

Working Group Meeting #1

January 8, 2025, 2:00 p.m.

Proposed Amended Rule 223 – Emission Reduction Permits For Large Confined Animal Facilities

JOIN ZOOM MEETING


[HTTPS://SCAQMD.ZOOM.US/J/91940945689](https://scaqmd.zoom.us/j/91940945689)

ZOOM WEBINAR ID: 919 4094 5689

TELECONFERENCE DIAL-IN: +1 669 900 6833

IF THE ZOOM LINK DOES NOT WORK, PLEASE CUT AND PASTE IT INTO YOUR BROWSER

Agenda

- 
- South Coast AQMD Overview and Rule Development Process
 - PM 2.5 Background
 - Clean Air Act Requirements
 - Rule 223 Background
 - Proposed Amended Rule 223
 - Next Steps

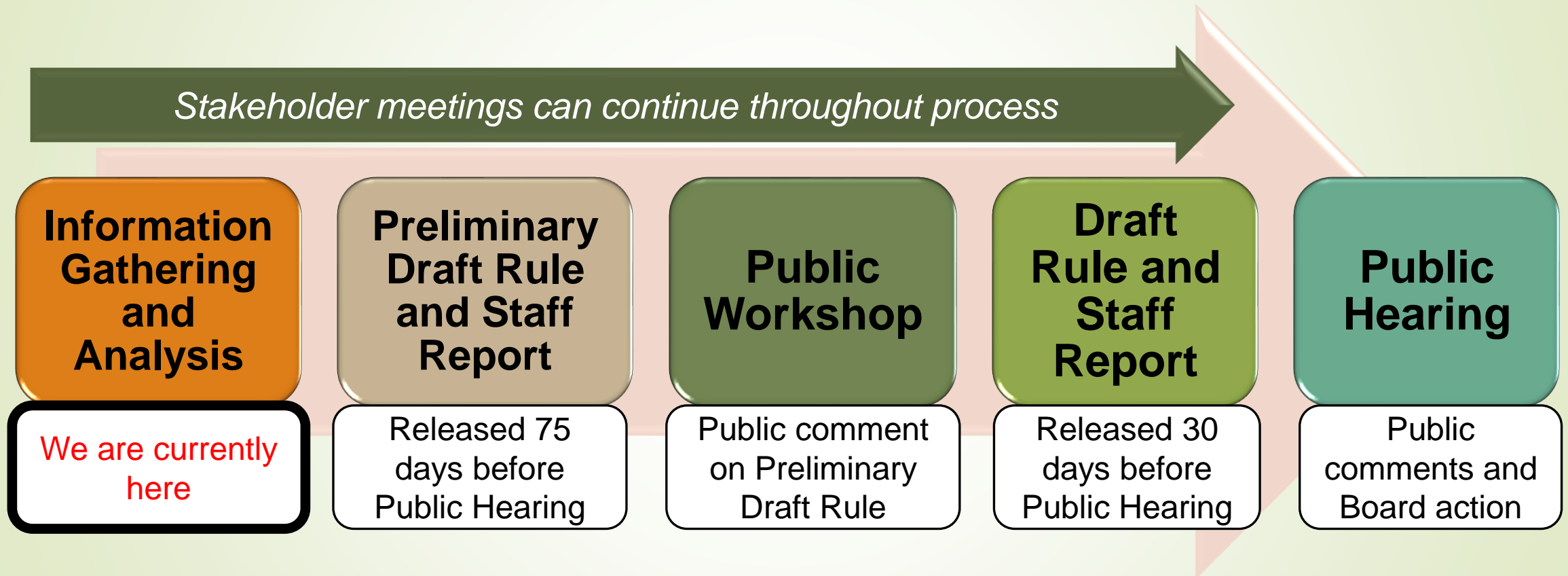
South Coast AQMD



- Local air pollution control agency
 - 10,743 square miles
 - 17 million residents
 - Largest of the 35 local air agencies in California and in the U.S.

