CAF to CAF, and from place to place within a CAF. Emissions can vary substantially depending on weather, types of feed, and management styles along with many other factors."
- Emission Reduction Calculation Comments
    - For individual dairy sub-processes, we do not believe, for the reasons stated above, that the cited studies have been assessed in the comprehensive method (such as the DPAG) for use in ascribing emission reductions to dairies and/or dairy subprocesses.
    - Our calculation review has focused on the calculation of emission reductions. We had expressed concerned about how the cumulative emission reduction effectiveness was calculated and are appreciative of the opportunity to talk with your staff after the

1-4

1-5

[3] Information about the DPAG and its role is establishing emission and control factors for regulatory purposes can be found at https://archive.valleyair.org/busind/pto/dpag/dairy_permitting_advisory_group.htm. Accessed April 2025.

workshop. You have let us know that you will be revising the calculation of cumulative control effectiveness. We would appreciate you sharing those updated calculations when you complete them.

- Per the staff report, actual ammonia emission reductions for PAR are expected to be zero, as it is not anticipated that any dairy would have to change its mitigation options to comply. We understand that the rule would allow SCAQMD to 'count' the reductions in the SIP but note that neither SCAQMD nor other air districts with similar livestock operation permitting rules 'count' such ammonia reductions for operations already under those rules. Nor, in our opinion, should they until the cited studies (and later studies, if available) go through peer review with a panel of scientists, district staff, and stakeholders. 1-5

- Socioeconomic Analysis Comments
  - For the Socioeconomic analysis, please use the following information: 1-6
    - We understand that you believe that only one of the farms potentially meets the SCAQMD's stringent Small Business designation. We note that a revenue-only basis for defining a small business is not truly appropriate for dairy farms, as they have relatively high operating costs specific to dairies, such as costs for feed, animal health, and manure management, for example. 1-7
    - The industry impact analysis should reflect that revenue for these dairies is highly depended on the price of milk, which varies widely from year to year. As such, net revenue for these farms (who have fixed feed, animal health and manure management costs) can vary widely from year to year. Indeed, it is not unusual for farms to operate at a loss over 1-3 year periods, exacerbating the effect of fixed costs unrelated to revenue, such as permitting fees. 1-8
    - We believe that most (at least 8) of these farms are on land that is leased back to them. Most of those are on year-to-year leases. As such, initial and on-going permitting fees that do not increase revenue may alter their business decisions, such as decisions to reduce cow counts or cease renewing their leases (particularly the 5 in the Ontario region). 1-9
    - At this time, we believe that 3 of these farms will likely drop number of cows milked to below the proposed permitting threshold (e.g., 500 milking cows). 1-10
    - We believe that the 5 easternmost farms (e.g. San Jacinto, Nuevo, Hemet) may remain the longest (5 to 10 years). Again, those dairies will be even further downwind from non-attainment PM2.5 areas. 1-11
  - Charging these small dairies over $2400 for an initial permit and $550 annually (rising over the years) would be an undue burden on most or all these small dairies who operate on low margins and have years where their net revenue is negative. As noted in the costs for implementation would be mostly or all permitting fees, as the dairies are currently using measures consistent with Rule 223 mitigation measure requirements. As such, the industry impact analysis should include the potential loss of 3 to 6 dairies, with the land reverting to the owners/developers. 1-12

- California Environmental Quality Act (CEQA)
  - In addition to the other CEQA analyses, we request that the analysis includes assessing the impacts if about half (e.g., 5) of these small dairies leave because of PAR223 permitting costs. Based on local history and that the leased land will revert to developers, they will be replaced by industrial, commercial, and/or residential uses that will absolutely increase the NOx and VOC emissions in this area, affecting both ozone and PM2.5 ambient levels. Specifically, we request a standard CalEEMod run for NOx emissions from 200 acres (4 farms at ~50 acres each) of converted farmland with default values for an industrial and a mixed commercial/residential land use. We do not request any dispersion modeling or other analysis besides the change in NOx emissions.

