



BOARD OF DIRECTORS
STATIONARY SOURCE AND CLIMATE IMPACTS COMMITTEE

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

COMMITTEE MEMBERS

LYNDA HOPKINS – CHAIR
KEN CARLSON
JOHN GIOIA
OTTO LEE
MARK ROSS

DAVID HAUBERT – VICE CHAIR
NOELIA CORZO
TYRONE JUE
MYRNA MELGAR
VICKI VEENKER

**MEETING LOCATION(S) FOR IN-PERSON ATTENDANCE BY
COMMITTEE MEMBERS AND MEMBERS OF THE PUBLIC**

Main Meeting Location:

**Bay Area Metro Center
Yerba Buena Room
375 Beale Street, San Francisco, CA 94105**

In-Person Remote Teleconference Location(s):

**Office of Contra Costa County Supervisor John Gioia
Conference Room
11780 San Pablo Ave., Suite D
El Cerrito, CA 94530**

**City of Palo Alto City Hall
250 Hamilton Ave., 7th Floor
Palo Alto, CA 94301**

**Office of Alameda County Supervisor David Haubert
4501 Pleasanton Ave.
Pleasanton, CA 94566**

**County of Santa Clara
70 W Hedding St
10th Floor, East Wing – New Conference Room
San Jose, CA 95110**

THE FOLLOWING STREAMING OPTIONS WILL ALSO BE PROVIDED

These streaming options are provided for convenience only. In the event that streaming connections malfunction for any reason, the Stationary Source and Climate Impacts Committee reserves the right to conduct the meeting without remote webcast and/or Zoom access.

The public may observe this meeting through the webcast by clicking the link available on the air district's agenda webpage at www.baaqmd.gov/bodagendas.

Members of the public may participate remotely via Zoom at <https://bayareametro.zoom.us/j/89266148622> , or may join Zoom by phone by dialing (669) 900-6833 or (408) 638-0968. The Webinar ID for this meeting is: 892 6614 8622

STATIONARY SOURCE AND CLIMATE IMPACTS COMMITTEE MEETING AGENDA

WEDNESDAY, APRIL 12, 2023

10:00 AM

1. **Call to Order - Roll Call**

The Committee Chair shall call the meeting to order and the Clerk of the Boards shall take roll of the Committee members.

2. **Pledge of Allegiance**

3. **Public Meeting Procedure**

This meeting will be webcast. To see the webcast, please visit www.baaqmd.gov/bodagendas at the time of the meeting. Closed captioning may contain errors and omissions and are not certified for their content or form.

***Public Comment on Agenda Items:** The public may comment on each item on the agenda as the item is taken up. Members of the public who wish to speak on a matter on the agenda will have two minutes each to address the Committee on that agenda item, unless a different time limit is established by the Chair. No speaker who has already spoken on an item will be entitled to speak to that item again.*

CONSENT CALENDAR (Item 4)

4. Approval of the Minutes of the Stationary Source and Climate Impacts Committee Meeting of March 8, 2023

The Committee will consider approving the attached draft minutes of the Stationary Source and Climate Impacts Committee Meeting of March 8, 2023.

INFORMATIONAL ITEM(S)

5. Fugitive Dust Regulatory Analysis and Recommendations

This is an informational item only and will be presented by Eric Lara, Senior Air Quality Specialist in the Rules and Strategic Policy Division.

6. Updated 2023 Stationary Source and Climate Impacts Committee Work Plan

This is an informational item and will be presented by Greg Nudd, Deputy Air Pollution Control Officer.

7. Update on the Bay Area Healthy Homes Initiative

The Bay Area Healthy Homes Initiative seeks to improve health outcomes for Contra Costa and Alameda County residents living in communities disproportionately impacted by air pollution by integrating multiple health and home retrofit interventions that address the cumulative air pollution burden. This presentation will provide an update on the early implementation of the program, with a focus on the development of the program infrastructure and early recruitment statistics. This item will be presented by Idania Zamora, Planning and Climate Protection Assistant Manager.

8. Greener and Healthier Buildings at Bay Area Disadvantaged Communities by BlocPower

BlocPower is an organization dedicated to making buildings greener, healthier, and smarter for all. BlocPower's CEO will be presenting on the organization's integrated approach to greening buildings and on their Bay Area projects involving low-income building retrofits.

OTHER BUSINESS

9. Public Comment on Non-Agenda Matters

Pursuant to Government Code Section 54954.3, members of the public who wish to speak on matters not on the agenda will be given an opportunity to address the Committee. Members of the public will have two minutes each to address the Committee, unless a different time limit is established by the Chair.

10. Committee Member Comments

Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)

11. Time and Place of Next Meeting

*Wednesday, May 10, 2023, at 10:00 a.m. at 375 Beale Street, San Francisco, CA 94105.
The meeting will be in-person for the Committee members and members of the public
will be able to either join in-person or via webcast.*

12. Adjournment

The Committee meeting shall be adjourned by the Chair.

CONTACT:

MANAGER, EXECUTIVE OPERATIONS
375 BEALE STREET, SAN FRANCISCO, CA 94105
vjohnson@baaqmd.gov

(415) 749-4941
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

Accessibility and Non-Discrimination Policy

The Bay Area Air Quality Management District (Air District) does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law.

It is the Air District's policy to provide fair and equal access to the benefits of a program or activity administered by Air District. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by the Air District. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint under this policy. This non-discrimination policy also applies to other people or entities affiliated with Air District, including contractors or grantees that the Air District utilizes to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices, to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to an Air District program or activity, you may contact the Non-Discrimination Coordinator identified below or visit our website at www.baaqmd.gov/accessibility to learn how and where to file a complaint of discrimination.

Questions regarding this Policy should be directed to the Air District's Non-Discrimination Coordinator, Suma Peesapati, at (415) 749-4967 or by email at speesapati@baaqmd.gov.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT
375 BEALE STREET, SAN FRANCISCO, CA 94105
FOR QUESTIONS PLEASE CALL (415) 749-4941**

**EXECUTIVE OFFICE:
MONTHLY CALENDAR OF AIR DISTRICT MEETINGS**

APRIL 2023

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source and Climate Impacts Committee	Wednesday	12	10:00 a.m.	1 st Floor, Yerba Buena and Ohlone Rooms
Board of Directors Mobile Source and Climate Impacts Committee	Wednesday	12	1:00 p.m.	1 st Floor, Yerba Buena and Ohlone Rooms
Board of Directors Meeting	Wednesday	19	9:00 a.m.	1 st Floor Board Room
Board of Directors Community Equity, Health and Justice Committee	Wednesday	19	1:00 p.m.	1 st Floor Board Room

MAY 2023

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Meeting	Wednesday	3	9:00 a.m.	1 st Floor Board Room
Board of Directors Finance and Administration Committee	Wednesday	3	1:00 p.m.	1 st Floor Board Room
Advisory Council Meeting	Monday	8	8:30 a.m.	1 st Floor Board Room
Board of Directors Stationary Source and Climate Impacts Committee	Wednesday	10	10:00 a.m.	1 st Floor, Yerba Buena and Ohlone Rooms
Board of Directors Mobile Source and Climate Impacts Committee	Wednesday	10	1:00 p.m.	1 st Floor, Yerba Buena and Ohlone Rooms
Board of Directors Meeting	Wednesday	17	9:00 a.m.	1 st Floor Board Room
Board of Directors Community Equity, Health and Justice Committee	Wednesday	17	1:00 p.m.	1 st Floor Board Room
Community Advisory Council	Thursday	18	6:00 pm.	To be determined

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Lynda Hopkins and Members
of the Stationary Source and Climate Impacts Committee

From: Philip M. Fine
Executive Officer/APCO

Date: April 12, 2023

Re: Approval of the Minutes of the Stationary Source and Climate Impacts Committee
Meeting of March 8, 2023

RECOMMENDED ACTION

Approve the attached draft minutes of the Stationary Source and Climate Impacts Committee Meeting of March 8, 2023.

BACKGROUND

None.

DISCUSSION

Attached for your review and approval are the draft minutes of the Stationary Source and Climate Impacts Committee Meeting of March 8, 2023.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson

ATTACHMENTS:

1. Draft Minutes of the Stationary Source and Climate Impacts Committee of March 8, 2023

Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 749-5073

Stationary Source & Climate Impacts Committee
Wednesday, March 8, 2023

DRAFT MINUTES

This meeting was webcast, and a video recording is available on the website of the Bay Area Air Quality Management District at www.baaqmd.gov/bodagendas

CALL TO ORDER

1. **Opening Comments:** Stationary Source & Climate Impacts Committee (Committee) Chairperson, Lynda Hopkins, called the meeting to order at 9:00 a.m.

Roll Call:

Present, In-Person (375 Beale Street, Board Room, San Francisco, California, 94105): Chairperson Lynda Hopkins; Vice Chairperson David Haubert; and Directors Ken Carlson, Noelia Corzo, John Gioia, Tyrone Jue, Otto Lee, Myrna Melgar, Mark Ross, and Vicki Veenker.

No Committee members participated remotely, nor from satellite locations.

Absent: Board Chairperson John J. Bauters.