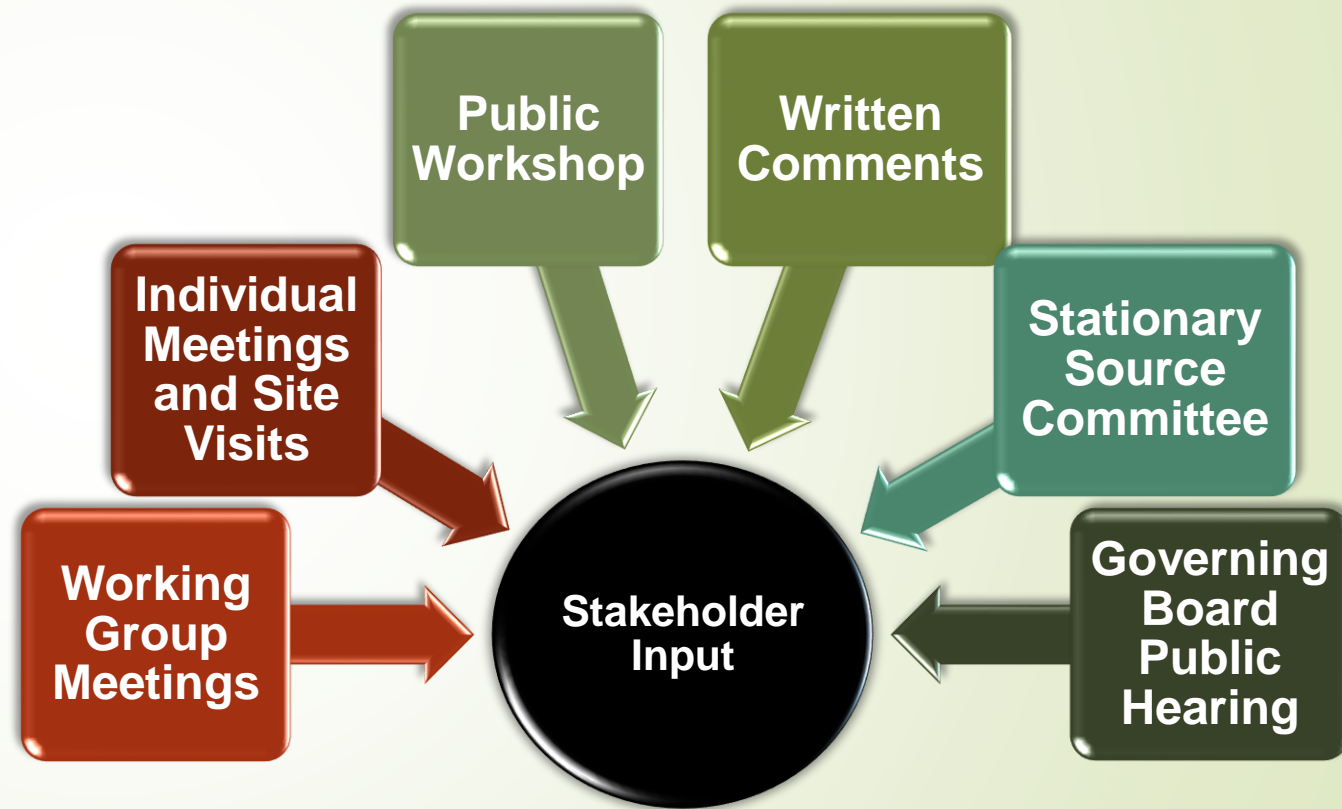
- Roles and Responsibilities
 - Administer over \$200 million of incentive and grant funding annually
 - Develop and implement plans to meet national air quality standards
 - Permit and inspect about 28,400 affected businesses and communities
 - Regulate emissions from stationary sources

Rule Development Process



Working Group Meeting

- Stakeholders can provide input throughout the rulemaking process
- Early input is strongly encouraged
 - Provides staff the opportunity to try to resolve issues
- Gathered information is used to:
 - Accurately characterize information used for the rulemaking and its potential impacts such as cost

