

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

ZOOM PLATFORM

MARY D. NICHOLS CAMPUS
SOUTHERN CALIFORNIA HEADQUARTERS
HAAGEN-SMIT AUDITORIUM
4001 IOWA AVENUE
RIVERSIDE, CALIFORNIA

THURSDAY, JUNE 27, 2024

9:03 A.M.

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APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

John Balmes, MD

Hector De La Torre

Dean Florez

Eric Guerra

Davina Hurt

Gideon Kracov

Tania Pacheco-Werner, PhD

V. Manuel Perez

Cliff Rechtschaffen

Susan Shaheen, PhD

Diane Takvorian

STAFF:

Steve Cliff, PhD, Executive Officer

Courtney Smith, Principal Deputy Executive Officer

Edie Chang, Deputy Executive Officer, Planning, Freight & Toxics

Chanell Fletcher, Deputy Executive Officer, Environmental Justice

Annette Hébert, Deputy Executive Officer, Southern California Headquarters & Mobile Source Compliance

Sydney Vergis, PhD, Deputy Executive Officer, Mobile Sources & Incentives

APPEARANCES CONTINUED

STAFF:

Ellen Peter, Chief Counsel

Lori Berard, Air Pollution Specialist, Advanced Emission Control Strategies Section, Mobile Source Control Division (MSCD)

Analisa Bevan, Zero-Emission Infrastructure Specialist

David Chen, Manager, Advanced Emission Control Strategies, MSCD

Rhead Enion, Senior Attorney, Legal Office

Kim Heroy-Rogalski, Branch Chief, Mobile Source Regulatory Development Branch, MSCD

Jack Kitowski, Division Chief, MSCD

Lucina Negrete, Assistant Division Chief, MSCD

Keith Roderick, Air Resources Engineer, Advanced Emission Control Strategies Section MSCD

ALSO PRESENT:

Whitney Amaya, East Yard Communities for Environmental Justice

Sylvia Betancourt, Long Beach Alliance for Children with Asthma

Adam Borchard, California Fresh Fruit Association

Teresa Bui, Pacific Environment

Dori Chandler, Coalition for CLean Air

Omar Cobian, Western States Carpenters

Sean Cocca, TRC

Phil Comstock, Delta Liquid Energy

APPEARANCES CONTINUED

ALSO PRESENT:

Manuel Cunha, Nisei Farmers League

Jacob DeFant, Agricultural Council of California

Evan Edgar, Edgar & Associates

Sean Edgar, Clean Fleets

Steven Fenaroli, California Farm Bureau Federation

Alex Gallard, Blue Star Gas

Alison Hahm, Natural Resources Defense Council

Richard Harkness

Regina Hsu, Earthjustice

Jennifer Ibold, AmeriGas Propane

Roger Isom, California Cotton Ginners and Growers
Association

Julie Johnson, Ted Johnson Propane

Yassi Kavezade, Sierra Club

Bill LaMarr, California Alliance of Small Business
Associations

Julia Lenhardt

Manny Leon, California Alliance for Jobs

Michael Lewis, Construction Industry Air Quality Coalition

Katie Little, California League of Food Producers

Ian MacMillan, South Coast Air Quality Management District

Alessandra Magnasco, California Fuels and Convenience
Alliance

Mike McCarthy, Riverside Neighbors Opposing Warehouses

APPEARANCES CONTINUED

ALSO PRESENT:

Matthew Moravek, McClone Construction Company

Trevor Newquist, Construction Employers' Association

Marven Norman, Center for Community Action and
Environmental Justice

Peter Okurowski, California Council for Environmental and
Economic Balance

David P.

Jeff Price, JS West Propane

Laura Renger, California Electric Transportation Coalition

Melanie Robles, Center for Community Action and
Environmental Justice

Priscilla Rodriguez, Western Agricultural Processors
Association

Mariela Ruacho, American Lung Association

Jim Rushing, EDP

Casandra Russo, AmeriGas Propane

Bob Shepherd, California CAT dealers

Cory Sherlock, Hunt & Sons and Company

Marci Stanage, Rebuild SoCal Partnership

Dean Talley, California Manufacturers and Technology
Association

Ruhama Tereda, NorCal Carpenters Union

Krysta Wanner, Western Propane Gas Association

Sam Wilson, Union of Concerned Scientists

Paul Yanez, Superior Plus Propane

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PROCEEDINGS

1
2 CHAIR RANDOLPH: Good morning. The June 27th,
3 2024 public meeting of the California Air Resources Board
4 will come to order.

5 Board Clerk, will you please call the roll.

6 BOARD CLERK MOORE: Yes. Thank you, Chair.

7 Dr. Balmes?

8 BOARD MEMBER BALMES: Here.

9 BOARD CLERK MOORE: Mr. De La Torre.

10 BOARD MEMBER DE LA TORRE: Here.

11 BOARD CLERK MOORE: Mr. Eisenhut.

12 Senator Florez.

13 BOARD MEMBER FLOREZ: Here.

14 BOARD CLERK MOORE: Assemblymember Garcia.

15 Mr. Guerra.

16 BOARD MEMBER GUERRA: Here.

17 BOARD CLERK GARCIA: Ms. Hurt.

18 BOARD MEMBER HURT: Present.

19 BOARD CLERK MOORE: Mr. Kracov.

20 BOARD MEMBER KRACOV: Here.

21 BOARD CLERK MOORE: Dr. Pacheco-Werner.

22 BOARD MEMBER PACHECO-WERNER: Here.

23 BOARD CLERK MOORE: Mr. Perez.

24 Mr. Rechtschaffen.

25 BOARD MEMBER RECHTSCHAFFEN: Here.

1 BOARD CLERK MOORE: Dr. Shaheen.

2 BOARD MEMBER SHAHEEN: Here.

3 BOARD CLERK MOORE: Senator Stern.

4 Ms. Takvorian.

5 BOARD MEMBER TAKVORIAN: Here.

6 BOARD CLERK MOORE: Supervisor Vargas.

7 Chair Randolph.

8 CHAIR RANDOLPH: Here.

9 BOARD CLERK MOORE: Madam Chair, we have a
10 quorum.

11 CHAIR RANDOLPH: I will begin with our usual
12 housekeeping items.

13 We are conducting today's meeting in person as
14 well as offering remote options for public participation
15 both by phone and in Zoom. Anyone who wishes to testify
16 in person should fill out a request-to-speak card
17 available in the foyer outside the Board room. Please
18 turn it into a Board assistant prior to the commencement
19 of the item. If you are participating remotely, you will
20 raise your hand in Zoom or dial star nine if calling in by
21 phone. The Clerk will provide further details regarding
22 how public participation will work in a moment.

23 For safety reasons, please note the emergency
24 exit to the rear of the auditorium through the lobby. In
25 the event of a fire alarm, we are required to evacuate

1 this room and immediately exit the building through the
2 front entrance. When the all-clear signal is given, we
3 will return to the auditorium and resume the hearing.

4 A closed captioning feature is available for
5 those of you joining us in the Zoom environment. In order
6 to turn on subtitles, please look for a button labeled
7 "CC" at the bottom of the Zoom window as shown in the
8 example on the screen now. I would like to take this
9 opportunity to remind everyone to speak clearly and from a
10 quiet location, whether you are joining us in Zoom or
11 calling in by phone.

12 Interpretation services will be provided today in
13 Spanish for both in-person and Zoom attendees. If you are
14 joining us using Zoom, there is a button labeled
15 "Interpretation" on the Zoom screen. Click on that
16 interpretation button and select Spanish to hear the
17 meeting in Spanish. If you are joining us here in person
18 and would like to listen to the meeting in Spanish, please
19 speak to a Board assistant and they will provide you with
20 further instructions. I want to remind all of our
21 commenters to speak slowly and pause intermittently to
22 allow the interpreters the opportunity to accurately
23 interpret your comments.

24 THE INTERPRETER: Good morning, madam Chair.
25 (Interpreter translated in Spanish).

1 THE INTERPRETER: Back to you. Thank you.

2 CHAIR RANDOLPH: Thank you so much. I will now
3 ask the Boar Clerk to provide more details regarding
4 public participation.

5 BOARD CLERK MOORE: Thank you, Chair Randolph.

6 Good morning, everyone. I will be providing
7 additional information on how participation will be
8 organized in today's meeting.

9 We'll will first be calling on in-person
10 commenters followed by Zoom commenters. If you're joining
11 us remotely and wish to make a verbal comment on one of
12 today's Board items or during open comment period at the
13 end of today's meeting, you must be using Zoom webinar or
14 calling in by telephone. If you are currently watching
15 the webcast on CAL-SPAN, but you wish to comment remotely,
16 please register for the Zoom webinar or call in.
17 Information for both can be found on the public agenda for
18 today's meeting.

19 To make a verbal comment, we will be using the
20 raise-hand feature in Zoom. If you wish to speak on a
21 Board item, please virtually raise your hand as soon as
22 the item has begun to let us know that you wish to speak.
23 To do this, if you are using a computer or tablet, there
24 is a raise-hand button. And if you are calling in on the
25 telephone, dial star nine to raise your hand. Even if you

1 previously indicated you wish to speak on an item when you
2 registered, you must raise your hand at the beginning of
3 the item, so that you can be added to the queue.

4 For anyone giving your verbal comments today in
5 Spanish and require an interpreter's assistance, please
6 indicate so at the beginning of your testimony and our
7 translator will assist you. During your comment, please
8 pause after each sentence to allow for the interpreter to
9 translate your comment into English.

10 When the comment period starts, the order of
11 commenters will be determined by who raises their hand
12 first. We will call each commenter by name and will
13 activate each commenter's audio when it is their turn to
14 speak. For those calling in, we will identify you by the
15 last three digits of your phone number. We will not show
16 a list of remote commenters, however, we will be
17 announcing the next three or so commenters in the queue,
18 so if you are ready to testify and know -- so that you are
19 ready to testify and know who's coming up next. Please
20 note, you will not appear by video during your testimony.

21 I would like to remind everyone to please state
22 your name for the record before you speak. This is
23 especially important for those calling in by phone to
24 testify on an item.

25 We will have a time limit for each commenter and

1 we'll begin the comment period with a two-minute time
2 limit, although this may change at the Chair's discretion.
3 During public testimony, you will see a timer on the
4 screen. For those calling in by phone, we will run the
5 timer and let you know when you have 30 seconds left and
6 when your timer is up. If you require Spanish
7 interpretation for your comment, your time will be
8 doubled.

9 If you wish to submit written comments today,
10 please visit CARB's send-us-your-comments page or look on
11 the public agenda on our webpage for links to send these
12 documents electronically. Written comments will be
13 accepted on each item until the Chair closes the record
14 for that Board item.

15 If you experience any technical difficulties,
16 please call (805)772-2715, so an IT person can assist you.

17 Thank you. I'll turn the microphone back to the
18 Chair.

19 CHAIR RANDOLPH: Thank you very much. Before we
20 begin today's proceedings, I wanted to take a moment to
21 welcome our new Principal Deputy Executive Officer
22 Courtney Smith. In this newly created role, Deputy Smith
23 will work with our Executive Officer and Leadership team
24 to manage CARB operations and programs.

25 Deputy Smith was an Air Pollution Specialist in

1 our Research Division at the beginning of her career in
2 State service. And so we're thrilled to welcome her back
3 to CARB. And most importantly to benefit from the
4 extensive management experience that she has gained over
5 the years in her roles at the California Energy Commission
6 and at the Department of Conservation.

7 So Courtney, we're excited to have you on the
8 team and welcome.

9 (Applause).

10 CHAIR RANDOLPH: I also wanted to note before we
11 move on to our first agenda item that CARB has a history
12 of building partnerships with educational institutions.
13 These relationships allow us to collaborate on projects,
14 pursue learning opportunities for students and staff, and
15 expand the understanding of the science around air quality
16 and climate change. So today, we are thrilled to build on
17 this history of partnership by signing a Memorandum of
18 Understanding with San Bernardino Community College
19 District. And this MOU will focus on the mutual goal of
20 building an educated and skilled workforce. So we will be
21 having a signing ceremony in the courtyard around midday
22 when we break for lunch to sign that MOU and get that
23 partnership going. So looking forward to that.

24 Okay. The first item on our agenda is item
25 number 24-3-1, the proposed South Coast Air Basin

1 Attainment Plan for the 2012 annual PM2.5 standard. If
2 you are here with us in the room and wish to comment on
3 this item, please fill out a request-to-speak card as soon
4 as possible and submit it to a Board assistant. If you
5 are joining us remotely and wish to comment on this item,
6 please click the raise-hand button or dial star nine now.
7 We will first call on in-person commenters followed by any
8 remote commenters when we get to the public comment
9 portion of this item.

10 Today, we will consider adoption of the South
11 Coast Air Basin Attainment Plan for the 12 microgram
12 annual PM2.5 standard. This plan builds on the South
13 Coast's 2022 Air Quality Management Plan for ozone that
14 the Board adopted last year. These reductions are needed
15 to demonstrate attainment in both of these plans come in
16 large part from the significant work and measures that
17 CARB committed to in our 2022 State SIP Strategy.

18 Together with key measures from the South Coast
19 District to reduce emissions at the local level, this plan
20 provides for attainment of the 12 microgram PM2.5 standard
21 as quickly as possible and helps chart the path towards
22 attainment of U.S.'s more stringent 9 microgram PM2.5
23 standard, which was finalized by the EPA earlier this
24 year.

25 Dr. Cliff, would you please introduce the item.

1 EXECUTIVE OFFICER CLIFF: Thank you, Chair
2 Randolph and good morning.

3 Staff is pleased to present -- to bring before
4 the Board today the South Coast Air Basin Attainment Plan
5 for the 2012 annual 2.5 -- PM2.5 standard. In 2015, the
6 South Coast Air Basin was designated non-attainment for
7 the 2012 12 microgram per cubic meter annual PM2.5
8 standard with a classification of moderate. As part of
9 South Coast's AQMD's 2016 Air Quality Management Plan, the
10 district determined that they could not attain by the
11 moderate area deadline and thus requested a serious
12 classification with an attainment deadline of December
13 31st, 2025. The 2016 air quality management plan included
14 the serious SIP element including a demonstration showing
15 attainment by December 31st 2025 based on the air monitors
16 in place at that time. This Board approved the 2016 South
17 Coast Air Quality Management Plan and we submitted it to
18 U.S. EPA in 2017.

19 In 2020, U.S. EPA approved the moderate area
20 elements of the plan and classified the South Coast Air
21 Basin as serious. However, they did not act on the
22 serious elements. The moderate area SIP approval included
23 a serious area SIP submittal deadline of December 31st,
24 2023.

25 CARB and the District determined that the

1 information in the serious area SIP was out of date,
2 including addressing a near-road monitor that had become
3 the high site. Thus, since the SIP was not due yet in
4 2023, CARB and the District withdrew the serious SIP
5 elements from the 2016 plan from U.S. EPA consideration.

6 To address the serious area requirements using
7 the latest data, the District developed the South Coast
8 Air -- South Coast Air Basin Attainment Plan for the 2012
9 annual PM2.5 standard. The plan demonstrates attainment
10 by the extended deadline of 2030 based on reductions from
11 measures in the 2022 State SIP Strategy and reductions
12 from District measures. CARB staff worked closely with
13 District staff throughout plan development and have
14 determined that the plan, together with the CARB staff
15 report, meets all applicable requirements for the 12
16 microgram PM2.5 standard. I will now ask Dr. Scott King
17 of the Air Quality Planning and Science Division to begin
18 the staff presentation.

19 Scott.

20 (Thereupon a slide presentation).

21 AQPSD AIR POLLUTION SPECIALIST KING: Thank you,
22 Dr. Cliff. Good morning, chair Randolph and members of
23 the Board. I would like to present the South Coast Air
24 Basin Attainment Plan for the 2012 annual PM2.5 standard
25 and staff's recommendations for your consideration.

1 [SLIDE CHANGE]

2 AQPSD AIR POLLUTION SPECIALIST KING: Before we
3 get into the details of the 2024 South Coast PM2.5 Plan, I
4 would like to provide some background on the area and the
5 air quality standard being considered. The South Coast
6 Air Basin includes all or part of four counties. It is
7 the nation's second largest urban area and home to over 17
8 million people, accounting for about 40 percent of the
9 state's population.

10 The basin is also home to over 11 million
11 passenger vehicles that, together with the commercial
12 vehicles on the road, travel over 395 million miles per
13 day. Emissions from these vehicles along with those from
14 ships, ports, trainings, railyards, and airports, along
15 with emissions from stationary sources such as refineries
16 and area sources such as cooking and residential fuel
17 combustion all contribute to fine particular matter
18 pollution in the South Coast.

19 [SLIDE CHANGE]

20 AQPSD AIR POLLUTION SPECIALIST KING: So what is
21 fine particulate matter or PM2.5 air pollution?

22 PM2.5 are particles 2.5 microns in diameter or
23 smaller. They are so small they can only be seen with an
24 electric microscope. In comparison, a human hair is about
25 50 to 70 microns in diameter, so these particles are less

1 NOx is emitted primarily from vehicles and
2 combustion engines and ammonia is emitted from animal
3 sources like dairies and waste treatment facilities, but
4 also from vehicles.

5 [SLIDE CHANGE]

6 AQPSD AIR POLLUTION SPECIALIST KING: The Clean
7 Air Act requires EPA to set National Ambient Air Quality
8 Standards -- or Standard for pollution considered harmful
9 to the public health, such as PM2.5. EPA set the first
10 annual PM2.5 standard in 1997 at 15 micrograms per cubic
11 meter. The annual PM2.5 standard is calculated at the
12 three-year average of yearly annual averages.

13 In 2012, EPA strengthened the annual standard to
14 12 micrograms per cubic meter, and recently 2024 lowered
15 it to nine micrograms. Plans for the new microgram
16 standard will be due in few years and CARB is beginning
17 the public process for this new standard. But the
18 standard we are discussing today is the 12 microgram per
19 cubic meter annual PM2.5 standard.

20 [SLIDE CHANGE]

21 AQPSD AIR POLLUTION SPECIALIST KING: PM2.5 has
22 been measured at California air monitoring sites since
23 1999, shortly after the first standard was set by EPA with
24 the first original design values in 2001.

25 As shown here, thanks to control programs by CARB

1 and the South Coast District, annual PM2.5 levels in the
2 South Coast have been decreasing since we began collecting
3 data. As I mentioned previously, EPA set the original
4 annual PM2.5 standard at 15 micrograms seen as the dashed
5 line on the chart. In 2013, the South Coast met the 15
6 annual PM2.5 standard. And in 2012 EPA strengthened the
7 annual standard to 12 micrograms seen as a solid black
8 line.

9 In the next slide, I will discuss the history of
10 planning to meet this standard in the South Coast.

11 [SLIDE CHANGE]

12 AQPSD AIR POLLUTION SPECIALIST KING: U.S. EPA
13 designated the South Coast Air Basin as nonattainment for
14 the 12 microgram standard in 2015 and classified the area
15 as moderate. As part of the 2016 Air Quality Management
16 Plan, the South Coast District developed a State
17 Implementation Plan for the 12 microgram annual PM2.5
18 standard. That plan met the moderate requirements of the
19 Clean Air Act and requested that the South Coast Air Basin
20 be reclassified as a serious nonattainment area. The 2016
21 AQMP also included an attainment demonstration for the
22 serious area deadline of December 31st, 2025.

23 In the years following CARB's submittal of the
24 2016 AQMP several things happened. In 2020, EPA approved
25 the moderate elements of the annual PM2.5 plan from the

1 2016 AQMP and approve the reclassification to serious.
2 EPA also requested a new serious SIP to be submitted by
3 the end of 2023. However, by this time, multiple SIP
4 elements were out of date, including the attainment
5 demonstration since a new near roadway monitor started
6 recording the highest PM2.5 values in the South Coast.

7 Since the SIP was not due yet, CARB and EPA
8 determined that a new plan with updated information was
9 needed and withdrew the serious area elements that were
10 submitted as part of the 2016 AQMP. The District has
11 since developed the plan the Board is considering today,
12 the 2024 South Coast PM2.5 plan.

13 [SLIDE CHANGE]

14 AQPSD AIR POLLUTION SPECIALIST KING: The 2024
15 South Coast PM2.5 plan was developed to meet all serious
16 area requirements for the standard based on the latest air
17 quality and emissions data. The plan included -- includes
18 a request for a five-year extension of the attainment date
19 to 2030 as allowed by the Clean Air Act. The plan was
20 developed through a public process including four regional
21 hearings, two mobile source committee meetings, and two
22 district governing board meetings, and was adopted by the
23 South Coast Board at their June 7th Board meeting.

24 [SLIDE CHANGE]

25 AQPSD AIR POLLUTION SPECIALIST KING: The control

1 strategy to show attainment in 2030 in the 2024 South
2 Coast PM2.5 plan utilizes control measures from the
3 previously adopted CARB 2022 State SIP Strategy, and the
4 District's 2016 and 2022 Air Quality Management Plan. The
5 2022 State SIP Strategy was developed to provide emission
6 reductions in 2037 to help the South Coast and other areas
7 attain the 70 parts per billion ozone standard. While
8 these measures were originally developed to provide
9 reductions in 2037, many of the measures will achieve
10 reductions in 2030 and support attainment of the 12
11 microgram annual PM2.5 standard in the South Coast.

12 [SLIDE CHANGE]

13 AQPSD AIR POLLUTION SPECIALIST KING: On
14 September 22nd, 2022, the Board adopted the 2022 State SIP
15 Strategy where CARB committed to pursue an unprecedented
16 variety of measures to reduce emissions from sources under
17 our authority. Since then, the Board has adopted several
18 rules for this strategy that will provide reductions in
19 2030. These adopted rules listed on this slide include
20 key regulations requiring zero-emission travel for both
21 people and freight, such as Advanced Clean Cars II, the
22 Advanced Clean Fleets Regulation, and the In-Use
23 Locomotive Regulation.

24 The regulations listed here will achieve
25 significant emissions reduction, but it's important to

1 note that some are still waiting for approval of their EPA
2 waivers and authorization as allowed under the Clean Air
3 Act. Prompt action on these waiver requests by EPA is
4 critical to attain the PM2.5 standard in the South Coast.

5 [SLIDE CHANGE]

6 AQPSD AIR POLLUTION SPECIALIST KING: Several
7 measures from the 2022 State SIP Strategy are still
8 scheduled to be considered by the Board. The
9 Zero-Emission Forklift Regulation is being considered by
10 the Board today, and additional measures are scheduled to
11 be considered over the next few years. The measures
12 listed will this slide will provide emission reductions in
13 2030, including the Zero-Emissions Truck Measure, which
14 will require zero emissions for fleets not subject to the
15 Advanced Clean Fleets Regulation.

16 The Transportation Refrigeration Unit part 2
17 measure for non-truck TRUs, as well as a zero-emission
18 standard for space and water heaters. Overall, the 2024
19 South Coast PM2.5 plan relies on CARB's commitment to
20 achieve reductions in 2030 of 9.1 tons per day of NOx, 0.2
21 tons per day of ammonia, and 0.5 tons per day of Direct PM
22 from the measures listed on this slide.

23 [SLIDE CHANGE]

24 AQPSD AIR POLLUTION SPECIALIST KING: The plan
25 also includes measures from the District that will achieve

1 emission reductions in 2030. These measures are carried
2 over from their 2016 and 2022 Air Quality Management Plan.
3 Altogether, the District includes commitments in this plan
4 for over 30 measures from their AQMPs. This slide shows
5 specific stationary and area-wide measures, for which they
6 have quantified emission reductions for inclusion in the
7 2030 attainment demonstration.

8 [SLIDE CHANGE]

9 AQPSD AIR POLLUTION SPECIALIST KING: And since
10 the District is requesting a five-year extension of the
11 attainment date from 2025 to 2030, they are also required
12 to demonstrate that the rules meet a Most Stringent
13 Measures, or MSM, requirement of the -- in the Clean Air
14 Act. MSM requires that the districts measures and rules
15 are the most stringent of any implemented in California or
16 any other state. As a result of the analysis of the rules
17 in this plan, the District identified four measures where
18 they are going to update rules for increased stringency.

19 These are: lowering their threshold and removing
20 an exemption for no burn days for residential wood burning
21 devices; lowering the threshold needed for control devices
22 on chain driven charbroilers in restaurants; lowering the
23 permitting threshold for confined animal facilities; and
24 adding a composting requirement prior to land application
25 of green waste.

1 [SLIDE CHANGE]

2 AQPSD AIR POLLUTION SPECIALIST KING: As shown in
3 this slide, between existing rules and new CARB and
4 district measures, emissions of NOx in the South Coast Air
5 Basin are expected to decrease by 54 percent between the
6 base year for this plan 2018 and the 2030 attainment year
7 as seen on the bar chart to the left and directly emitted
8 PM2.5 emissions are expected to decrease by six percent.

9 In addressing both directly emitted and secondary
10 PM2.5, these emission reductions provide for attainment of
11 the 12 microgram PM2.5 standard in the South Coast in
12 2030.

13 [SLIDE CHANGE]

14 AQPSD AIR POLLUTION SPECIALIST KING: Based on
15 the reductions from the CARB and district measures,
16 modeling demonstrates that all air monitors in the South
17 Coast will meet the standard by 2030. This bar chart
18 shows the measured and modeled PM2.5 concentrations for
19 each of the regulatory PM2.5 monitors in the South Coast.
20 For each monitor, the left most bar represents the 2018
21 base year design value at the monitor. The middle bar
22 represents the baseline 2030 design value, if no new
23 measures are implemented. And the right most bar shows
24 the projected design value in 2030 at that monitor with
25 the benefits of the proposed control strategy.

1 This chart shows that all regulatory monitors in
2 the South Coast are expected to meet the 12 microgram
3 PM2.5 annual standard in 2030, including the monitor with
4 the highest current PM2.5 concentrations, the Ontario near
5 roadway monitor, and the Mira Loma monitor, the
6 traditional high monitor in the South Coast.

7 [SLIDE CHANGE]

8 AQPSD AIR POLLUTION SPECIALIST KING: Attainment
9 of the 9 microgram PM2.5 standard, as well as multiple
10 ozone standards in the South Coast is not possible without
11 federal action to address emission sources under their
12 jurisdiction. While NOx emissions from mobile sources
13 primarily regulated by the State decrease by over 70
14 percent between 2018 and 2030, NOx emissions from mobile
15 sources primarily regulated at the federal and
16 international level will actually increase by over 15
17 percent in that same time period.

18 For decades, CARB and the District have
19 petitioned EPA to take more aggressive action to achieve
20 emission reductions from federally and internationally
21 regulated sources in the South Coast and across
22 California. Recent efforts by CARB and the District have
23 renewed the call for EPA action. EPA must take the
24 actions that are solely within their authority to support
25 emission reductions and clean the air in California

1 communities that need it most starting with approval of
2 CARB's pending waivers and authorizations, in addition to
3 setting more stringent emission standards for sources
4 under EPAs authority, and also providing the resources to
5 direct the cleanest existing ships, trains, and planes to
6 the South Coast.