2. **PLEDGE OF ALLEGIANCE**
3. **PUBLIC MEETING PROCEDURE**

CONSENT CALENDAR

4. **APPROVAL OF THE MINUTES OF THE STATIONARY SOURCE & CLIMATE IMPACTS COMMITTEE MEETING OF FEBRUARY 8, 2023**

Public Comments

No requests received.

Committee Comments

None.

Committee Action

Director Gioia made a motion, seconded by Director Carlson, to **approve** the minutes of the Stationary Source & Climate Impacts Committee Meeting of February 8, 2023; and the motion **carried** by the following vote of the Committee:

AYES: Carlson, Gioia, Haubert, Hopkins, Jue, Veenker.
NOES: None.
ABSTAIN: None.
ABSENT: Bauters, Corzo, Lee, Melgar, Ross.

INFORMATIONAL ITEMS

5. AIR DISTRICT COMMENTS ON THE PROPOSED US ENVIRONMENTAL PROTECTION AGENCY (EPA) REVISIONS TO THE PARTICULATE MATTER (PM) NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

Mark Tang, Principal Environmental Planner, gave the staff presentation *Revision of the PM_{2.5} National Ambient Air Quality Standards*, including: outcome; outline; presentation for information only; NAAQS; What happens after EPA revises a NAAQS; current and proposed revised PM NAAQS; PM_{2.5} annual design value trends; PM_{2.5} 24-hour design value trends; commenting on PM NAAQS proposal from the California Air Resources Board (CARB) and Air District; and questions and comments.

NOTED PRESENT: Director Corzo was noted present at 9:06 a.m., and Director Melgar was noted present at 9:10 a.m.

Public Comments

Public comments were given by Jed Holtzman, San Francisco resident.

NOTED PRESENT: Director Ross was noted present at 9:21 a.m., and Director Lee was noted present at 9:22 a.m.

Committee Comments

The Committee and staff discussed whether the California Air Pollution Control Officers Association (CAPCOA) or CARB favors the more health protective standard, and whether the Air District should look to its own work on NAAQS standards, rather than align with one entity or the other; the reasons for anomalies in the PM_{2.5} 24-hour design value trends chart; the State Implementation Plan (SIP) (plan to attain and maintain the NAAQS for each criteria pollutant and area that is designated nonattainment) to which the Air District will contribute, what this will require of the Air District, how long ago the Air District worked on the most recent SIP, and how much time the Air District spent on that SIP; whether the EPA's proposed goals attainable; whether it is possible to meet or exceed the emission levels reduction of 2020 (when the amount of cars on the road was significantly reduced, due to the pandemic); the reason why wildfires are considered exceptional events in NAAQS; whether prescribed burn impacts on health are being discussed on a Federal level); penalties for areas that fail to come into compliance, after the new standard is adopted, and how those fines will be used; impacts of Spare the

Air days on those facilitating prescribed burns; and the number of comment periods that will be allowed (regarding the EPA's proposed standard).

Committee Action

None; receive and file.

6. **PROPOSED 2023 STATIONARY SOURCE AND CLIMATE IMPACTS COMMITTEE WORK PLAN**

Greg Nudd, Deputy Air Pollution Control Officer of Policy, gave the staff presentation *Proposed 2023 Stationary Source & Climate Impacts Committee Work Plan*, including: outcome; presentation for information only; and 2023 Stationary Source & Climate Impacts Committee Work Plan.

Public Comments

Public comments were given by Jacob Klein, Sierra Club; Christine Wolfe, California Council for Environmental and Economic Balance; Fernando Gaytan, Earthjustice; Kim Ryan, Communities for a Better Environment; Jan Warren, Interfaith Climate Action Network of Contra Costa County; Yassi, Sierra Club; Bob Brown, Western States Petroleum Association; and Ms. Margaret Gordon, West Oakland Environmental Indicators Project.

Committee Comments

The Committee and staff discussed whether Air District Rule 11-18 (Hazardous Pollutants, Reduction Of Risk From Air Toxic Emissions At Existing Facilities) will be included in the Committee's Work Plan; whether an indirect source rule would be incorporated into the Stationary Source & Climate Impacts Committee's Work Plan, or in that of the Mobile Source & Climate Impacts Committee, the public's desire to see this carried out, whether airports or transit stations could be considered for indirect source rules as warehouses were considered, and whether to duplicate the indirect source rule efforts of the South Coast Air Quality Management District; whether aviation fuel and socioeconomic analyses issues raised by building trades councils should be addressed by the Mobile Source & Climate Impacts Committee or Stationary Source & Climate Impacts Committee; and the desire to prioritize the streamlining of Air District permitting.

Committee Action

None; receive and file.

OTHER BUSINESS

7. **PUBLIC COMMENT ON NON-AGENDA MATTERS**

Lujain Al-Saleh, Communities for a Better Environment, and Jacob Klein, Sierra Club, submitted comments, which will be sent to the Committee.

8. **COMMITTEE MEMBER COMMENTS**

Chair Hopkins said that she will talk to Board Chair Bauters regarding pushing back the start time of this standing meeting to a later time, to reduce the gap between this meeting and the Mobile Source & Climate Impacts Committee meetings, which follow this meeting.

9. **TIME AND PLACE OF NEXT MEETING**

Wednesday, April 12, 2023, at 9:00 a.m. at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Board members and members of the public will be able to either join in-person or via webcast.

10. **ADJOURNMENT**

The meeting was adjourned at 10:28 a.m.

Marcy Hiratzka
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Lynda Hopkins and Members
of the Stationary Source and Climate Impacts Committee

From: Philip M. Fine
Executive Officer/APCO

Date: April 12, 2023

Re: Fugitive Dust Regulatory Analysis and Recommendations

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Fugitive dust emissions are generated from earth moving operations, such as construction sites, road dust, and at industrial facilities. The Air District administers various programs to control particulate matter and fugitive dust emissions from industrial facilities, earth-moving, and construction activities. These programs include:

- **Regulation 6 – Particulate Matter:** The Rules contained in Regulation 6 establish limits and other administrative requirements to reduce particulate matter and fugitive dust emissions. Specifically, Regulation 6, Rule 1 – General Requirements (Rule 6-1) and Regulation 6, Rule 6 - Prohibition of Trackout (Rule 6-6) sets standards and requirements for controlling and mitigating fugitive dust emissions at dust generating facilities.
- **Permitting Program:** The Air District issues air quality permits for stationary equipment and manages the resulting air emissions. Applications for new or modified equipment at earth-moving operations are evaluated for compliance with the Air District’s Rules and Regulations.
- **Enforcement Program:** The Air District conducts compliance inspections of sources of air pollution including fugitive dust.

Although the Air District’s programs were effective in improving regional air quality and making progress towards our air quality goals, fugitive dust emissions largely impact nearby neighbors and may require alternative methods of control. In late 2020, the Air District’s Advisory Council published a Particulate Matter Reduction Strategy Report and concluded particulate matter (including fugitive dust) was the “most important risk driver in Bay Area air quality,” highlighting the need to investigate and develop strategies to further reduce exposure to particulate matter and fugitive dust emissions. The impacts of particulate matter were also a focus during the Assembly Bill (AB) 617 Community Emission Reduction Planning (CERP) Process in West Oakland. The West Oakland CERP, *Owning Our Air: The West Oakland*

Community Action Plan, included a Further Study Measure that states that “The Air District will investigate potential rulemaking to limit fugitive dust from construction activity.” In addition, staff continue to receive input on fugitive dust issues and impacts from many other communities including Bayview Hunters Point, Richmond/San Pablo, and East Oakland.

DISCUSSION

In response to community concerns, Air District staff are exploring potential rulemaking opportunities to address localized exposures to fugitive dust. The initial phase of this effort includes a Fugitive Dust White Paper, which is included as Attachment 1.

The purpose of the Fugitive Dust White Paper is to review the Air District’s existing particulate matter programming, focusing on fugitive dust, and to identify strategies and recommendations for potential rule development activities to further address fugitive dust issues. The knowledge assessment and gap analysis explore potential strategies for program improvements through an analysis and review of rules and regulations from other jurisdictions, as well as advancements in monitoring and control techniques. Through this work, staff identified potential opportunities and preliminary recommendations for further actions, which include:

- Increase the practical enforceability of requirements by amending Regulation 6, Rule 1: General Requirements and Regulation 6, Rule 6: Prohibition of Trackout.
- Increase the mitigation of fugitive dust emissions by introducing the regulatory language requiring compliance with Dust Control Plans for earth moving operations.
- Further reduce fugitive dust emissions by implementing regulatory language mandating compliance with best management practices and/or best available control measures.
- Increase accountability by introducing regulatory language for a “Notice of Requirements” document for sites with equipment with the potential to generate fugitive dust.
- Explore inclusion of a potential “dust fee” or “plan registration fee” so additional compliance and enforcement activities may be appropriately resourced.
- Explore future opportunities to lower the permitted allowable PM-emission threshold, similar to New Source Review for Toxic Air Contaminants.