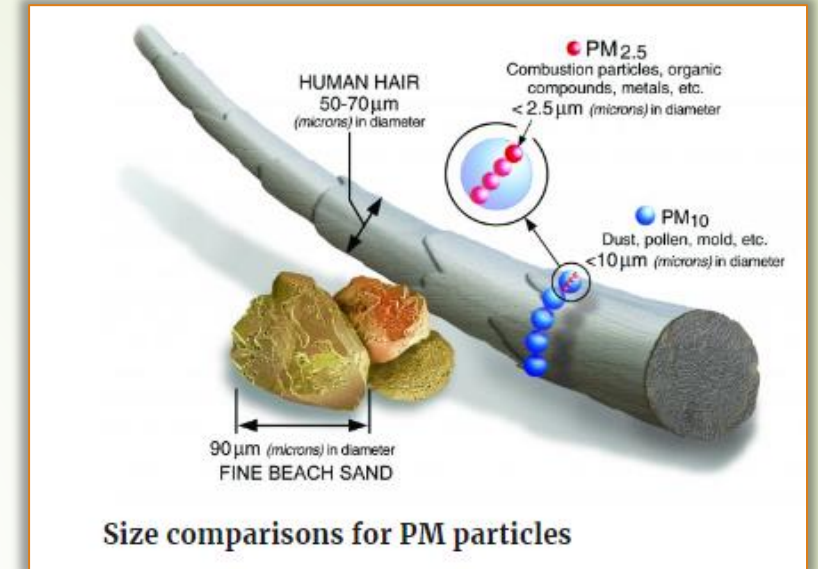




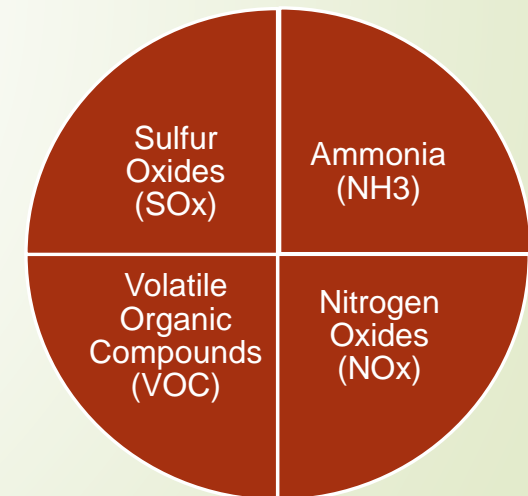
PM2.5 Background

PM2.5 Background

- ▶ Particulate matter (PM) are small, inhalable particles found in the air
 - ▶ PM2.5 is particulate matter $\leq 2.5 \mu\text{m}$ in diameter
 - ▶ Linked to adverse cardiovascular and respiratory health effects including premature death, asthma, and lung cancer
- ▶ Sources of PM2.5 include:
 - ▶ Direct emissions - smoke, dust, diesel soot
 - ▶ Secondary formation - formed from reactions of precursor pollutants in the atmosphere



Size comparisons for PM particles



PM_{2.5} Precursor Pollutants

National Ambient Air Quality Standards

- Establishes National Ambient Air Quality Standards (NAAQS) for various air pollutants, including PM_{2.5}

U.S. EPA

- Prepares and submits State Implementation Plan to describe existing air quality conditions and measures that will be taken to attain NAAQS

California

Other States

- Regulates stationary sources primarily
- Develops strategies and plans to attain NAAQS
- Air Quality Management Plan (AQMP) provides the overall strategy and technical analysis for how the region will meet various federal standards and continue progress to achieve state standards
- PM_{2.5} Attainment Plan provides the strategy and technical analysis to meet PM_{2.5} National Ambient Air Quality Standards

South Coast AQMD

Other Air Districts in California

PM2.5 National Ambient Air Quality Standards

- The U.S. EPA has promulgated four National Ambient Air Quality Standards for PM2.5
- Areas not meeting the PM2.5 standards (based on ambient air quality data) are designated as nonattainment areas based on exceedance level:

Moderate



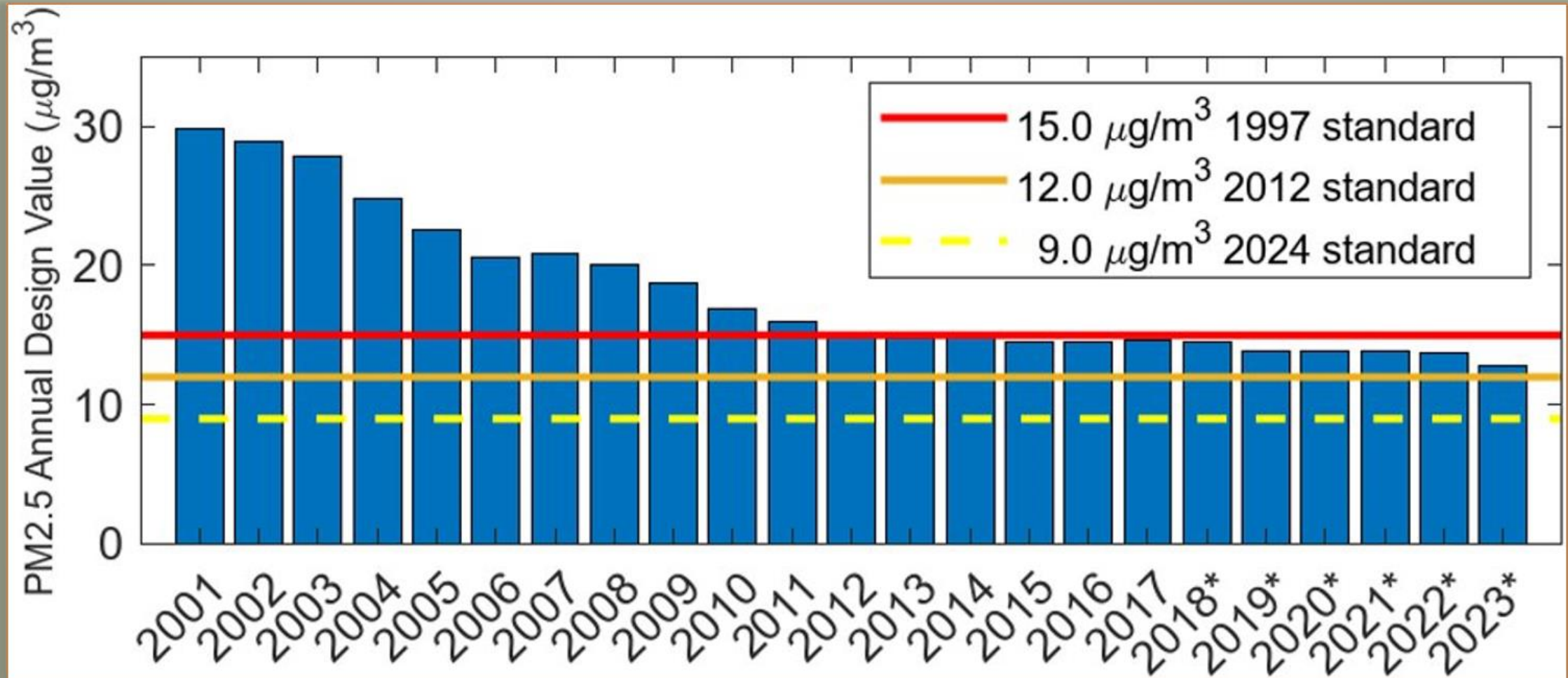
Serious

- Attainment deadlines are established based on classification, with more time provided for areas with worse air quality

NAAQS Year	NAAQS Level	Averaging Time	South Coast Air Basin Classification
1997	65 µg/m ³	24-Hour	Attainment
	15 µg/m ³	Annual	Attainment
2006	35 µg/m ³	24-Hour	Serious Nonattainment*
2012	12 µg/m ³	Annual	Serious Nonattainment
2024	9 µg/m ³	Annual	Designations expected in 2026