7 [SLIDE CHANGE]

8 AQPSD AIR POLLUTION SPECIALIST KING: And while
9 SIPs are planning documents required to reduce pollution
10 at a regional area, it's important to highlight that
11 control measures in this plan from CARB and the District
12 will reduce emissions in many communities that are
13 overburdened by emissions from freight sources, including
14 trucks and warehouses, and trains and railyards. The 2024
15 PM2.5 plan will provide particulate matter air quality and
16 provide for attainment across the basin. And as you can
17 see here, it will also provide benefits in the South Coast
18 AB 617 communities. This slide demonstrates that many of
19 the AB 617 communities in the South Coast will see annual
20 PM2.5 concentrations well below the 12 microgram annual
21 PM2.5 standard and constantly lower than the basin-wide
22 average concentration represented by the bars to the right
23 side of the chart.

24 [SLIDE CHANGE]

25 AQPSD AIR POLLUTION SPECIALIST KING: CARB staff

1 has reviewed the 2024 South Coast PM2.5 plan and concluded
2 that it meets all applicable Clean Air Act requirements.
3 The SIP being considered by the Board today includes the
4 required emissions inventory assessment of best available
5 control measures attainment demonstration, as well as the
6 demonstration of the required annual progress reducing
7 emissions and the related motor vehicle emissions budgets,
8 contingency measures, and the requirements of the most
9 stringent measures for the serious area deadline
10 extension. During our 30-day comment period, CARB
11 received to comments into the docket, but they were not
12 specific to this plan going before the Board.

13 [SLIDE CHANGE]

14 AQPSD AIR POLLUTION SPECIALIST KING: With all
15 this in mind, CARB recommends that: the Board adopt the
16 State commitment to achieve aggregate emission reductions
17 of 9.1 tons per day NOx, 0.2 tons per day of ammonia, and
18 0.5 tons per day of direct PM2.5 in 2030 and the motor
19 vehicle emission budgets in the CARB staff report; adopt
20 the 2024 South Coast PM2.5 plan; and, direct staff to
21 submit the 2024 South Coast PM2.5 plan and the CARB staff
22 report to EPA as a revision to the California SIP.

23 [SLIDE CHANGE]

24 AQPSD AIR POLLUTION SPECIALIST KING: Thank you
25 for your attention. And now I would like to invite Ian

1 MacMillan, the South Coast Air Quality Management
2 District's Assistant Deputy Executive Officer for
3 Planning, Rule Development, and Implementation to provide
4 comments from the District.

5 Ian.

6 IAN MACMILLAN: Great. Thank you very much.

7 Good morning, Chair Randolph, Board members
8 Kracov, Perez, and the rest of the Board. Thank you very
9 much for having me today. I'll try to keep my remarks
10 very brief here.

11 We strongly support, of course, CARB's adoption
12 of the South Coast plan for the 2012 annual PM2.5
13 standard. Despite great strides in cleaning the area over
14 the past several decades collectively, our region has
15 among the highest levels of fine particulate matter
16 pollution in the nation. Implementation of this plan is
17 expected to avoid approximately 665 premature deaths and
18 provide \$9 billion in monetized public health benefits in
19 2030. In addition, measures associated with this plan
20 will help reduce air pollution in environmental justice
21 communities, which typically they, of course, experience
22 higher levels of PM2.5.

23 The plan before you today requires accelerated
24 implementation of control measures from our 2022 Air
25 Quality Management Plan, the 2022 State SIP Strategy, as

1 well as limited additional emission reduction measures.
2 With these emission reductions, we do expect to meet the
3 2012 standard by 2030. We also know that these measures
4 from all of these aforementioned plans are needed to
5 comprehensively address the poor air quality that our
6 region experiences. This will require substantial
7 emission reductions from all sources, including driving
8 toward zero emissions whenever and wherever feasible.

9 As an example, in June, our Board adopted a
10 first-in-the-nation rule for zero-emission water heaters
11 and pool heaters. We are also working hard on
12 facility-based measures, such as implementing our recently
13 adopted Warehouse Rule and we are, of course, very
14 actively working on efforts to address emissions from
15 marine ports.

16 I'm encouraged also by CARB's similar
17 forward-looking efforts using its authority on mobile
18 sources, such as the helpful action you are considering
19 later today on zero-emission forklifts. This is another
20 critical rule that we are relying on to help meet air
21 quality standards in our region and to help communities
22 around facilities that use this equipment. It's important
23 to note the PM Plan before you right now relies
24 specifically on that forklift measure among many other
25 measures to achieve air quality standards.

1 Finally, I want to thank CARB staff for your
2 invaluable assistance. We talk all the time and we have a
3 strong partnership and I look forward to that continued
4 collaboration.

5 Thank you.

6 AQPSD AIR POLLUTION SPECIALIST KING: Thanks,
7 Ian. Chair Randolph, back to you.

8 CHAIR RANDOLPH: Thank very much. Okay. We will
9 now hear from the public who signed up to speak on this
10 item, either by submitting a request-to-speak card or
11 raised hand in Zoom. I will ask the Board members to
12 begin calling the public commenters for this South Coast
13 SIP item.

14 BOARD CLERK MOORE: Thank you. As you mentioned
15 earlier, I'll call on in-person commenters first and then
16 we'll hear from those who have raised their hand in Zoom.
17 We have four commenters in person who have turned in a
18 request-to-speak card at this time for the first item.

19 Our first commenter is Dori Chandler.

20 DORI CHANDLER: Good morning, Board members. I
21 get a fresh mic. My name is Dori Chandler. I'm a policy
22 advocate with the Coalition for Clean Air. We recognize
23 and appreciate the hard work of the South Coast Air
24 Quality Management District and the California Air
25 Resources Board to reduce air pollution in the South Coast

1 Air Basin.

2 Being on the path to meeting the PM2.5 standard
3 is a significant milestone for air quality and public
4 health. Still much more work remains. Current
5 projections suggest that the portions of the South Coast
6 Air Basin will just barely meet the National Ambient Air
7 Quality Standards. Any lower than projected reductions or
8 missed opportunities for emissions reductions could result
9 in these communities exceeding the federal limits.

10 Additionally, as indicated in the staff report,
11 emissions from federally regulated sources are expected to
12 increase rather than decrease. Both CARB and South Coast
13 AQMD must continue to monitor these emission sources to
14 ensure that they do not put us in nonattainment in the
15 future. CARB must pass the zero emissions by 2040 Ocean
16 Going Vessels in Transit Rule and South Coast AQMD must
17 also expeditiously pass its Rail and Ports Indirect Source
18 Rules to counter the increased emissions from federally
19 and internationally regulated sources.

20 Both CARB and AQMD must also continue to make
21 progress in reducing NAAQS emissions. The South Coast Air
22 Quality Management District is not on track to meeting
23 attainment of NOx, which is both a harmful pollutant on
24 its own and is a precursor to both smog as well as PM2.5.

25 Lastly, both CARB and South Coast AQMD must also

1 maximize reductions in low-income and disadvantaged
2 communities. Even though these communities are expected
3 to meet air quality standards as well, they are still
4 projected to have higher concentrations of pollutants than
5 other areas within the basin.

6 Again, we recognize to meet -- that meeting air
7 quality standards is not an easy feat for Southern
8 California, but it goes to show that California can reduce
9 pollution without destroying the economy and our way of
10 life.

11 Thank you.

12 BOARD CLERK MOORE: Thank you.

13 Our next commenter is Melanie Robles.

14 MELANIE ROBLES: Good afternoon. My name is
15 Melanie Robles and I grew up in the Inland Empire my
16 entire life. I was born in Moreno Valley grew up in
17 Rialto.

18 So this item is close to my heart. I am a
19 community member here concerned and part of the Center for
20 Community Action and Environmental Justice. I'm here to
21 provide input on the AQMD attainment plan. After
22 reviewing the plan, I would like to say that I am in favor
23 of the plan and I would like to see and encourage all of
24 you to support this plan. We live and breathe in the air
25 with the highest PM2.5 levels in the country and the

1 effects are clear.

2 When I was in elementary school, I couldn't go
3 out to recess some days because of how bad the air quality
4 pollution is, so these numbers affect people. And my
5 sister she still has to go to the hospital nearly every
6 month because of how bad the air quality is and how bad
7 her asthma is.

8 So reviewing this forward, this plan is critical
9 to reduce PM2.5 levels, but I do not want to see this
10 deadline pushed any further. This was supposed to be met
11 in 2021 and has now been pushed to 2030, but our lungs
12 don't wait, our health doesn't wait. We really need this.
13 And as a community member, I deeply push for this to
14 happen, but for further impactful action to be happened,
15 not just promises.

16 I would also like to support the Zero-Emission
17 Forklift Regulation, since they will decrease occupational
18 exposure. As a zero-emission regulation, it will help
19 support our forklift operators to make sure that they
20 don't -- they get to go home everyday to their loved ones.

21 Thank you so much for your consideration.

22 BOARD CLERK MOORE: Thank you.

23 Our last comment -- or our last two commenters
24 are Marven Norman and Mike McCarthy. Marven.

25 MARVEN NORMAN: Good morning, Chair, members of

1 the Board and members of the public. Marven Norman, a San
2 Bernardino resident and member -- or of CCAEJ.

3 I'm here as well to support the rule. We --
4 obviously, we wish you -- it could have been met in time
5 for the standard, but it's too good to see that as being we
6 have a rule. And given that we have delay, going back to
7 try to make it stronger is only going to lead to more
8 delay. And we, as Melanie just said, our lungs can't
9 wait. We need this done yesterday. And so it's good to
10 see that this is moving forward. As Mr. MacMillan said a
11 few minutes ago, there are other rules that are -- that
12 the A -- that AQMD is working on as well that will help
13 bring them on that are critical. And we hope that when
14 they come to you guys, it will also get approved
15 expeditiously, so that we could continue to making
16 progress and cleaning up our air.

17 Thank you.

18 BOARD CLERK MOORE: Thank you.

19 Mike McCarthy.

20 MIKE MCCARTHY: Good morning. Mike McCarthy,
21 Riverside Neighbors Opposing Warehouses. I'm also an
22 Adjunct Professor of Environmental Analysis at Pitzer
23 College and a member of the Redford Conservancy.

24 I'm neutral on this measure. I appreciate that
25 you can't make it. And I'm only commenting here because I

1 heard something from staff that canard that keeps getting
2 passed along that says that we can't meet the standards
3 unless the EPA does stuff. And that's not true. There's
4 two knobs for meeting the standards. There's the
5 emissions -- tailpipe emissions basically in this
6 particular case. And ARB, and EPA, and South Coast are
7 doing everything they can to reduce the amount of stuff
8 coming out. And you guys are doing a good job and I
9 appreciate that.

10 But there's the second component, which is the
11 emissions activity. I'm part of a warehouse --
12 anti-warehouse coalition. Warehouses are going up four
13 times the rate of population, which has increased in the
14 trucks, the forklifts, the freight, the planes.
15 Everything associated with freight is going up and that's
16 happening faster than the population, and that's
17 controlled by SCAG, RTP, SCS. Those plans are the second
18 knob, right? So there's one knob, stop what's coming out.
19 There's how much you have open and we're turning that knob
20 up. We're turning that knob up faster. And so if we turn
21 that knob down, if we actually had emissions demand
22 control measures, we could meet these standards faster,
23 but there's nothing happening on that.

24 And so I'd like CARB and AQMD to please do more
25 about that leadership of making our local politicians

1 actually stop undermining our air quality plans, because
2 they are undermining or air quality plans by increasing
3 the amount of activity in our area. And that's hurting
4 the Inland Empire and that's why we're not meeting our
5 attainment standards over this period. So thank you for
6 all that you do. You're controlling all you can control,
7 but there are other people who are undermining everything
8 you are doing and they are hurting us and you are not
9 leading and telling them they need to stop.

10 Thank you for your time.

11 BOARD CLERK MOORE: Thank you.

12 We have currently three commenters in Zoom. Our
13 first commenter is Teresa Bui. Teresa, I have activated
14 your microphone. You may unmute and begin.

15 TERESA BUI: Great. Thank you so much. Good
16 morning everyone. My name is Teresa Bui with the
17 environmental group Pacific Environment. Thanks for the
18 staff presentation and all the hard work from the South
19 Coast AQMD team. I want to echo the comments made earlier
20 by Dori Chandler.

21 In California, ship emissions are the top
22 cancer-causing emission at the Port of Long Beach and Los
23 Angeles. And LA and Long Beach port-adjacent res
24 communities such as West Long Beach and Wilmington are
25 already experienced up to eight-year lower life expectancy

1 than the Los Angeles average. And according to City of
2 Los Angeles -- Long Beach Department of Health, Black Long
3 Beach residents are hospitalized with asthma at eight
4 times the rate of white residents at Latinx residents at
5 twice the rate of white residents who live further from
6 the port.

7 And so today, we are supporting the staff
8 recommendation, but calling on CARB to do more on
9 ocean-going vessel, and creating an in-transit rule, and
10 setting zero-emission standard by 2040, and for the South
11 Coast AQMD to pass a strong marine port ISR. We're -- we
12 are witnessing a fast evolving technological shift to zero
13 emission from the maritime sector. Just this week,
14 Crowley and others christened the first fully electric
15 tugboat in the U.S. at the Port of San Diego. And next
16 month, we're expecting the first hydrogen fuel cell ferry
17 in America to launch at the Port of San Francisco.

18 This is in thanks to CARB's vision and leadership
19 in passing the Harbor Craft Rule. And so now we need CARB
20 to tackle ocean-going vessels in transit. Port
21 communities are paying the price and we need to tackle the
22 largest source of pollution at the ports. So we urge you
23 to consider passing -- in the future, passing a
24 zero-emission standard for ocean-going vessels.

25 Thank you so much.

1 BOARD CLERK MOORE: Thank you.

2 Our next commenter Carmen Gonzalez. I have
3 activated your microphone. Please unmute and you may
4 begin.

5 Carmen Gonzalez.

6 We'll come back to Carmen.

7 Our next commenter is Julia Lenhardt. Please
8 unmute and you may begin.

9 JULIA LENHARDT: Hello. Good morning, Board
10 members. Thank you for the opportunity to speak this
11 morning. I'm Julia Lenhardt an environmental and climate
12 scientist from UC Irvine and a mother of two very young
13 children in the Inland Empire.

14 I'm speaking as a mother and a community member
15 in a region that is disproportionately impacted by PM2.5
16 pollution. I support this plan to reduce PM2.5 levels in
17 this region, and, of course, all the work that you all do,
18 but I'm disappointed by the five-year extension. Learning
19 of the upcoming standards of 9 micrograms per cubic meter
20 makes it pretty clear that the health impacts of prolonged
21 exposure are dire. And keep in mind that parents in this
22 area are not only battling exposure to this particular
23 type of pollution.

24 In this country, we're expected to be constantly
25 vigilant about all the possible chemical harms that impact

1 our children's health, whether it's the air they breathe,
2 the food they eat, the water they drink, or even the
3 clothes they wear, and the toys they play with. Polluting
4 industries are somehow exempt from their responsibility to
5 protect our children and communities. Instead, parents
6 have to constantly check regional air quality and make
7 decisions about how long our children should spend time
8 outside. And that's only if we have the luxury of making
9 those kind of decisions.

10 So help us keep our kids, our elderly, our
11 at-risk community members safer and please stop extending
12 this deadline. If we don't make adequate progress by
13 2029, I fear that there would be another five-year
14 extension, and we need to act now. Thank you very much.

15 BOARD CLERK MOORE: Thank you.

16 We'll go back to Carmen Gonzalez. I have
17 activated your microphone. Please unmute and you may
18 begin.

19 Carmen Gonzalez.

20 Okay. Actually, we have one more commenter. We
21 have Paul Yanez who just signed up -- or just raised his
22 hand. Paul Yanez, please unmute and you may begin.

23 PAUL YANEZ: This is Paul Yanez from Bakersfield.
24 It's more of a question. If you want to do away with
25 combustible engines, what's the plan to deal with rolling

1 blackouts being that solar isn't enough to keep up with
2 the demand? So that's just my -- it's just a question I
3 have.

4 BOARD CLERK MOORE: Okay. Thank you.

5 We're going to go back to Carmen one more time.
6 I have activated your microphone. Please unmute and you
7 may begin.

8 Okay. It looks like we're going to -- we're
9 having trouble with Carmen, so...

10 CHAIR RANDOLPH: Okay. Thank you.

11 BOARD CLERK MOORE: Thank you.

12 CHAIR RANDOLPH: Staff, are there any issues
13 raised in the comments that you want to address?

14 EXECUTIVE OFFICER CLIFF: No, Chair. Thank you.

15 CHAIR RANDOLPH: Okay. I will now close the
16 record on this agenda item and bring it to the Board for
17 discussion. I just want to note that because of the
18 microphone system here in this hearing room, we can't have
19 more than a few microphones open at a time. Otherwise,
20 we'll get feedback. So please only turn on your mic when
21 you're ready to speak and then turn it off when you're
22 done speaking.

23 So, Board Members, questions, comments, thoughts.

24 Board member Kracov.

25 BOARD MEMBER KRACOV: Thank you, Chair. Thank

1 you, Scott, and thank you Ian, and to all staff from both
2 agencies for this, the District and CARB. We have a
3 pretty good story, Chair, to tell on PM2.5 in the South
4 Coast. The slides show the tremendous progress that we're
5 making, due to the very stringent stationary source
6 measures adopted at the District, and all of the
7 world-leading mobile source measures that we do here at
8 CARB, particularly in light-duty and the goods movement
9 sectors, measures like the Forklift Rule that we're
10 considering today. I'm very proud of the work that we've
11 all done together colleagues, Supervisor Perez also at the
12 South Coast and in Coachella Valley. And I want to thank
13 the public, the interested Parties, for making this good
14 story happen. And Ian even touched on the public health
15 and economic benefits of our work.

16 Now, the 9 microgram standard, the new standard
17 for PM2.5, that's going to be a significant challenge. We
18 have a few years I believe to prepare that plan and I
19 think into the 2030s to reach attainment. But of course,
20 you know, in the South Coast, NOx and ozone, you know,
21 that's the biggest attainment challenge that we face in
22 the South Coast. Let's keep working together closely on
23 that. And I want to thank the Chair and Dr. Cliff for the
24 terrific partnership between CARB and the District on the
25 SIP work, on the ozone work that Ian touched on.

1 We still have a lot of work to do, both here,
2 that's on slide 11, on the goods movement sources, like,
3 TRUs and cargo handling equipment - looking forward to
4 that work - and at the District with the push for zero
5 emissions in stationary sources, and that's on slide 12.
6 And we'll be keeping an eye on those monitors in Mira Loma
7 and Ontario. And for all of this, we definitely need more
8 help from our federal partners as was touched on.

9 So just to sum up, I'm supportive of this item,
10 Chair, and feeling confident about the 2030 attainment
11 date for this standard. We had broad consensus among the
12 Board members and the interested parties when this issue
13 came before the District Board, and I want to thank you
14 for considering our plan today.

15 CHAIR RANDOLPH: All right. Thank you.

16 Supervisor Perez.

17 BOARD MEMBER PEREZ: Thank you, Madam Chair and
18 colleagues, and colleague Kracov for your comments
19 regarding South Coast Air Quality Management District. I
20 echo the same sentiment as well. I just want to say thank
21 you to staff for getting us to this point. Obviously,
22 it's a lot of work, but we've got to get there and for
23 obvious reasons that were mentioned earlier by community
24 members that spoke up.

25 I do have a question though, and maybe you can

1 help me understand this a little more, because I noticed
2 that you had three graphs and not one of those graphs, the
3 Coachella Valley region, was demonstrated. It said
4 Riverside. But in every single one of those graphs, there
5 was nothing for pertaining to the valley. And I'm
6 wondering is that because it's connected to Riverside or
7 is that a whole other measurement that's taking place by
8 another entity? I'm not exactly sure. I'm not
9 understanding that part, because it's also, my
10 understanding, in serious nonattainment because it's
11 connected to the west -- the rest of the AQMD. So can you
12 help me understand that?

13 AQPSD CHIEF BENJAMIN: Yes, Mr. Perez. This is
14 Michael Benjamin, Chief of the Air Quality Planning and
15 Science Division at CARB.

16 Coachella is a different nonattainment area.
17 And, in fact, it's in attainment with this standard, this
18 PM2.5 standard, so it's a good news story. And you are
19 right that Coachella is impacted primarily by transport
20 from the South Coast Air Basin.

21 BOARD MEMBER PEREZ: That's correct.

22 AQPSD CHIEF BENJAMIN: So all of the emission
23 reduction strategies that are pursued in South Coast have
24 benefit for downwind areas like Coachella.

25 BOARD MEMBER PEREZ: So that's a great point and

1 I think that message needs to be said, because folks are
2 confused. And, you know, the stories that I hear back
3 home are basically the stories that we hear -- that we're
4 hearing now, which is we are nonattainment. They -- you
5 know, we're being lumped in with everyone else. However,
6 I think it's important that we deliver the message of the
7 fact that things are a little better over there. And I'd
8 like to work with you on ensuring that that message is
9 delivered to our community members in the Coachella
10 Valley, because we actually -- we also do have a 617
11 community out there and I don't think those folks
12 understand this, you know.

13 And we have folks in the North Shore Mecca area
14 that complain about and concerned about nose bleeds,
15 higher rates of asthma, obviously connected to climate
16 change, connected to everything we're talking about here
17 today this morning, but potentially from a different -- we
18 need to explain what that means. And it may be entirely
19 totally different. And that's okay. But I think people
20 are not understanding all that.

21 And so at the end of the day, I do support this
22 effort. Thank you so much. I just wanted to make sure we
23 clarified that. And I think we've got to deliver that
24 message and we haven't done so yet. Everything that is
25 reported out in the Coachella Valley is very negative. So

1 I think it's important that we stick to helping folks
2 understand that we are in a better situation.

3 However, you mentioned it as well, the fact is
4 that eventually it could come our way, because of the
5 mobile sources, because of the goods movement, and folks
6 are looking at the Coachella Valley already. So we have
7 to ensure that ultimately we do not become an area like we
8 do have in the LA, or the Orange County, or San
9 Bernardino, or Riverside. Obviously, we want to work with
10 together with them in solidarity, but we do not want to be
11 there eventually in the future.

12 Thank you.

13 CHAIR RANDOLPH: Thank you.

14 Board Member De La Torre.

15 BOARD MEMBER DE LA TORRE: Thank you, Chair. I'm
16 supportive of this. Obviously, we want to be in
17 compliance. And I appreciate the work of staff here and
18 at South Coast to put this plan together. I know there
19 are other SIPs out there that are more problematic than
20 this one, so it's good to take care of one.

21 But I also want to call out the source of PM2.5,
22 and one of the biggest sources, if not the biggest, is the
23 port complex in Southern California, the ports of LA and
24 Long Beach. And specifically, the Port of LA, in their
25 recent ruling on the China Shipping case, of which the

1 Port of LA and China Shipping were called out, it really
2 got my attention that in the judge's ruling he spoke about
3 China Shipping and the Port of Los Angeles. So I'm going
4 to quote from that ruling.

5 "The record before this court establishes beyond
6 any doubt that the only unusual circumstances present here
7 are the Port's repeated failures over many years to adopt
8 a negotiating position with China Shipping, which places
9 compliance with California environmental law and the
10 health of harbor workers and residents ahead of...", and
11 in parentheses, "... (or at least on equal footing with)
12 its desire to appease its largest tenant. Finally, it
13 appears to the court that the Port's own Executive
14 Director new full well in 2020 that the SEIR was destined
15 to be struck down by the courts and welcomed this result,
16 because it would strengthen the Port's hand with China
17 Shipping."

18 These kinds of games, disingenuous actions on the
19 part of the ports do not help us to get to attainment and
20 it is something that we have to call out. A judge just
21 did. And so we need more from the two ports in Southern
22 California, if we're going to meet all of our obligations.

23 Thank you.

24 CHAIR RANDOLPH: Okay. Thank you.

25 Any other questions or comments?

1 Board Member Takvorian.

2 BOARD MEMBER TAKVORIAN: Thank you. Thanks so
3 much. I just wanted to thank the staff, and the District,
4 and the community for the tireless work that you've done
5 and for the understanding that this is -- some of this is
6 intractable and the progress is considerable, but there's
7 so much more to do. So it was good to see hear that.

8 I also want to say that the -- that what was
9 pointed out is this intersection of transportation and
10 land use decisions is really critical. And I know that we
11 have recognized that in a variety of ways here at CARB. I
12 know the District has recognized that. It's limited by
13 local authority, but we really need to do more. And I
14 would say that we do have the opportunity with our
15 meetings with the California Transportation Commission to
16 raise those issues and to -- and to really try to tackle
17 them in a more effective way.

18 And lastly, I just wanted to appreciate the note
19 by Board Member Kracov regarding the new PM2.5 standard of
20 9 micrograms. This is going to challenge not only South
21 Coast, probably mostly South Coast, but also all -- every
22 other district in the state. And so I know that Dr. Cliff
23 and staff are working on this already and I really look
24 forward to the Board engaging with that and figuring out
25 how this is going to impact not only the SIPs, but all the

1 other rules that we're bringing forward. So thank you
2 very much.

3 CHAIR RANDOLPH: Dr. Pacheco-Werner.

4 BOARD MEMBER PACHECO-WERNER: Yes. Thank you and
5 thank you so much to everyone that's worked so hard on
6 this and to get it here. I have a question. I know that
7 in your -- in slide 15 you marked out in terms of some of
8 the 2023 timelines that there were some near-road
9 monitors, but I wanted to ask a little bit about the
10 Compton site in terms of if you can tell me a little bit
11 about how some of the proposed measures are going to
12 either the newer more stringent measures, or the local
13 measures, or State measures are going to impact that
14 community.

15 Thank you.

16 AQPSD CHIEF BENJAMIN: This is Michael Benjamin
17 again. The Compton site is surrounded by freeways, a lot
18 of transportation emission sources. Many of the CARB
19 measures that are proposed in this plan that were in the
20 2022 State SIP Strategy and that are going to be
21 implemented and adopted are considered by the Board in the
22 coming years are going to provide significant emission
23 benefits for the Compton community. And you can see that
24 in the modeled air quality that we have for that site.

25 CHAIR RANDOLPH: All right. Dr. BALMES.

1 BOARD MEMBER BALMES: Well, I wasn't going to
2 comment, but since the new PM2.5 9 milligram -- microgram
3 per meter cubed NAAQS keeps coming up and I was part of
4 the CASAC review panel that recommended that. I have to
5 defend it in terms of the evidence that was presented to
6 that CASAC subcommittee was overwhelming. And, in fact,
7 there was basically consensus that we had to have
8 something lower than 12 micrograms per meter cubed and
9 only disagreement whether it should be 9, 10, or 11.

10 But the majority of folks wanted it to be 9 and
11 that's what we recommended to the administrator. And
12 while I'm talking about PM2.5, I think the Ontario
13 near-road monitoring -- I mean, it's a near-road
14 monitoring. It's going to have high motor vehicle
15 emission pollution. So I mean, I realize that all
16 monitors have to be in attainment, but that on is
17 basically up to us, CARB, because it's from motor vehicles
18 just to -- you know, to state the obvious.

19 And I also want to thank staff above the District
20 and CARB. I think you've done a really good job of trying
21 to deal with a pretty intractable problem of air pollution
22 in the South Coast Basin. And I agree with the people
23 that have testified saying that they have to watch us
24 closely, because I think there's a good chance that we
25 won't actually achieve what we say we are going to achieve

1 here.