1-13

Conclusion

We would like to thank staff again for working with us through the rulemaking process and being responsive to our requests for clarifications and information. Although in greater detail at the beginning of the letter, our major requests at this point in the rulemaking can be summarized as follows:

- We are asking that SCAQMD return to discussions with USEPA Region 9 staff about whether a PM2.5 Most Stringent Measures (MSM) analysis and rulemaking is appropriate, based on the information we present in this letter.
- If the SCAQMD goes ahead with rulemaking, we are asking that the implementation time for these small dairies be extended. Because the dairies are on leased land, we would like to work with staff to harmonize any implementation timeline to prevent the imposition of permitting application and annual fees on dairies that will leave.

1-14

Please let us know if you have any questions or would like additional information. We look forward to continuing to work with you.

Respectfully,

Betsy Hunter-Binns

Kevin Abernathy

cc: Dr. Julia Lester, Ramboll

Responses to Milk Producers Council Email Correspondence, submitted 04/23/25

1-1 Response: Thank you for providing the background information and the ongoing efforts of the Milk Producers Council is appreciated. It is acknowledged there has been a reduction in the Basin's dairy cattle population in the last two decades. As described in the PAR 223 staff report, the region does not attain the 2012 PM2.5 National Ambient Air Quality Standards (NAAQS) by the mandated 2025 attainment date. Under the federal Clean Air Act (CAA), a one-time, 5-year extension of this attainment date can be granted provided certain requirements could be met, including the implementation of the Most Stringent Measures for pollutants that contribute to air quality exceedances. In response, the South Coast AQMD Governing Board adopted the 2024 PM2.5 Plan that included the necessary elements to request an extension of the PM2.5 NAAQS attainment date.

The 2024 PM2.5 Plan included modeling that showed ammonia emissions are a significant contributor to exceedances of the annual PM2.5 2012 NAAQS. Ammonia is a common by-product of livestock waste. The 2024 PM2.5 Plan included a Most Stringent Measures analysis that identified a more stringent livestock rule currently implemented in two California air districts. Accordingly, a control measure (BCM-08) was included in the 2024 PM2.5 Plan to further reduce ammonia from livestock operations. Based on data provided by the Santa Ana Regional Water Quality Control Board, there are active dairy operations in the Chino Valley Basin/Ontario area, an area where high PM2.5 levels are observed.

South Coast AQMD met with representatives of U.S. EPA Region 9 on May 22, 2025 to discuss issues raised in this comment letter, including contribution of ammonia emission from livestock to PM2.5 exceedances and interpretations of CAA requirements. During these discussions, U.S. EPA Region 9 staff reiterated that Most Stringent Measures requirements apply for all sources regardless of size and San Joaquin Valley and Imperial County have recognized ammonia reductions from implementation of livestock mitigation measures that are similar to PAR 223 Appendix A mitigation measures.

1-2 Response: Thank you for providing more background about dairy farms on leased land and the possibility that some may close soon. Staff agree that facilities that plan to cease operations prior to the implementation timeline in PAR 223 should be provided an alternative compliance pathway. As such, an alternative pathway is being proposed for facilities that plan to no longer operate as a Large Confined Animal Facility. Instead of submitting a permit application, a facility can inform South Coast AQMD by January 1, 2027 that they will be closing their business or no longer meeting the definition of an LCAF by January 1, 2029. This proposal would alleviate the dairy farms from submitting a permit application (and the associated permit

application fee and annual renewal fees) if they do not meet the definition of an LCAF or plan to stop operating by January 1, 2029. Subparagraph (c)(6)(B) prohibits operation of applicable dairy farms without a permit after January 1, 2029.

1-3 Response: Please refer to response to comment 1-1 regarding U.S. EPA consultations. As previously mentioned, ammonia (NH3) is one of the four precursor pollutants that are subject to the PM2.5 NAAQS Final SIP Requirements Rule.[23] As described in Appendix VI of the 2024 PM2.5 Plan, air districts are allowed to submit a demonstration to show that emissions of a PM2.5 precursor do not contribute significantly to PM2.5 exceedances.[24] The 2024 PM2.5 Plan precursor demonstration followed the applicable guidance document methodology and concluded that SOx and VOCs do not contribute significantly to PM2.5 exceedance of the 2012 Annual PM2.5 Standard. Accordingly, a request has been made to exclude SOx and VOCs from certain federal Clean Air Act (CAA) control requirements. The 2024 PM2.5 Plan analysis further concluded that NOx and NH3 are significant precursors to annual PM2.5 in the Basin and therefore, have not been requested for exclusion under a precursor demonstration. Like South Coast, the San Joaquin Valley is also classified as serious non-attainment for the 2012 Annual PM2.5 NAAQS and prepared an attainment plan and requested an attainment date extension. However, unlike South Coast, San Joaquin Valley demonstrated that ammonia does not contribute significantly to ambient PM2.5 levels in that area.