* Attainment expected based on preliminary data for 2023

Annual PM2.5 Trend



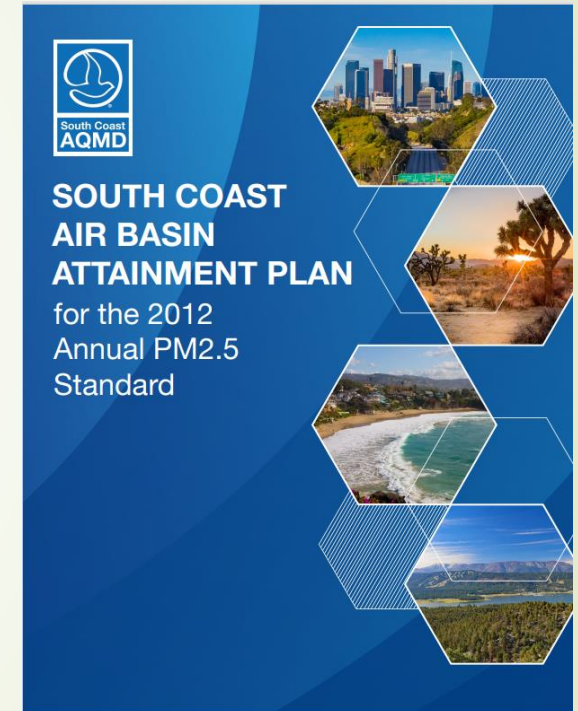
* Data likely to be approved as exceptional events by U.S. EPA were removed



Clean Air Act Requirements

2024 PM2.5 Attainment Plan

- ▶ The region does not meet the 2012 annual PM2.5 national ambient air quality standards (NAAQS)
- ▶ To meet federal Clean Air Act requirements, a revised attainment plan was prepared and submitted to U.S. EPA (PM2.5 Attainment Plan) in 2024
 - ▶ Included an analysis of precursor pollutant contribution to annual PM2.5 levels (Appendix VI – Precursor Demonstration)
 - ▶ Identified NO_x and NH₃ as significant precursors
 - ▶ VOCs and SO_x are not significant precursors



2024 PM_{2.5} Attainment Plan (Cont'd)

- Clean Air Act requires a demonstration of Best Available Control Measures (BACM)* and Most Stringent Measures (MSM)* for sources that affect PM_{2.5}
- NH₃ (ammonia) was identified as a PM_{2.5} precursor for this region, and livestock is a significant source of NH₃ emissions
- A comparison was made between South Coast AQMD livestock rules and other regulations adopted by other air districts such as:
 - Bay Area AQMD
 - Sacramento Metropolitan AQMD
 - Imperial Valley AQMD
 - San Joaquin Valley APCD

*MSM is defined as: “is any permanent and enforceable control measure that achieves the most stringent emissions reductions in direct PM_{2.5} emissions and/or emissions of **PM_{2.5} plan precursors** from among those control measures which are either included in the SIP for any other NAAQS, or have been achieved in practice in any state, and that can feasibly be implemented in the relevant PM_{2.5} NAAQS nonattainment area.”**

** 81 FR 58151, ; 40 CFR Section 51.1000.*

Livestock Regulation Comparison

- The following table compares livestock regulations from local air districts
 - All rules listed include requirements for mitigation measures to reduce ammonia emissions
 - Two livestock rules have lower applicability thresholds

Agency	Rule	Relevant Applicability Threshold
South Coast AQMD	223	Dairy Cows – 1,000 milking cows Poultry – 650,000 laying hens Ducks – 650,000 ducks
Bay Area AQMD	10	
Sacramento Metropolitan AQMD	496	
Imperial County APCD	217	Dairy Cows – 500 milking cows Poultry – 400,000 chickens Ducks – 400,000 ducks
San Joaquin Valley APCD	4750	