As the regulatory process begins, staff will continue to engage with community groups and representatives to seek input and help shape future recommendations for further Air District efforts.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Eric Lara
Reviewed by: Elizabeth Yura

ATTACHMENTS:

1. Fugitive Dust White Paper



Fugitive Dust White Paper

Regulatory analysis and recommendations to further address fugitive dust and particulate matter emissions

Planning & Climate Protection	Rules & Strategic Policy
Mark Tang	Eric Lara
Principal Air Quality Specialist	Senior Air Quality Specialist

March 28, 2023

Table of Contents

I. Acknowledgements	3
II. List of Abbreviations and Acronyms	4
III. Executive Summary	6
IV. Impetus.....	8
Problem Statement	8
V. Introduction.....	8
Particulate Matter Background	8
Engagement.....	9
VI. Existing Landscape.....	10
Framework for Regulating and Evaluating PM Impacts.....	10
Existing Air District PM Emissions Reductions Programming	11
Compliance & Enforcement.....	11
Violations & Settlements	12
Rules & Regulations.....	12
VII. Knowledge Assessment of PM Regulatory Landscape	15
Discussion of Opportunities.....	15
Burden of Proof for Sources of Fugitive Dust Emissions.....	19
Permitted Facility Restrictions.....	21
Monitoring and Data	21
VIII. Recommendations.....	24
Regulation 6, Rule 1: General Requirements.....	24
Regulation 6, Rule 6: Trackout.....	24
Best Management Practices and Best Available Control Measures	24
Notice of Requirements.....	25
Dust Control Plans	25
Fees.....	25
Permitting.....	25

I. Acknowledgements

The development of this white paper was guided by many contributors, including:

Gregory Nudd, Deputy Air Pollution Control Officer, Policy

Elizabeth Yura, Director, Rules & Strategic Policy

Jeff Gove, Director, Compliance and Enforcement

Ranyee Chiang, Director, Meteorology & Measurement

Victor Douglas, Manager, Rules & Strategic Policy

Song Bai, Manager, Assessment, Inventory & Modeling

Katherine Hoag, Assistant Manager, Meteorology, Measurements & Rules

David Joe, Assistant Manager, Rules & Strategic Policy

Sonam Shah-Paul, Assistant Manager, Executive Office

David Holstius, Senior Advanced Projects Advisor, Planning & Climate Protection

Virginia Lau, Advanced Projects Advisor, Planning & Climate Protection

Michael Flagg, Principal Air Quality Specialist, Meteorology & Measurement

Laura Cackette, Senior Air Quality Specialist, Rules & Strategic Policy

II. List of Abbreviations and Acronyms

AB 617 – Assembly Bill 617

Air District or BAAQMD – Bay Area Air Quality Management District

ATCM – Air Toxic Control Measure

BAAQMD – Bay Area Air Quality Management District

BACM – Best Available Control Measures

BMP – Best Management Practices

CAP – Community Action Plan

CAPP – Community Air Protection Program

CARB – California Air Resources Board

CERP – Community Emissions Reduction Plan

CEQA – California Environmental Quality Act

DCP – Dust Control Plan

DES – Clark County Department of Environment and Sustainability

EPA – Environmental Protection Agency

ICAPCMD – Imperial County Air Pollution Control District

MCAQD – Maricopa County Air Quality Department

MRR – Monitoring, recordkeeping, and reporting

NAAQS – National Ambient Air Quality Standards

NOA – Natural Occurring Asbestos

NOx – Nitrogen oxides

PM – Particulate Matter

Rule 2-1 – Regulation 2, Rule 1: General Requirements

Rule 6-1 – Regulation 6, Rule 1: General Requirements

Rule 6-6 – Regulation 6, Rule 6: Prohibition of Trackout

SCAQMD – South Coast Air Quality Management District

SMAQMD – Sacramento Metropolitan Air Quality Management District

SOx – Sulfur Oxides

TAC – Toxic air contaminant

TSP – Total Suspended Particulate

WOCAP – West Oakland Community Action Plan

III. Executive Summary

The Bay Area Air Quality Management District (Air District) administers many emissions reduction programs focused on particulate matter (PM) including fugitive dust. While PM exposures declined region-wide, many communities remain disproportionately impacted. Further reductions are needed to attain air quality standards, address environmental injustice, and achieve public health benefits. Historically underserved communities continue to bear the brunt of PM emissions and associated health impacts, especially in communities near significant PM sources such as oil refining, high-volume roadways, and marine operations. Fugitive dust emissions at PM-generating sources tend to be heavily influenced by both wind conditions and human activities, and emissions are episodic in nature. PM can pass through the nasal passage and enter the lungs, leading to serious health effects associated with the heart and lungs.¹ Recent research and scientific analysis has also increased the Air District's understanding of the relationship between PM exposure and health impacts, including increased pulmonary disease such as asthma and increased premature morbidity.

The Air District's Advisory Council published a *Particulate Matter Reduction Strategy Report* in late 2020 and concluded that PM was the "most important health risk driver in Bay Area air quality..."² Community feedback, especially among representatives from overburdened communities also identified PM as a major concern and priority for reduction. Additionally, the West Oakland Community Action Plan (WOCAP)³ identified fugitive dust as a further study measure for the Air District to investigate potential rulemaking to limit fugitive dust from construction activities.

This white paper explores opportunities to innovate, update and adjust Air District programs to further reduce exposure to particulate matter in the form of fugitive dust and therefore reduce associated health impacts. While this white paper broadly characterizes the challenges associated with existing programs, the focus of this white paper centers on opportunities for potential rulemaking activities to control fugitive dust, especially from sources of fugitive dust emissions such as, construction projects, earth moving activities, paved and unpaved roads, and bulk storage facilities.

A complete overview is provided below, including a gap analysis of existing Air District regulations and a list of recommended options as follows:

- Increase the practical enforceability of requirements by amending Regulation 6, Rule 1: General Requirements and Regulation 6, Rule 6: Prohibition of Trackout.
- Increase the mitigation of fugitive dust emissions by introducing the regulatory language requiring compliance with Dust Control Plans for earth moving operations.

¹ Environmental Protection Agency, n.d. What is Particulate Matter? Accessed April 15, 2021:

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#PM>

² BAAQMD, 2020. *Particulate Matter: Spotlight on Health Protection. Advisory Council Particulate Matter Reduction Strategy Report*. San Francisco. https://www.baaqmd.gov/~media/files/board-of-directors/advisory-council/2020/ac_particulate_matter_reduction_strategy_report.pdf?la=en&rev=570867c8b25e4ca0b2f93f80c4c1ef02

³ BAAQMD and West Oakland Environmental Indicators Project, 2019. *Owning Our Air. The West Oakland Community Action Plan – Volume 1: The Plan*. <https://www.baaqmd.gov/~media/files/ab617-community-health/west-oakland/100219-files/final-plan-vol-1-100219-pdf.pdf?la=en>

- Further reduce fugitive dust emissions by implementing regulatory language mandating compliance with best management practices and/or best available control measures.
- Increase accountability by introducing regulatory language for a “Notice of Requirements” document for sites with equipment with the potential to generate fugitive dust.
- Explore inclusion of a potential “dust fee” or “plan registration fee” so additional compliance and enforcement activities may be appropriately resourced.
- Explore opportunities to lower the permitted allowable PM-emission threshold, similar to New Source Review for Toxic Air Contaminants.

Each recommended action should be developed in coordination with relevant stakeholders including community advocates. It is important to note, this white paper provides a qualitative overview and future development activities will conduct qualitative and quantitative analysis to support proposed actions.

IV. Impetus

Problem Statement

The focus of this white paper centers on mitigating and reducing the impacts of episodic exposure from fugitive dust, particularly in overburdened communities. Exposure to fugitive dust emissions can lead to acute health effects and this white paper will discuss opportunities for potential rulemaking activities to control fugitive dust, with a focus on construction projects, earth moving activities, paved and unpaved roads, and bulk handling and storage facilities. This white paper will provide an overview of the Air District's existing particulate matter programming, focusing on fugitive dust, and will identify strategies and recommendations for potential rule development activities to reduce fugitive dust and particulate matter emissions.

V. Introduction

Particulate Matter Background

Particulate matter, also known as PM, is characterized as a “complex mixture of extremely small particles and liquid droplets.”⁴ PM is often categorized by size, with particles that are 10 micrometers in diameter or smaller referred to as ‘PM₁₀’ and fine particles 2.5 micrometers in diameter or smaller as ‘PM_{2.5}.’ PM can also be categorized as Total Suspended Particulate (TSP), which encompasses all airborne particles and as Ultrafine PM, defined as particles smaller than 0.1 micrometers in diameter.⁵

Particulate matter can also be categorized by material and composition, such as diesel PM. Diesel PM is categorized by the State of California as a toxic air contaminant (TAC), which results in additional regulatory requirements to protect public health.⁶ Diesel PM is primarily generated by diesel fuel combustion in backup generators, lawn equipment and on-road and off-road equipment and vehicles.

Sources of PM include industrial sources such as refineries, concrete batch plants, or landfills, or from construction sites, paved or unpaved roads, fires and brake and tire wear from mobile sources. PM can also form in the atmosphere as a result of chemical reactions from gases in the air such as sulfur oxides (SO_x) and nitrogen oxides (NO_x). PM from sources such as construction sites, paved or unpaved roads, and bulk storage facilities may result in fugitive dust. Fugitive dust is generally defined as particulate matter that is released into the air through mechanical disturbance or high wind speeds. The EPA defines fugitive (dust) emissions as those that could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening.