1-4 Response: As described in the staff report, the PAR 223 ammonia emissions reduction analysis was based on a methodology prepared for the San Joaquin Valley APCD. The ammonia reduction analysis was originally released as part of the San Joaquin Valley Rule 4570 adoption package in 2006 and subsequently re-released as part of the readoption of Rule 4570 in 2009. Both the original and the subsequent release of the ammonia reduction analysis were subject to public review and comment. It is acknowledged that Rule 4570 was adopted in the San Joaquin Valley to reduce VOC emissions as part of an ozone attainment strategy, however, the staff report identified ammonia reductions as a co-benefit from implementing livestock mitigation measures. The mitigation measures included in the San Joaquin Valley Rule 4570 mirror those included in South Coast AQMD Rule 223. Accordingly, it is reasonable to conclude that the ammonia emission reduction co-benefits identified by the San Joaquin Valley would apply to the Basin's dairy farms. South Coast AQMD does not believe that

[23] PM2.5 NAAQS Final SIP Requirements Rule July 2016 | US EPA. Available at: https://www.epa.gov/pm-pollution/pm25-naaqs-final-sip-requirements-rule-july-2016

[24] PM2.5 Precursor Demonstration Guidance, May 2019. Available at: https://www.epa.gov/sites/default/files/2019-05/documents/transmittal_memo_and_pm25_precursor_demo_guidance_5_30_19.pdf

additional analysis of the ammonia emission reduction potential from more facilities being required to implement the mitigation measures is needed as the methodology has been subject to public review and specific concerns have not been raised. The PAR 223 ammonia emission reduction estimates are based on the best available information and have been provided for public comment as part of the rule development process. PAR 223 also satisfies CAA requirements and commitments included in the 2024 PM2.5 Plan thereby forestalling potential sanctions such as increased permitting off-set requirements and loss of federal transportation funding for this region.

1-5 Response: Thank you for the comment. The calculation has been updated to demonstrate a cumulative reduction. The updated methodology is described in Chapter 3 of the staff report.

It has been described by Milk Producers Council representatives that dairy farms are currently implementing the Rule 223 mitigation measures voluntarily. Accordingly, the staff report indicates minimal PAR 223 implementation costs. To meet CAA requirements, PAR 223 will ensure mitigation measures are enforceable.

1-6 Response: Thank you for the suggestions on what the socioeconomic analysis should include. Please see responses 1-7 to 1-12 for individual responses to each suggestion. Also, the Socioeconomic Impact Assessment for PAR 223 can be found in Chapter 3 of this staff report.

1-7 Response: The South Coast AQMD defines small business based on both revenue and employee count in several ways. For the purpose of applying fees, South Coast AQMD Rule 102 defines a small business if it employs 10 or fewer employees and earns less than $500,000 in gross annual receipts. For the purpose of qualifying for access to services from South Coast AQMD's Small Business Assistance Office (SBAO), a small business is defined as a business with annual receipts of $5 million or less, or with 100 or fewer employees. South Coast AQMD's small business definitions are not related to the type of facility, the industry it belongs to, or its annual cost.

In addition to the South Coast AQMD's definitions of a small business, the federal Small Business Administration (SBA) and the federal 1990 Clean Air Act Amendments (1990 CAAA) also provide definitions of a small business. The SBA definition of a small business varies by six-digit NAICS codes.[25] For example, a business that generates less than $3.75 million revenue in the Dairy Cattle and Milk Production industry (NAICS 112120) is considered a small business.