Need for Rule 223 Amendment

- Clean Air Act “Most Stringent Measure” requires South Coast AQMD rules be at least as stringent as those in any other air district or state
- Comparison to regulations from other local air districts demonstrates that Rule 223 applicability thresholds are not most stringent
- Amending Rule 223 to lower the applicability thresholds is necessary to meet Clean Air Act “Most Stringent Measures” requirements





Rule 223 Background

Background

- Senate Bill (SB) 700 was enacted in 2004 and eliminated the exemption from the permit system for agricultural operations in the raising of fowl or animals
 - Required local air pollution control districts to adopt and implement regulations to require the owner or operator of a large confined animal facility (LCAF) to obtain permits to reduce air contaminant emissions
 - Codified under California Health and Safety Code Section 40724.6
- Rule 223 – Emission Reduction Permit for Large Confined Animal Facilities was adopted in 2006 to satisfy SB 700 and California Health and Safety Code Section 40724.6 requirements



Rule 223 Key Requirements

- Rule 223 establishes requirements for confined animal facilities (CAF) and large Confined Animal Facilities (LCAF)
- LCAF means any confined animal facility that maintains on any one day:
 - 1,000 or more milk-producing dairy 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
 - 650,000 or more chickens other than laying hens; or
 - 650,000 or more laying hens; or
 - 3,000 or more swine; or
 - 15,000 or more sheep, lambs, or goats; or
 - 2,500 or more horses; or
 - 650,000 or more ducks; or
 - 30,000 or more rabbits or other animals
- LCAFs are required to submit a permit application, facility information, and an emissions mitigation plan based on the list of control measures outlined in Appendix A of the rule
- All confined animal facilities regardless of size have recordkeeping requirements

Emissions Mitigation Plan

- Rule 223 Appendix A – provides a list of mitigation measures for different livestock operations and source categories
- Table 1 - Dairy LCAF source categories:
 - Feed and Silage Operations
 - Milk Parlor
 - Freestall Barns
 - Corrals
 - Handling of solid manure or separated solids
 - Handling manure in liquid form
 - Land application of liquid or dry manure
- Table 2 - Poultry LCAF source categories:
 - Poultry house
 - Feed operations
 - Handling of solid manure or separated solids
 - Handling of manure in liquid form
- Facilities select from a list of mitigation measures for implementation

Rule 223 Appendix A: Mitigation Measures

- Menu of mitigation measures listed for each source category
- Facilities select the mitigation measures for each source category for implementation
- Selected mitigation measures serves as mitigation plan

APPENDIX A: LARGE CAF MITIGATION MEASURES

Owners/operators of a LCAF that is a Dairy shall also comply with the following applicable requirements:

Table 1 - Dairy LCAF Mitigation Measure Requirements

(A).	Feed and Silage Operations: Owners/operators shall incorporate at least five (5) of the following feed and silage mitigation measures:
<i>Class One Mitigation Measures</i>	
1.	Feed according to National Research Council (NRC) guidelines.
2.	Feed animals high moisture corn or steam-flaked corn and not feed animals dry rolled corn.
3.	Remove spoiled feed from feed lane at least once every seven (7) days
4.	Remove spilled feed from feed alleyways at least bi-weekly.
5.	Remove uneaten wet feed from feed bunks within twenty-four (24) hours of a rain event.
6.	Feed or dispose of rations within forty-eight (48) hours of grinding and mixing rations.
7.	Store grain in a weatherproof storage structure from October through May.
8.	Cover the horizontal surface of silage piles, except for the area where feed is being removed from the pile.
9.	Collect leachate from the silage piles and send it to a waste treatment system such as a lagoon at least once every twenty-four (24) hours.
10.	Implement alternative mitigation measure(s), not listed above, subject to approval of the Executive Officer.
<i>Class Two Mitigation Measures</i>	
11.	a. Enclose silage in a silage bag system designed for that purpose, or b. Enclose silage in a weatherproof structure and vent to a control device with at least 80% control efficiency, or c. Eliminate silage from animal diet.