2 CHAIR RANDOLPH: All right. Thank you.

3 Any other questions or comments?

4 Okay. I just want to thank South Coast staff and
5 CARB staff and I will say I really appreciated slide 16
6 about federal action. That is not just a canard. The EPA
7 absolutely needs to do more starting with approving our
8 waivers and authorizations, because so many of the
9 reductions that are already identified depend on the EPA
10 completing that work. And ocean-going vessels, aircraft,
11 interstate trucking, there are plenty of federal sources
12 that need to be addressed. And so I absolutely do not
13 want to let them off the hook.

14 With that, I will -- the Board has before them
15 Resolution number 24-7. Do I have a motion to approve
16 that?

17 BOARD MEMBER KRACOV: It's Board Member Kracov.
18 I'll move the item.

19 CHAIR RANDOLPH: Okay. And a second?

20 BOARD MEMBER BALMES: Second.

21 BOARD MEMBER PACHECO-WERNER: Second.

22 CHAIR RANDOLPH: All right. So we have a motion
23 and a second. Clerk, will you please call the roll.

24 BOARD CLERK MOORE: Dr. Balmes?

25 BOARD MEMBER BALMES: Yes.

1 BOARD CLERK MOORE: Mr. De La Torre?

2 BOARD MEMBER DE LA TORRE: Yes.

3 BOARD CLERK MOORE: Senator Florez?

4 BOARD MEMBER FLOREZ: Aye.

5 BOARD CLERK MOORE: Mr. Guerra?

6 BOARD MEMBER GUERRA: Aye.

7 BOARD CLERK MOORE: Ms. Hurt?

8 BOARD MEMBER HURT: Aye.

9 BOARD CLERK MOORE: Mr. Kracov?

10 BOARD MEMBER KRACOV: Yes

11 BOARD CLERK MOORE: Dr. Pacheco-Werner?

12 BOARD MEMBER PACHECO-WERNER: Yes.

13 BOARD CLERK MOORE: Mr. Perez?

14 BOARD MEMBER PEREZ: Aye.

15 BOARD CLERK MOORE: Mr. Rechtschaffen?

16 BOARD MEMBER RECHTSCHAFFEN: Yes.

17 BOARD CLERK MOORE: Dr. Shaheen?

18 BOARD MEMBER SHAHEEN: Aye.

19 BOARD CLERK MOORE: Ms. Takvorian?

20 BOARD MEMBER TAKVORIAN: Aye.

21 BOARD CLERK MOORE: Chair Randolph?

22 CHAIR RANDOLPH: Yes.

23 BOARD CLERK MOORE: Madam Chair, the motion
24 passes.

25 CHAIR RANDOLPH: The last item on today's agenda

1 is Item number 24-3-2, the proposed Zero-Emission Forklift
2 Regulation. If you are here with us in the room and wish
3 to comment on this item, please fill out a
4 request-to-speak card as soon as possible and submit it to
5 a Board assistant. If you are joining us remotely and
6 wish to comment on this item, please click the raise-hand
7 button or dial star nine now. We will first call on
8 in-person commenters followed by any remote commenters
9 when we get to the public comment portion of this item.

10 Fossil fuel-powered mobile sources, including
11 off-road equipment like forklifts, are the largest
12 contributors to emissions of ozone precursors and
13 greenhouse gases in California. The proposed
14 Zero-Emission Forklift Regulation will reduce oxides of
15 nitrogen, other criteria pollutants, and greenhouse gases
16 from large sparking ignition forklifts in California.

17 Meeting California's public health, air quality,
18 environmental justice, and climate goals requires more
19 emissions reductions than we can achieve from
20 combustion-based strategies alone. We need to transition
21 to zero-emission technologies. Indeed, Governor Newsom's
22 Executive Order N-79-20 calls for operation of
23 zero-emission off-road equipment, where feasible, by 2035.

24 Through the actions of this Board, California
25 continues to pursue innovative measures to address

1 emissions of criteria and climate pollutants from mobile
2 sources. The proposed zero-emission forklift regulation
3 would restrict manufacturers from selling large spark
4 ignition forklifts and at the same time require fleets to
5 gradually phase out such spark ignition forklifts. The
6 State strategy for the 2022 State Implementation Plan
7 includes this proposed regulation as necessary to meet air
8 quality standards by deadlines established in the Clean
9 Air Act with oxides of nitrogen reduction of two tons per
10 day in 2031.

11 This proposed regulations is not only critical
12 the meet those SIP commitments statewide, but is also
13 necessary to protect public health by reducing exposure to
14 air pollutants and adverse health impacts in communities
15 throughout California.

16 Dr. Cliff, would you please introduce the item.

17 EXECUTIVE OFFICER CLIFF: Thank you, Chair
18 Randolph. As you mentioned, the proposed Zero-Emission
19 Forklift Regulation is an important step in reducing
20 emissions of ozone precursors and greenhouse gases in
21 California. Forklifts operate in large numbers in
22 distribution centers and warehouses, which are commonly
23 located in low-income and environmental justice
24 communities. May of these communities bear a
25 disproportionate health burden due to their proximity to

1 harmful emissions from mobile sources, such as large spark
2 ignition forklifts. Adoption of the proposed regulation
3 would reduce pollution in these locations helping prevent
4 premature deaths and at the same time providing a
5 healthier working environment for forklift operators and
6 employees.

7 The proposed Zero-Emission Forklift Regulation is
8 technologically feasible and cost effective. Flooded
9 lead-acid zero-emission forklifts have been available for
10 decades and are already widely used in indoor
11 applications. Further, many new models offered today use
12 innovative technologies like lithium-ion batteries, fuel
13 cells, and advanced lead-acid batteries. For situations
14 where additional time may be needed for a fleet to phase
15 out their spark ignition forklifts and switch to
16 zero-emission forklifts, the regulation includes a number
17 of extensions.

18 Although zero-emission forklifts have higher
19 up-front capital costs, lower operating costs over time
20 result in overall net savings. Hence, most fleets subject
21 to the regulation will eventually see savings due to the
22 regulation. When health benefits are taken into account,
23 the expected benefits of the regulation far exceed its
24 cost.

25 In keeping with the long-standing practice of the

1 Board and to ensure an open and transparent rulemaking
2 process, staff have engaged in an extensive public process
3 throughout the development of the proposed regulation.

4 Today, we will hear about the proposal for the
5 Zero-Emission Forklift Regulation as well as the estimated
6 emission reduction benefits and costs.

7 I will now ask Lori Berard from the Mobile Source
8 Control Division to begin the staff presentation.

9 Lori.

10 (Thereupon a slide presentation).

11 MSCD AIR POLLUTION SPECIALIST BERARD: Thank you,
12 Dr. Cliff. Good morning, Chair Randolph and members of
13 the Board. I'm pleased to be presenting staff's proposal
14 for the Zero-Emission Forklift Regulation for your
15 consideration.

16 [SLIDE CHANGE]

17 MSCD AIR POLLUTION SPECIALIST BERARD: In this
18 presentation, I'll provide background information on
19 zero-emission forklifts and the air quality goals driving
20 this proposed regulation, an overview of staff's proposal,
21 along with a discussion of the potential benefits and cost
22 savings associated with the proposal, and lastly, staff's
23 recommendation.

24 [SLIDE CHANGE]

25 MSCD AIR POLLUTION SPECIALIST BERARD: First,

1 let's go over the underlying air quality goals for the
2 proposed regulation and some background regarding
3 zero-emission forklifts.

4 [SLIDE CHANGE]

5 MSCD AIR POLLUTION SPECIALIST BERARD: Over half
6 of California's population lives in areas where air
7 quality does not meet federal health-based ambient ozone
8 and/or fine particulate matter standards. Over 21 million
9 people are exposed to unhealthy air and the associated
10 health problems. Additionally, low-income and
11 disadvantaged communities face disproportionately higher
12 exposure to particulate matter and toxic pollutants. In
13 California, mobile sources, including cars, trucks,
14 off-road equipment, and the fossil fuels that power them
15 are significant contributors to air pollution.

16 These sources emit various pollutants such as:
17 ozone precursors, which react in the atmosphere to form
18 smog; fine particulate matter, tiny particles that can
19 penetrate deep into the lungs; diesel particulate matter,
20 particularly harmful due to its toxicity; and, greenhouse
21 gases, which contribute to climate change by trapping heat
22 in the atmosphere.

23 [SLIDE CHANGE]

24 MSCD AIR POLLUTION SPECIALIST BERARD: In March
25 2017, the Board adopted the 2016 State Implementation

1 Plan, which outlined CARB's comprehensive strategy to
2 reduce emissions. The strategy identifies the need for
3 substantial emission reductions from mobile sources, and
4 increased penetration of zero-emission technology. The
5 proposed regulation is identified in the 2022 State
6 Implementation Plan, the 2020 Mobile Sources Strategy, and
7 the Sustainable Freight Action Plan as a measure needed to
8 attain air quality standards.

9 It's projected to reduce oxides of nitrogen by
10 two tons per day and reactive organic gases by 0.2 tons
11 per day statewide.

12 [SLIDE CHANGE]

13 MSCD AIR POLLUTION SPECIALIST BERARD: In
14 September of 2020, Governor Newsom issued Executive Order
15 N-79-20, which directs CARB in coordination with other
16 State agencies, U.S. EPA and local air districts, to
17 develop and propose technologically feasible and
18 cost-effective strategies to achieve 100 percent
19 zero-emissions from off-road vehicles and equipment
20 operations in the state by 2035. The proposed regulation
21 is aligned with the directive of the Executive Order to
22 advance these goals.

23 [SLIDE CHANGE]

24 MSCD AIR POLLUTION SPECIALIST BERARD: The
25 Occupational Safety and Health Administration has

1 established forklift classifications that are recognized
2 industry-wide and which cover forklifts powered by all
3 different fuels, diesel, propane, batteries, et cetera.
4 This graphic depicts the various classes of forklifts and
5 where they're commonly operated. As you can see in the
6 brown box, the forklifts that the proposed regulation will
7 target are Classes IV and V spark ignition forklifts,
8 those powered by propane, natural gas, and gasoline. Cost
9 Class IV forklifts are typically operated indoors or on
10 smooth surfaces, such as loading docks. And Class IV
11 forklifts typically use smooth solid tires called cushion
12 tires.

13 Class V forklifts typically use pneumatic tires
14 and are operated on uneven surfaces often outdoors. Class
15 V forklifts with a rated capacity over 12,000 pounds are
16 not subject to the proposed regulation due to the current
17 more limited commercial availability of zero-emission
18 models.

19 [SLIDE CHANGE]

20 MSCD AIR POLLUTION SPECIALIST BERARD: As you can
21 see, the total population of 95,000 LSI large spark
22 ignition, or LSI, forklifts in California is pretty evenly
23 split between Class IV, which again are primarily the
24 indoor warehouse forklifts, and Class V less than or equal
25 to 12,000 pounds, which are used more outdoors.

1 [SLIDE CHANGE]

2 MSCD AIR POLLUTION SPECIALIST BERARD: This pie
3 chart depicts the share of affected LSI forklifts by major
4 sector. These are based off the North American Industry
5 Classification System. As you can see, forklifts are used
6 throughout the economy with the largest affected
7 populations in:

8 Retail and wholesale, which includes retailing
9 merchandise and the distribution of wholesale merchandise;

10 Transportation and public utilities.
11 Transportation referring to the movement of passengers and
12 cargo, as well as warehousing, and storage for goods;

13 And manufacturing, which is comprised of
14 establishments engaged in the process of turning
15 materials, substances, or components into new products.

16 [SLIDE CHANGE]

17 MSCD AIR POLLUTION SPECIALIST BERARD: Today,
18 about half -- about 45 percent of the forklift population
19 in California uses zero-emission technology, largely due
20 to zero-emission advantages, such as reduced indoor air
21 pollution and lower operating costs, and because many
22 forklift applications have duty cycles that are well
23 suited for its use.

24 Zero-emission forklifts are common in the
25 logistics industry and are seeing growth in other

1 industries and applications as well. Roughly half of new
2 forklift sales in California are zero emission
3 demonstrating the compelling market-driven case for
4 zero-emission forklifts.

5 In terms of zero-emission forklift battery
6 technology, lead-acid batteries currently are most common
7 with around 70 percent lead-acid battery electric
8 forklifts already operating in California. However, we're
9 also seeing a trend towards more lithium-ion zero-emission
10 forklifts which have many advantages over lead-acid, such
11 as higher energy density and longer lifespan. There are
12 also fuel cell electric forklifts, which can refuel
13 quickly. Zero-emission forklifts today are ready to serve
14 as a direct replacement for the vast majority of the
15 forklifts required to be phased out by the proposed
16 regulation.

17 [SLIDE CHANGE]

18 MSCD AIR POLLUTION SPECIALIST BERARD: This bar
19 chart shows the number of zero-emission forklift offerings
20 from various manufacturers as of late 2023. The dark blue
21 bars are offerings with rated capacity less than or equal
22 to 12,000 pounds while the light blue bars are offerings
23 over 12,000 pounds of capacity. Out of the nearly 400
24 forklift offerings available, over 130 had rated capacity
25 over 12,000 pounds.

1 amended staff's proposal via 15-day changes that were open
2 for comment from May 21st to June 5th.

3 [SLIDE CHANGE]

4 MSCD AIR POLLUTION SPECIALIST BERARD: Now, I'll
5 go over the main components of the proposed regulation and
6 its provisions.

7 [SLIDE CHANGE]

8 MSCD AIR POLLUTION SPECIALIST BERARD: The
9 proposed regulation establishes requirements for forklift
10 manufacturers, dealers, rental agencies, and fleet
11 operators. For forklift operators, the proposed
12 regulation includes two primary components, a restriction
13 on the purchase of LSI forklifts starting on January 1st
14 of 2026, and phase-out requirements starting on January
15 1st, 2028 for existing LSI forklifts.

16 [SLIDE CHANGE]

17 MSCD AIR POLLUTION SPECIALIST BERARD: The
18 proposed regulation will affect forklifts with large spark
19 ignited engines using fuels such as propane, natural gas,
20 and gasoline. It will cover all Class IV LSI forklifts,
21 as well as Class V LSI forklifts with a rated capacity of
22 12,000 pounds or less. This is what we call targeted
23 forklifts.

24 Staff estimates that the proposed regulation will
25 cause about 89,000 out of the state's total 95,000 LSI

1 forklifts statewide to be phased out and largely replaced
2 with zero-emission forklifts.

3 [SLIDE CHANGE]

4 MSCD AIR POLLUTION SPECIALIST BERARD: Starting
5 in 2026, manufacturers will be prohibited from producing
6 or selling targeted forklifts in California and fleet
7 operators will not be allowed to acquire these forklifts.
8 From 2028 to 2038, existing targeted forklifts must be
9 phased out based on their model year with the schedule
10 ensuring that no forklift is required to retire before
11 reaching 10 years old. This phased approach allows for a
12 structured enforceable transition and minimizes financial
13 impact on businesses in any one year.

14 Additionally, there are less stringent provisions
15 for small fleets, crop preparation services fleets, and
16 micro businesses to help ensure compliance without causing
17 undue hardship to smaller operations and specialized
18 services. These requirements are a significant step
19 towards reducing emissions and promoting sustainable
20 forklift operations in California and balancing emission
21 reduction goals with business needs.

22 [SLIDE CHANGE]

23 MSCD AIR POLLUTION SPECIALIST BERARD: Here's a
24 Visual depiction of the proposed phase-out schedule. As
25 shown in blue, phase out begins in 2028 and runs through

1 2035 for the largest fleets with lighter Class IV
2 forklifts. These fleets are the easiest to phase out.

3 The purple line shows that small fleets and crop
4 preparation services fleets are given more time for the
5 same forklift with phaseout running from 2029 through
6 2038. Class V and heavier Class IV forklifts are given
7 more time as seen in the red and green lines. Large
8 fleets are those with over 25 forklifts.

9 [SLIDE CHANGE]

10 MSCD AIR POLLUTION SPECIALIST BERARD: This is
11 the proposed phase-out schedule in table form, you can see
12 that for large fleets, we're proposing phase-out beginning
13 in 2028 for the forklifts that are easiest to transition.
14 For these large fleets, the phase-out would be completed
15 by 2035.

16 For those fleets that face more challenges, crop
17 preparation services fleets and small fleets, as seen in
18 the second column, the proposed regulation would delay the
19 start out -- the start of the phase-out by one year.
20 Phase-out would start in 2029 and extend to 2038.
21 Additionally, phase-out for these fleets would begin when
22 forklifts reach 13 years old rather than 10 years old.
23 This, in effect, would give them three additional years to
24 clear the phase-out.

25 I'd like to note that small and crop preparation

1 services fleets would have the option to use the large
2 fleet phase-out schedule, if they would like to reduce
3 their paperwork and reporting. As illustrated in the last
4 column, the first phase-out date for Class V forklifts
5 would be January 1st of 2030 with full implementation in
6 2038. Also note that the phase-out age for a Class V
7 forklift is 13 years old, which gives more time to phase
8 out Class V forklifts.

9 [SLIDE CHANGE]

10 MSCD AIR POLLUTION SPECIALIST BERARD: Based on
11 stakeholder feedback as part of the 15-day changes, staff
12 added a phase-out percentage cap for the first compliance
13 dates. This cap would only apply to forklifts that are
14 required to be turned over at the first compliance date
15 and reduces the burdens for fleets with older forklifts,
16 limiting the required turnover to more than 50 percent for
17 large fleets and no more than 25 percent for small and
18 crop preparation services fleets.

19 So this means, for example, that even a small
20 fleet with all 30-year old forklifts would have four years
21 to turn over their fleet -- their forklifts, 25 percent
22 required to be turned over by the 2029 compliance date,
23 and then the rest of the fleet by the 2032 compliance
24 date.

25 [SLIDE CHANGE]

1 MSCD AIR POLLUTION SPECIALIST BERARD: Several
2 commenters -- or several stakeholders commented on the
3 proposed regulation concerned about rare situations where
4 a zero-emission forklift may not currently be commercially
5 available to do the job of a targeted LSI forklift. The
6 operational extension is available for situations where
7 there is no commercially available zero-emission forklift
8 model that can meet the needs of an operation currently
9 served by an LSI forklift. The extension allows for an
10 LSI forklift to be operated beyond the phase-out date.

11 Based on stakeholder feedback, staff refined the
12 operational extension such that it may also be used for
13 replacement of an LSI forklift with a 2026 model year or
14 newer LSI forklift, even if the replacement needs to be
15 made years in advance of the upcoming compliance date.
16 After the phase-out date, the operational extension will
17 need to be renewed annually.

18 [SLIDE CHANGE]

19 MSCD AIR POLLUTION SPECIALIST BERARD: During
20 rule development, staff worked closely with the California
21 Energy Commission, the California Public Utilities
22 Commission, and utilities like PG&E. Feedback from the
23 utilities resulted in the addition of a provision
24 requiring fleet operators to contact their electric
25 utility provider to initiate early information exchange

1 regarding installation and upgrades by March 31st of 2026.

2 As part of this and other rulemakings, CARB staff
3 is working with utility providers as well as the
4 Governor's Office of Business and Economic Development,
5 the CEC CPUC, and California Independent System Operator
6 to encourage the development of sufficient infrastructure,
7 identify infrastructure needs, and accelerate the work to
8 further support widespread deployment of zero-emission
9 technology.

10 [SLIDE CHANGE]

11 MSCD AIR POLLUTION SPECIALIST BERARD: Next, I'll
12 discuss benefits and cost savings of the proposed
13 zero-emission forklift regulation.

14 [SLIDE CHANGE]

15 MSCD AIR POLLUTION SPECIALIST BERARD:
16 Cumulatively, from 2026 through 2043, the
17 proposed regulation is expected to reduce the
18 concentration of criteria pollutants in the communities in
19 which forklifts operate, benefiting the local residents
20 and the operators of the equipment.

21 [SLIDE CHANGE]

22 MSCD AIR POLLUTION SPECIALIST BERARD: Staff
23 quantified the benefits of the proposed zero-emission
24 forklift regulation for 12 endpoints as described in
25 CARB's updated health endpoints bulletin from November of

1 2022. CARB recently initiated and expanded health
2 analysis to include additional health endpoints in order
3 to provide a more comprehensive analysis of the benefits
4 of the agency's plans and regulations.

5 In the past we only quantified four, premature
6 mortality, hospital admissions for cardiovascular
7 illnesses, hospital admissions for respiratory illnesses,
8 emergency room visits for asthma attacks. As you can see,
9 this regulation will not only save over 500 lives by
10 preventing cardiopulmonary mortality, but also benefit
11 public health in many other ways, like reducing lung
12 cancer, preventing emergency room visits, and reducing
13 lost work days. The benefits are spread throughout all
14 agents in ages in California from the young to the
15 elderly.

16 [SLIDE CHANGE]

17 MSCD AIR POLLUTION SPECIALIST BERARD: Costs
18 associated with the proposed regulation were evaluated and
19 include direct costs and cost savings for businesses, in
20 addition to costs and savings to local, State, and federal
21 governments. Staff analysis found that while there are
22 higher up-front costs for zero-emission forklifts, there
23 are expected lower operating costs due to fuel savings,
24 and lower maintenance costs.

25 The estimated cumulative cost savings are as

1 follows: seven and a half billion in health benefit
2 savings; one quarter to one billion in social cost of
3 carbon savings; 2.7 billion in net fleet cost savings. In
4 general, the savings depend on the number of hours per
5 year the forklift is operated, the cost of energy, and
6 infrastructure costs. Overall, we expect there to be cost
7 savings, but there is variability and some fleets may see
8 net costs rather than net savings.

9 [SLIDE CHANGE]

10 MSCD AIR POLLUTION SPECIALIST BERARD: A Draft
11 Environmental Impact Analysis, or EIA, was completed for
12 the proposed project that was released in November. Staff
13 determined that implementation of the proposed regulation
14 may have potentially significant indirect impacts to some
15 resource areas. However, these impacts are mainly due to
16 short-term construction-related activities.

17 The Draft EIA was released for a comment period
18 of at least 45 days, which ended on December 26th of 2023.
19 Staff prepared a Final EIA and written responses to all
20 comments received on the Draft EIA and provided them to
21 the Board for consideration prior to today's hearing.

22 As a courtesy, these documents were also posted
23 on the proposed regulation webpage.

24 [SLIDE CHANGE]

25 MSCD AIR POLLUTION SPECIALIST BERARD: Finally,

1 I'll go over staff's recommendation.

2 [SLIDE CHANGE]

3 MSCD AIR POLLUTION SPECIALIST BERARD: Today's
4 resolution includes certification of the Final EIA. The
5 Final EIA includes the responses to comments on the Draft
6 EIA and making the California Environmental Quality Act
7 findings and Statement of Overriding Considerations. The
8 resolution also includes approval for adoption of the
9 Zero-Emission Forklift Regulation. Staff enthusiastically
10 recommends that the Board approve Resolution 24-8.

11 CHAIR RANDOLPH: Thank you. We will now hear
12 from the public who signed up to speak on this item,
13 either by submitting a request to speak card in person or
14 a raised hand in Zoom. I will ask the Board Clerk begin
15 calling the public commenters.

16 BOARD CLERK MOORE: Thank you, Chair Randolph.
17 Again, I apologize if I mispronounce your name. We will
18 be calling the first few commenters. They should be up on
19 the screen now.

20 The first one is Krysta Wanner.

21 KRYSTA WANNER: Krysta Wanner on behalf of
22 Western Propane Gas Association. WPGA supports efforts to
23 reduce emissions and encourages the Board to meet the
24 State's goals without burdening government agencies, small
25 businesses, and nonprofits with costly and infeasible

1 solutions. Though we have submit questions, concerns, and
2 forklift fleet data to CARB staff over the last few years,
3 there remains significant rulemaking failings.
4 Unaccounted costs, technical infeasibility, and
5 inaccuracies of total affected lists in the staff analysis
6 are major points.

7 Based on a 2017 CARB-funded report, total
8 affected forklifts are two to three times the 95,000
9 assumed in the staff analysis. Independent economic
10 impact reporting found that the regulation will cost
11 California forklift owners and operators \$27 billion, and
12 the utility delays now exceed three plus years.

13 There also significant unfunded costs to the
14 State and local governments in the hundreds of millions of
15 dollars. Shifting to zero-emission forklifts is not a
16 one-to-one replacement. Two to three electric forklifts
17 would have to be purchased to replace one combustion
18 forklift, if running lifts for more than eight hours a day
19 or in heavy-use loads. Agriculture and goods movements
20 will bear significant burdens. For small businesses,
21 buying a new fleet will negatively impact their ability to
22 continue operations. WPGA continues to urge CARB to take
23 a step back from this rule as drafted, consider a
24 technologically feasible alternative compliance pathway,
25 that ensures State air quality and GHG goals are met,

1 protect owners and operators from exorbitant costs, and
2 work with all affected parties on an outcome that truly
3 affects or achieves the goal of this rule.

4 WPGA remains committed to working with CARB and
5 regional air districts to improve air quality and reduce
6 emissions. We will continue improving emissions footprint
7 in sectors that are particularly hard to electrify. We
8 look forward to hearing from you on this rule moving
9 forward and thank you for your consideration.

10 BOARD CLERK MOORE: Thank you.

11 I want to remind everybody that the public
12 comment sign-up closure is at 11:10 a.m.

13 The next few commenters will be Jim Rushing --
14 oh, Julie Johnson and then Jim Rushing.

15 JULIE JOHNSON: Hi. My name is Julie Johnson and
16 I'm a second generation owner of Ted Johnson Propane a
17 60-year old family business that will be decimated by this
18 Forklift Rule if it passes. Our customers are State
19 agencies hospitals, colleges, water and power providers,
20 and businesses. They choose propane forklifts because
21 they are reliable and environmentally friendly. I have
22 financially experienced the failure of your recent
23 regulations and fear that the Forklift Rule will
24 experience similar issues.

25 Because of the Truck and Bus Regulation, I had to

1 sell three delivery trucks outside the state, because I
2 could no longer register them in California. The cost to
3 replace those quarter -- those vehicles was a quarter of a
4 million dollars each. It took me over a year to find a
5 dealer outside of California that had the allotment and
6 I'm still waiting for delivery of those trucks. Banning
7 internal combustion forklifts and forklifts -- trucks and
8 forklifts does not directly equate to improving our air
9 quality. The air from our neighboring states does not
10 stop at our borders.

11 The Forklift Rule, as written today, is not
12 feasible. The cost to change out one propane forklift for
13 three battery forklifts is expensive and unavailable to
14 meet the market demand. Companies can use battery
15 forklifts have been and are still switching to those
16 forklifts as they get the models available to meet their
17 needs. The unmet need is going to force businesses to
18 switch to diesel forklifts. I've been listening to the
19 activists in these meetings and the only things they are
20 communicating is a sense of urgency birthed out of fear.
21 This is not a valid reason to pass a rule like this.

22 A no vote today would mean no to the wrong plan,
23 not no to clean air and healthy environments for us and
24 our families.