[25] U.S. Small Business Administration, 2023 Small Business Size Standards, https://www.sba.gov/document/support-table-sizestandards.

The 1990 CAAA classifies a business as a "small business stationary source" if it: 1) employs 100 or fewer employees; 2) does not emit more than 10 tons per year of either volatile organic compounds (VOC) or nitrogen oxides (NOx); and 3) is a small business as defined by SBA.

A small business analysis has been conducted for the 12 facilities that have been identified as being affected by PAR 223 and up to three of these facilities may qualify as small businesses under various small-business definitions used in the socioeconomic impact analysis.

Small Business Definitions	Number of Facilities
South Coast AQMD Small Business Assistance Office	3
South Coast AQMD Rule 102	1
U.S. Small Business Administration	3
1990 CAAA	2

1-8 Response: An industry impact analysis will typically consist of a cost analysis and a job impact analysis. The cost analysis analyzed the compliance costs of implementing PAR 223 at both the facility and industry levels and includes annualized upfront costs and annual operation and management (O&M) costs. In general, a job impact analysis is conducted for a rule when the cost impact is anticipated to be $1 million or greater. The cost impact data will be entered into a customized general-equilibrium economic model for the four-county region to generate a year-by-year job impact for different industries. However, for PAR 223, the cost impact is expected to be less than $1 million, so an analysis of job impacts was not conducted.

It is important to note that revenue and profit are not forecasted in an industry impact analysis because revenue is a function of price and market conditions and is not directly determined by rule implementation. For this reason, the price of milk and volatility of net revenue is not factored into the industry impact analysis conducted for PAR 223.

1-9 Response: While compliance costs might affect business decisions such as the level of production and whether or not to exit the market at all, the socioeconomic impact analysis considers these factors as part of the job impact analysis so long as the estimated annual cost is more than $1 million. However, for PAR 223, a job impact analysis was not conducted because the estimated annual cost is less than $1 million. Also, the cost of leasing the land was not considered in the socioeconomic impact assessment because this cost is an

existing expenditure that is not directly related to implementation of PAR 223.

1-10 Response: Some facilities may choose to reduce the number of milking cows to avoid being subject to the various requirements in PAR 223 and its compliance costs but PAR 223 does not contain any requirements to do so. This type of business decision is an option that may be pursued at each facility's discretion.

1-11 Response: Please refer to responses to comments 1-6 and 1-12.

1-12 Response: The socioeconomic impact assessment analyzed the cost impacts of implementing PAR 223. However, revenue and profit were not factors analyzed because revenue is a function of price and market conditions and is not directly determined from implementing PAR 223.

As explained in response to comment 1-8, a job impact analysis, which considers the addition of new facilities or the shutdown of existing facilities, is conducted for a rule when the cost impact is anticipated to be $1 million or greater. However, for PAR 223, the cost impact is expected to be less than $1 million, so an analysis of job impacts that considers the potential shutdown of dairies was not conducted.

1-13 Response: The comment requests that South Coast AQMD conduct a CEQA analysis for a theoretical scenario where up to half of the affected facilities will shut down to avoid having to pay the permitting costs associated with PAR 223 and the sites would be repurposed for other industrial, commercial, and/or residential uses. PAR 223 does not have any provisions that would require any of the affected facilities to shut down and the comment does not provide any evidence to support the claim that affected facilities would shut down as a result of PAR 223. CEQA requires an analysis of direct and indirect physical effects as a result of project implementation which is typically comprised of a comparison of the baseline conditions (e.g., the current number of facilities that would be subject to PAR 223) to the physical effects and the associated environmental impacts, if any, if PAR 223 is implemented. Public Resources Code Section 21159 allows an agency to utilize numerical ranges or averages where specific data is not available; however, the agency is not required to engage in speculation or conjecture in the environmental analysis.

In addition, CEQA Guidelines Sections 15144 allows a degree of forecasting to find out and disclose the potential environmental effects of a project, but an evaluation of speculative activities, such as the alleged future shut down of facilities subject to PAR 223 with no basis as to whether this may or may not occur, is not required (CEQA Guidelines Sections 15145). While one or more affected facilities may elect to permanently cease their operations, the decision to do so would be based on multiple, unknown

factors which are speculative because they cannot be reasonably forecasted under CEQA. As such, the CEQA evaluation does not consider the environmental impacts from facility shutdowns.