Proposed Amended Rule 223



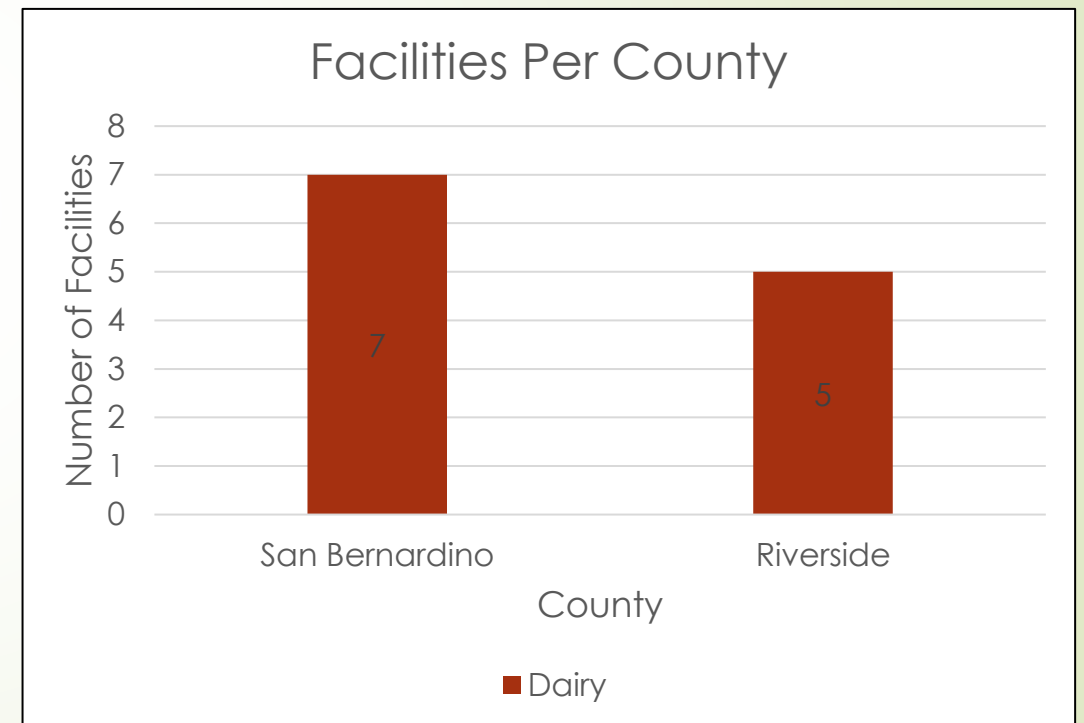
Proposed Rule Amendment

- Proposed Amended Rule 223 - Emission Reduction Permit for Large Confined Animal Facilities (PAR 223) would lower the applicability threshold for a Large Confined Animal Facility (LCAF) to align with the most stringent threshold
- Expanded applicability threshold may lead to additional facilities being subject to the permitting and mitigation measure requirements in Rule 223
 - Both laying hens and chickens other than laying hens will count towards updated threshold

Livestock category	South Coast AQMD Rule 223 Large CAF Threshold	San Joaquin APCD Rule 4570 CAF Threshold and Imperial County APCD Rule 217 Large CAF Threshold
Dairy	1,000 milk-producing dairy cows	500 milking cows
Chicken	650,000 chickens other than laying hens; or 650,000 laying hens	400,000 chickens (no differentiation between laying hens and broiler chickens)
Duck	650,000 or more ducks	400,000 ducks

PAR 223 Preliminary Analysis of Potentially Impacted Facilities

- Staff currently working to compile a list of potentially impacted facilities by reviewing South Coast AQMD databases and permits, supplemented with information from:
 - Local regulatory agencies
 - Industry association contacts
- Initial facility search has identified
 - Twelve dairy farms
 - No impacted poultry farms



Proposed Rule Amendment - Regulatory Impacts

- Livestock facilities that meet the revised lower applicability thresholds would be subject to PAR 223 requirements
 - Permit application, facility information, and an emission mitigation plan proposed to be submitted no later than January 15, 2026
 - Permit application forms for dairy and poultry farms are available on the South Coast AQMD website
 - Control measures identified in the mitigation plan must be implemented within one year of the date that the permit is approved

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

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

South Coast Air Quality Management District

Form 400-E-22
Supplemental Permit Application for Laying Hen Ranches

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.)