25 BOARD CLERK MOORE: Thank you.

1 JULIE JOHNSON: Let's continue to work for the
2 right plan. Rome was not built in a day and neither
3 should --

4 BOARD CLERK MOORE: That concludes your time.

5 JULIE JOHNSON: -- this regulation.

6 Thank you.

7 BOARD CLERK MOORE: Our next commenter is Jim
8 Rushing.

9 JIM RUSHING: Good morning. I'm Jim Rushing with
10 EDP, a retail propane company that operates in California
11 under the Campora, Fallbrook, Sierra, Windmill, Ebbetts
12 Pass, Van Unen, Expo, and Dassel's brands. We have 240
13 employees and 122,000 customers in California. The
14 following comments were made by our customers to their
15 legislators about this proposed ruling and how it will
16 affect California businesses and residents.

17 My local feed store owner says that it will put
18 him out of business. He simply can't afford to replace
19 his two propane forklifts at a price close to \$80,000.

20 Families, including my own, are already
21 struggling financially due to the high taxes in California
22 and inflation across the country. This is going to create
23 a new financial burden on the companies, which then gets
24 passed on to the consumers. You'll be making it more
25 difficult to afford basic necessities. Just like with the

1 fast food industry and forcing them to pay a very high
2 minimum wage, restaurants are increasing prices, laying
3 off employees or even shutting down. This will have the
4 same tragic impact. Can California even sustain the
5 energy that will be needed? California can barely keep
6 the lights on during storms and extreme heat. I think
7 this will have a devastating effect on all California
8 businesses and residents.

9 You promised to protect small business. Most
10 can't afford the 30 to 40 thousand dollars per electric
11 forklift. We know that you'll keep your promise and
12 protect California small businesses.

13 As the owner of a small lumber company in San
14 Bernardino, it's taken five years to establish my
15 business. Forklifts are an important part of our
16 operation. Replacing my units with new electric ones at
17 this time is impossible. To obtain a loan from the bank
18 is even mor difficult. I don't want my forklifts to be
19 replaced by electric.

20 Please consider the economic impact this proposed
21 rule will have on families already struggling with cost
22 increases for basic needs. The worrisome impact will be
23 cost increases to install and upgrade services to charge
24 these battery-operated units. Replacing our propane
25 forklifts would be a tremendous burden given the low

1 prices we are experiencing in agriculture right now.

2 Thank you. Thank you for your time

3 BOARD CLERK MOORE: Thank you.

4 Our next commenter is Roger Isom.

5 ROGER ISOM: Thank you.

6 Is this on?

7 Okay. Good morning. My name is Roger Isom,
8 California Cotton Ginners and Growers Association. Thank
9 you for the opportunity to comment this morning.

10 I want to state up front very clearly, I've been
11 doing this for 32 years and I can honestly say that the
12 CARB staff have -- this is the most they've ever worked
13 with us on any type of regulation. They visited our
14 sites. They spent numerous phone calls and time with us
15 to understand it and we sincerely appreciate it.

16 Our ask today is a final ask and that has to do
17 with the compliance dates. We're simply asking for a 20
18 percent cap per compliance year to spread out the
19 compliance over a few more years. It does not get an
20 exemption. It does not mean we won't meet the dates that
21 are the final rule. It simply gives us a little more time
22 to meet the compliance period that we -- or the costs that
23 we're going to be facing because this rule will be costly.
24 Don't get me wrong, it will be. So we're just asking for
25 that additional time.

1 It also gives us additional time to work on
2 incentives, very much like we have with tractors, the
3 FARMER Program, much like we did with ag pump engines, and
4 awe Carl Moyer, and the AG-ICE Program. Ag has a proven
5 track record of working these things through. We're just
6 asking for that additional bit of time. Again, I want to
7 emphasize, it does not reduce the amount of emissions this
8 rule will get. It does not extend beyond the final date
9 of the rule. It only gives a little bit more time, a very
10 small percentage of that ag fleet.

11 Thank you.

12 BOARD CLERK MOORE: Thank you.

13 Our next commenter is Priscilla Rodriguez.

14 PRISCILLA RODRIGUEZ: Good morning, Chairwoman,
15 members of the Board. My name is Priscilla Rodriguez.
16 I'm the Assistant Vice President with Western Agricultural
17 Processors Association. Much like Roger before me, I
18 would like to thank CARB staff for taking the time to
19 learn about the issues that ag operations face. You --
20 they came on-site to see those challenges first-hand, so I
21 truly appreciate that.

22 I want to ask and ask the Board for one
23 additional thing, as Roger mentioned earlier. We are
24 asking for a 20 percent compliance cap for the compliance
25 years beginning in 2029. As written, ag -- the proposal

1 as of today a hundred percent of ag fleets would have to
2 be converted over by the 2034 year. So what we're asking
3 is a 20 percent cap to have an additional four years, only
4 really affecting the 40 percent of ag fleets. Now,
5 because of the nature of ag operations, we only run two to
6 three years -- two to three months out of the year,
7 therefore, our forklifts are much older in nature. We
8 simply don't use them enough. So because of the proposed
9 regulation, they would have to be converted over much
10 sooner than much other operations in California.

11 The other thing that I want to note is ag
12 operations do not have the ability to pass along costs to
13 their -- pass along the costs. Those costs affect our
14 bottom line. We were -- we operate in a global market.
15 The flies is set. We can't simply increase the price per
16 pound of our almonds, our pistachios, our walnuts. That's
17 not the way it works, so we have to consume those costs.
18 So we're asking for this additional time to spread it over
19 multiple years, allowing us the additional time.

20 Again, as I mention -- as Roger mentioned, this
21 wouldn't be an exemption or an extension beyond the 2038
22 compliance year. It's just allowing for additional time
23 for us to convert over our fleets. Thank you for the
24 opportunity to provide comments today.

25 BOARD CLERK MOORE: Thank you.

1 Our next commenter Regina Hsu.

2 REGINA HSU: Good morning, Chair Randolph and
3 members of the Board and thank you for the opportunity to
4 comment today. My name is Regina Hsu and I'm an attorney
5 with Earthjustice. First, I'd like to thank staff for
6 their hard work on the rule. We strongly urge CARB to
7 adopt the Zero-Emission Forklift Rule. It will shift a
8 very easy to electrify sector to zero emissions and bring
9 emission reductions that we desperately need to meet basic
10 clean air standards in California.

11 Staff's presentation shows the health benefits of
12 this rule are staggering resulting in NOx emission
13 reductions of 18,700 tons, and which will save over 500
14 lives. This rule is an opportunity for CARB to pass a
15 critical public health measure that will bring cleaner air
16 to everyone in California, particularly freight-impacted
17 communities, including those living near warehouses and
18 the workers operating this equipment.

19 I want to note for the Board that the rule is --
20 will not phase out LSI forklifts until nearly 15 years
21 from now. Considering that zero-emission forklifts are
22 already widely in use, we're disappointed to see that the
23 rule will not phase out the affected LSI forklifts until
24 2038. These flexibilities, the phase-out timeline, the
25 phase-out cap, and the various exemptions and extensions,

1 they've been included in response to comments from
2 industry.

3 We urge CARB to adopt this rule, but ask that
4 CARB conduct an evaluation prior to implementation of the
5 rule to assess whether an accelerated phase-out timeline
6 is feasible, so that we can deliver the health benefits of
7 this rule to communities even sooner.

8 Thank you for your time.

9 BOARD CLERK MOORE: Thank you.

10 Our next commenter is Omar Cobian.

11 OMAR COBIAN: Good morning, Chair and Board
12 members. My name is Omar Cobian. I'm speaking on behalf
13 of the Western States Carpenters. We have over -- close
14 to 50,000 members that live right here in Southern
15 California.

16 I am here to ask the Board to just pause on
17 voting on this regulation until we can ensure that the
18 construction industry will not be disproportionately
19 burdened by the Zero-Emission Forklift Regulation. The
20 wide-ranging industry subject to this regulation have
21 unique needs. We ask that we include exceptions in this
22 regulation to ensure that the ZEF Regulation is not a
23 blanket policy that doesn't address the construction
24 industry. Specifically, we want to work with CARB to
25 ensure that this policy accurately reflects the nature of

1 the construction work.

2 As the men and women who build everything from
3 industrial buildings, hospitals, and the roads and bridges
4 you drive on on a daily basis, we have a vested interest
5 in advocating for this -- for a solution. For both urban
6 and rural construction sites, this regulation process can
7 possess an extreme challenges in construction industry.

8 As it currently stands, this regulation does not
9 reflect those realities amongst many of our construction
10 industry. In conclusion, we strongly urge the Board to
11 discuss amendments to this regulation with the
12 construction industry before proceeding further.

13 Thank you.

14 BOARD CLERK MOORE: Thank you.

15 Our next commenter is Dori Chandler.

16 DORI CHANDLER: Hi, Board members. Dori
17 Chandler, Coalition for Clean Air. I also am a Long Beach
18 resident, and resident of the South Coast Air Basin. I'm
19 speaking today in support of CARB's Zero-Emissions
20 Forklift Regulation to address the harmful emissions from
21 large spark ignition forklifts. We urge, along with folks
22 at Pacific environment for you to adopt the proposed rule
23 today with no weakening amendments.

24 We have yet to meet our federal air quality
25 standards in the region and are facing possible sanctions

1 for nonattainment. We are counting on emissions
2 reductions from forklifts, which are in the State
3 Implementation Plan to help us achieve our necessary
4 emissions targets.

5 According to the American Lung Association more
6 than 131 million people live in California counties that
7 received an "F" for either ozone or particle pollution
8 this last year. The 17 million people in the South Coast
9 region live in an extreme nonattainment area for the one
10 hour in 1997, 2008, and 2016 ozone National Ambient Air
11 Quality Standards. The number of high ozone days in LA
12 County has barely changed since 1996 with over 114 high
13 ozone days per year.

14 Ozone and PM increase the risk for premature
15 birth, asthma, and COPD. This is especially bad for
16 people of color and those in economically disadvantaged
17 areas, including those most impacted by the goods movement
18 sector near ports and logistics sectors. We need every
19 meaningful reduction and emissions we can find. Reducing
20 18,000 tons of NOx and 2,000 tons of particulate matter,
21 this rule, according to CARB's analysis, will save 500
22 lives and thousands of hospital visits, providing 7.5
23 billion in health benefit savings and helping us reach our
24 South Coast SIP targets of two tons of NOx per day. The
25 monetized health benefits and operational cost savings

1 exceed the cost of implementing this rule.

2 Zero-emissions technology for forklifts is proven
3 and half the forklifts fleet in California already uses
4 zero-emissions technology. The rule will ensure that
5 laggard fleets are transitioning as well.

6 Thank you so much.

7 BOARD CLERK MOORE: Thank you.

8 Our next commenter is Ruhama Tereda.

9 RUHAMA TEREDA: Good morning, Board members. My
10 name is Ruhama Tereda here on behalf of the NorCal
11 Carpenters Union.

12 I'm here today to urge the Board to add
13 exemptions to the proposed Zero-Emission Forklift
14 Regulation, which is currently unrealistic for large
15 portions of the construction industry. Compared to
16 industries that operate at fixed locations, where you can
17 reasonably install a charger, construction job sites are
18 not equipped to support battery charging infrastructure.

19 This policy should be tailored to reflect this
20 reality. The cost and feasibility assumptions for this
21 proposal don't translate to the construction industry.
22 The CARB impact assessment assumed that the cost to
23 install a battery electric forklift charger would be
24 roughly equivalent to the cost to install a Level 2
25 electric car charger at a worksite. This assumes that

1 charging stations are being added on to permanent
2 supportive infrastructure, like a fully constructed
3 workplace or home.

4 Job sites that are under construction don't have
5 comparable supportive infrastructure. The same report
6 outlines that the costs of installing electric
7 infrastructure for zero-emission forklifts is heavily
8 dependent on the unique characteristics of the
9 installation site. As written, this regulation does not
10 distinguish which job sites have the capacity to support
11 zero emission charging infrastructure. Adding a charging
12 station to a warehouse is not equivalent in cost or
13 feasibility to installing a charging station on a dirt
14 lot. These job sites are not on even ground.

15 We strongly urge the Board to discuss amendments
16 to this regulation with the construction industry before
17 proceeding. Thank you for the opportunity to present this
18 public comment.

19 BOARD CLERK MOORE: Thank you.

20 Mike McCarthy.

21 MIKE McCARTHY: Good morning again. Chair, Board
22 members, Mike McCarthy, Riverside Neighbors Opposing
23 Warehouses.

24 You might have driven by some warehouses on our
25 way to this meeting today. The Inland Empire is home to

1 more than a billion square feet of warehouses. I'm the
2 creator of the Warehouse City Dashboard, which has
3 characterized every warehouse that's currently under
4 review for the last five years in the state. There are
5 over 8,000 acres of approved warehouses in the Inland
6 Empire. There's 8,000 acres more under CEQA review right
7 now. That's equivalent to seven world logistic centers.

8 And this rule assumed that there was going to be
9 a flat population of forklifts for the next 20 years, no
10 increase. All of those warehouses need forklifts, so this
11 is underestimate of the actual impacts of this rule.
12 There will be additional benefits that are not described.

13 Secondarily, the two main areas where warehouses
14 are being built right now are the Central Valley and the
15 Inland Empire, both the areas with the worst air quality
16 and that will have increased impacts in terms of health
17 effects by adopting this rule. So I strongly support this
18 rule and I just ask that you do consider this as a better
19 benefit than is quantified right now, because the
20 assumptions are actually quite conservative in terms of
21 what actually will happen and where the -- where the
22 forklifts will be implemented.

23 And then, Chair Randolph, respectfully, the
24 canard is not that EPA is not doing enough or that we
25 can't meet the rule without them. The canard saying that

1 the EPA, which is neutral, not doing enough is the same as
2 SCAG, which has just adopted a plan, which will increase
3 truck VMT by 43 percent over the next 20 years. They're
4 actually making things worse and they're not even
5 mentioned. Why?

6 So I'd ask that respectfully we coordinate what
7 our plans are and not have the right hand fight with the
8 left hand in terms our air quality regulations and make
9 sure that we're actually working to meet those as a
10 community. Thank you so much for your time.

11 BOARD CLERK MOORE: Thank you.

12 Our next commenter is Jennifer Ibold.

13 JENNIFER IBOLD: I think we're good. Hey, good
14 afternoon, CARB members and staff. My name is Jennifer
15 Ibold. I am the Director of Operations of for AmeriGas
16 Propane in the state of California and also a Southern
17 California resident.

18 I understand that the State has set ambitious
19 environmental goals, but it seems as if CARB has not
20 considered how implementation of this regulation will
21 impact us or our stakeholders. While some other costs and
22 impacts can be anticipated, there are unintended
23 consequences that have not been accounted for that would
24 have a rippling economic effect across the state.

25 I want to share a bit about why this rule would

1 hurt me, AmeriGas, and those that rely on me. Presently,
2 I oversee more 250 employees across the state of
3 California. Together, they live -- deliver over 13
4 million gallons to motor fuel customers and 3,000
5 customers at that. This regulation not only puts a
6 financial hardship on businesses, but impacts the lives of
7 California citizens and blue collar workers working to
8 support their families.

9 This year, or in 2023 California saw its first
10 population growth since the decline that began in 2020.
11 However, the cost of living is still on the rise. If this
12 regulation is passed, it will force the reduction of our
13 industry's workforce and further the justification of why
14 blue collar workers are abandoning the California dream.

15 I urge you to pause this process and direct CARB
16 staff to collaborate with businesses, industry
17 associations, and other stakeholders to refine the
18 regulations, so that it achieves environmental goals while
19 minimizing the negative impact on businesses and the
20 economy.

21 Thank you.

22 BOARD CLERK MOORE: Thank you.

23 Marven Norman.

24 MARVEN NORMAN: Good morning again, Chair and
25 members of the public. Marven Norman, CCAEJ.

1 And we're here in support as we basically
2 recently passed that other measure you guys just approved
3 is very much leaning on improvements that are brought from
4 projects like from other rules like this. So it's
5 important that we take all the measures we need to be able
6 to get down the air quality issue that are concerning our
7 communities. And it is important that we take these
8 efforts and make sure that we keep moving them forward.
9 As Regina mentioned, we have several years before the date
10 and the level of innovation that goes on.

11 We -- it is certainly possible that many of the
12 use cases that right now seemed impossible to electrify
13 will, in fact, be adopted by that time. I, myself, as
14 well have seen -- has certainly seen the explosion of, for
15 example, electric cars over the last decade, or 15 years,
16 from a rarity that was a novelty that you see and pointed
17 and wonder if you just are -- until now it's everywhere,
18 cars -- electric car it seems in some cases.

19 So given that the phase-out rule has the same
20 amount of time as between when it first was extra cars
21 that entered into the marketplace, we see now -- as
22 between now and the phase-out rule, I think -- and we
23 already have electric or other zero-emissions options
24 available in the forklift community. It seems pretty
25 obvious that we could be able to make similar progress in

1 that regard as well.

2 And so again, we support these rules and CCAEJ
3 hopes that -- we look forward to the Board approving them
4 and then hopefully that EPA also doesn't get in the way,
5 if that's relevant. Thank you.

6 BOARD CLERK MOORE: Thank you.

7 Our last commenter is Phil Comstock.

8 PHIL COMSTOCK: Thank you, CARB, for taking our
9 comments today. I am Phil Comstock Vice President of
10 Safety and Operations for Delta Liquid Energy. We are a
11 fourth generation propane company in Central Valley. We
12 have over 25,000 customers that we service.

13 CARB has an ambitious environmental goal, which
14 we are here to try and help. Propane is not the problem.
15 Propane is part of the solution. If you look at the
16 carbon intensity of our electric grid today, it's at about
17 80. Traditional propane is 81. We are not part of the
18 problem.

19 Propane forklifts are allowed inside warehouses
20 today by OSHA, because we're near zero emissions today.
21 And I know there's an argument that, okay, the electric
22 grid in California is going to get cleaner with solar and
23 wind. I understand that. Propane today is pushing for
24 renewable propane. Renewable propane, the carbon
25 intensity will be at 20, which is three times less than

1 the electric grid today in California. With that, we
2 could get to negative carbon intensity.

3 So I ask you to work with us, because we are not
4 the problem. Propane is not the problem. I understand
5 trying to get rid of diesel, but propane is not the
6 problem. And you, with this rule, will ban all propane
7 forklifts, which today OSHA recognizes as being clean
8 enough --

9 BOARD CLERK MOORE: Thank you, sir. That
10 concludes your time.

11 We'll now move to Zoom commenters.

12 BOARD CLERK GARCIA: Thank you. We currently
13 have 26 commenters in Zoom with their hands raised. If
14 you would like to comment on this item, please raise your
15 hand in Zoom. Just a reminder, the public comment
16 sign-ups for this item closed at 11:10 a.m.

17 So the first few commenters will be Manny Leon,
18 Sam Wilson, Laura Renger, Jacob DeFant, and Mariela
19 Ruacho.

20 Manny, I have activated your microphone.
21 Actually, just one moment, Manny. We're working on
22 activating your microphone.

23 MANNY LEON: Okay. This is Manny. Can you --
24 can you hear me.

25 BOARD CLERK GARCIA: Yes, we can. Go ahead.

1 MANNY LEON: Oh, perfect. Okay. Thank you very
2 much.

3 Madam Chair, members of the Board, Manny Leon,
4 the California Alliance for Jobs. We're a labor
5 management organization made up of the basic craft unions,
6 the laborers, the operating engineers, and the carpenters
7 as well as the major contractors throughout California.

8 We want to align our comments and our position
9 with our industry partners today, such as the Construction
10 Industry Air Quality Coalition, the Western Propane Gas
11 Associations -- Association, and the carpenters that have
12 all testified here today or will testify.

13 We ask that you vote no on this item -- on this
14 rule, as it is one of significant negative impacts to the
15 construction industry, including the loss of well-paying
16 union jobs. Additionally, we ask that ARB staff consider
17 and include the suggested amendments as provided in many
18 of the submitted industry letters that were provided over
19 the comment period.

20 We thank you for your time and in the interest, I
21 will end with that. Thank you.

22 BOARD CLERK GARCIA: Thank you.

23 Sam, we've activated your microphone. Please
24 unmute and you can begin.

25 SAM WILSON: Hi. Good morning, Chair Randolph,

1 Board --

2 BOARD CLERK GARCIA: We can hear you. Go ahead.

3 SAM WILSON: Can you hear me now?

4 BOARD CLERK GARCIA: Yes, we can.

5 SAM WILSON: Excellent. Okay. Good morning,
6 Chair Randolph, Board members, and CARB staff. Thanks for
7 the opportunity to speak today in support of the
8 zero-missions forklift standard. My name is Sam Wilson.
9 I'm a Senior Vehicles Analyst with the Union of Concerned
10 Scientists based here in the Bay Area.

11 I think that we're all quite aware that our state
12 is the linchpin in the nation's freight system. I mean,
13 you know, our state's 12 ports handle around 40 percent of
14 containerized imports and about 30 percent of all exports
15 for our nation. Unfortunately, this is, in part, why most
16 of our neighbors here in the state don't have access to
17 clean air. Warehouses and distribution centers are
18 certainly vital pieces of the modern freight system, but
19 around half of the forklifts operating in these facilities
20 are still running on internal combustion engines, despite
21 the health benefits and operational savings supported by
22 the many, many zero-emission forklift models available
23 today.

24 These rules presents a technically feasible,
25 phased-in approach to reducing air pollution from

1 forklifts that's estimated to result in thousands of fewer
2 cases of pollution-related sicknesses and over 80,000 lost
3 work days. Electrifying forklifts in warehouses and
4 distribution centers is a meaningful part of our
5 transition to cleaner, more sustainable, and equitable
6 freight system and I urge the adoption of this important
7 regulation today.

8 The pressing need for this transition is not
9 based out of fear as some folks have suggested today, but
10 rather by well-documented research peer-reviewed climate,
11 public health, and air quality science. This is all
12 available to review. We simply can't afford to wait any
13 longer to address our changing climate and widespread
14 public health concerns from our combustion-based freight
15 system.

16 Again, thanks for the time today and thanks
17 especially for CARB's continued support of fact-based
18 regulations that promote a healthy economy, equitable
19 communities, and a sustainable economy. Thank you so
20 much.

21 BOARD CLERK GARCIA: Thank you.

22 Laura, we've activated your microphone. Please
23 unmute and you can begin.

24 LAURA RENGER: Hi. Good morning. I'm Laura
25 Renger, the Executive Director of the California Electric

1 Transportation Coalition. I'd like to thank the staff for
2 all of their work on this issue and urge the Board to
3 adopt the proposed Zero-Emission Forklift Regulation.

4 CalETC has been in existence for over 30 years.
5 And for most of that time, we have encouraged the
6 accelerated adoption of electric forklifts. We published
7 technical studies in the 2000s showing the potential of
8 electric forklifts and other nonroad equipment. We have
9 supported incentives for electric forklifts, such as the
10 Carl Moyer Program and the Low Carbon Fuel Standard.
11 We've been active stakeholders in several planning efforts
12 that lead to this rulemaking, including the 2016 State SIP
13 Strategy, the 2016 Mobile Source Strategy, the Sustainable
14 Freight Action Plan, and Executive Order N-79-20.

15 The technology for electric and fuel cell
16 forklifts has advanced and we agree with staff that the
17 time is now to ensure and accelerate their adoption. And
18 we also agree that the proposed regulation is cost
19 effective. The air quality benefits from the proposed
20 regulation are not only to the forklift operators, but to
21 all Californians, especially those who live near factories
22 and warehouses where gasoline and propane forklifts are
23 commonly found.

24 We also agree with staff that the proposed
25 regulation could help catalyze greater adoption of

1 zero-emission technology in other off-road segments by
2 increasing market awareness, and we support the overall
3 growth of the zero-emission industry. We urge you to
4 adopt the Zero-Emission Forklift Regulation.

5 Thank you.

6 BOARD CLERK GARCIA: Thank you.

7 Jacob, we've activated your microphone. Please
8 unmute and begin.

9 JACOB DEFANT: Hi. This is Jacob, Agricultural
10 Council of California. We represent 15,000 farms and
11 growers in California ranging from small family and farms
12 to some of the world's best known brands.

13 I'd like to thank the Chair and the staff for
14 their work on this regulation and I'd like to highlight a
15 few of the comments made by some of the previous
16 commenters related to the agriculture industry, that
17 forklifts are an essential part of many farm and infield
18 operations. And that these forklifts have a distinct
19 operational use, primarily during our harvest seasons,
20 many times only being used two or three months out of the
21 year. And it's important to acknowledge the unique
22 demands and dynamics of that infield usage.

23 I'd like to support some of the calls that the
24 Board consider 20 percent phase-in caps on a phase-in
25 schedule for agriculture and infield forklifts. As stated

1 by a few previous commenters in considering the unique
2 needs of our fleets, 96 to 100 percent of agricultural
3 forklifts would have to be phased out by the second
4 compliance date, which is an extremely burdensome task for
5 a lot of farms that may have challenging financial
6 implications or considerations to make when adopting their
7 or complying their fleets to this regulation.

8 I'd additionally like to comment on the
9 definition for ag operations and oppose the exclusion of
10 retail nurseries from this definition. Horticulture
11 products, such as plants are cultivated and cared for at
12 retail nurseries in the same meticulous manner as
13 non-retail nurseries involving feeding, watering and
14 general maintenance care. Excluding them from this
15 definition is inconsistent with the true scope of
16 agriculture in our state.

17 Thank you very much.

18 BOARD CLERK GARCIA: Thank you.

19 After Mariela, we'll hear from Alessandra
20 Magnasco, Dean Talley, Trevor Newquist, Jeff Price, and
21 Marci Stanage. And just a reminder that the public
22 comments, the queue has closed for this item.

23 So Mariela, I have activated your microphone.
24 Please unmute and you can begin.

25 MARIELA RUACHO: Good morning, Chair and Board

1 members. I am Mariela Ruacho from American Lung
2 Association.

3 We urge the Board to approve the Zero-Emission
4 Forklift Rule today. This is an important step forward to
5 meeting clean air and climate standards to protect the
6 health of Californians who face the most difficult air
7 pollution burdens in the nation.

8 We thank and support CARB's research team
9 incorporating a broader suite of health benefits within
10 this rule. This is very important to understanding the
11 need for stronger standards. And we again appreciate the
12 ongoing commitment to research within the rulemaking
13 process. This rule will provide an estimated 7.5 billion
14 in health benefits, save 544 lives and over 109 fewer
15 thousand asthma symptoms cases, and then 42 fewer cases of
16 lung cancer. This is just a few to name of the health
17 benefits that the staff present -- staff presented today.

18 We also want to express our concern with any
19 additional up-front exemptions or additional flexibilities
20 that would undermine the much needed health and clean air
21 benefits that could be gained from this rule.

22 The Lung Association encourages you to approve
23 the rule today and consider more accelerated timelines for
24 fewer and -- for review and phase-in of zero-emission
25 technologies in this space in line with Executive Order

1 N-79-20 that calls for off-road transition to zero
2 emission by 2035, and the 2016 State Implementation Plan,
3 which has a set goal of reducing smog-forming emissions.

4 Also, we ask that you provide information on
5 possible funding resources that could contribute to the
6 acceleration -- the accelerated use and adoption of
7 zero-emission forklifts.