In addition, CEQA Guidelines Section 15131 states that economic or social information may be included in a CEQA analysis or may be presented in whatever form the agency desires. South Coast AQMD practice is to address the economic effects of proposed projects in the staff report and Socioeconomic Impact Assessment, and not in the CEQA analysis, because economic effects typically do not cause environmental impacts. Further, the economic or social effects of a project shall not be treated as significant effects on the environment. A CEQA document may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes. [CEQA Guidelines Section 15131(a)]

For PAR 223, the affected facilities will be required to select from a menu of mitigation measures to reduce emissions from their operations, many of which are currently being implemented as best practices or as required by other rules and regulations. As a result, very few, if any, physical modifications would be expected to occur. Thus, implementation of PAR 223 is not expected to result in significant adverse environmental impacts. In addition, no direct or indirect economic or social effects that could cause physical impacts to the environment were identified as a result of implementing PAR 223. For these reasons, PAR 223 qualifies for an exemption from CEQA such that a Notice of Exemption will be prepared. Please also refer to response to comment 1-6 through 1-12 for additional information regarding the socioeconomic analysis.

Finally, it is important to note that South Coast AQMD does not have authority over land use decisions. In the event that a facility subject to PAR 223 decides to shut down and a developer seeks to re-zone/repurpose that land for other industrial, commercial, and/or residential uses, the appropriate agency designated with land use authority (which is typically the local planning department) is required by CEQA to evaluate the potential environmental impacts of the future uses of the proposed property redesignation, including the potential for converting existing farmland to non-agricultural uses.

1-14 Response: Please refer to response to comment 1-1 regarding the discussion with U.S EPA. Please refer to response to comment 1-2 regarding a longer implementation period for PAR 223 requirements.

APPENDIX B – NOTIFICATION FORM

South Coast Air Quality
Management District
21865 Copley Drive
Diamond Bar, CA 91765
(909) 396- 2000

NOTICE OF INTENT

RULE 223 - Requirements for Confined Animal Facilities

South Coast Air Quality Management District (South Coast AQMD) Rule 223 - Requirements for Confined Animal Facilities requires the owner or operator of a Large Confined Animal Facility (LCAF) to obtain a permit to operate. Previously, an LCAF was defined as a facility with 1,000 dairy cows, 650,000 chickens, or 650,000 ducks. Because of a recent Rule 223 amendment, a facility with 500 dairy cows, 400,000 chickens, or 400,000 ducks is now an LCAF.

This form has been prepared to allow a facility that plans to cease operations or no longer meet the definition of an LCAF after January 1, 2029, to be relieved from the requirement to submit a permit application.

If selecting this compliance option, please provide the following facility information, sign and submit this document by email to Rule223@aqmd.gov no later than January 1, 2027. If there are questions, please contact Tiffani To at tto@aqmd.gov.

FACILITY OPERATOR INFORMATION			
Facility Name			**AQMD ID**
Location Address	**City**	**Zip Code**	**County**
Mailing Address	**City**	**State**	**Zip Code**
Contact Person	**Title**	**Telephone**	**E-mail**

FACILITY OWNER INFORMATION			
Facility Owner Name			
Mailing Address	**City**	**State**	**Zip Code**
Telephone		**E-Mail**	

I _____ (owner/operator) am notifying the South Coast AQMD that the above named facility will cease operations or no longer meet the definition of an LCAF after January 1, 2029. I acknowledge that if this facility continues to operate while meeting the definition of an LCAF after January 1, 2029, a South Coast AQMD permit to operate is required.