Laying Hen Electric Fans: What is the total horsepower (hp) rating of all chicken house electric fans at your ranch? _____

Treatment Lagoon / Storage Pond

Number of Lagoons: _____ Number of Storage Ponds: _____

List dimensions for each:

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 ☐ Aerobic / Mechanical Treatment ☐ Anaerobic Digester ☐ Solids Separation

☐ Other _____

Gathering Information

- Staff is in the early phase of analyzing impacts to affected facilities
- Based on existing outreach efforts, no poultry farms would be impacted (i.e., population between 400,000 and 650,000 head)
- Looking to gather additional information about dairy farms regarding:
 - Operation status
 - Number of animals
 - Existing mitigation measures implemented
- Input is highly encouraged to allow staff time to understand and analyze the regulatory impacts to industries and facilities affected

Please submit your comments by January 31, 2025



Next Steps



CONTINUE OUTREACH



REFINE IMPACT
ANALYSIS



CONDUCT PUBLIC
WORKSHOP (FIRST
QUARTER 2025)



PUBLIC HEARING
(SECOND QUARTER
2025)

Staying Updated

- Sign up to receive e-mail updates via <http://www.aqmd.gov/sign-up>

Sign Up

The South Coast AQMD offers periodic newsletter updates via Email on a variety of topics. Click on the Manage Subscriptions link at the bottom of the form to update your subscriptions (unsubscribe from lists, subscribe to additional lists, or change your Email address).

If you wish to receive daily pollution forecasts or alerts for specific pollution levels in your area, sign up for [Air Alerts](#).

For printed copies of South Coast AQMD publications that mailed to you, please visit [Subscription Services](#) (charges may apply).

Enter the following information:

Email Address:	Re-Enter Email Address:
<input type="text"/>	<input type="text"/>
First Name (optional):	Last Name (optional):
<input type="text"/>	<input type="text"/>

Subscribe by checking the box adjacent to the E-Mail List(s) you are interested in and then CLICK on the Subscribe button below:

General Notifications:

<input type="checkbox"/> Events & Conferences	List of stakeholders interested in events and conferences.
<input type="checkbox"/> South Coast AQMD News	Brief updates highlighting what is current at South Coast AQMD, such as conferences, equipment exchanges, advisories, etc.
<input type="checkbox"/> South Coast AQMD Advisor	South Coast AQMD's comprehensive bi-monthly newsletter containing the latest news, including rule updates, the latest on programs for businesses

Subscribe by scrolling down the page and checking off the box for Rule 223 to receive future meeting notices and links to documents





- | | |
|--|---|
| <input type="checkbox"/> Rules 219 & 222 | Equipment Not Requiring a Written Permit and Filing Requirements For Specific Emission Sources Not Requiring a Written Permit |
| <input checked="" type="checkbox"/> Rule 223 | Emission Reduction Permits for Large Confined Animal Facilities |
| <input type="checkbox"/> Rule 314 | Fees for Architectural Coatings |

Staff Contacts

Tiffani To


Air Quality Specialist

 (909) 396-2738

 tto@aqmd.gov

Kalam Cheung, Ph.D.


Planning and Rules Manager

 (909) 396-3281

 kcheung@aqmd.gov

Michael Laybourn


Program Supervisor


 (909) 396-3066

 mlaybourn@aqmd.gov

Michael Krause

Assistant Deputy Executive Officer

 (909) 396-2706

 mkrause@aqmd.gov