PM can pass through the nasal passage and enter the lungs, leading to serious health effects associated with the heart and lungs.⁷ In December 2020, the Air District Advisory Council published its *Particulate*

⁴ Environmental Protection Agency (n 1).

⁵ BAAQMD, 2018. Staff Report – Particulate Matter, Proposed New Regulation 6: Common Definitions and Test Methods. Accessed April 15, 2021: https://www.baaqmd.gov/~/media/dotgov/files/rules/archive-2018-regulation-6/bundled-documents/20180801_50_sr_0600-pdf.pdf?la=zh-tw

⁶ California Air Resources Board, n.d. CARB Identified Toxic Air Contaminants. Accessed May 2, 2021: <https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants>

⁷ Environmental Protection Agency (n 1).

Matter Reduction Strategy Report (Report),⁸ concluding that “PM is the most important health risk driver in Bay Area air quality, both PM_{2.5} as a criteria pollutant and diesel PM as a toxic air contaminant.”⁹ The report also stated that further particulate matter reductions are needed to reduce overall health risks in the Bay Area. As elevated PM_{2.5} exposures occur in locations adjacent to local sources, it is of utmost importance to control and reduce these emissions in these communities.

By way of the Clean Air Act, the Environmental Protection Agency (EPA) sets National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, including PM₁₀ and PM_{2.5}.¹⁰ Through rule development, permitting, enforcement, and monitoring, the Air District regulates PM emissions in the San Francisco Bay Area to comply with the NAAQS. It’s important to note that exposure levels below the NAAQS still cause adverse health impacts; there is no “safe” level of PM exposure.

Despite decades of progress in reducing air pollution, some communities bear a disproportionate burden. These are usually, low-income communities of color which bear additional health burdens due to the health impacts of institutional racism (for example, chronic stress from housing and food insecurity). In the Bay Area, many fugitive dust sources are over-represented in these overburdened communities.

In response to Assembly Bill (AB) 617, the California Air Resources Board (CARB) established the Community Air Protection Program (CAPP).¹¹ The CAPP was created to reduce community exposure to air pollution in communities most impacted. The Air District partners with CARB and local communities to develop, implement strategic plans (also called Community Emissions Reduction Programs, or “CERPs”) and identify funding to support programs that reduce air emissions in these communities. Many communities identified PM as a high priority air pollutant for further reductions.

Because of these health considerations and policy drivers, Air District staff are analyzing additional mechanisms to control and reduce fugitive dust and particulate matter emissions in the Bay Area.

Engagement

Air District staff received input on fugitive dust issues and impacts from various community stakeholders in Bayview Hunters Point (San Francisco), Richmond/San Pablo, and East and West Oakland. Some highlighted operations included large and small aggregate facilities, metal recycling operations, and construction sites. Staff took the opportunity to document community concerns surrounding PM and witness PM-related activity that may impact community health.

In addition, the impacts of PM were a focus during the AB 617 Community Emission Reduction Planning (CERP) Process in West Oakland as well as in the formation of the Richmond-North Richmond-San Pablo CERP, currently in progress. The Bayview Hunters Point and East Oakland CERP processes are presently launching, but staff anticipate fugitive dust to be one of the issues at the forefront of their concerns.

⁸ BAAQMD, 2020 (n 2).

⁹ *Ibid.*

¹⁰ Environmental Protection Agency, n.d. Criteria Air Pollutants. Accessed April 15, 2021: <https://www.epa.gov/criteria-air-pollutants>

¹¹ California Air Resources Board, n.d. Community Air Protection Program. Accessed April 15, 2021: <https://ww2.arb.ca.gov/capp>

Additionally, the West Oakland CERP, *Owning Our Air: The West Oakland Community Action Plan (CAP)*, included a Further Study Measure that states that “The Air District will investigate potential rulemaking to limit fugitive dust from construction activity.”¹²

VI. Existing Landscape

As previously discussed, the purpose of this paper is to identify potential strategies that can strengthen and improve existing Air District programs to further control and reduce fugitive dust PM emissions. The Air District’s Advisory Council “recognized that particulate matter is a major driver of health risks from Bay Area air quality.”¹³ The Advisory Council also recognized “there is no known threshold for harmful PM_{2.5} health effects” and recommended further actions to reduce PM exposure and achieve additional health benefits.¹⁴ Additionally, ongoing engagement with local communities raised concerns surrounding fugitive dust emissions from dust generating sites, including but not limited to, construction operations, stockpiles, and earthmoving operations. The following sections discuss the current impetus and existing landscapes that may affect PM programming, including rules, monitoring, enforcement, and planning activities.

Framework for Regulating and Evaluating PM Impacts

Regional & Local PM Emissions

While a regionally-focused regulatory framework successfully reduced PM exposures across the Bay Area, additional strategies may be needed to control PM emissions, including fugitive dust, at a local level.

PM emissions reduction programs traditionally target achieving regional criteria pollutant reductions where an ambient air quality standard was established.¹⁵ These ambient air quality standards are based on air basins and benefit entire regions. However, the regional approach may not adequately protect subregional and local marginalized communities which historically bear elevated negative environmental conditions and associated health effects. This approach also fails to consider the cumulative impacts of many sources of air pollution, a major concern of community advocates.

Conversely, because diesel PM is listed by the State of California as a TAC, sources of diesel PM emissions are evaluated based on modeled localized exposures and emissions from the most impacted locations which must not exceed specific cancer risk thresholds. The Air District evaluates sources of TAC’s utilizing a health risk screening analysis, which models localized exposures and cancer risk. TAC emissions cannot exceed specific cancer risk thresholds for nearby receptors (residents and workers); failure to do so would result in a rejection of the application for a Permit to Operate.

In December 2021, the Air District’s Board of Directors adopted amendments to Regulation 2, Rule 1: General Requirements (Rule 2-1) and Regulation 2, Rule 5: New Source Review for Toxic Air

¹² BAAQMD, 2019 (n 3).

¹³ BAAQMD, 2020 (n 2).

¹⁴ BAAQMD, 2020 (n 2).

¹⁵ California Air Resources Board, n.d. Criteria Air Pollutants. Accessed May 2, 2021: <https://ww2.arb.ca.gov/our-work/programs/criteria-air-pollutants>

Contaminants (Rule 2-5), which increased community health protections by lowering the cancer risk threshold for TAC emissions, including diesel PM, in Overburdened Communities.

As noted, currently there is not an established framework and methodology to evaluate health risks from localized concentrations of PM. Air District staff is currently studying potential solutions, which may inform future rulemaking efforts to amend the Air District's regulations.

California Environmental Quality Act (CEQA)

Localized and short duration impacts from PM emissions are also considered when evaluating a project's environmental impacts in accordance with CEQA. The Air District publishes the CEQA Air Quality Guidelines (Guidelines) to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the Bay Area. The Guidelines outline thresholds of significance for determining the significance of air quality impacts, screening criteria, assessment, and mitigation of project impacts. The Air District periodically updates the CEQA guidelines and thresholds to reflect changes in the legal and regulatory landscape, as well as advancements in scientific knowledge, analytical methods, and mitigation strategies and technologies.

Existing Air District PM Emissions Reductions Programming

The Air District's existing PM programs are administered through various activities described in more detail below.

Compliance & Enforcement

The Air District administers a comprehensive Compliance & Enforcement Program. Air Quality Inspectors are tasked with verifying pollution-generating sources comply with federal, state, and local regulations, including compliance with Air District-issued Permits to Operate. Inspectors frequently conduct site visits and investigations when fielding complaints and at regular intervals as part of their role in enforcing the regulations at alleged sites or complaint locations.

Due to high wind gusts generally being intermittent in nature, exceedances of current applicable rules and regulations pertaining to fugitive dust can be challenging for Air District inspectors to verify (see also Rules & Regulations section below). Therefore, frequent oversight and follow-up is often necessary to determine non-compliance. Often, collaboration with the public is necessary to appropriately and efficiently respond to ongoing emissions events which can be done through the robust complaint filing and response program.

Fugitive dust emissions at PM-generating sources tend to be heavily influenced by both wind conditions and human activities such as driving over unpaved roadways and/or earth moving activities such as the disturbance or transfer of stockpiles. Additionally, meteorological conditions such as high wind conditions significantly exacerbate fugitive dust. While high wind speeds are generally easily forecasted on a regional scale, they are more difficult to pinpoint at the local scale. A well-designed approach to controlling fugitive dust emissions during high wind speeds is achievable by integrating the proper management framework into the existing regulations, allowing for a more efficient use of Air District time and resources by providing a more streamlined method to determine compliance.

Violations & Settlements

Air District inspectors issue a Notice to Comply (NTC) or a Notice of Violation (NOV) whenever an observed violation is documented. An NTC resembles a ‘fix-it ticket’ and is typically issued when the violation is an administrative violation or when the violation is minor and not related to emissions. NTCs typically can be corrected immediately or within a specified timeframe, typically no more than 14 days. An NOV is issued for violations of a serious nature, which may result in a greater public health threat or for unresolved or reoccurring minor violations. NOV’s are issued when a facility violates a federal, state, or local regulation or when a facility violates the requirements in their Permit to Operate. NOV’s can result in monetary penalties that can vary depending on the severity of the violation.