8 Thank you.

9 BOARD CLERK MOORE: Thank you.

10 Alessandra, I have activated your microphone.
11 Please unmute and begin.

12 ALESSANDRA MAGNASCO: Good morning, Chair and
13 Board members. Alessandra Magnasco on behalf of the
14 California Fuels and Convenience Alliance.

15 CFCA proudly represents California's fuel supply
16 chain below the refinery level, including fuel transport
17 and retail gas stations. Our members are largely small,
18 family, and minority-owned businesses that provide
19 essential goods and services to nearly every California
20 family. We are opposed to the adoption of the
21 Zero-Emission Forklift Rule as it will have substantially
22 negative impacts on our family-owned businesses.

23 Many of our businesses utilize forklifts and will
24 bear the heavy financial burden of not only replacing
25 these combustion forklifts, some of which would still be

1 fully functional, but they will also have to take on the
2 onerous cost in building out charging infrastructure.

3 This regulation will not only impact our
4 industry. It will affect local communities, small
5 businesses, food banks, non-profits, State agencies and
6 local governments. At a time when the cost of doing
7 business in the state is becoming crippling for our small
8 operators, this is not a practical cost-effective solution
9 to meeting California's climate goals. Thank you for the
10 opportunity to provide comments today.

11 BOARD CLERK GARCIA: Thank you.

12 Dean, I have activated your microphone. Please
13 unmute and begin.

14 DEAN TALLEY: Good morning. This is Dean Talley
15 representing the California Manufacturers and Technology
16 Association.

17 We appreciate CARB's efforts in addressing
18 emissions and the ongoing dialogue regarding the
19 Zero-Emission Forklift Reg today. However, the proposal
20 was insufficient and will impact California manufacturers
21 and businesses we rely on to provide these vehicles in
22 very negative ways. Forklifts are crucial for operational
23 efficiency and workplace safety and manufacturing. While
24 we support technological advancements, the proposed
25 regulation presents significant challenges for industrial

1 facilities in California.

2 Even with these recent changes, the proposed
3 compliance period is unfeasible. Businesses need more
4 time to secure funding, purchase new equipment, and
5 implement necessary infrastructure changes. There are
6 uncertainties regarding the availability of zero-emission
7 forklifts, and the necessary infrastructure which could
8 hinder compliance.

9 We propose extending the initial compliance
10 deadlines and offering incentives for early adoption, for
11 instance, meeting specific caps on zero-emission forklift
12 usage, could grant extensions like Mr. Isom proposed
13 earlier, adjust requirements based on individual facility
14 capabilities ensuring that smaller facilities are not held
15 to the same standards as larger complexes. The definition
16 of rent needs clarification. Multi-year rental agreements
17 are essential for flexibility and cost management in our
18 businesses. The regulation's phase-out schedule should be
19 more flexible than what has been provided today allowing
20 for a gradual, manageable transition.

21 CMTA urges CARB to consider recommendations to
22 make the regulation workable and economically feasible.
23 Given the deficiencies of the regulation, we ask that the
24 Board postpone any final action and address the major
25 outstanding issues with the proposal.

1 Thank you for your attention and consideration to
2 this matter.

3 BOARD CLERK GARCIA: Thank you.

4 Trevor, I have activated your microphone. Please
5 unmute and begin.

6 Trevor Newquist.

7 TREVOR NEWQUIST: Sorry about that. Can everyone
8 hear me?

9 BOARD CLERK GARCIA: Yes, we can.

10 TREVOR NEWQUIST: Thank you. Good morning, Chair
11 and Board members. My name is Trevor Newquist. I'm with
12 the Construction Employers' Association, which is
13 comprised of over 125 union signatory building contractors
14 within California. We perform in excess of 30 billion in
15 public and private construction volume annually. I want
16 to thank you for the opportunity to speak here today and
17 would like to address some of our concerns regarding the
18 proposed regulations.

19 In general, CEA is in support of efforts to
20 reduce fuel emissions. However, the proposed regulations,
21 in our opinion, are unrealistic and unworkable when it
22 comes to the building construction industry. While the
23 proposed regulations provide opportunities to request an
24 implementation delay, the regulations do not consider the
25 unique nature of construction. For example, the

1 requirements don't take into account construction projects
2 where only temporary or no power is available making the
3 utilization of battery powered electric forklifts
4 unfeasible.

5 It also doesn't take into account multi-level
6 construction projects where forklifts are hoisted on each
7 level. With these regulations in place, it would then
8 require installation of temporary charging stations at
9 each level of a building or to constantly hoist the
10 forklifts between levels creating additional safety
11 concerns, not to mention the additional cost and time it
12 would take.

13 While the regulations provide for various
14 extensions, the application process for those extensions
15 create overly burdensome requirements for our contractors.
16 Therefore, we'd ask the amount of information required in
17 requesting these extensions be scaled back to be less
18 burdensome and more feasible.

19 Overall, it is clear that the construction
20 industry would be negatively impacted by these
21 regulations, similar to the challenges that the forestry
22 and agricultural industries face and therefore also ask
23 CARB to strongly consider modifying the in-filed forklift
24 exemption to include the construction industry.

25 That concludes my time. Thank you for your

1 consideration and again for the opportunity to speak.

2 BOARD CLERK GARCIA: Thank you.

3 Jeff, I have activated your microphone. Please
4 unmute and you can begin.

5 Jeff Price.

6 JEFF PRICE: Good morning, CARB Board members and
7 staff. My name is Jeff Price. I'm with JS West Propane,
8 115-year old, fourth-generation, family-owned business
9 serving California.

10 I'm going to reiterate many of the comments that
11 have already been shared this morning, but bear repeating.
12 Obviously, we understand that the State has some ambitious
13 environmental goals, but we feel that CARB has not fully
14 considered how these regulations will impact our industry
15 by transitioning to battery forklifts.

16 You know, buying whole new fleets of
17 zero-emission forklifts to replace fully functioning
18 propane forklifts will have a dramatic impact on our
19 ability to continue our operations, so we urge CARB to
20 pause on the rulemaking and to work with the propane
21 industry and other stakeholders to refine the regulation,
22 so we can achieve the environmental goals and minimize
23 negative impacts.

24 So our message here today is please don't
25 eliminate propane forklifts.

1 Thank you for your time.

2 BOARD CLERK GARCIA: Thank you.

3 After Marci, we'll hear from Sean Cocca, Michael
4 Lewis, Alex Gallard, Bob Shepherd, and Peter Okurowski.

5 So Marci, I have activated your microphone.
6 Please unmute and you can begin.

7 MARCI STANAGE: Good morning. My name is Marci
8 Stanage and I'm speaking today on behalf of Rebuild SoCal
9 Partnership, an organization that consists of 2,750
10 contractors who employ more than 90,000 union workers in
11 the 12 counties of Southern California. The partnership
12 is dedicated to working with elected officials and
13 educating the public in Southern California on the
14 continued need for essential infrastructure funding,
15 including airports, bridges, ports, rail, roads and water
16 projects. In recent years, our members have been faced
17 with the challenge of complying with regulations centered
18 around a vital piece of equipment, vehicles or equipment
19 that they rely on to make a living.

20 Unfortunately, the proposed regulation and other
21 rulemaking proceedings currently underway continue to
22 create uncertainty as to how our members are expected to
23 comply with these proposed rules, which require the need
24 to purchase new equipment regardless of cost and
25 performance.

1 Recently an economic impact report was released
2 that found that under the proposed new rule costs to
3 forklift owners and operators throughout the State could
4 total up \$27 billion. Your Board has received arguments
5 regarding implementation from of manufacturers, retailers,
6 the construction industry, and several others that have
7 been ignored or rejected in favor of your preferred
8 technology solution. This is not a one-size-fits-all
9 solution. Your Board is setting mandates without regard
10 to the size of the business or the nature of the work.

11 In closing, we are hopeful that after hearing
12 about the vital impacts this regulation proposes that this
13 Board is willing to come to the table and find a feasible
14 and cost effective way to meet our state's ambitious air
15 quality goals.

16 Thank you so much.

17 BOARD CLERK GARCIA: Thank you.

18 Sean, I have activated your microphone. Please
19 unmute and begin.

20 SEAN COCCA: Thank you for letting me have the
21 opportunity to provide some comments on this
22 zero-emission -- proposed zero-emission regulation. My
23 name is Sean Cocca and I am a director on the regulatory
24 compliance team at TRC. TRC is a leading environmental
25 consulting firm with more than 30 years of experience in

1 low emissions and low carbon technology adoption for the
2 commercial fleet sector, including extensive
3 electrification and hydrogen project implementation.

4 TRC's focus on identifying and overcoming
5 barriers to ZEV adoption has provided a unique and
6 extensive perspective on the opportunities and challenges
7 facing the State of California as it moves towards a fully
8 zero-emission transportation system. TRC supports the
9 transition to zero-emission technology and regularly
10 assists California fleets in successfully navigating the
11 technological and financial constraints of doing so.

12 While the 15-day changes added the -- an option
13 to utilize a percentage phase-out cap in lieu of the model
14 year phase out, TRC believes that the current cap of 50
15 percent large fleets still constitutes an undue burden on
16 California companies. For reference, some of TRC's large
17 fleet clients will see a significant phase-out obligation
18 in 2028, even if they utilize the percentage phase-out cap
19 option. For example, this would require one fleet to
20 phase out and replace nearly a hundred forklifts by 2028
21 with another hundred scheduled for 2031.

22 As a result, TRC is recommending setting the
23 percentage phase-out caps for large LSI fleets to 25
24 percent for the 2028 compliance year for Group IV
25 forklifts, and 2030 for Group V forklifts. Additionally

1 TRC is recommending extending the percentage phase-out cap
2 to allow for a 25 percent cap in all subsequent compliance
3 years to allow for sufficient capital planning to meet the
4 requirements. This is especially important due to the
5 zero-emission requirements imposed on California fleets
6 from other concurrent regulations, such as the Advanced
7 Clean Fleets Regulation and Zero-Emission Transport
8 Refrigeration Unit regulations.

9 In summary, TRC respectfully requests that the
10 Board not adopt the proposed regulation in its current
11 form. The concerns I've outline should be addressed
12 through changes to the proposed regulation.

13 Thank you.

14 BOARD CLERK GARCIA: Thank you. That concludes
15 your time.

16 Michael, I have activated your microphone.
17 Please unmute and you can begin.

18 MICHAEL LEWIS: Good morning. My name is Michael
19 Lewis. I'm the Senior Vice President of the Construction
20 Industry Air Quality Coalition and I wanted to express our
21 industry's concerns about many of the provisions of the
22 proposed Forklift Rule. We've submitted numerous comment
23 letters outlining our issues.

24 It's unfortunate that your Board has adopted a
25 rulemaking process that delegates all of your policy

1 discretion to the staff and leaves you with only the
2 omni -- option of an omnibus up or down vote. This method
3 diminishes the purpose and the role of the Board in the
4 process and leaves the final product in the hands of those
5 who have no accountability for the economic impact of
6 their decisions. I think it does a great disservice to
7 the residents of our state.

8 The Governor's Executive Order for zero emission
9 was filled with "Where Feasible" language, which the staff
10 has routinely ignored in their zeal to implement the goal.
11 We've been engaged with the staff for years on the subject
12 of forklifts. And while the subject may seem simple to
13 the layperson, it's far more complicated than that for
14 the -- based on the type, the use, the location, and the
15 purpose for forklifts varies widely and does not fit the
16 one-size-fits-all solutions.

17 Our concern is contractors use forklifts at their
18 warehouses and maintenance facilities and a completely
19 different rough terrain forklift on job sites. We
20 proposed numerous changes to the rule. One, that you
21 modify the definition of rent to remove the, "any
22 time limit", that the sell-through provision for sales of
23 '21 through '25 model year be adjusted that the provision
24 include allow for sale of forklifts ordered in '24 and
25 '25, that the phase-out cap be set at 25 percent per year,

1 and that section 3009 be simplified for large fleets
2 reporting to participate in the phase-out cap.

3 This rule needs a lot more work. I think you've
4 heard that from a number of folks in our industry. I hope
5 that you'll take the time to get it right. I think it's
6 important to -- and it's going to be very expensive rule
7 for our members to comply with, along with all the other
8 rules that we're attempting to comply with. And we've put
9 too much -- we're counting too much on the utilities, and
10 the PUC, and the Energy Commission to deliver what needs
11 to be delivered to make this rule work.

12 I hope you'll take the time to get this right.
13 Thank you.

14 BOARD CLERK GARCIA: Thank you.

15 Alex, I have activated your microphone. Please
16 unmute and begin.

17 Alex Gallard.

18 Okay. We'll come back to Alex.

19 ALEX GALLARD: I'm here. I'm here.

20 BOARD CLERK GARCIA: We can hear you.

21 ALEX GALLARD: Thank you. I am Alex Gallard. I
22 am Director of Regulatory Affairs with Blue Star Gas. We
23 are an 86-year old propane company, third generation
24 marketer that employs over a hundred individuals in
25 California and provides propane to several hundred

1 residents and businesses in the I-5 corridor and 101, and
2 applications that include forklift fleet fueling in
3 rural hard-to-decarbonize counties.

4 CARB should not pass this Zero-Emission Forklift
5 Rule and I support the comments already provided by WPGA
6 and my colleagues. The cost to transition battery
7 forklifts is up to \$27 billion. Battery forklifts are not
8 a one-to-one replacement. If this rule takes effect, our
9 customers will have to purchase several battery forklifts
10 to replace one propane forklift, which may still have
11 years to use left. This will also require expensive
12 charging infrastructure upgrades that are not currently
13 accurately factored into CARB's costs and come with their
14 own environmental challenges.

15 Furthermore, ZE Emission Forklift Rule
16 contradicts CARB's existing LCFS goals in promoting the
17 development of and incentivizing the production of
18 renewable propane. If CARB passes this rule, it will
19 drastically decrease the amount of transportation gallons
20 available for LCF credits and thereby create a chilling
21 effect on production of renewable propane. California
22 needs to avail itself of all low carbon intensity energy
23 sources to meet its overall emission goals and should
24 encourage production of renewable fuels like renewable
25 propane in the LCFS Program.

1 For these reasons, I urge CARB to not approve
2 this Zero-Emission Forklift Rule.

3 Thank you.

4 BOARD CLERK GARCIA: Thank you.

5 Bob, I have activated your microphone. Please
6 unmute and begin.

7 BOB SHEPHERD: Hi. Bob Shepherd. Chair Randolph
8 and Board members. My name is Bob Shepherd representing
9 the California CAT dealers.

10 Since 2020, as forklift dealers, we have worked
11 extensively with staff to help educate them on the
12 limitations of electric fork replacements for spark
13 ignited forklifts. We appreciated working with staff and
14 the changes they made to address some of our concerns.

15 Unfortunately, even with those modifications, the
16 regulation is still unworkable, extremely disruptive, and
17 economically infeasible for businesses throughout the
18 State, especially for large operations and rental fleets
19 for dealers. For the record, we're committed to emissions
20 reduction. However, we and many other industry experts
21 identified that staff has not fully vetted more reasonable
22 approaches and alternatives that can achieve the same or
23 better results, and which could transition the industry
24 more feasibly and economically in lieu of a mandated
25 phase-out of propane forklifts especially where electric

1 replacements are infeasible.

2 Until such alternatives or part of the
3 regulation, we ask the Board not to approve this
4 regulation and instruct staff to redraft the regulation to
5 include such alternatives. We also asked for a delay of
6 the regulation for at least five years given the mass
7 amount of nonexistent electrical infrastructure required
8 for the many overlapping ZEV regulations already in place,
9 not including this proposal.

10 In our letter, we also ask for the definition of
11 rent to be modified to remove any time limit.
12 Fictitiously moving a rental forklift back and forth for
13 compliance between rental fleet and an end user's fleet
14 simply because it exceeds 12 months, provides no
15 emissions benefit, and it creates an administrative
16 nightmare. Further, end user does not own the forklift
17 for compliance.

18 The phase-out cap provided in the regulation is
19 also unacceptable especially for large fleets. It must be
20 set at not more than 25 percent for all fleets throughout
21 the whole period between 2027 and 2037. Fifty percent is
22 actually excessive. It puts these large fleets at
23 unreasonable competitive disadvantage. Reporting
24 requirements in 3009(k) also need to be removed. We had
25 other comments our letter. We appreciate our comments

1 today. Thank you.

2 BOARD CLERK GARCIA: Thank you. That concludes
3 your time.

4 After Peter, we'll have hear from Bill LaMarr,
5 Whitney Amaya, Alison Hahm, and Carmen Gonzalez.

6 So Peter, I have activated your microphone.
7 Please unmute and you can begin.

8 PETER OKUROWSKI: Thank you. I'm Peter Okurowski
9 with CCEEB, the California Council for Environmental and
10 Economic Balance and we represent on- and off-road mobile
11 source operators, electricity generators and providers,
12 and entities producing hydrogen fuel and renewable and
13 conventional fuel. We continue to support CARB's efforts
14 to reduce emissions and we look forward to continuing to
15 work with staff. We're concerned that this regulation
16 will be implemented over the same time as more than a
17 dozen other CARB and other agency zero-emission
18 regulations. These regulations place an unrealistic
19 increased demands on the all already burdened California
20 grid and we'll require significant financial investment.

21 CCEEB therefore requests that CARB push back the
22 phase-out dates by five years to reduce the implementation
23 overlap with these other significant new zero-emission
24 regulations. Next, we want to reiterate our previous
25 request that staff clarify that low-use forklifts are not

1 only exempt from the general LSI forklift prohibition, but
2 also the phase-out provisions, and we believe the 15-day
3 changes did not clarify this confusion. We also reiterate
4 our request that the regulation include a prohibitive cost
5 extension.

6 Finally, we want to thank staff for several
7 items. First, for letting us know they're considering our
8 request to hold a workshop where electric utilities and
9 fleets can discuss grid readiness and regulatory
10 requirements for removing the provision that would have
11 limited the time frame for the low-use exemption, for
12 adding an operational extension that allows one LSI
13 forklift to replace another LSI forklift, and removing the
14 sunset date for that extension, and finally for allowing
15 diesel forklifts to replace Class IV or V forklifts up to
16 12,000 pounds.

17 Thank you.

18 BOARD CLERK GARCIA: Thank you.

19 Bill, I have activated your microphone. Please
20 unmute and begin.

21 Bill LaMarr.

22 BILL LAMARR: Can you hear me?

23 BOARD CLERK GARCIA: Yes, we can.

24 BILL LAMARR: Thank you. Good morning. I'm Bill
25 LaMarr. I'm the Executive Director of the California

1 Alliance of Small Business Associations. We are an
2 alliance of trade associations committed to providing a
3 single voice for some 14,000 small businesses before
4 regulatory agencies.

5 For the past three and a half years, we've been
6 actively engaged in development of this regulation. We've
7 participated in work group meetings and more directly with
8 staff during our meeting of your Small Business
9 Opportunities Assistance Panel, where we expressed our
10 doubts and concerns about the perceived size of the
11 universe of forklifts, the estimated cost to small
12 businesses, and the projected emission reductions from
13 this regulation.

14 While we appreciate staff's zeal to accelerate
15 the deployment of these forklifts to achieve the maximum
16 emission reductions possible to assist in the attainment
17 of NAAQS standards for criteria air pollutants, we don't
18 believe this is -- the regulation in its present form is a
19 proper instrument. Our position has been reinforced after
20 reviewing the findings of an Economic Impact Analysis by
21 the Western Propane Gas Association that shows many staff
22 assumptions and conclusions about the size of the universe
23 of forklifts. The cost and benefits to be resolved -- be
24 derived from it are fundamentally flawed.

25 As such, we urge the Board to review the analysis

1 and return the proposed regulation to staff to address and
2 resolve these most important discrepancies and avoid
3 imposing burdensome compliance and costs on businesses and
4 unrealistic expectations on the public.

5 Thank you.

6 BOARD CLERK MOORE: Thank you.

7 Whitney, I have activated your microphone.

8 Please unmute and begin.

9 WHITNEY AMAYA: Good morning, Chair and Board
10 members. Thank you for the opportunity to comment today.
11 My name is Whitney Amaya. I'm a resident of West Long
12 Beach and community member with East Yard Communities for
13 Environmental Justice.

14 I'm speaking today in support of the
15 Zero-Emission Forklift Regulation and to urge your
16 adoption of this rule. Many of the polluting sources in
17 my community are connected to the freight industry. And
18 I've seen what that pollution translates to in terms of
19 health impacts, as well as mental and emotional
20 well-being. The technology to clean up the dirty
21 operations and reduce emissions of the freight industry
22 exists, but the reality is that unless they're legally
23 required to transition over to clean zero-emission
24 technology, industries will not do so of their own accord.
25 Otherwise, we'd have seen it by now.

1 I've seen how quickly warehouses go up in my
2 community. And I recently had the opportunity to attend a
3 tour in the Inland Empire where I saw how warehousing and
4 the freight industry has taken over the region, which
5 shame to all of our supposed representatives for allowing
6 these warehousing projects to move forward without the
7 consent of our communities and despite our opposition.

8 How is it that industry somehow have the need to
9 expand and build new facilities, but not to invest in
10 their own equipment. These warehouses and the freight
11 industry as a whole are continuously causing harm to our
12 communities and environment. We need this industry to
13 move away from internal combustion forklifts to allow our
14 communities to breathe a little easier.

15 So again, I ask that CARB adopt this the
16 Zero-Emission Forklift Regulation to protect public
17 health.

18 Thank you.

19 BOARD CLERK GARCIA: Thank you.

20 Alison, I have activated your microphone. Please
21 unmute and begin.

22 ALISON HAHM: Hi. My name is Alison Hahm. I'm
23 an attorney with NRDC's Environment, Equity, and Justice
24 Center. I'm calling in today to urge CARB to adopt the
25 Zero-Emission Forklifts Regulation to accelerate the

1 State's transition to zero-emission technologies and phase
2 out internal combustion forklifts.

3 I was also with Whitney this past weekend in
4 Inland Empire and I saw first hand the heavy toll that
5 pollution from the freight industry is taking on
6 communities boxed in by warehouse expansions and cloaked
7 by toxic emissions for forklift equipment and vehicle
8 servicing warehouses. I spoke to community members who
9 regularly rush their children to emergency rooms to treat
10 asthma attacks and carry the pain and loss of friends and
11 family dying from heart and lung disease at an alarming
12 rate.

13 From 2026 to 2043, emissions reductions from this
14 life-saving Zero-Emission Forklifts Regulation will
15 prevent over 500 premature deaths, over 100
16 hospitalizations for heart disease, and over 100
17 cardiovascular emergency visits. CARB must adopt the
18 Zero-Emission Forklift Regulation to protect public
19 health. Zero-emission battery electric forklifts have
20 been around and in use for decades, and moving away from
21 internal combustion forklifts is a necessary move to
22 protect the health of Californians, especially
23 warehouse-adjacent communities and warehouse workers.

24 The health benefit savings from this rule are
25 valued at 7.5 billion. The bottom line is that shifting

1 to zero-emission forklifts in all industries, including
2 the logistics industry will save lives. We urge CARB to
3 adopt this important rule, but ask that the agency review
4 the state of technology before implementation to consider
5 whether the phase-out timeline can be accelerated.

6 Thank you to CARB staff for developing this vital
7 regulation. We urge CARB to adopt this rule today.

8 Thank you. I appreciate your time.

9 BOARD CLERK GARCIA: Thank you.

10 Next, we will hear from Manuel Cunha, Yassi
11 Kavezade, Casandra Russo, Adam Borchard, and Cory
12 Sherlock.

13 So Manuel, I have activated your microphone.
14 Please unmute and you can begin.

15 MANUEL CUNHA, JR.: Can you hear me?

16 BOARD CLERK GARCIA: Yes, we can.

17 MANUEL CUNHA, JR.: Great. Thank you.

18 Chairwoman and Board members, thank you for the
19 opportunity. Manuel Cunha, President Nisei Farmers League
20 and the California African American Farmers.

21 First off is that I appreciate the work that ARB
22 staff -- you know, agriculture has been very positive in
23 working with your staff since 1993 under Jan Sharpless in
24 developing solid good research. Much of the agricultural
25 communities that are going to be impacted by this are

1 farmers, are packers. And some of your staff there,
2 Chairwoman, have letters from the PG&E stating that
3 they're not going to be able to provide power to our
4 packing houses for 10 years. And we have several in the
5 town of Sanger, that 150 good paying jobs will not happen
6 because they don't have the infrastructure or power at
7 all.

8 Some of our older warehouses the utility company
9 is saying we cannot add more power or transformers because
10 the grid can't handel it, the substation. So now we're
11 strapped with that. So it's the infrastructure in many of
12 the rural communities for our processing houses, our
13 packing houses. And that's the only probably building in
14 the entire town are not able to afford to figure out how
15 to build this infrastructure unless you go out and get a
16 natural gas generator or a diesel generator to run the
17 power.

18 So, my ask of you is to please consider the
19 timeline extension. Yeah, we've done a lot with farmers,
20 the ag burn and all that. We've worked with your staff.
21 Give us the timelines that we need in our industry. We
22 can't pass the cost down and we're not -- and don't want
23 to destroy jobs in our communities. So we ask you, allow
24 that 20 percent throughout the process, allow that to
25 work, but also bring us back in two or three years to see

1 what problems you're really having, because it's like the
2 Bus and Clean Fleet Rule, that is not working at all.

3 Thank you.

4 BOARD CLERK GARCIA: Thank you.

5 Yassi, I have activated your microphone. Please
6 unmute and begin.

7 YASSI KAVEZADE: Good morning. My name is Yassi
8 Kavezade. I'm a national campaign advisor for Sierra Club
9 on our national transportation team. We are excited to
10 save -- or to support this cool rule that will save lives
11 and require a 15- to 20-year lead time for zero emissions
12 transition. I appreciate staff working hard within the
13 industry and the public on drafting a Forklift Rule
14 requiring entities that have no more than 25 units in
15 their fleets to comply and sharing the public that mom and
16 pop businesses won't be affected. \$7.3 billion in health
17 benefits is a remarkable finding and we are eager to see
18 the results.

19 On behalf of our 100,000 members in the state, I
20 urge the Board to adopt this rule. Zero-emissions
21 standards will provide clean air to front-line residents
22 and workers, some of who are at risk of cancer, asthma and
23 heart disease. And I bet folks who work in the industry
24 suffer from impacts or know others who work in and live by
25 cargo handling equipment feels these impacts to, who are

1 often communities of color.

2 Some of these forklifts run 24 hours a day most
3 time every single day of the week. Imagine living nearby
4 a packing house, warehouse, railyard or port that runs on
5 propane natural gas and diesel in high concentration.
6 Cost benefit analysis done by CARB assures costs can come
7 down and fuel cost savings that are cheaper, or at least
8 competitive with propane, are feasible.

9 Just two weeks ago at the South Coast Air Basin,
10 we surpassed another attainment threshold for ozone
11 resulting into terrible air quality. We need
12 comprehensive zero-emission rules, and this rule is so
13 cool to me, because the technology exists right here and
14 now. We can't let bosses of the fossil fuel industry
15 resist change. Get ready for the zero-emissions economy,
16 because it is here and ready to be built. We have the
17 responsibility to live a healthy planet -- to leave a
18 healthy planet for the next generation. Please pass this
19 rule today. Forklifts are cool and be -- and they're
20 ready to be electrified.