_____	_____	_____
(Signature)	(Print Name)	(Date)

APPENDIX C – FORM 400-E-21

South Coast Air Quality Management District

Form 400-E-21
Supplemental Permit Application for Dairy Farms

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): _____

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): _____

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): _____

○ Fixed Location ○ Various Locations

Section B - Number of Cows

	Milk Cows	Dry Cows	Heifers 15-24 Months	Heifers 7-14 Months	Heifers 4-6 Months	Calves	Total
Total Number of Cows Currently At Your Dairy							
Maximum Number of Cows That Your Farm Was Designed For							

Section C - Facility Information

Type of Dairy (check all that apply)
☐ Scrape ☐ Flush ☐ Vacuum ☐ Other_____

Type of Housing (check all that apply)
☐ Free Stalls ☐ Open Corrals ☐ Other_____

Other Housing/Operations (check all that apply)
☐ Special Needs ☐ Calf Housing ☐ Other_____

Waste Handling (check all that apply)
☐ Anaerobic Treatment Lagoon(s) ☐ Anaerobic Digester(s)
☐ Aerobic Treatment lagoon(s) ☐ Mechanical Separator
☐ Manure Stock Piles ☐ Land Application ☐ Storage Ponds
☐ Off-site Disposal ☐ Settling Basin ☐ Composting
☐ Other_____

Other Dairy Equipment (check all that apply)
☐ Feed Storage / Commodity Barns ☐ Silage Piles
☐ Other_____

Section D - Operation Information

Milking Center
How many times are the cows milked per day?_____

Open Corral
☐ Check here if this section does not apply.
How often is manure removed from the corrals?_____
Please state all measures used to control dust in the corrals:_____

Freestall
☐ Check here if this section does not apply.
How many times are the lanes flushed / scrapped per day?_____
What system(s) are used to feed the cows? (check all that apply)
☐ Mixer Feed Wagon ☐ Long Hay ☐ Milk Barn Grain ☐ Other_____

Treatment Lagoon / Storage Pond
☐ Check here if this section does not apply.
Number of Lagoons:_____ Number of Storage Ponds:_____
List dimensions for each (ft.): List dimensions for each (ft.):
1. L:_____ W:_____ D:_____ 1. L:_____ W:_____ D:_____
2. L:_____ W:_____ D:_____ 2. L:_____ W:_____ D:_____
3. L:_____ W:_____ D:_____ 3. L:_____ W:_____ D:_____
How many settling basins are on your farm?_____
How often is manure water applied to your land?_____ per year
What controls are associated with the lagoon?
☐ None ☐ Aerators ☐ Covered Lagoon ☐ Solids Separation
☐ Other_____

South Coast Air Quality Management District

Form 400-E-21

Supplemental Permit Application for Dairy Farms

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section D - Operation Information (cont.)

Solid Manure Management / Storage

☐ Check here if this section does not apply

How is solid manure stored on your farm? ☐ Open Piles ☐ Covered (tarp) Piles ☐ Other_____

Is solid manure applied to your crop land? ○ No ○ Yes

If Yes, how often?_____ per year Estimated tons/year?_____

Is solid manure hauled off-site? ○ No ○ Yes

If Yes, how often?_____ per year Estimated tons/year?_____

Where is the manure hauled off to?_____

What other practices are used to handle solid manure (e.g. composting, etc.)?_____

If your farm composts manure then what type of composting is done?

☐ None ☐ Windrow ☐ Aerated Static Pile (ASP) ☐ Enclosed ASP (e.g. Ag Bag, Gore, Cover, etc)

☐ Other_____

On-Field Activities

☐ Check here if this section does not apply

How many acres of cropland that you farm are contiguous to your dairy?
(Include crops separated by road & avenues.) _____

What method is used to apply manure to your land?

☐ Flood Irrigation ☐ Sold Spreading ☐ Liquid Injection ☐ Sprinkler Irrigation ☐ Furrow Irrigation

☐ Other_____

Other Equipment

☐ Check here if this section does not apply

Note: If your farm has any of the following equipment, please fill out the appropriate form(s)

☐ Grain Storage Silo (AQMD Form 400-E-16)

☐ Stationary IC Engines (AQMD Form 400-E-13)

☐ Gasoline Tanks (AQMD Form 400-E-11)

☐ Other_____

Section E - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info	Signature: _____	Date: _____	Name: _____	
	Title: _____	Company Name: _____	Phone #: _____	Fax #: _____
			Email: _____	
Contact Info	Name: _____		Phone #: _____	Fax #: _____
	Title: _____	Company Name: _____	Email: _____	

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☐