Rules & Regulations

Regulation 6, Rule 1: General Requirements (Rule 6-1), and Regulation 6, Rule 6: Prohibition of Trackout (Rule 6-6) are the two Air District regulations that address PM emissions from aggregate, concrete, sand, and other earth moving operations (including construction sites).

Both rules were last amended in 2018, as a suite of PM-related rule amendments. The Air District’s Advisory Council and substantial stakeholder engagement subsequently highlighted the need to strengthen and improve these rules to reduce localized PM exposure, especially in overburdened communities.

Regulation 6, Rule 1: General Requirements

Regulation 6, Rule 1: General Requirements set forth the general emissions limitations of PM in “the atmosphere through the establishment of limitations on emission rates, emission concentrations, visible emissions and opacity.”¹⁶ The majority of PM emissions controls for concrete batch plants, aggregate plants, and sand-related operations, collectively defined under Rule 6-1 as ‘regulated bulk material sites’ are controlled under this regulation.

As written, Rule 6-1 may not achieve the desired PM reductions due to several issues with the existing language / requirements and lack of standards that suppress fugitive emissions.

Challenges with existing regulation language:

- **Enforceability**

The existing regulation contains requirements that are difficult to enforce. The burden of proof to issue violations from fugitive dust is tied to opacity and Ringlemann Chart observations which require a minimum of 3 minutes in any hour exceedances. PM emissions and fugitive dust are typically caused by intermittent meteorological conditions such as high winds which do not always exceed the visible emissions evaluation standards.

- **Monitoring/Data**

Community stakeholders have requested additional PM air monitoring, both at the fenceline of facilities with the potential to emit PM or generate fugitive dust, and in the surrounding

¹⁶ BAAQMD, August 2018. *Regulation 6, Rule 1: Particulate Matter General Requirements*. Accessed July 6, 2021: <https://www.baaqmd.gov/~/media/dotgov/files/rules/archive-2018-regulation-6-rule-1/documents/rg0601-pdf.pdf?la=en&rev=57b56e4a39be4995b3d021c8dd7c941c>

community. Currently, the Air District operates a robust network of 17 regulatory-grade PM_{2.5} air monitoring stations around the region in compliance with EPA regulations. This number exceeds what is required by USEPA for characterizing regional PM_{2.5} levels. Given the high cost of the regulatory-grade monitors, it's not feasible to deploy enough to completely characterize local impacts. Therefore, we must also consider other sources of information to inform policy and implementation programs to reduce localized PM emissions impacts.

Challenges with regulation standards:

- **Fugitive Dust**

As written, our current tools for addressing fugitive dust emissions through enforcement is through the use of opacity or Ringlemann Chart observations (see Enforceability above). Due to the intermittent nature of wind events and the intricacies of documenting noncompliance, it is challenging for Air District inspection staff to certify fugitive dust violations. In many other jurisdictions (which will be further outlined below), any fugitive dust observed by an inspector is subject to enforcement action, without adhering to opacity or Ringlemann Chart observations as long as an observable plume crosses a property line.

- **Moisture Content & Stabilization**

The existing rule does not mandate stockpile stabilization requirements, and instead relies on visible emissions evaluations to control fugitive dust. As previously noted, visible emissions evaluations present enforceability difficulties and challenges. Recommendations would include stockpile moisture content or adequately wetted requirements, in addition to mandating dust management plans and other operational modifications during high wind events, or when there is potential for windblown fugitive dust. See 'Recommendations' section for further discussion.

- **Record Keeping / Dust Management Plan**

The current Rule 6-1 has limited record keeping requirements under Section 6-1-502 (as related to regulated bulk material sites), which states "persons monitoring emissions in accordance with the requirements of Regulation 1 shall keep records, report emission excesses and provide summaries of data collected as required by Regulation 1."¹⁷ This monitoring, recordkeeping, and reporting (MRR) requirement does little to reduce emissions – an expansion of this record keeping requirement to a formal Dust Management Plan that requires additional mitigation measures during observed exceedances would likely increase the efficacy of the regulation in reducing PM emissions.

Regulation 6, Rule 6: Prohibition of Trackout

Regulation 6, Rule 6: Prohibition of Trackout was adopted by the Air District Board of Directors on August 1, 2018 and is focused on road dust generated by vehicles moving over unpaved roads (rendering them airborne). Additionally, Rule 6-6 addresses mud, dirt and earth that can be tracked out onto roadways by mobile equipment such as construction equipment.

Although the language and requirements for the prevention and mitigation of track out are clearly described in Rule 6-6, the regulation is extremely difficult to enforce.

¹⁷ *Ibid.*

Section 6-6-301 of Rule 6-6 states the following:

“Prohibition of Trackout onto Paved Roadways: The owner/operator of any Large Bulk Material Site, Large Construction Site, or Large Disturbed Surface Site shall not cause or allow trackout at any active exit from such site onto an adjacent paved public roadway or shoulder of a paved public roadway that exceeds cumulative 25 linear feet and creates fugitive dust visible emissions without cleaning up such trackout within 4 hours of when the owner/operator identifies such excessive trackout; and shall not cause or allow more than 1 quart of trackout to remain on the adjacent paved public roadway or the paved shoulder of the paved public roadway at the end of any workday.”¹⁸

There is an extremely large burden of proof for this requirement, making it not practically enforceable. It is a challenge for Air District inspectors to clearly identify 25 linear feet and collect more than 1 quart of trackout over a 4-hour period. This is especially difficult in communities where dust-generating sources are located next to each other making it challenging to determine the offending operator.

Regulation 2, Rule 1: Permits - General Requirements

The Air District conducts a comprehensive engineering evaluation and generate permitting determinations upon review. During the review, staff ensure facilities are meeting applicable regulations. Regulation 2, Rule 1, outlines the applicable requirements, limits, and standards pertaining to each specific source type or operation.¹⁹ If an evaluation determines that the new or modified source at a facility is subject to a permit to operate it is considered non-exempt.

Non-exempt sources are those that do not meet exemption thresholds for that particular operation or source type and must therefore obtain a Permit to Operate and an Authority to Construct from the Air District, pursuant to Rule 2-1. Examples of such sources include equipment at refineries, concrete batch plants, industrial facilities, backup diesel generators, autobody shops, and gas stations.

If an evaluation determines the new or modified source does not exceed permitting thresholds outlined in Rule 2-1, it is considered *exempt* from permitting requirements. A complete list of applicable exemptions are listed under the Air District’s Rule 2-1-100 section. Examples of potential exemptions include temporary portable equipment and sources which do not exceed the throughput (processing) threshold in any of the Air District’s rules. Another example are construction sites which are currently exempt from permitting per Rule 2-1 Section 113 Subsection 2.18. Although exempt, these sources must still comply with general emissions standards and limits in Rule 2-1. In addition, they remain subject to public nuisance requirements per Rule 1-301 and visible emission standards per Rule 6-1.

CARB NOA ATCM:

¹⁸ BAAQMD. August 1, 2018. *Regulation 6, Rule 6: Prohibition of Trackout*. Accessed July 6, 2021: <https://www.baaqmd.gov/~/media/dotgov/files/rules/archive-2018-regulation-6-rule-6/documents/rg0606-pdf.pdf?la=en>

¹⁹ BAAQMD. December 15, 2021. *Regulation 2, Rule 1: Permits – General Requirements*. Accessed January 20, 2022: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0201-pdf.pdf?la=en&rev=103cc60e706947d3ad1e4f5a090483c1

The Air District was delegated the authority to administer and enforce CARBs [Asbestos Airborne Toxic Control Measure \(ATCM\) for Construction, Grading, Quarrying, and Surface Mining Operations](#). The ATCM is specific to Naturally Occurring Asbestos (NOA) but may provide a framework to augment the existing Air District Regulation 6 suite of PM rules such as the approval of an operator-developed dust control plan. Approved dust control plans must contain specific monitoring procedures, the use of on-site dust suppression technologies and operational parameters to reduce fugitive dust containing NOA. Dust control plans are currently not required under any other Air District rule or regulation, but may be considered for future recommendations. Additionally, this ATCM introduces the adequately wetted requirement and testing method. This requirement is outlined under section 93105 (h)(5)(B):

“If no moisture threshold is specified in a district-approved asbestos dust mitigation plan, a sample of at least one (1) quart in volume shall be taken from the top three (3) inches of a road, or bare area or from the surface of a stockpile. The sample shall be poured out from a height of four (4) feet onto a clean hard surface. The material shall be considered to be adequately wetted if there is no observable dust emitted when the material is dropped.”

VII. Knowledge Assessment of PM Regulatory Landscape

Air District staff conducted an analysis of existing PM emissions related control regulations at other air districts in California, Nevada and Arizona. As noted previously, the Air District’s Regulation 6, Rule 1 and Regulation 6, Rule 6 may be improved with the inclusion of additional emission suppression standards, clarification of rule language to provide greater enforceability, and the inclusion of monitoring plans.

Discussion of Opportunities

Potential opportunities and measures to enhance the Air District’s PM programming are categorized into the following broad categories: process weight limits, fugitive dust, dust control plans, and a gap analysis.