21 Thank you.

22 BOARD CLERK GARCIA: Thank you.

23 Casandra, I have activated your microphone.

24 Please unmute and begin.

25 CASANDRA RUSSO: Thank you so much for allowing

1 me that chance to speak today. Casandra Russo with
2 AmeriGas Propane. We are a national propane distributor
3 and provide clean fuel to over 4,300 forklift fleets in
4 California.

5 I wanted to share some feedback that I received
6 from an international transportation company that recently
7 converted their forklift fleet to all electric. They
8 relayed the following concerns.

9 That as a 24/7 operation they were not prepared
10 for the amount of downtime that was needed to recoup the
11 lift due to charging, nor did they anticipate the waning
12 performance and power from a low battery on a machine.
13 They also cited many instances of lifts running out of
14 battery, being stranded across the warehouse and
15 abandoned.

16 They expressed that they didn't feel like they
17 had adequate information before converting their fleet,
18 didn't understand the challenges of conversion, and that
19 the electric lift is not equitable as a one-to-one
20 replacement. This resulted in them returning right back
21 to propane after only six months, which is not a bad thing
22 if the goal is emissions reduction.

23 Propane lifts not only offer that lower purchase
24 price, but if you consider the total site-to-source
25 emissions, including those produced in the manufacturing,

1 transportation of batteries for these lifts, the
2 electricity needed for recharging the batteries, the
3 emissions profile is not zero. Propane, when compared to
4 diesel, reduces NOx emissions by 94 percent and SOx
5 emissions are reduced by 76 percent versus electric.

6 In fact, a well maintained propane forklift can
7 meet or beat national indoor air quality standards and
8 keep the material handling goods movement operations
9 functioning in California.

10 Thank you so much for your time today and the
11 opportunity to speak. Appreciate it.

12 BOARD CLERK GARCIA: Thank you.

13 Adam, I have activated your microphone. Please
14 unmute and begin.

15 ADAM BORCHARD: Can you hear me?

16 BOARD CLERK GARCIA: Yes, we can.

17 ADAM BORCHARD: All right. Good morning, Chair
18 Randolph and Board members. And thank you for the
19 opportunity to comment today. My name is Adam Borchard
20 and I'm speaking today on behalf of the California Fresh
21 Fruit Association. The Association represents growers,
22 packers, and shippers of 13 fresh market tree and vine
23 fruit commodities grown domestically in California.

24 The use of Class IV and Class V off-road large
25 spark ignition engine forklifts is an integral and

1 essential component of our members' business operations
2 today, particularly now and through the summer and fall
3 during California's harvest and shipping season. The
4 Association appreciates the engagement with industry by
5 the Air Board and staff. There's no question that this
6 new regulation will result in new additional costs and
7 burdens on California's agricultural businesses,
8 particularly in rural communities where increasing
9 electrification and infrastructure upgrades are already an
10 acute concern and challenge today.

11 The agricultural industry strives to be a
12 constructive partner in working with the Board to balance
13 meeting the State's a zero-emission goals while providing
14 as smooth as possible a transition and implementation
15 roadmap that can realistically and successfully achieve
16 the large scale technology innovation, upcycling, and
17 adoption of zero-emission forklifts.

18 Echoing comments already provided today by the
19 California Cotton Ginners and Growers Association and the
20 Western Agricultural Processors Association, a proposed
21 implementation alternative began with a 20 percent
22 adoption by 2029 with subsequent incremental 20 percent
23 increases will achieve this balance and comply with this
24 proposed rule's deadline.

25 Thank you.

1 BOARD CLERK GARCIA: Thank you.

2 Cory, I have activated your microphone. Please
3 unmute and begin.

4 Cory Sherlock. Oh, it looks like you've unmuted.

5 CORY SHERLOCK: Good morning. Can you hear me?

6 BOARD CLERK GARCIA: Yes, we can.

7 CORY SHERLOCK: Good morning, Chair Randolph and
8 Board members. Thank you for the opportunity to comment.
9 My name is Cory Sherlock and I'm with Hunt & Sons and
10 Company, family-owned and operated business serving
11 California for the past 78 years.

12 While I feel comments you've heard earlier, I
13 appreciate and understand the State's intent on setting
14 ambitious environmental goals. However, it seems as if
15 CARB members may not have considered how implementation of
16 this regulation will impact stakeholders. The transition
17 to battery forklifts comes with a massive price tag,
18 upwards of \$27 billion, which is nothing to take lightly.

19 While businesses can predict some of the costs
20 that they would impact -- that would impact them, there
21 are unforeseen consequences that have yet to be
22 considered. These could have widespread economic effects
23 throughout our state. For some businesses, purchasing a
24 new fleet of zero-emission forklifts to replace fully
25 functioning internal combustion engine forklifts will not

1 be a significant burden to them. However, many small
2 businesses will have a drastic impact on their ability to
3 continue operations.

4 As mentioned by prior commenters are the problem
5 with shifting to battery forklifts is that it's not a
6 one-to-one replacement. If this rule takes effect,
7 businesses will have to purchase multiple battery
8 forklifts to replace just one propane-powered forklift,
9 which may still have years of use left.

10 This rule will lead to expensive -- expensive
11 charging costs and require extensive infrastructure
12 upgrades that are not currently factored into the costs,
13 income with their own environmental challenges. I urge --
14 I urge CARB to pause in their process and direct CARB
15 staff to collaborate with business and industry associates
16 in refining the regulations.

17 Thank you very much for the time and opportunity
18 to comment.

19 BOARD CLERK GARCIA: Thank you. That concludes
20 your time.

21 The last four commenters for this item will be
22 Sylvia Betancourt, Katie Little, Matthew Moravek, and
23 Steven Fenaroli.

24 So Sylvia, I have activated your microphone.
25 Please unmute and begin.

1 SYLVIA BETANCOURT: Good morning, Board members.
2 My name is Sylvia Betancourt with the Long Beach Alliance
3 for Children with Asthma based at Miller Children's and
4 Women's Hospital of Long Beach.

5 I'm calling today in support of this measure and
6 hope that you would also support it. You know in our
7 experience working with children daily on the front lines
8 in communities that are directly impacted by air
9 pollution, you know, we find that these children after
10 leaving the hospital, after missing many days of school
11 and their parents missing work, they're going back home to
12 communities where they're continuing to be exposed to
13 pollution, whether that be at home, at school, at their
14 park.

15 You know, we really need to make sure that our
16 children's health comes first, that their parents are able
17 to be at work and not missing because they're having to
18 take care of their kids, not under stress, because they're
19 at a hospital or in the ER. We need to ensure that their
20 health is a priority. And when we look at the industries
21 that surround these communities, we need to ensure that
22 they're operating in a way that is cleaner, that is
23 something that is going to be beneficial for everyone, but
24 in particular for those that are right on the fenceline.
25 So again my support for this measure and I thank you for

1 your time.

2 BOARD CLERK GARCIA: Thank you.

3 Katie, I have activated your microphone. Please
4 unmute and begin.

5 KATIE LITTLE: Thank you, Chair and members. My
6 name is Katie Little with the California League of Food
7 Producers. I would like to align my comments with the
8 Western Agricultural Processors Association and the
9 California Cotton Ginners and Growers Association in
10 thanking staff for working with the agricultural community
11 in the development of this rule.

12 I would also like to echo the call for a 20
13 percent cap on the phase-out schedule to allow our members
14 to comply with the rule. Again, our facilities operate
15 two to three months out of the entire year, making this
16 investment in these technologies financially burdensome.
17 California food processors operate on very small margins
18 and cannot pass along these large costs to our customers.
19 This small addition will allow food producers to continue
20 to provide safe affordable nutrition, not only to
21 Californians, but the nation and the world. We hope to
22 continue this invaluable service well into the future.

23 Thank you for your time and consideration.

24 BOARD CLERK GARCIA: Thank you.

25 Matthew, I have activated your microphone.

1 Please unmute and begin.

2 MATTHEW MORAVEK: There we go. Hi. Matthew
3 Moravek with McClone Construction Company. And we are
4 specialized structural concrete and formwork company that
5 would be directly impacted by the adoption of this
6 regulation. It is important to note that on construction
7 sites across the state, there is no infrastructure
8 established, not due to a delay of infrastructure, but
9 simply it is not part of the building process, until the
10 project or building is complete.

11 Many contractors, including McClone, scopes of
12 work is completed prior to the Building or project being
13 completed and turned over to the owner. We use forklifts
14 specifically as an essential tool to move material and
15 equipment on job sites, which directly reduces the
16 unnecessary risk of ergonomic injuries to all workers
17 on-site. As of today, there are no zero-emission
18 forklifts which could replace an LSI forklift that
19 concludes with our scope of work.

20 You know, I want to reiterate that there is and
21 will never be infrastructure established on construction
22 sites during vital phases of the Building process. And
23 again, I want to echo the comments made by the CEA, the
24 Western States Alliance, and the NorCal Carpenters Union.
25 It is important that the Board takes all these comments

1 into consideration and the direct impacts that they would
2 have on the construction industry.

3 Thank you.

4 BOARD CLERK GARCIA: Thank you. Steven, I have
5 activated your microphone. Please unmute and begin.

6 STEVEN FENAROLI: Thank you for the opportunity
7 to comment today. My name is Steven Fenaroli. I'm with
8 the California Farm Bureau. We represent over 21,000
9 farmers and ranchers across the state.

10 Farmers more than anyone recognize the need to
11 meet our climate goals and we're in agreement that -- with
12 reducing emissions in order to meet that goal. I do want
13 to start by thanking CARB for exempting Type VII
14 forklifts. It's a recognition of the realities that some
15 operations face.

16 We do still have some concerns over the phase-in
17 timeline. This rule will mean immense capital costs that
18 many -- that many smaller farmers which Farm Bureau
19 represents, will have an extremely tough time meeting.
20 I'd ask CARB to -- and the Board to consider reworking the
21 timeline to get attainment and give us to 2038, which is
22 only four additional years with some smaller yearly caps
23 to meet the phase-outs.

24 Thank you.

25 BOARD CLERK GARCIA: Thank you. And lastly,

1 we'll hear from David. David, I have activated your
2 microphone. Please unmute and begin.

3 DAVID P.: Hello, CARB group. Really appreciate
4 the time that you're spending, as well as everybody with
5 their comments today and their thoughts.

6 I wanted to just share that as a consultant in
7 the warehouse and outdoor construction management
8 solutions industry, I would ask that the State develop a
9 program for small and outdoor businesses who utilize Class
10 V forklifts to provide a rebate somewhere between \$500 to
11 \$5,000 to small businesses that utilize forklifts between
12 3,00 to 8,000 pond capacity lifts that has not been
13 available by Carl Moyer or some of the other programs.
14 They require over 8,000 pounds.

15 Really quickly, there are many used electric
16 forklifts in the 10,000 to 20,000 range that can be found
17 online. There are lithium battery solutions today for
18 forklifts that can run 20 hours per day for outdoor usage
19 for construction projects and the like. And then these
20 batteries can be recharged in one to four hours depending
21 on how much they're used and ready for use immediately. I
22 would remind people that driving forklifts inside
23 warehouses absolutely presents respiration risk by
24 breathing in carbon monoxide daily. There's not a zero
25 emission in this case. There's also a noise component to

1 people's ears that has a long-lasting impact to their
2 health. And that also additionally, there are increasing
3 businesses, even in the State of Texas outside of
4 California, the land of gas and propane, and they're
5 moving to electric forklifts based on the significant
6 operational savings of running propane.

7 So there's a great understanding --
8 misunderstanding that lead-acid batteries only last three
9 to four hours, which is true, and then you have to charge
10 them overnight. Whereas with lithium, you can charge it
11 immediately and use immediately. So I just wanted to
12 share those comments and thoughts and thank you all for
13 what you're about to decide on.

14 BOARD CLERK GARCIA: Thank you. That concludes
15 the commenters for this item.

16 CHAIR RANDOLPH: Okay. Thank you. So at
17 juncture I think we want to go ahead and do our 45-minute
18 lunch break and then we will come back, close the record,
19 and have Board discussion. So does that sound good,
20 Executive Officer? Is that a plan?

21 EXECUTIVE OFFICER CLIFF: That works. I think
22 you can close the record now. And if we have any
23 response, we can re-open.

24 CHAIR RANDOLPH: Okay. So if you have anything
25 you need to add.

1 EXECUTIVE OFFICER CLIFF: Yes.

2 CHAIR RANDOLPH: Okay. All right. Then I will
3 do that. So I will close the record on this agenda item.
4 However, if it is determined that additional, sufficiently
5 related, substantial modifications are appropriate, the
6 record will be reopened and a 15-day Notice of Public
7 Availability will be issued. If the record is reopened
8 for a 15-day comment period, the public may submit written
9 comments on the proposed changes which will be considered
10 and responded to in the Final Statement of Reasons for the
11 regulation. Written or oral comments received after this
12 hearing date but before a 15-day notice is issued will not
13 be accepted as part of the official record on this agenda
14 item.

15 The Executive Officer may present the regulation
16 to the Board for further consideration, if warranted, and
17 if not, the Executive Officer shall take final action to
18 adopt the regulation after addressing all appropriate
19 modifications.

20 So we will take our 45-minute lunch break and
21 then Board members will be able to ask questions and have
22 discussion on this item. So we will be back at 12:45.

23 Thank you.

24 (Off record: 11:59 a.m.)

25 (Thereupon a lunch break was taken.)

1 a little short staffed right now. Sorry. So I just first
2 want to state how much I appreciate the engagement of the
3 agricultural sector. Roger, and Priscilla, and I had a
4 conversation I think it was last week to kind of walk
5 through this. And we did have staff do some preliminary
6 analysis to better understand the potential impacts of
7 their request. And it turns out that it's a pretty
8 significant hit to the benefits that we would expect from
9 this sector. It's about half of the benefits that we
10 would have expected to see as a result of delaying the
11 turnover of those forklifts based on their request.

12 Earlier in the process, those stakeholders did
13 ask for a cap on the turnover and so we did put on that
14 cap the 25 percent in response to that initial request.
15 We understand from those discussions that that means in
16 the second compliance period, essentially the rest of them
17 would have to be turned over, but no more than 25 percent
18 would have to be turned over in the -- in any one year in
19 that first compliance period.

20 BOARD MEMBER RECHTSCHAFFEN: Thank you. And then
21 I have another question that came up in some of my
22 meetings with the stakeholders. And the Western Propane
23 and Gas Association in particular advocated for an
24 alternative to the rule that would delay the zero-emission
25 requirement and instead focus on accelerating retirement

1 of pre-2011 forklifts and accelerating an aggressive
2 adoption of a very low-NOx standard in place of the
3 zero-emission rule. And I'm wondering if you could also
4 comment on what impact that would have on the air quality
5 benefits we expect to be realized by the rule.

6 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

7 CHIEF HEROY-ROGALSKI: Yeah. Thank you for the -- thank
8 you for the question. We did -- we did look closely at
9 that proposal. And it turns out it would get almost no
10 benefits. And the reason that is is when we look at what
11 benefits we expect from one of our rules, we're looking at
12 like the baseline situation, what would happen in the
13 absence of the rule and then we're comparing that to what
14 would happen with the rule in place, because pre-2011
15 forklifts would largely be like naturally retired out of
16 the -- out of service by the end of our rule
17 implementation. Like if you look a what will happen to
18 emissions, we're already assuming those forklifts will be
19 out of the fleet.

20 So their proposal would just slightly accelerate
21 the turnover of those quite old forklifts. It wouldn't
22 really get any emission reductions. So it would -- it
23 would forgo nearly all the emission reductions that we
24 anticipate from the rule. And it also wouldn't meet the
25 goals of EO 79-20.

1 BOARD MEMBER RECHTSCHAFFEN: Thank you. And I
2 would maybe add to that that as a gen -- as a
3 philosophical matter, I don't think we should be adopting
4 near-zero emission rules at this point. Those are not
5 future-proofed. We need to be moving as rapidly as
6 possible to electrifying our -- all of our off-road and
7 on-road fleet. And even though there may be -- even
8 though there might be some emission benefits from
9 alternative technologies, there won't be as many as the
10 zero-emission technologies nor will it incentivize the
11 adoption of zero-emission technology in other sectors as
12 some of the stakeholders pointed out today.

13 So thank you for those responses. I'm very
14 supportive of the rule. I want to compliment the staff
15 for making it tailored and nuanced, and having several
16 very important extensions and exemptions, and a cap on the
17 turnover and compliance periods. We did hear a lot about
18 the concerns over whether or not sites will be energized
19 on time and the challenges of the grid. And that is a
20 pervasive problem that is a real problem. And we can't be
21 naive and not recognize that I think it's an
22 all-hands-on-deck problem that we are trying as a State
23 government to solve.

24 The rule recognizes that problem by providing
25 meaningful extensions in the event that sites can't be

1 electrified in the time frame that are required. So I
2 think that's a very important extension provision in the
3 rule.

4 And then finally, I want to -- I appreciate that
5 the rule uses the more comprehensive health benefits
6 analysis. That is really important and it shows the whole
7 range of health benefits from our air pollution rules.
8 And it's catching us up where I think public health
9 science has been for a long time. We haven't quantified
10 these benefits, but we know from science that there are so
11 many health impacts from air pollution. So it's very
12 helpful that we are not putting them in our regulatory
13 analysis.

14 Thank you.

15 CHAIR RANDOLPH: Thank you.

16 Board Member De La Torre.

17 BOARD MEMBER DE LA TORRE: Thank you. I just
18 want to kind of reiterate the core of this regulation. We
19 are already at about 45 percent electric in this sector.
20 And why is that?

21 In most cases, and this is not construction, but
22 in most cases, forklifts are being used in settings where
23 they're set in that location, and therefore they're doing
24 their work in a warehouse or in an area where they can
25 plug in at any point throughout the day to recharge. So,

1 to me, that's the ideal use case. These aren't vehicles
2 that are out on the road on highways out in the middle of
3 nowhere. They are in a location where they can plug in
4 and recharge. And so to me that's kind of the take-off
5 point for this regulation and we can't lose sight of that.

6 If we had 45 percent electric on a number of our
7 other regulations, we'd be jumping for joy. And yet here,
8 that's kind of dismissed out of hand. It can't be
9 dismissed. It's happening. It's real. It's out there.

10 In terms of the time frame, I think it's quite a
11 generous time frame from 2026, 2028 and going out till
12 2035 to 2038. That's quite a bit of time for folks to
13 convert, again on the remaining number of forklifts that
14 are out there, after the 45 percent that we're -- we
15 already have, and then giving the 10-year minimum on the
16 forklifts. If you're a business, you're always planning
17 ahead. You're always thinking ahead. I'll never forget
18 talking to a trucking firm where the owner told me you
19 give me seven years to amortize my investment and I'll do
20 whatever is needed. Here, it's 10 on a forklift. That's
21 not as expensive as a truck. And so, I think that's a
22 very fair amount of time.

23 And then the exemptions, where we are less
24 restrictive on small businesses of 24 forklifts or less, I
25 think it's pretty big at -- if you have 24 forklifts,

1 you're pretty big. And yet, for our purposes, we count
2 you as small, so -- and then obviously micro businesses,
3 which would -- I don't know, you know, if you've got one,
4 you're small and you're a micro business, I assume. So we
5 have some exemptions for them.

6 We also have the phase-out cap that was mentioned
7 by Board Member Rechtschaffen. You know, there's a
8 flexibility there as well, not to mention numerous
9 exemptions and extensions that are built into the
10 regulation. You know, do you have to have ask for it?
11 Yes, but they're going to be granted if you meet the
12 conditions.

13 So I think this is a regulation that has a lot of
14 flexibilities build in. It's impacting the marketplace
15 that is well underway, because the use case is there. And
16 then, I'll close with an event I was just at a couple days
17 ago, and I know this is not a forklift, but it looks like
18 one, electric battery operated top handlers. I was at the
19 port. They -- this shipping company announced that they
20 had five of these electric top handlers down at the port.
21 They work two full shifts no charge needed -- two full
22 shifts going non-stop, no charge needed. And when they do
23 charge on the remaining eight hours of the day, it's a
24 five-hour charging time.

25 Now, I know these are much, much bigger than what

1 we're talking about here, would -- if they were considered
2 forklifts would be exempt because of the weight that they
3 can do. But to me, something that heavy, that complicated
4 compared to just regular forklifts being available today,
5 and for this shipper, it's -- the five that they had there
6 is five of the 37 that they have in their whole operation.
7 And they have three more coming this year. So they'll
8 have eight of the 37 this year, zero emission, and by the
9 way, also quiet is very important. Battery electric
10 vehicles are all quiet. So not noisy, and clean, and
11 available. And if there is an issue with availability,
12 there's extensions allowed.

13 I think this is a very fair approach. We always
14 listen -- once something is underway if there's issues, we
15 always -- staff will always bring it to us and say, hey,
16 in this sector there's something going on, and we can make
17 those adaptations. We're ready to move ahead on this.
18 And I appreciate all of the testimony today. But again,
19 the facts lead us in this direction that it is time for us
20 to take this action.

21 Thank you.

22 CHAIR RANDOLPH: I'm going to jump in a little
23 bit and ask a question, because it kind of relates to some
24 of the comments Board Member De La Torre raised about the
25 fact that, you know, this is kind of an ideal use case.

1 But, you know, some of the comments we got from the
2 construction industry sort of talked about, you know,
3 sites that haven't been energized yet. And so I would
4 like staff to kind of maybe talk about how they see use
5 cases that might have operational challenges and how it
6 relates to the -- how this regulation would interact in
7 those situations.

8 EXECUTIVE OFFICER CLIFF: So thank you, Chair. I
9 will say, first of all, we think that the various
10 exceptions and extensions that are included in the rule
11 are going to handle most of the concerns that were raised
12 by the construction industry. And maybe more specifically
13 there is -- and that was noted that there's an extension
14 available for electrification delays. So to the extent
15 that there is a need and the turnover would be required at
16 a particular site, if there's -- if this is a site that
17 needs electrification and it's delayed as a result, then
18 an extension will be provided. So that is one of the
19 specific extensions.

20 And Kim, you should address any of the other
21 comments, if you can. Thank you.

22 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
23 CHIEF HEROY-ROGALSKI: Cool. Thank you for the -- for the
24 question. Yeah, we definitely understand the concern from
25 folks that build new structures out where there is no

1 existing power. And we actually met with one of the
2 commenters that testified today, McClone Construction, and
3 they do have quite a valid point about building
4 multi-level structures. And they actually lift the LSI
5 forklifts up on to each level as they build it. And they
6 put them up there before the concrete is completely cured.

7 So, we've met with them and we explained that
8 this is just the kind of situation that the operational
9 extension in the regulation is crafted for. They were
10 concerned that they might need to like come and apply for
11 a new exemption or extension every time they get a new
12 project. And we explained, no, this would be an annual
13 thing and you'd only -- you'd just do it annually, renew
14 it, and you'd only have a change if somehow there's a new,
15 you know, electric forklift that is much lighter or has
16 some sort of, you know, easier way to charge.

17 We do think there are some opportunities for
18 sites that don't have power where mobile power units could
19 be an option. So we're hoping that, you know, those will
20 develop more over time, but we built the reg to have an
21 extension that would be perfect for that situation. And
22 we're happy also, as we -- assuming that the Board
23 approves the reg today, we're -- we definitely are happy
24 to continue working with folks that are affected by the
25 reg to streamline implementation. Like we don't want to

1 make this into just a huge paperwork headache for people,
2 right? So if they're just submitting the same information
3 year after year, that's definitely something -- we've
4 streamlined similar processes in the past and we can
5 streamline that as well.

6 CHAIR RANDOLPH: Okay. Thank you. I think Board
7 Member Guerra was next.

8 BOARD MEMBER GUERRA: Thank you very much, Chair.

9 First, let me start with some questions and to
10 thank staff for taking the time on this, and also to thank
11 all the stakeholders who have reached out. The first
12 question I think was well answered. And maybe if you --
13 if staff could go in a little further on the question of
14 construction delays and the difference why we did an
15 infield exemption and not a construction exemption. But
16 maybe if you can discuss more so on the operational
17 exemption and how that in both -- you know, even in an
18 urban setting where we're building out a vacant lot, but
19 may not have the charging facility, would work.
20 Obviously, the clear one is when construction is occurring
21 in a -- say a rural setting where there's clearly no
22 infrastructure. But could staff go a little further
23 detail in how the operational exemption may work.

24 And also, I think this is -- maybe this is too
25 much into the weeds, but would we get a flurry of them?

1 And I think you mentioned that maybe we'd figure out
2 processes that are not duplicative. You know, You're not
3 paying -- hiring somebody to do this over, and over, and
4 over again.

5 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

6 CHIEF HEROY-ROGALSKI: Yes. Thank you. Thank you for the
7 question. Let me first take the infield exemption piece,
8 because we totally understand like some of the
9 construction folks that came in today are like, hey, ag is
10 getting this exemption. Why can't we have an exemption
11 too? And so we just wanted to clarify that when we first
12 started developing this reg, we kind of looked at the
13 commercial availability of ZE forklifts. And at that
14 time, it was very limited and still there's very limited
15 ZE availability rough terrain forklifts. The infield
16 forklifts that we exempted are rough terrain forklifts.
17 So we went ahead and put that in just for clarity, because
18 we didn't want any ag people like thinking they were
19 subject to this when they weren't actually. But we didn't
20 think that that infield exemption actually takes any
21 additional forklifts out of the -- out of the program.

22 And so -- so we don't really think there's like
23 an equity issue there between construction and ag. And I
24 want to talk -- you asked for a little bit more detail
25 about how some of the extensions and exemptions work. We

1 have a couple infrastructure related extensions. One is
2 for construction. Like, if you -- if you realize -- the
3 reg requires early interaction between fleets and the
4 utilities. And if a fleet realizes, oh, I'm going to need
5 to put in some new infrastructure or maybe the utility
6 needs to do some work to put in some new infrastructure
7 and there needs to be construction, we have provisions
8 pretty much identical to those in the Advanced Clean Fleet
9 Rule --

10 BOARD MEMBER GUERRA: Um-hmm.

11 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
12 CHIEF HEROY-ROGALSKI: -- that say if there is a problem
13 with permitting, or your contractor changes, or some delay
14 in putting in infrastructure, you're okay. You can get
15 more time.

16 And then if you're in the situation where you
17 need your utility to do something, like maybe you need to
18 upgrade the substation or run a new line to your facility
19 and the utility is telling you it's going to take years,
20 and those situations really do exist. We -- that's
21 something that we really learned and came to appreciate
22 greatly as we met with the ag stakeholders in the valley.
23 Like, there really are remote locations where they use LSI
24 forklifts where it's going to be years before they can get
25 full power to charge. And so that's why we made sure to

1 build that into the reg, that we don't want to put anyone
2 in the situation where it's impossible to comply or
3 whether they'd end up doing something counterproductive
4 like switching from LSI to diesel. So that's -- so
5 there's that infrastructure delay extension.