Process weight limits

The Air District’s Rules and Regulations prescribe *Standards*, which specify limitations or requirements that operators must comply with. These standards may specify operating parameters, emissions standards, or other administrative requirements. All operators are required to meet the standards regardless of whether the operator must obtain an Air District Permit to Operate, unless the operator qualifies for an exemption.

Operators or facilities that emit PM emissions are subject to process weight limits as prescribed by Rule 6-1. Process weights are the total weight of all materials introduced into an operation, including solid fuels and process air.”²⁰ The Air District’s process weight limits may be amended to reduce these process weights limits, similar to those in Sacramento Metropolitan Air Quality Management District (SMAQMD) [Rule 404 Particulate Matter](#) and [Rule 405 Dust and Condensed Fumes](#) and Clark County Department of Environment and Sustainability (DES)’s [Section 27 – Particulate Matter from Process Weight Rate](#).

²⁰ BAAQMD, 2018 (n 16).

Fugitive Dust

Fugitive dust is generally defined as particulate matter that is released into the air through mechanical disturbance or high wind speeds. This material can be suspended in the air by direct or indirect human activities. For example, fugitive dust may be generated when paved, unpaved, stabilized or unstabilized surfaces are disturbed and the dust is carried by wind off the property. Air District Rule 6-1 limits fugitive dust from Regulated Bulk Material Sites. Rule 6-6 limits fugitive dust from Trackout.

Although both Rule 6-1 and Rule 6-6 limit fugitive dust, the standards are very narrowly prescribed. In both instances, fugitive dust is prohibited only if the dust exceeds specific opacity or Ringlemann Chart standards, over a specific period of time. For Rule 6-6, the prohibition of fugitive dust is specifically associated with Trackout.

The large burden of proof has limited Air District inspectors' ability to issue violations, and consideration should be given to amending these regulations to streamline and simplify enforcement. Sacramento Metropolitan Air Quality Management District (SMAQMD) [Rule 403 Fugitive Dust](#) limits fugitive dust from "being airborne beyond the property line from what the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation."²¹ The SMAQMD Rule 403 Fugitive Dust also omits any opacity or Ringlemann Chart standard.

Other jurisdictions also require dust generating operations to submit a Dust Control Plan for approval (see following section).

Dust Control Plans

Many jurisdictions, including air districts and cities, require an approved Dust Control Plan (DCP) prior to commencement of any dust generating operations. DCPs are flexible and can be tailored to specific operations as requirements at construction sites may vary from the needs at a concrete batch plant.

Currently, the Air District does not require the submittal and approval of a DCP prior to issuance of a Permit to Operate. However, the Air District administers the Naturally Occurring Asbestos (NOA) Program, which does require Air District approval of an Asbestos Dust Mitigation Plan. The Asbestos Dust Mitigation Plan must address and describe how the operator will mitigate potential emissions from trackout, active storage piles, inactive disturbed surface areas and storage piles, traffic on unpaved on-site roads, earth moving activities, off-site transport of materials, and post-project stabilization of disturbed soil surfaces. In addition, the Air District may also require Asbestos Air Monitoring Plans for certain projects.

Many regulations do not prescribe specific operating parameters or control technologies to implement; the applicant/operator must identify and maintain these components in their DCPs. Dust control plans ensure that the operator is aware of applicable requirements and that they take the appropriate measures to control their emissions through the implementation of identified best management

²¹ SMAQMD. August, 1977. *Rule 403 Fugitive Dust*. Accessed May 15, 2022: <http://www.airquality.org/ProgramCoordination/Documents/rule403.pdf>

practices (BMPs) or best available control measures (BACM). Some of the best management practices that exist for fugitive dust are described *Table 1* below.

Table 1: Best Management Practices for Fugitive Dust Suppression

Emission Suppression Option	Description
Wetting during active and inactive dust-generating activities including unpaved on-site roads	Apply water in sufficient quantities to suppress the generation of dust from onsite activities and unpaved on-site roads
Stabilization of on-site roads	Pave active roadways. Stabilization may also include semi-permanent techniques such as crusting or vegetative stabilization (applying temporary vegetative or seeding)
Moisture content of stockpiles	Maintaining specific moisture content of stockpiles to prevent wind erosion
Property Exit Controls	Install trackout mats, trackout plates, gravel pad and/or tire washers at property exits
Wet Vacuum Trucks	Clean up trackout with wet vacuum trucks on a specific frequency
Fenceline Air Monitoring	Implement a robust air monitoring plan to measure PM emissions exceedances
Covers and Enclosures	Use of covers and/or enclosures over conveyers, stockpiles and on trucks
Clean truck routes	Implement a trucking route that bypasses sensitive communities, or limit the use of local corridors
Signage and Speed Limits	Implement an onsite speed limit and install applicable signage to aid in minimizing fugitive dust emissions
On-site Dust Manager	Identify on-site trained manager responsible for implementation and maintenance of the DCP
Dust Control Training Classes	Operator representatives must successfully complete a Dust Control Training Class
Cease Operations	Cease operations when meteorological conditions warrant and fugitive dust cannot be prevented.

The Air District could consider implementing a future DCP Program. This would tier dust suppression requirements based on the potential to emit (such as size or throughput of operation) and based on past violation history – operators with a history of violating Rules 6-1 and 6-6 would be subject to increasing more restrictive emissions suppression controls.

To enforce a DCP, the Air District would need to develop a program to administer them. Given the increase in required resources, a DCP program would likely need to be supported with fees that would come in the form of registration and/or filing fees. As an alternative, the Air District may also consider incorporating DCPs and/or BACMs into Regulation 6.

The Air District’s existing permitting program extends to most facilities; however, construction sites are currently exempt. Adding requirements for Dust Control Plans or incorporating best management practices directly into the rule could be beneficial.

Gap Analysis

Air District staff completed a gap analysis to review existing regulatory and programming to control PM emissions, which are also discussed above. Specifically, staff reviewed regulations and programming at the following jurisdictions due to their experience with dust suppression:

- California Air Resources Board (CARB)
- Clark County (NV) Department of Environment and Sustainability (DES)
- Imperial County Air Pollution Control District (ICAPCD)
- Maricopa County Air Quality Department (MCAQD)
- Sacramento Metropolitan Air Quality Management District (SMAQMD)
- South Coast Air Quality Management District (SCAQMD)

The tables below **Error! Reference source not found.** summarizes the findings from the gap analysis.

Burden of Proof for Sources of Fugitive Dust Emissions

This category evaluates methods currently used by other jurisdictions in order to reduce the burden of proof among Air District Rules and Regulations by introducing Dust Control Plans and clear requirements for any general sources with the potential to generate fugitive dust emissions.

Table 2: Knowledge Assessment and Opportunities for Burden of Proof for Sources of fugitive dust emissions

Jurisdiction Reference	Rule	Section	BAAQMD Rule Opportunity	BAAQMD Opportunity
SCAQMD	Rule 403 Fugitive Dust	(d)(1)(A)	Rule 6-1, Rule 6-6	BAAQMD fugitive dust violation can be defined as observable dust crossing the property lines
SMAQMD	Rule 403 Fugitive Dust	301		
DES	Section 41 – Fugitive Dust	1.1.1 a)		
ICAPCD	Regulation VIII – Rule 800 Series Fugitive Dust Rules	800: D.3, 801: E.1.c, F.2, F.5, F.6, F.7	Rule 6-1, Rule 6-6	Dust Control Plans, including stabilization, moisture content, operator monitoring, recordkeeping and best available control measures for fugitive dust
SCAQMD	Rule 403 Fugitive Dust, Rule 403.1 Coachella Valley, Rule 403.2 Large Roadway Projects	Implementation handbook Table 1, (e)(2)		
MCAQD	Rule 310 – Fugitive Dust from Dust-Generating Operations, Rule 310.01 – Non-Traditional Sources of Fugitive Dust	305, 401, 402, 403, 503		
SCAQMD	Rule 403.2 Fugitive Dust from Large Projects	(d)(1), (d)(2), (e)(1)-(e)(3)	Rule 6-1, Rule 6-6	Requirements for large roadway or construction projects including notification, signage, speed limits, recordkeeping, dust control supervisor, and best available control measures
MCAQD	Rule 310 – Fugitive Dust from Dust-Generating Operations, Rule 310.01 – Non-Traditional Sources of Fugitive Dust	302		
CARB	Asbestos ATCM for Construction, Grading,	(d)(1)(A)		

	Quarrying, and Surface Mining Operations			
ICAPCD	Regulation VIII – Rule 800 Series Fugitive Dust Rules	800: F.1, Appendix B, 801: F.1, 802: F.1, 803: F.1, 805: F.1, F.3, 806: E.3, E.4, 806: E.3	Rule 6-1, Rule 6-6	Open roadways on property must be stabilized (i.e. gravel, vegetation) or paved at all earth moving operations
MCAQD	Rule 310 – Fugitive Dust from Dust-Generating Operations, Rule 310.01 – Non-Traditional Sources of Fugitive Dust	310: 304, 310.01: 301, 302		
SCAQMD	Rule 403 Fugitive Dust, Rule 403.1 Coachella Valley	Implementation handbook, (d)(2), (d)(3)		
ICAPCD	Regulation VIII – Rule 800 Series Fugitive Dust Rules	800: F.3	Rule 6-1, Rule 6-6	Adequately wetted determinations and test methods
CARB	Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	(d)(1)(B), (2)(B)		
MCAQD	Rule 310.01 – Fugitive Dust from Non-Traditional Sources of Fugitive Dust	305, 306	Rule 6-6	Minimize allowable trackout threshold and compliance determination procedures
CARB	Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	(4)(A)		
ICAPCD	Regulation VIII – Rule 800 Series Fugitive Dust Rules	803, 806		
SCAQMD	Control of Particulate	(d)(1)	Rule 6-1, Rule 6-6	Registration requirements for sites not subject to permitting

	Emissions from Metal Recycling and Shredding Operations			
--	---	--	--	--

Permitted Facility Restrictions

This category evaluates methods currently used by other jurisdictions in order to strengthen PM emissions standards and introduce dust control measures.

Table 3: Knowledge Assessment and Opportunities for Permitted Facility Restrictions

Jurisdiction Reference	Rule	Section	BAAQMD Rule Opportunity	BAAQMD Opportunity
SMAQMD	Rule 404 Particulate Matter, Rule 405 Dust and Condense Fumes	301	Rule 6-1	Reduce PM emissions limit of 0.23 grams per dry standard cubic meter (0.01 grains per dry standard cubic foot)
DES	Section 27 – Particulate Matter from Process Weight Rate	27	Rule 6-1	Reduce PM process weight limits
MCAQD	Rule 310 – Fugitive Dust from Non-Traditional Sources of Fugitive Dust	302	Rule 6-1	Permitting requirements for large dust-generating operations

Monitoring and Data

This category evaluates methods currently used by other jurisdictions in order to perform fenceline monitoring at dust generating facilities, monitor meteorological conditions, and perform adequate recordkeeping.

Table 4: Knowledge Assessment and Opportunities for Monitoring and Data

Jurisdiction Reference	Rule	Section	BAAQMD Rule Opportunity	BAAQMD Opportunity
SCAQMD	Rule 403 Fugitive Dust	(d)(3)	Rule 6-1, Rule 6-6	Dust Control Plans with fenceline monitoring
CARB	Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	(4)(H), (5)(A), (g)		

SCAQMD	Control of Particulate Emissions from Metal Recycling and Shredding Operations	(5), (j)	Rule 6-1, Rule 6-6	Wind speed monitoring, BACM, and recordkeeping
SCAQMD	Rule 403.1 Coachella Valley	(d)(5), (g)		
SCAQMD	Control of Particulate Emissions from Metal Recycling and Shredding Operations	(l)		
CARB	Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	(G)4		
SCAQMD	Rule 403.2 Large Roadway Projects	(e)(2)	Rule 6-1, Rule 6-6	Vehicle speed monitoring, BACM, and recordkeeping
SCAQMD	Control of Particulate Emissions from Metal Recycling and Shredding Operations	(f)(4)		
ICAPCD	Regulation VIII – Rule 800 Series Fugitive Dust Rules	805: F.4.f.1		
MCAQD	Rule 310 – Fugitive Dust from Dust-Generating Operations	302.8, 304.2, 305.2, 305.6, 305.7, 305.12		
CARB	Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	(d)(1)(B)2, (e)(1)(A), (4)(D)1, (B)1		
ICAPCD	Regulation VIII – Rule 800 Series Fugitive Dust Rules	F.5		
MCAQD	Rule 310 – Fugitive Dust from Dust-	502	Rule 6-1, Rule 6-6	Daily self-inspection reports for those subject to dust control plans

	Generating Operations			
CARB	Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	(2)(A), (B), (4)(H)	Rule 6-1, Rule 6-6	Asbestos Dust Control Plans that may include fenceline monitoring and adequately wetted determinations

CARB: California Air Resources Board

DES: Clark County (NV) Department of Environment and Sustainability

ICAPCD: Imperial County Air Pollution Control District

MCAQD: Maricopa County Air Quality Department

SMAQMD: Sacramento Metropolitan Air Quality Management District

SCAQMD: South Coast Air Quality Management District

VIII. Recommendations

Considering community concerns and the Air District Advisory Council's recommendations, this report provides several potential options to reduce fugitive dust PM emissions. It is important to note that staff have not yet extensively evaluated impacts nor the required resources to support the recommended efforts. Any future development and implementation of PM emissions reduction programming should continue with robust community and stakeholder engagement strategies, especially among those most impacted by PM emissions.

Regulation 6, Rule 1: General Requirements

Air District staff should explore opportunities to amend Rule 6-1 with the following:

- 1 Amend the process weight limit to be more health protective;
- 2 Expand fugitive dust property line requirements to all operations with the potential to emit fugitive dust, where a violation is determined once fugitive dust crosses the property line. This would lower the burden of proof for enforcement by eliminating the need to obtain opacity readings in these situations. Such amendments may emulate the SMAQMD, SCAQMD, and DES fugitive dust regulations;
- 3 Add a new standard to require minimum moisture content and stabilization testing of stockpiles and associated administrative requirements. This would require developing a testing methodology and determining feasibility. Alternatively, staff could explore adopting the adequately wetted standard in CARBs ATCM for Construction and Grading Operations;
- 4 Add a new requirement for appropriate control techniques under high wind speed meteorological conditions exceeding 25 miles per hour, similar to SCAQMD Rule 403.1 and Rule 1460; and
- 5 Add requirements for large roadway and construction projects including notification, recordkeeping, applicable standards, and best available control measures.

Regulation 6, Rule 6: Trackout

Air District staff should explore opportunities to amend Rule 6-6 with the following:

- 1 Investigate reducing burden of proof for enforcement for documenting trackout. Currently the burden of proof is 25 linear feet of trackout and more than 1 quart of trackout over 4 hours at the end of the workday. Such amendments may emulate MCAQD, ICAPCD, and CARB rule; and
- 2 Add a new standard to require immediate clean-up of trackout so less road dust is generated over the course of the workday. Such amendments would emulate ICAPCDs rule.

Best Management Practices and Best Available Control Measures

Air District staff should explore the opportunity to incorporate the implementation of best management practices (BMPs) or best available control measures (BACM) directly within both Rules 6-1 and 6-6 as standards. BMPs outlined directly in the rules may further deter potential fugitive dust emissions and make it easier for inspectors and operators to determine compliance and noncompliance. Examples include, but are not limited to: adequate dust suppression measures used before, during, and after any earth moving activities, appropriate water usage to prevent windblown dust, proper trackout control measures at all exits, dust control supervisor onsite at all times, proper record keeping and monitoring, limiting vehicular speeds and traffic, proper post-stabilization measures, etc.

Notice of Requirements

Air District staff should explore generating a “Notice of Requirements” fact sheet to distribute to potential violators. Given the high quantity of businesses, construction projects, and general operations that may not be subject to Air District permitting thresholds or requirements but may still have the potential to generate fugitive dust, it could be advantageous to develop a formal document that would serve as a fact sheet. This fact sheet would include all the general applicable rules and regulations pertaining to fugitive dust and ways to minimize and control fugitive dust emissions to remain in compliance. This document could be distributed by inspectors to any businesses, construction projects, or general operations that receive a complaint or violation. This document would help put potential violators on notice and would also alleviate community concerns regarding potential sources of fugitive dust emissions that may fall below permitting thresholds or requirements.

Dust Control Plans

Air District staff should also explore the opportunity to incorporate regulatory requirements for DCPs as deemed appropriate, such as for large road or construction projects or for a facility that frequently receives violations or complaints. DCPs would include site-specific BMPs or BACMs to follow and would require robust recordkeeping requirements. If deemed necessary, DCPs could also potentially mandate the requirement for fence-line monitoring at upwind and downwind locations with enforceable standards. As DCPs may affect both permitted facilities and those currently falling below permitting thresholds or requirements, this concept would be appropriate as an amendment to Rule 6-1, or as a new rule under the Regulation 6 suite of rules. See the DCP subsection above for details on specific controls (page 13).

Fees

The inclusion of a potential “dust fee” or “plan registration fee” should also be explored so additional compliance and enforcement activities associated with Regulation 6 and/or DCPs may be appropriately resourced.

Permitting

Air District staff should continue researching methodologies to evaluate PM emissions similar to TACs with health risk modeling. Air District staff should continue coordination to ensure this effort may be integrated into other updates to the Air District’s PM Programming. In addition, Air District staff should investigate amending regulations to require an exposure threshold similar to the TAC Cancer Risk thresholds in Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants, if an approved methodology is developed.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Lynda Hopkins and Members
of the Stationary Source and Climate Impacts Committee

From: Philip M. Fine
Executive Officer/APCO

Date: April 12, 2023

Re: Updated 2023 Stationary Source and Climate Impacts Committee Work Plan

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Stationary Source and Climate Impacts Committee (Committee) considers and recommends policies to the Board of Directors relating to stationary sources. The Committee recommends positions to the Board of Directors on stationary source policy issues affecting the implementation of the two State and Federal Air Quality Management Plans and key planning policy issues such as Federal and State Air Quality Management Plan development and air quality and economic modeling.