6 And then beyond that, there's operational
7 extension that we talked about and that's for any
8 situation where a zero-emission model is not available
9 that can safely do the work that an existing LSI forklift
10 is currently doing. So that let's you not be forced to
11 phase out and LSI forklift if it's in that situation and
12 also -- although the reg generally says after model year
13 '26 that manufacturers can't be selling new LSI forklifts,
14 you know, we're trying to transition away. If you're in
15 the situation where you have an LSI forklift and it's --
16 and it's in the case where there's not an electric model
17 that would work for you, and something breaks, and you
18 need to replace, we built in specific allowance for people
19 to be able to replace that. And that was a result of
20 stakeholder comments. We did that as part of the 15-day
21 changes.

22 So we think we pretty much -- oh, and the other
23 thing I was going to mention was you talked about
24 streamlining. And we did sort of put some restrictions in
25 the reg that kind of limit the time a fleet might be in

1 the position of waiting to see if an extension request is
2 granted. So we gave ourselves like 45 days. If we don't
3 say yes or no in 45 days, they can assume it's granted.
4 So that kind of protects from people being stuck in this
5 limbo of like, well, I don't know. The government hasn't
6 told me if I'm exempted or not.

7 So -- and then just based on our experience
8 implementing other in-use rules, like the in-use off-road
9 rule, which we've been running for like the last 15 years.
10 We definitely anticipate, you know, learning as we go and
11 trying to streamline things. And I'm sure some things
12 will pop up, that we haven't anticipated, but as we have
13 with the in-use off-road rule, we'll, you know, work
14 through that.

15 BOARD MEMBER GUERRA: Well, I appreciate that.
16 You hit a number of my questions too. And I think the
17 perverse incentive of going to diesel, if we can't get
18 that. We want to definitely not incentivize that
19 approach.

20 Second, I think you also hit the points that I
21 think I was going to talk about, you know, how we respond
22 to infrastructure delays. I think that's very helpful. I
23 know we don't -- we don't have the authority over the
24 IOUs, but I think that step what can we do in that
25 process? And also the cap on the time frame for CARB

1 staff to respond I think is important, so that -- so that
2 the applicants can at least have some level of certainty
3 of when they can use their equipment.

4 And the last piece on that that I wanted to tease
5 out was how does the extension work when you are
6 granted -- how does the extension work with the phase-out?
7 So you know, we're trying to push for phase-out for 2030.
8 But if you're granted an extension, does that shift the
9 phase-out or does that compress the time of compliance?
10 And if it does compress the time for compliance, then do
11 we come back and look at how we're going to deal with say
12 a very tight compliance of the phase-out? So maybe if you
13 can discuss that component, how the phase-out works when
14 you -- when we've granted extension maybe after extension.

15 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
16 CHIEF HEROY-ROGALSKI: Yeah, thank you for the question.

17 So it is possible. So the way we have the
18 extension set up is that annual renewals are required. So
19 let's say, for example, that you have an application where
20 there just isn't a ZE model that will work for you or
21 there's some safety issue that means a ZE model won't work
22 for you, then each year you have to come back in and renew
23 that. And you have to take a look and see, like is there
24 something new that's become available. And we envision in
25 practice this would be pretty simple, because the forklift

1 dealers stay on top of this. So it would be probably be
2 as simple as kind of talking to your local forklift
3 dealer, hey, has something new become available since last
4 year that would work for this application I have.

5 And if the answer is yes, then we do give them a
6 certain amount of time, like within -- we're looking up
7 the exact amount, but like it's like within the next year
8 they need to come back into compliance. So you don't just
9 get -- if you use one of these extensions and you get to
10 like buy an LSI forklift when everyone else is not. It
11 isn't just carte blanche to use the LSI forklift forever.
12 You would have to be -- if the situation ends that
13 justified the extension, you would have to replace that.

14 Okay. Within 180 calendar days, so about half a
15 year. Thank you, Lori.

16 BOARD MEMBER GUERRA: Very good. And then the
17 final question here that I -- and this more because we
18 deal with ag sector often and figuring out what qualifies
19 in ag and what doesn't qualify in ag. I heard a comment
20 about why nurseries were not included in this. And in
21 some cases, in many cases, particularly with some organic
22 farmers, nurseries are used a lot to be able to plant and
23 get good healthy plants as they come in versus the seed
24 option, which is more susceptible to weeds and other pests
25 and whatnot. But could you talk a little bit about why

1 the definition of nursery is not linked with ag? Because
2 we may be looking at this in other rulings in the future,
3 and so I want to make sure that our precedent of
4 definition of ag is somewhat uniform.

5 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

6 CHIEF HEROY-ROGALSKI: Yes. Thanks for the -- thanks for
7 the question. So speaking of uniformity, like one of the
8 comments we heard from CCEEB was like, yikes, this is
9 really complicated. There's so many CARB programs and one
10 like compliance staff person might need to be dealing with
11 five different CARB rules, and then rules from other
12 agencies too, right?

13 So one of the things that we are really cognizant
14 of when we're drafting these regulations is trying to be
15 as consistent as possible with the terminology used in
16 previous measures. So we don't end up like tripping
17 people up, because they assume that the ag definition is
18 the same as in the In-Use Off-Road Rule, or same as in the
19 previous LSI Rule, but really it's slightly different.
20 And oops, they're, you know, out of compliance
21 accidentally.

22 And so we did match the ag definitions to those
23 in the In-Use Off-Road Rule and the former LSI Rule. And
24 they do include wholesale nurseries as ag, but retail
25 nurseries like -- you know, like a Home Depot kind of

1 nursery, as not ag. And I think in all honesty, back 15,
2 20 years ago, when we were -- when I was lead staff on
3 that regulation, we could have probably drawn that line
4 differently, but we drew it one way. And we're trying to
5 be -- for clarity and consistency, we're trying to be the
6 same as in the other regulation. So that's why retail
7 nursery falls on one side and wholesale nursery on
8 another.

9 BOARD MEMBER GUERRA: Well, thank you very much.
10 And I think that's an important point, because we don't
11 want to exempt say a Home Depot or a Lowe's that it has
12 probably the capacity go electric versus wholesale that
13 are probably in areas that don't have the same level of
14 power and their issues are generally water issues in that
15 case.

16 So, you know -- so just to my comments, you know,
17 Madam Chair. One, I support -- I support this rule. I
18 think that staff has taken a good amount of time to look
19 at these issues and then also my experience going out and
20 meeting with some of the operators on -- on a subject not
21 related the forklift. I happen to be at a pitted fruit
22 processor and I noted that their entire operation
23 primarily, I would say, was all forklifts. And so I asked
24 a question how many forklifts do you have and if they have
25 any electric, and they didn't. They had 83 forklifts and

1 no electric forklifts.

2 And so obviously they're -- you know, as we
3 drove -- walked around the facility and saw, you know,
4 what -- how the entire facility operated, they're very
5 dependent on forklifts. Well, since that timeframe, you
6 know, they -- their biggest issue was procurement. And I
7 hope that staff will continue to work with folks about the
8 procurement challenges as we move forward. But they felt
9 that in their next procurement, they'll be able to get out
10 of those 83 forklifts of their fleet, that 18 will be
11 electric, and that they will be able to meet this
12 regulation. And they saw that their -- that their return
13 on investment would only be three years for these Class IV
14 some Class V forklifts.

15 And this is a pretty large processor that is
16 Northern California. I would say, you know, large for the
17 area there, and one where they would have to start from
18 scratch. I think that their demo units they discussed
19 that when they we went and looked at some of the potential
20 providers of forklifts for their Class IV and V, they felt
21 that between their -- the shift -- breaks in shift, times
22 when there was transitioning, that they did believe that
23 they could maintain above a 70 percent charge as long as
24 their employees were parking and connecting during shift
25 changes. And so this wasn't even an overnight full shift

1 change. It was -- and maybe this might be with a
2 particular brand that they're going through or the
3 manufacturer they're going through, but they felt that
4 they could actually meet this requirement, and stay
5 competitive, and get the return on investment within three
6 years, which I think is well within our phase-out -- our
7 phase-out capability here.

8 So I -- while I recognize that's just one
9 business, and not every business operates that way, and
10 not -- may not have to -- have the economy scale of 83, it
11 goes to show that there's some -- that there's some
12 thought processes and some ingenuity. And if there's any
13 area that -- any industry that's very ingenious, is that's
14 the agricultural industry, always trying to adapt. And I
15 felt that this was one example we're moving in the right
16 direction.

17 The one concern that they did bring up, and it
18 was brought forth again, is that they felt that the
19 current process to access some of the grants available to
20 help them, and this is maybe some with us but more with
21 the IOUs and also with Energy Commission, was extremely
22 cumbersome and to the point where they need them to look
23 at hiring staff, and that being an additional cost just
24 for the application of grants. And I just want to put
25 that, you know, to our executive staff, as we work with

1 our sister agencies to highlight this, because I've seen
2 this before, where these grant opportunities are great,
3 but what we actually create is a burden for companies to
4 actually hire more staff or even worse, we create these
5 pocket niche market of consultants who are grant appliers.
6 And that money goes into this third level of bureaucracy
7 of people who are used to filling out these forms and
8 whatnot.

9 And so I want to make sure that we're figuring
10 out how we get this -- these resources that we're setting
11 to slide out faster, so that this transition can be less
12 painful, and much more productive, and much more
13 predictable for folks.

14 And then finally, I will say that one of the
15 biggest reasons is my own personal experience. I drove a
16 Class V forklift for four years, and for a peach ranch. I
17 probably maybe made more peach juice than I did actually
18 moving peaches --

19 (Laughter).

20 BOARD MEMBER GUERRA: -- but -- and that would be
21 a criticism from all my co-workers. But one of the
22 unfortunate things about forklifts is that there are very
23 few that are cabin forklifts. So most of them are all
24 open and -- for good reason. Many times you have a lot of
25 blind spots. And learning to drive a forklift is a unique

1 skill. I have a lot of respect for forklift operators,
2 which is why I'm not longer a forklift operator. And it
3 was an off-road one.

4 So they're open cabin, which mean that they're
5 exposed to the particulates, they're exposed to the
6 emissions on top of everything that they're exposed to.
7 So if you're in the San Joaquin Valley during the normal
8 day where the air is bad, or you're on a smoky day moving,
9 you know, pallets up in the north area in Butte or Sutter,
10 or even in Sacramento during a hot smoggy day, you're
11 exposed to those, because you're not in a cabin-filtered
12 area as well.

13 So from a worker standpoint, a public worker
14 health standpoint, I think it's imperative that we move
15 forward. But the question I always ask staff here is how
16 do we realistically make these regulations move forward.

17 So with that, Madam Chair, I'll support the item
18 today.

19 CHAIR RANDOLPH: All right. Thank you.

20 Senator Florez.

21 BOARD MEMBER FLOREZ: Thank you very much.

22 First, I want to say thank you to staff. Great job. Lots
23 of work. Appreciate the outreach to agriculture. It's
24 not easy to talk to Roger Isom and Priscilla. I know that
25 on certain occasions. But I do think it was very good.

1 And particularly to Steve Cliff for meeting with the
2 agricultural community.

3 I want to just say two things. One, today is
4 really, and Cliff can appreciate this probably and so can
5 the Chair coming from the PUC, this is where regulatory
6 goals and our expectations hit practicality and practical
7 consideration. So, I mean, this is a -- this is that
8 discussion that we're really having in some sense.

9 I will say absolutely support the parameters
10 around the extensions, the exemptions, and also the cap.
11 I think those are all great things. But I think what I
12 would like to see, Madam Chair, if possible would be some
13 additional language to the resolution that simply allow
14 our Executive Officer in these changing times, as Hector
15 put earlier -- you know, there is a lot of flexibility,
16 but it's kind of not stated. Even though we know in
17 practice it is -- it does occur, it's not really stated in
18 the resolution.

19 So if I can, I would like to, for the
20 consideration of the Board, read into the record this
21 amendment. And I'll read it for the record and we can go
22 back to it, but, "Be it further resolved that the Board
23 delegates to the Executive Officer the authority to adjust
24 the compliance schedule for a segment of industry where
25 the age of the equipment would force a significant

1 percentage of the inventory to be retired prior to 2038,
2 but not extend the compliance periods."

3 So I want to make clear, we're not -- nothing
4 here is we're trying to extend any of the compliance
5 periods. I think those are the right periods, nor are we
6 offering any exemptions. We're not even discovering --
7 discussing a cap, but about at least -- at least for me,
8 it gives me some assurance that our Executive Officer has
9 at least the ability to bring it back to the Board - very
10 clear on that what would have to occur - but it does to me
11 give me some certainty that even on agricultural
12 equipment, where it's used maybe 20 percent of the time
13 and it's very seasonal, there might be some flexibility
14 for the Executive Officer. So if the Board would like to
15 discuss that, that's fine, but I do think it would mean
16 amending the resolution today.

17 CHAIR RANDOLPH: Okay. Thank you. I think what
18 I will do is kind of circle back to that after we get some
19 more questions. And if folks want to comment on that as
20 they're continuing to comment, please feel free, but I
21 will definitely make sure there's a moment where we have
22 an opportunity to discuss that.

23 Okay. Dr. Shaheen.

24 BOARD MEMBER SHAHEEN: Thank you, Chair Randolph.
25 And I also want to begin by just thanking all of the

1 stakeholders who provided comments, reached out, and also
2 to the CARB staff who have been working on this regulation
3 for about three and a half years. I also wanted to, you
4 know, recognize that we've been at this for about three
5 and a half years, so it's a very, very long time to be
6 working on it. And there's been notable achievements,
7 including 45 percent of the forklift market now
8 zero-emission.

9 I appreciate a lot of the Q&A that have happened
10 so far. It answered a lot of questions that I have. I
11 would like to maybe revisit Senator Florez's comment at
12 the end, but I do have a couple of questions I think that
13 have not been asked yet.

14 So one of the first things I really wanted to
15 discuss with staff is there have been a number of
16 additional studies, there's the Fullerton study that I
17 think was completed in 2017, and the Andrew Chang and
18 Company study that was commissioned by the Western Propane
19 Gas Association. So lots of different data, lots of
20 different numbers, which have led to some comments about
21 the forklift market being underestimated. And I was
22 curious from the CARB team what you can say about the
23 different data that were used, the assumptions that came
24 in between these different studies, and then ultimately
25 how that impacts the benefits and costs that are conveyed

1 in the SRIA.

2 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

3 CHIEF HEROY-ROGALSKI: Dr. Cliff, is it okay if I take
4 that?

5 EXECUTIVE OFFICER CLIFF: Yes.

6 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

7 CHIEF HEROY-ROGALSKI: Okay. Thank you for the -- for the
8 question. Yes, so we have heard from stakeholders that
9 they think that the forklift population that we used is
10 understated. And so we looked deeply into this and we
11 just very much disagree. So what -- the way that the
12 stakeholders who say that there is over two times more
13 forklifts than we think, the way they came up with that
14 was they looked at the CSU Fullerton 2017 study, which Dr.
15 Shaheen mentioned. And just for full disclosure, CARB
16 funded that study and we are using some of the activity
17 data and some survey data for fleets under size if four
18 from that study. So it was a good study in some senses.

19 The one thing that we think CSU Fullerton got
20 wrong was they did an extrapolation. So this was like a
21 survey where they called up a bunch of companies and asked
22 about their forklifts, what do they have, how much did
23 they use them, right? So they did that and they talked to
24 a number of companies with forklifts. And when they set
25 up their survey to make those calls, they thought about,

1 hmm, who's likely to have forklifts. Those are the people
2 we want to call to get the data on forklifts, right?

3 So that was great. They got good data, but then
4 where they made a key error is they said, hmm, I wonder
5 how many forklifts there are in California. Let's
6 extrapolate that up to all businesses in California.

7 So whereas, they called places like but
8 processors that have a lot of forklifts or warehouses that
9 have a lot of forklifts, they then took the population
10 from those businesses and they scaled up to all businesses
11 in the state, including like nail salons, tax accountants,
12 people that aren't -- types of businesses that are not
13 likely to have forklifts. So this was just -- it was just
14 an error. And if I could turn back the clock, we would
15 have, you know, caught that error and not had that
16 statistic appear in a study that was funded by CARB, but
17 poop happens. And there's -- it's just -- it's not a good
18 extrapolation.

19 So we put our inventory experts on and one of the
20 things they did was look very closely at the forklift
21 inventory in support of this regulation. And they were
22 able to get some really good sales data from the
23 Industrial Truck Association, which is the association
24 that represents forklift manufacturers. And then we also
25 have access to some really good data from our DOORS

1 database, which is the required reporting system for both
2 the In-Use Off-Road Diesel Rule and the previous Large
3 Spark Ignition Rule.

4 So DOORS contains data on many fleets of bigger
5 than four forklifts. And so in putting that together,
6 along with what we know about forklift activity and how
7 long forklifts last, our inventory staff came up with an
8 estimate of about 95,000 LSI forklifts currently in
9 operation in California.

10 And then just as like a gut check to see like
11 well is that -- is that about right, you can think about
12 that we know from the sale that about 8,000 new LSI
13 forklifts are sold every year in California. They last
14 about 12 years. Some last shorter than that, some last
15 longer than that, but they last on average about 12 years.
16 So if you do eight times 12, that comes out to 96,000. So
17 that's about how many forklifts you'd expect to be in use
18 in California at any time. And our 95,000 came out very
19 close to that.

20 WPGA is using the number based on the error in
21 extrapolation from the Fullerton study and they've -- they
22 have put out different numbers, but it's -- they're
23 putting out numbers that are more than twice as high as
24 that, and we just think that's wrong. We had our
25 inventory staff look into this. Further, when we got that

1 claim -- and they said to get that many forklifts in
2 California, all kinds of crazy stuff would need to be
3 happening like lots of forklifts from out of state would
4 need to be flooding our borders at all times in order to
5 get that many forklifts here, because we know that many
6 are not being sold new here. So we think it's just a
7 mistake. It's a bummer that they found that number in a
8 report that we paid for, but it is what it is. So we're
9 quite confident in our forklift estimates.

10 And then the other thing is, and I think this is
11 something that Board Member Takvorian said when we talked
12 to her before this -- before this meeting was that let's
13 say we're wrong, let's say that everything I told you is
14 just not right. Well, then that means there's even more
15 forklifts, right? There's probably more forklift
16 emissions to be concerned about. The emission benefits
17 from this rule would be higher than we estimate. And the
18 savings from fuel from switching to LSI forklifts to ZE
19 would be even greater, if there were really more than two
20 and a half times as many forklifts as we estimated.
21 Hopefully, that answers your question.

22 Thank you.

23 BOARD MEMBER SHAHEEN: Yes. Thank you so much,
24 Kim and Lori. I know how hard you've been working on this
25 and really appreciate it. One thing I also appreciated

1 from your presentation today was essentially the state of
2 the industry in terms of available forklifts in the
3 Category IV and Category V areas. That was slide 11
4 today. I was curious behind the scenes, because we've
5 heard on both sides some saying there's not going to be as
6 many of these types of ZE forklifts available in the
7 marketplace and others saying, hey, they're there. Can we
8 accelerate the timing on this and actually get to 2035.
9 So I was curious how the team at CARB is going to
10 essentially report and internally track and monitor the
11 readiness of the equipment and then also the
12 infrastructure itself.

13 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

14 CHIEF HEROY-ROGALSKI: Great. Well, I can take part of
15 that and then I don't know if our infrastructure
16 specialist, Analisa Bevan, would like to chime in on the
17 infrastructure part. So I think as part of -- well, as
18 part of working on this over the past few years, we've
19 become quite close to a lot of the manufacturers that make
20 zero-emission forklifts and the dealers that are marketing
21 them. And I expect that we'll stay close to the pulse as
22 they roll out additional models and their sales increase.

23 Also, as fleets come in and apply for operational
24 extensions, because we do -- we do admit there are some
25 situations where zero-emission forklifts aren't yet

1 available. Like there's one situation if you have
2 extremely narrow aisles in a warehouse and you have a
3 really heavy load, like over 12,000 pounds, there just
4 doesn't happen to be a current electric model that can do
5 that.

6 But so if people apply for these operational
7 extensions, as staff evaluates whether we grant the
8 extensions or not, it will provide the perfect opportunity
9 for to us check and see like, okay, we know so far there's
10 not a model that does that. Has anything new come out in
11 the next year, right? So it will kind of require us to
12 stay very much on top of the development of the -- of the
13 technology. And one of the reasons that we set up this
14 need, which is -- it's a little bit cumbersome if you're a
15 fleet, right? You'd rather kind of ask for an exemption
16 once and then never have to talk to us again.

17 But the reason we set up this need to annually
18 come back is because we want there to be a guaranteed
19 market for new ZE models, right? We want the
20 manufacturers of forklifts to realize, hey, if I make one
21 that has -- that can be in these narrow aisles and lift
22 really heavy, I'm going to be able to sell them in
23 California, right? And then we hope that that becomes
24 popular everywhere, so that's why we set up that annual
25 renewal.

1 On the infrastructure side, Analisa, do you want
2 to speak to that.

3 ZERO EMISSION INFRASTRUCTURE SPECIALIST BEVAN:

4 Well, I was going to start by saying that the
5 infrastructure delay provisions in the reg will be the
6 first sort of indicator of the status of infrastructure
7 availability for forklift fleets. But beyond that, the
8 State is tracking the need for infrastructure, the growth
9 in electricity demand, and where it needs to be delivered
10 through the Energy Commission's IEPR program -- IEPR
11 process as well as other efforts to characterize what's
12 needed in terms of infrastructure for transportation and
13 off-road equipment.

14 And the CEC's characterization of off-road
15 infrastructure needs is being refined. It started out
16 with light-duty, started to refine heavy-duty. Now, the
17 next sector to be looked at is off road. And so we're
18 helping them with that in terms of helping them understand
19 what the population of off-road equipment is including
20 forklifts, helping them understand what the requirements
21 of the Forklift Regulation will be, as well as providing
22 population data. And we'll continue to do that as this
23 starts to implement.

24 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
25 CHIEF HEROY-ROGALSKI: Thank you. And maybe I can chime

1 in, because I might have missed part of the question.
2 Thank you so much Analisa. So just to provide a little
3 more detail on how the infrastructure exemptions will
4 work. So one of the things we built into the reg and it's
5 one of the very first things that reg requires is for
6 fleets to reach out start talking to their utilities.
7 That requirement occurs in spring of 2026. And if they
8 talk to the utilities and they realize, oh, there's not
9 going to be capacity to provide enough charging for all
10 the forklifts I have that are currently LSI, then we're
11 hopeful that will help not only the fleet plan, but also
12 utilities to plan for all the fleets that they need to be
13 planning for.

14 So -- and then if we grant that, then it's just
15 again a need to come back annually and confirm that it's
16 still the same situation, so -- and again, that's a place
17 where we expect we'd be able to streamline. Like, if
18 you -- if you talk to your utility and your utility says,
19 yeah, it's going to be four years until I can get you the
20 needed power, you would just need to check once a year and
21 say, yep, that's still the case. Here is my paperwork
22 again, CARB. Okay. Got it. But we wanted to make sure
23 that communication is happening, so nothing slips through
24 the cracks and nobody gets surprised by this.

25 So thank you.

1 CHAIR RANDOLPH: Thank you.

2 Board Member Takvorian.

3 BOARD MEMBER TAKVORIAN: Thank you, Chair. Just
4 looking through my list. And I think I'm seeing all
5 checks by the questions that I had, so this has been a
6 great conversation.

7 I do want to just I think follow up on your
8 explanation about the availability of forklifts for
9 particular uses. And I think what you were saying is that
10 CARB staff would maintain essentially a database of the --
11 of the zero-emission forklifts that were available, so
12 that that would be the check with that kind of an
13 exemption request. Is that -- was I reading too much into
14 that or is that how it's going to work?

15 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
16 CHIEF HEROY-ROGALSKI: I don't imagine that we'll have
17 like a website -- part of CARB's website that lists all
18 the available forklifts and what they can do. I think it
19 will probably be, since we already know forklifts --
20 zero-emission forklifts are widely used already, and their
21 use is increasing even without this rule, we think it's
22 going to be sort of the rare case where there's just not a
23 zero-emissions model that can do what you need.

24 Like, for example, we talked to some metal
25 smelting fleets, they're like I use my forklifts really

1 near this really hot molten metal and we don't think it's
2 save to have a battery right there. And so for situations
3 like that, I think, yeah, we will come up with sort of an
4 internal list of like these are the -- these are the
5 exemptions that are reasonable and then these are the ones
6 that people ask for, and we're like no, no, there's a
7 model for you.

8 So I think having a list like that in-house will
9 enable us to like evaluate and respond quickly, but I
10 don't anticipate having like a list of every single
11 forklift and what it can do up on our -- on our website.
12 I hope that helps.

13 BOARD MEMBER TAKVORIAN: Okay. No. That's
14 helpful. Thank you.

15 EXECUTIVE OFFICER CLIFF: And we do have experts
16 that are constantly looking at this.

17 BOARD MEMBER TAKVORIAN: Right.

18 EXECUTIVE OFFICER CLIFF: They -- we attend
19 various trade shows and gather that information. We look
20 at all the literature that we can. So if someone says,
21 oh, we have this special situation. We found the one
22 where there just isn't something available, if we're aware
23 of it, and we probably are, and one is available, we'll
24 let he know.

25 BOARD MEMBER TAKVORIAN: You'll help them out.

1 That's great. I ask, because I felt like there was a
2 significant disconnect between what we -- what the reports
3 have talked about -- CARB reports have talked about being
4 available and some of the letters and testimony that we've
5 heard. So good to know that that's a place where we can
6 come together.

7 I think the other question that you did respond
8 to, but I guess is an evolving area of technology, is the
9 mobile charging that would be available for potentially
10 construction sites and agricultural settings. And it
11 sounds like there might be a similar kind of allowance for
12 an exemption for that. And there would also be us keeping
13 up on technology that is coming forward that would be --
14 allow for that to occur in those kinds settings. Is that
15 fair?

16 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
17 CHIEF HEROY-ROGALSKI: Yeah. No, it's excellent. I think
18 that's one of the areas where we hope the regulation will
19 encourage growth. There's companies like Moxion and
20 Portable Electric that provide portable charging --

21 BOARD MEMBER TAKVORIAN: Um-hmm.

22 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
23 CHIEF HEROY-ROGALSKI: -- that we think we can expand the
24 current feasibility of zero emission. And one of the
25 things that I -- Hector mentioned people jumping up and

1 down and I'm definitely figuratively jumping up and down
2 in support of this regulation. And one of the reasons I'm
3 so excited about it, is that I hope seeing the success on
4 the forklift side will encourage others to consider ZE for
5 other off-road equipment, because we really need a shift
6 kind of for the whole economy in how we power stuff. And
7 this is like some of the first steps on the off-road side.

8 BOARD MEMBER TAKVORIAN: Okay. Thank you.

9 So I think those are the -- my kind of remaining
10 questions. I do really appreciate all of the stakeholders
11 that have come forward today and for many, many months,
12 and for years, as Dr. Shaheen has mentioned, is to get us
13 to a place where I think we have a rule that is very fair.
14 It's responsive to science. It's responsive to technology
15 development. It's responsive to the economy.