The Committee also reviews and makes recommendations to the Board of Directors regarding major stationary source programs including: permitting, compliance, small business assistance, toxics, source education, and rule development. The Committee recommends to the Board of Directors positions concerning federal and state regulations that affect stationary sources.

The Committee also recommends policies to the Board of Directors for disbursement of supplemental environmental project grants. The Committee also considers and recommends to the Board of Directors policies and positions of the Air District relating to climate protection activities and funding relative to stationary sources. The Committee also keeps itself informed on actions and proposed actions by local, regional, state, federal, and international agencies and organizations relating to climate protection relative to stationary sources.

DISCUSSION

In March, the Committee discussed a proposed work plan for 2023 and provided staff with feedback. The Committee will review and discuss the updated schedule and workplan for meetings in 2023.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Sonam Shah-Paul
Reviewed by: Greg Nudd

ATTACHMENTS:

1. 2023 SSCI Committee Workplan

Updated 2023 Stationary Source and Climate Impacts Committee Meeting Workplan

Meeting Schedule	Topics
April – May	<p><u>Air District Statutory Authorities</u> Legal will provide an overview of the Air District’s regulatory authority.</p> <p><u>Fugitive Dust White Paper Recommendations</u> PM exposure from fugitive dust is a significant health concern. This paper lays out policy options to reduce dust emissions and exposure. Dust sources were a priority in the West Oakland Community Action Plan.</p> <p><u>Bay Area Healthy Homes Initiative</u> Update on the Air District’s partnerships in Alameda and Contra Costa County for full home retrofits focused on low-income families suffering from asthma.</p> <p><u>Submitting Rules into the State Implementation Plan</u> In preparation for the development of an attainment plan for PM2.5, the Air District should start submitting beneficial rules to EPA for inclusion into the State Implementation Plan so they may be credited toward attaining the standards.</p> <p><u>Discussion on Prescribed Burning in the Bay Area</u> Additional information on the procedures for prescribed burning in the Bay Area.</p>
June – July	<p><u>Rules mid-year review</u> Regular update on upcoming rules, and rulemaking priorities.</p> <p><u>Update on Incident Response Monitoring</u> Update to the Committee on the work with the Ad Hoc committee on incident response monitoring and modeling</p> <p><u>Refinery Community and Fenceline Monitoring</u> Briefing on the status of community and fenceline monitoring in refinery communities. Update on pending legislation and possible impacts on the Air District.</p>

	<p><u>Sources Causing Particulate Matter Exposure (InMAP Results)</u> Report on what sources are causing particulate matter exposure, and by how much, at the regional level and for key communities. Based on a partnership with the University of Washington and UC Berkeley.</p> <p><u>Overview of How the Air District Conducts Socioeconomic Analyses</u> Review of the statutory requirements and approaches for conducting socioeconomic analyses for rulemaking and planned improvements to the process.</p> <p><u>Overview of Permitting Timelines</u> Presentation on current permitting timelines, concerns from the regulated community and potential next steps.</p>
August – No Meeting	
September – October	<p><u>Rule 8-8: Refinery Wastewater</u> Update on rulemaking to reduce emissions from refinery wastewater systems. Part of the AB 617 BARCT schedule.</p> <p><u>Rule 8-18: Refinery Heavy Liquid Leaks</u> Update on rulemaking to reduce emissions from refinery wastewater systems. Part of the AB 617 BARCT schedule.</p> <p><u>Metal Recycling and Shredding Operations</u> White paper on reducing emissions from metal recycling and shredding operations. This is a priority of the West Oakland Community Action Plan.</p>
November – December	<p><u>Priority Control Measures in the Richmond-North Richmond-San Pablo CERP</u> Briefing on the stationary source control measures identified as priorities in the Richmond-North Richmond-San Pablo Community Emissions Reduction Plan.</p> <p><u>Health Impacts of Wood Smoke and Possible Policy Responses</u> Results of an analysis of the geographic concentration of wood smoke, the health and equity impact of that pollution, and a discussion of some possible policy responses by the Air District. Wood smoke was identified as a priority in the West Oakland Action Plan.</p>

Pending:

- Indirect Source Rule (ISR)
 - *Staff is coordinating with the Board of Directors to determine the appropriate Committee to bring forth this agenda item. As needed, this item may be brought before the Board of Directors to refer to the appropriate Committee of the Board.*
- Information on Just Transition
- Rule 11-18
- Rule Implementation

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Lynda Hopkins and Members
of the Stationary Source and Climate Impacts Committee

From: Philip M. Fine
Executive Officer/APCO

Date: April 12, 2023

Re: Update on the Bay Area Healthy Homes Initiative

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

On September 15, 2021, the Air District Board of Directors accepted a grant award of \$1,999,279 from the Automobile Emissions Research and Technology Fund, administered by the California Attorney General’s Office, for the Air District’s proposal titled “Bay Area Healthy Homes Initiative: a program to reduce exposure to transportation emissions in communities overburdened with air pollution and asthma.” The Bay Area Healthy Homes Initiative (BAHHI) seeks to build on and expand the Asthma Mitigation Project pilot effort in Contra Costa County, led by Contra Costa Public Health since 2018 and partially funded by the Air District since August 2020. This pilot was the first effort in the region to integrate health and climate interventions to improve the health outcomes of vulnerable groups. It aimed to combine in-home asthma services with home assessments to determine the most needed retrofits to address asthma triggers and improve energy efficiency for high-risk asthma patients. The BAHHI program expands the work of the pilot project to Contra Costa and Alameda County asthma patients and residents living in these overburdened communities by integrating additional interventions that address the cumulative air pollution burden into the existing model. The awarded funds allow this initiative to continue to build capacity and expand the pilot program significantly. On March 2, 2022, the Air District Board of Directors approved contracts with Contra Costa County Health Services, Association for Energy Affordability, County of Alameda (Asthma Start), and Energy Council (StopWaste) to implement the program. Implementation of the BAHHI program started during the summer of 2022.

DISCUSSION

This presentation will provide an update on the early implementation of the BAHHI program, with a focus on the development of the program infrastructure and early recruitment statistics. Over its two-year grant term, the program will target up to 105 high-risk asthma patients (adults and children) and 750-1,000 residents from areas most impacted by traffic-related air pollution in Contra Costa and Alameda counties. For asthma patients, health interventions include home asthma education, environmental asthma trigger assessment, and the patient's asthma condition evaluation before and after program completion. These interventions are led by the Contra Costa and Alameda county health departments. This initiative supports comprehensive and impactful home retrofits that address existing asthma triggers, energy efficiency, and exposure to outdoor pollution. The Association for Energy Affordability (AEA) is coordinating these retrofits and quantifying resulting indoor air quality improvements in 20 percent of these homes, including nitrogen oxides, carbon monoxide, particulate matter, and greenhouse gas emissions reductions. This data can help demonstrate the multiple benefits and cost-effectiveness associated with these interventions.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Idania Zamora
Reviewed by: Abby Young

ATTACHMENTS:

None

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Lynda Hopkins and Members
of the Stationary Source and Climate Impacts Committee

From: Philip M. Fine
Executive Officer/APCO

Date: April 12, 2023

Re: Greener and Healthier Buildings at Bay Area Disadvantaged Communities by
BlocPower

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Air District is focused on accelerating San Francisco Bay Area’s transition to clean and healthy buildings through local government support, grants, partnerships, and regulation. Since 2018, District staff has been working with the region’s local governments on these efforts.

In December 2021, the Air District secured a \$2 million grant from the Automobile Emissions Research and Technology Fund, administered by the California Attorney General’s Office, to lead the Bay Area Healthy Homes Initiative program. This pilot program aims to improve health outcomes of vulnerable groups by integrating interventions such as building retrofits that address asthma triggers, energy efficiency, and exposure to outdoor pollution. The Air District relies on a strong partnership with county health departments, regional agencies, and local non-profit organizations to implement this program successfully.

In March 2023, the Air District adopted rule amendments to Regulation 9, Rule 4: Nitrogen Oxides from Fan Type Residential Central Furnaces (“Rule 9-4”) and Regulation 9, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters (“Rule 9-6”) to include zero-NOx emission standards for residential space and water heating. One of the significant considerations associated with implementing these rules is the cost of retrofitting the existing housing stock, especially the potential impacts on low-income families. At this time, feasible compliance technologies are electric, carry a price premium and may require electrical system upgrades for some older homes. For this reason, staff has convened the Building Appliance Rules Implementation Working Group (IWG). The IWG is a diverse array of stakeholders to provide thought leadership on addressing technical and financial barriers to equitable appliance electrification.

DISCUSSION

BlocPower is an organization dedicated to making buildings greener, healthier, and smarter for all. Founded in 2014, BlocPower has upgraded approximately 5,000 buildings in over 20 US cities. Mr. Donnel Baird, the Chief Executive Officer of BlocPower, will present on the company's community-centered, integrated, and data-driven approach to greening buildings. He will discuss BlocPower's innovative funding strategies and experience with local workforce development. Mr. Baird will also focus on BlocPower partnerships with East Bay Community Energy and the City of Berkeley on Bay Area projects involving low-income building retrofits. BlocPower is a member of the Air District's Building Appliance Rules IWG.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Idania Zamora
Reviewed by: Abby Young

ATTACHMENTS:

None