16 I almost think it's a little too responsive and a
17 little too flexible. Sorry. But I really understand that
18 we're working here for everyone to benefit and to move
19 forward, so I'm fully in support. But I do believe that
20 the request for an additional valuation in the coming
21 years is critically important. I had the opportunity -
22 I'll just slip this in - this week to actually attend the
23 launch of the first all-electric tug in San Diego. It's
24 the first in the world. And it's -- I think all of us
25 should take a whole lot of credit for this. The

1 Commercial Harbor Craft Rule I think really has compelled
2 this kind of technology to develop, but they have really
3 blown through the deadlines. They're way ahead of time.

4 And I'm hopeful that that's the kind of
5 adjustment that we will need, is that this -- it could be
6 that we're ahead of where we project that we'll be. And
7 so I'm hoping that we can incorporate that kind of an
8 evaluation. And maybe it relates to Senator Florez's
9 proposal for the Executive Officer to really be evaluating
10 what we're -- where we are technologically and really
11 bringing back to the Board when we require more than we
12 have in this -- in this rule.

13 So, those are my comments and again appreciations
14 to everyone. It's an exciting time to move forward with
15 something that's very important I think to the community.
16 And I know Dr. Balmes is going to talk about this, but I
17 did want to say I'm very compelled by the -- by all of the
18 health benefits, but particularly with -- for workers in
19 enclosed spaces. I think it's critically important and
20 something that we don't often get to -- get to do. So I
21 think it's a big step.

22 Thank you.

23 CHAIR RANDOLPH: All right. Dr. Balmes.

24 BOARD MEMBER BALMES: Thank you, Chair.

25 So I want to start off by saying that I really

1 appreciate all the stakeholder comments, both those who
2 support the rule and those propane business people that
3 are concerned about their livelihoods, their businesses.
4 And it's to me reminiscent, since I've been on the Board a
5 long time, for small trucking companies when they were
6 worried about our rules putting them out of business.

7 So I think that -- the testimony was heartfelt
8 and I hear that concern. That said, most of my fellow
9 Board members' comments are consistent with my own
10 feelings that we have to move ahead in this sector and for
11 the reasons that were just articulated I think. This may
12 be a sector that can be a leader in terms of off-road
13 electrification.

14 And as Mr. De La Torre and others have already
15 said, 45 percent of forklifts, whether there are 95,000 or
16 double that, are electric already. And I've heard from
17 WPGA and others that, you know, it's the easy forklifts
18 that have been electrified and it's the harder ones that
19 haven't been. But I think this rule is a fair approach to
20 pushing the electrification of those harder to electrify
21 forklifts.

22 I think that the reason it took three and a half
23 years to get here is that staff worked really hard to try
24 to come up with a timeline, and exemptions, exceptions
25 that, you know, are workable. And even though it's kind

1 of complex when you look at the whole rule, I think it
2 sort of had to be. I'm, you know -- I'm, in general, in
3 favor of simpler rules, but I think this one is complex by
4 necessity.

5 So I really compliment the staff from -- for
6 working hard to try to craft something. I especially
7 appreciate that they worked with ag to try to come up with
8 a -- a part of the rule that is accommodating to ag. You
9 know, I wish we could be as accommodating in construction
10 but I understand where we are in that regard. And I think
11 that construction folks can ask for operating exceptions
12 when they can.

13 So, I'm supportive of the rule in general, but I
14 have to add my concern to one first articulated by Mr.
15 Rechtschaffen some time ago. I'm worried about the
16 infrastructure. And I appreciate all the discussion we've
17 had about trying to stay on top of that. But about I've
18 been worried about the infrastructure in terms of
19 electrification for our other rules and so this is just
20 adding another one. I believe it when I see it they
21 can -- we can really meet timelines for the electric
22 infrastructure in this state. I'm hopeful. I think we
23 need to push ahead, but I believe it when I see it.

24 And then to end up on the health benefits. I
25 know that WPGA was concerned that they're getting hit with

1 these increased health benefits. You know, I think maybe
2 this is the first rule where we've been applying them, but
3 I'm big supporter of enlarging our health benefits to
4 cover what we know about the science of air pollution
5 exposure and health outcomes. So the 12 endpoints are
6 pretty solidly supported by the infrastructure. And, you
7 know, 7.5 billion in health benefits savings may seem a
8 lot, but it's over 17 years. You know, that's just --
9 that's like two billion a year.

10 And I can -- if you look at all these health
11 outcomes that would be benefited by reduction of exposure
12 to forklift emissions, I can believe two billion a year.
13 I'm not an economist -- or health economist, but, you
14 know, hospitalizations, and emergency department visits,
15 and deaths alone would come up to much of that. So I'm a
16 strong supporter of our agency continuing to use this
17 broadened group of health benefits.

18 So with that, I'm supportive of the rule as
19 proposed, but I'm open-minded with regard to Senator
20 Florez's proposed amendment.

21 CHAIR RANDOLPH: All right. Dr. Pacheco-Werner.

22 BOARD MEMBER PACHECO-WERNER: Thank you, Chair.

23 And I just really want to start by thanking staff
24 for all of their engagement with stakeholders, with
25 myself, and throughout this process in understanding more

1 to get to where we are today.

2 I think that when we -- when we hear from
3 businesses, it's both a reminder of the challenges and why
4 we must work forward to ensure that the transition works,
5 but that it also works for everyone. And so I think that
6 there's an important piece that we don't talk a lot about
7 at CARB, but that is very much part of the strategy around
8 the transition and the Executive Order, which is around
9 the workforce. And so I think -- I think it's important
10 to mention that as well.

11 One of the things that I appreciate in terms of
12 the discussion today and staff's responses is Analisa
13 Bevans' comments around the infrastructure, and the work
14 that's happening, and how CARB is helping our sister
15 agencies understand the landscape more, because I
16 actually -- I'm not even thinking so much about what
17 already exists, but also, as we heard for better or for
18 worse, you know, that are some of the emerging things that
19 are coming, you know, around warehouses in already
20 impacted areas.

21 And so, I think ensuring that there is
22 preparation in those spaces that are already overburdened
23 is key. I will say that one of the things that I wanted
24 to just get a little bit more clarity on - I just have one
25 question and the rest comments - was around the slide 10

1 when we talked about the readiness and the -- around
2 80,000 zero-emission forklifts. I didn't understand if
3 that number was -- included all the forklift
4 classifications or if we were talking about specifically
5 Class IV and V. And it wasn't specifically Class IV and
6 V, around where is that number just so I can understand a
7 little bit more about what's -- where we're starting from.

8 I will say that I'm also in support of Senator
9 Florez's amendment. I think a -- I think a cap would make
10 things a lot cleaner and easier. And I think that I can
11 definitely commit to ensuring that I follow up and as a --
12 as all Board members, you know, we hear from community and
13 so when those issues start to arise, you know, I do -- I
14 do commit to coming back to staff and making sure that we
15 hear -- we at the Board are hearing when it's time to add
16 those flexibilities either way, right, as Board Member
17 Takvorian mentioned as well.

18 I do want to say that one of the -- one of the
19 principle reasons why I am in support of this amendment is
20 because when we're talking about ag being five percent of
21 the whole inventory and the delay, you know, approximately
22 affecting, you know, 40 percent of those, we're actually
23 talking about two percent of the whole inventory. And so
24 I know that every emission is significant, especially when
25 we're trying to address the challenges in the -- in the

1 air basins and all of California. But I do think that
2 this can be very reasonable, especially if we're not
3 talking about an extension of the rule deadline.

4 So I am in support and I think that I hope that
5 this is an ongoing discussion just as we have already
6 committed and staff has already shown that there is --
7 there are ongoing discussions about our other
8 zero-emission rules, and we've heard from them -- from
9 that. So I don't expect any difference and I look forward
10 to seeing this rule implemented and having that public
11 health effect in our -- in our state and hopefully our
12 country.

13 Thank you.

14 CHAIR RANDOLPH: Thank you.

15 And then Board Member Hurt.

16 BOARD MEMBER HURT: Thank you, Chair. I'd like
17 to start off with I think as many have done so by thanking
18 the stakeholders who met with me, all those who gave
19 public comments, and, of course, the staff for working on
20 this critical rule and the engagement that they've done to
21 bring us to this day. And many of my questions and
22 comments have been made by my colleagues, so I won't
23 duplicate it. I'll just thank them for really thoughtful
24 conversation and questions.

25 For me, top of mind is really infrastructure,

1 product availability, reliability, small business, rural
2 applications, the massive health benefits for workers, and
3 the improved air quality. But the devil is in the detail
4 and inaction is not an option on this topic. We have got
5 to move forward with something. And I think after the
6 many conversations and the research that I've done, staff
7 has struck a balance in what is a challenging
8 transformation with the exemptions, the extensions, and
9 the streamlining of interactions.

10 With that said, I do have a little concern on
11 necessary flexibility and timelines for small businesses,
12 in light of the various zero-emission regulations that
13 businesses will be shouldering and the change businesses
14 will need to make to make their businesses work.

15 I don't think we should underestimate the work
16 and impact it will take to make these necessary changes.
17 And I truly appreciate Senator Florez's amendment and was
18 thinking along those same lines. How do we build in what
19 is absolutely necessary in this resolution to assess the
20 impact as we move forward and pivot, if we need to, to do
21 something different if the impact is doing more harm than
22 good, because in the end we're all moving forward to zero
23 emission in the future and we want to do so in a positive
24 manner.

25 I think for me some of the edge cases and I thank

1 the Chair for her questions around the topic as far as the
2 construction sites and the mobile solutions. Similar to
3 Board Member Rechtschaffen, I had questions around AG
4 Heavy-duty demands and what the caps means. So I
5 appreciate answers to those.

6 I'm wondering if staff can speak to some
7 perceived challenges in other edge cases or other market
8 segments, and key strategies that businesses will need to
9 deploy to overcome those challenges that you've not spoken
10 to today. It's a very open question, I realize, but I'm
11 sure there are people in our audience who are thinking
12 about their business and thinking, well, wait, I haven't
13 heard them speak to what I am going to be dealing with.
14 And I'm wondering if staff could just maybe point to some
15 of those other segments and how you thought this
16 regulation will work for them.

17 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
18 CHIEF HEROY-ROGALSKI: I think that the -- I think it's a
19 great question. I really think a lot of this is going to
20 be for fleets that don't already have strong relationships
21 with their forklift dealers to establish those
22 relationship, because like we've worked really close with
23 a lot of the forklift dealers. In fact, many of them like
24 held events, so that their customers, the fleets that buy
25 and rent forklifts from them could come and learn about

1 our proposal and give us comments on our proposal.

2 And it's really like the -- it's the livelihood
3 of those -- of those dealers to stay on top of this
4 technology and be aware of the applications that the
5 forklifts they sell and rent out are used for. Like, we
6 learn -- we worked really closely with some of the CAT
7 dealers. And we learned that forklifts were used in ways
8 that we were really surprised about. Like you think that
9 a forklift, oh, it's like for lifting stuff on a fork,
10 right? But it turns out that some wineries use forklifts
11 for towing things long distance. So there's some like
12 niche cases where you -- where it's really important to
13 know exactly how the customer is using the forklift to see
14 if a ZE model can be appropriate.

15 So that would be my advice to the fleets that
16 don't already have strong relationships with the forklift
17 dealers to just be working closely with them and asking a
18 lot of questions for the applications that they're -- that
19 they're concerned about.

20 There was a lot of -- if you read through the
21 docket and all the comments we got, there's a lot of
22 consternation about the Class IV forklifts, the heaviest
23 ones over 12,000 pounds. I think fleets are worried that
24 maybe, you know, ZE isn't as available there. So we
25 definitely would encourage them to be talking to dealers.

1 The phase-out doesn't start until 2028. So there's some
2 time between now and then to learn and get familiar with
3 what's available and what's not, and to -- and be set up
4 for asking for extensions if there are cases where it's
5 not quite currently available.

6 BOARD MEMBER HURT: Thank you very much for that
7 response. I would be really interested in learning more
8 about Senator Florez's amendment and how that can be
9 applied. I do support this idea of coming back to us to
10 see how the impact is figuring out. And I will be in
11 support of this regulation.

12 Thank you.

13 CHAIR RANDOLPH: Okay. Thank you.

14 All right. I think my colleagues have covered
15 the issues that I had been thinking about throughout this
16 discussion, so I'm -- I don't want to be duplicative. So
17 we can jump right to -- oh, I'm sorry. I forgot Board
18 Member Kracov had his hand up a while ago. Sorry.

19 BOARD MEMBER KRACOV: I don't too much. I'll be
20 very quick, Chair. I just, you know, want to reiterate a
21 lot of the comments from the fellow Board members here.
22 And the one that really resonates with me is what Board
23 Member De La Torre said, which is that, you know, we've
24 passed rules for sectors that are much harder to
25 decarbonize than this one. For the most part -- not in

1 all use cases, but for the most part, these are equipment
2 that's used in a fixed area. It's not like heavy-duty
3 trucks that are driving all up and down the state. So, in
4 my view, this is one of the more appropriate sectors. And
5 when I've talked to folks in the industry who are using
6 this equipment, they like this equipment. And so I have
7 not heard a lot of concerns from the folks in -- you know,
8 who are actually using this equipment in a day-to-day, and
9 that includes folks in the manufacturing sector, in the
10 waste, and others.

11 So, you know, our job here is to consider
12 feasibility. We have the Executive Order that requires us
13 to move towards zero emission in the off-road sector where
14 feasible. And my sense of this is that this sector --
15 this rule is feasible. I want to than staff for including
16 all these appropriate, I believe, exemptions and
17 extensions in here that I think came from discussions with
18 industry and some of the learnings that we all went
19 through as a Board together on the Clean Fleet Rule, in
20 particular, some of the discussions, you know, with the ag
21 industry.

22 You know, I had heard from the propane folks, and
23 I'll touch on that for a second. You know, I did not hear
24 from the ag industry or labor on this really until today.
25 And those folks know how to find me usually.

1 (Laughter).

2 BOARD MEMBER KRACOV: So I'm happy to hear these
3 comments today. I thought that a lot of these concerns
4 were addressed. Perhaps what dean is talking about may
5 help a little bit more, but I want to encourage folks, if
6 something really matters to you, talk to the Board members
7 before hand, so we'll have an opportunity to try to engage
8 and address the concerns. And I don't really feel that
9 that happened with a lot of the concerns that I'm hearing
10 today.

11 On the other hand, I did hear a lot from the
12 propane folks. I want to thank them for their really, you
13 know, diligent and heartfelt advocacy, Colin, Michael,
14 Krysta, and their engagement on this. I'm sure they're
15 not going to be thrilled with the outcome today, but
16 they've promised to continue to engage with our staff, to
17 continue to engage with our Board to see how this thing
18 rolls out. And I want to thank them for that. And I want
19 to thank them for your advocacy today.

20 So, you know, all that being said, you know, I'll
21 go back to this question of what we've been directed to do
22 by the Governor with the Executive Order on feasibility.
23 It's my sense it is a feasible rule. If there's other
24 things that staff wants to talk about in response to the
25 questions from the propane industry on the number, or the

1 cost, or the feasibility, certainly, Kim, you know, you
2 can address that, and I'll leave that open to you right
3 now, if there's other things that, you know, from their
4 heartfelt diligent comments that you think need to be
5 addressed.

6 But all that being said, I think this is a
7 feasible rule and I support it.

8 CHAIR RANDOLPH: Okay. Thank you.

9 All right. So circling back to Senator Florez's
10 proposal, I mean, I think -- I think it is an important
11 issue. And I -- you know, I understand the ag community's
12 concerns. I also hear concerns from staff that, you know,
13 pushing off those compliance steps will result in the loss
14 of some benefits in terms of the emissions that this rule
15 will achieve. And so, to be clear, my understanding is
16 that there is a cap on the phase-out for that 2028
17 phase-out period, right, for ag, is that correct?

18 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
19 CHIEF HEROY-ROGALSKI: Yes. So, as a -- as a result of
20 stakeholder comments, we did put in a 25 percent cap for
21 small and crop preparation services as to the ag fleets --

22 CHAIR RANDOLPH: Um-hmm.

23 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH
24 CHIEF HEROY-ROGALSKI: -- for the first compliance date.

25 CHAIR RANDOLPH: Um-hmm.

1 MSCD MOBILE SOURCE REGULATORY DEVELOPMENT BRANCH

2 CHIEF HEROY-ROGALSKI: What they are requesting is that we
3 change that 25 percent cap to a 20 percent cap, and that
4 we have that 20 percent cap in place not just for the
5 first compliance year, but also for every subsequent
6 compliance year. And because the compliance dates are
7 spread out by either two or three years, that would really
8 greatly extend the time that like an older forklift fleet
9 that is crop prep services would have to -- would have to
10 turn over their forklifts.

11 So under the proposed reg as it's before the
12 Board right now, if you had a fleet that's like super old,
13 like it's all model year 2010 forklifts, they'd have to --
14 and they're a small or an ag fleet, they'd have to turn
15 over 25 percent that first year by January 1st 2029. And
16 then there's no cap for the next compliance year, which is
17 2032. So they'd have to take care of the remaining 75
18 percent of over the next three years.

19 We personally like as -- from staff's point of
20 view was we thought because we staggered the compliance
21 dates, that that gives folks enough time to gradually
22 phase out their fleet. I mean, it's not going to be fun
23 if you have to get rid of all your forklifts and replace
24 them, but we think having like four years to do that is
25 reasonable.

1 CHAIR RANDOLPH: Okay. And, you know, I guess my
2 concern with the -- with the specific language as proposed
3 is that it delegates to the Executive Officer the ability
4 to make those -- the changes that would typically be made
5 as part of a regulatory process.

6 And, you know, basically we would be adopting it
7 as proposed by staff, but then the Executive Officer would
8 have the ability to modify that. And I -- and I guess to
9 me what I would prefer is spending the, you know, 2026
10 through 2028 time period kind of understanding how this is
11 playing out, how the transition is going, how the
12 availability of this equipment is happening, how the
13 phase-out is going, and then have the Executive Officer
14 if -- if indicate -- as indicated that, you know, by sort
15 of our infrastructure availability and all the other
16 factors that are playing into this, then come back to the
17 Board at that time with a targeted request to modify the
18 compliance schedule.

19 So, my recommendation would be to modify the
20 proposal to direct the Executive Officer to continually
21 evaluate implementation of the rule, and if necessary,
22 bring regulatory proposals back to the Board in 2028 to
23 address sort of the -- to try to understand what's
24 happening before the next compliance period which would be
25 2032. And that way -- and to Board Member Takvorian's

1 point, if things are going faster than anticipated, then
2 that would give the Executive Officer an opportunity to
3 say, hey, you know, things are going well and we don't
4 need to provide additional time extensions.

5 So happy to hear feedback on that modification.

6 BOARD MEMBER PACHECO-WERNER: Chair, I just have
7 a quick point of clarification. When you say come back as
8 necessary, would the issue about turning over a large part
9 of the -- of the fleet be something that would fall under
10 the threshold of why we would need to hear back from the
11 Executive Officer?

12 CHAIR RANDOLPH: Right. That would be the --
13 yes. Yeah. I'm not sure that we need to specify it in
14 the resolution language, but just make clear.

15 You've got to do it on the microphone.

16 (Laughter).

17 BOARD MEMBER RECHTSCHAFFEN: Under your language,
18 Chair, what -- what is the time frame when the Executive
19 Officer would report back to the Board?

20 CHAIR RANDOLPH: So my recommendation would be in
21 2028 via either a memo to the Board or a specific proposal
22 to modify the regulation at -- you know, at the Executive
23 Officer's discretion.

24 BOARD MEMBER TAKVORIAN: Chair, I support that
25 and I think it's consistent with the same time frame

1 actually - I'm sure I'm not remembering this correctly -
2 of one of the other zero-emission rules that we passed
3 recently. ACF.

4 EXECUTIVE OFFICER CLIFF: You're thinking of the
5 Zero-Emission Truck Rule.

6 BOARD MEMBER TAKVORIAN: Right. So it seems like
7 that's very similar language to that and that seems like
8 that's consistent for us. So thank you.

9 CHAIR RANDOLPH: Okay. Any other comments?

10 Oh, sorry.

11 Senator Florez.

12 BOARD MEMBER FLOREZ: Thank you. Yeah, I think
13 in proposing the language, it always occurred to me that
14 the process you just mentioned would occur nonetheless.
15 So in other words, once we pass this, even though we're
16 giving the Executive Officer the ability to, in some sense
17 look, and have some flexibility, I don't believe even in
18 the way that you portrayed it -- maybe I just heard it
19 wrong, but I don't think that the Executive Officer could
20 make a decision. He would still have to come to the Board
21 nonetheless. So if the effect is the same, given your
22 language, I'm absolutely fine with it.

23 CHAIR RANDOLPH: Okay. That's good, because I --
24 yeah, that was -- that was what I was thinking. I just
25 wanted to make sure that any proposal would come to the

1 Board before it was adopted. And so it sounds like you
2 and I are talking about the same thing.

3 BOARD MEMBER FLOREZ: Yeah, I would never trust
4 Mr. Cliff with that much power.

5 (Laughter).

6 BOARD MEMBER FLOREZ: No, but I think that's
7 the -- I think procedurally that's -- procedurally that is
8 correct.

9 CHAIR RANDOLPH: Perfect.

10 BOARD MEMBER FLOREZ: Absolutely. So I think
11 your language -- I think the key to is just, you know,
12 having the ability to, as we move on rule after rule,
13 regulation after regulation, is just kind of noting that
14 in the asterisk that this is something that we want our
15 Executive Officer and staff to flag as they change and
16 obviously come back to the Board.

17 CHAIR RANDOLPH: Okay. So my language would be,
18 "Be it further resolved, that the Board directs the
19 Executive Officer to evaluate effectiveness of
20 implementation of the rule and report back to the Board by
21 2028, either in writing or with a Board presentation, and
22 propose any adjustments in the compliance schedule as
23 necessary."

24 Does that sound good?

25 Okay. All right. Do I have a motion to adopt

1 the resolution with that additional language.

2 BOARD MEMBER RECHTSCHAFFEN: So moved.

3 BOARD MEMBER TAKVORIAN: So moved. Oh.

4 BOARD MEMBER RECHTSCHAFFEN: Second.

5 BOARD MEMBER TAKVORIAN: Second.

6 BOARD MEMBER DE LA TORRE: Take your pick.

7 (Laughter)

8 CHAIR RANDOLPH: All right. So we have a motion
9 and many seconds.

10 Clerk, would you please call the roll.

11 BOARD CLERK MOORE: Dr. Balmes?

12 BOARD MEMBER BALMES: Yes.

13 BOARD CLERK MOORE: Mr. De La Torre?

14 BOARD MEMBER DE LA TORRE: Yes.

15 BOARD CLERK MOORE: Senator Florez?

16 BOARD MEMBER FLOREZ: Yes.

17 BOARD CLERK MOORE: Mr. Guerra?

18 BOARD MEMBER GUERRA: Aye.

19 BOARD CLERK MOORE: Ms. Hurt?

20 BOARD MEMBER HURT: Aye.

21 BOARD CLERK MOORE: Mr. Kracov?

22 BOARD MEMBER KRACOV: Yes.

23 BOARD CLERK MOORE: Dr. Pacheco-Werner?

24 BOARD MEMBER PACHECO-WERNER: Yes.

25 BOARD CLERK MOORE: Mr. Perez?

1 Mr. Rechtschaffen?

2 BOARD MEMBER RECHTSCHAFFEN: Yes.

3 BOARD CLERK MOORE: Dr. Shaheen?

4 BOARD MEMBER SHAHEEN: Aye.

5 BOARD CLERK MOORE: Ms. Takvorian?

6 BOARD MEMBER TAKVORIAN: Yes.

7 BOARD CLERK MOORE: Chair Randolph?

8 CHAIR RANDOLPH: Yes

9 BOARD CLERK MOORE: Madam Chair, the motion
10 passes.

11 CHAIR RANDOLPH: All right. Thank you.

12 Okay. We now will move to open public comment
13 for those who wish to provide a comment regarding an item
14 of interest within the jurisdiction of the Board that is
15 not on today's agenda. The Clerk will call on those who
16 have submitted a request-to-speak card, and if you are
17 joining us remotely and wish to comment, please click the
18 raise-hand button or dial star nine now.

19 Board clerk, will you please call on the public
20 commenters?

21 BOARD CLERK GARCIA: Yes. It looks like we have
22 two commenters in Zoom, Evan Edgar and Richard Harkness.
23 So Evan, I have activated your microphone, please unmute
24 and begin.

25 EVAN EDGAR: Hello. My name is Evan Edgar, Edgar

1 Associates. I'm the guy with the black cowboy hat. I
2 couldn't make it down there today. And we operate in the
3 refuse sector about 8,000 fleet on RNG with a carbon
4 negative of 119 and about 8,000 vehicles with renewable
5 diesel where the average CI is plus 40. But as a whole,
6 we're carbon negative now.

7 And what the ACF Rule will do will recarbonize
8 the fleet to make it carbon positive. I submitted a
9 comment letter last month about this and willing to work
10 with staff on that to understand it. But BEVs are worse
11 than RNG by far. For two and a half years, I've been in
12 front of CARB talking about the European Union battery
13 directive, where we have to have supply chain due
14 diligence on where do we get the rare minerals, about the
15 carbon intensity of ZEVs, which are very much carbon
16 positive - they're not zero emissions - and about battery
17 recycling. We have the Allen bill that we want to support
18 for that.

19 So ACF is disrupting the circular economy that we
20 know of today for a linear global polluting economy. And
21 as I said many times, we can't mine our way out of climate
22 change. So we are actually making -- out of biomass
23 organics, we're making carbon-negative fuel today and to
24 pivot towards BEV, we've got to dig up the Congo with
25 slave labor, and it's higher carbon industry. And for two

1 and a half years, I haven't got any response back from
2 anybody at staff or at any level.

3 So, I believe that CARB is turning a blind eye on
4 the child slave labor in the Congo and with the blood
5 battery industry. And I will plan a meeting with the
6 CalEPA Environmental Justice Office to get some
7 coordination on this, since there are no answers from CARB
8 about the environmental justice. Even the EJAC Committee
9 had comments submitted to CARB as part of the Scoping Plan
10 to have supply chain due diligence on making BEV batteries
11 out of this -- out of the rare minerals. So who killed
12 the carbon-negative fleet? I think CARB did.

13 BOARD CLERK GARCIA: Thank you.

14 Richard, I have activated your microphone.
15 Please unmute and begin.

16 RICHARD HARKNESS: My name is Rich Harkness. I'm
17 retired from a career in strategic and new business
18 planning at Stanford Research Institute, IBM, and Boeing.

19 CARB's Scoping Plan for climate change calls for
20 a very large increase in solar and I'd like to suggest a
21 new way to help achieve that goal. It's called remote
22 solar and is described in two white papers I've submitted
23 into the meeting record. After writing a book about
24 global warming, I focused on solar and found that it's
25 about six times less expensive to generate power in

1 utility scale solar farms than with roof top arrays.

2 I think very few are aware the difference is so
3 large. Through Exploit-It, I evaluated it a scenario
4 where homeowners and renters could purchase solar panels
5 in utility scale solar farms and have the energy they
6 produce exported into the grid where it would replace or
7 offset that used at home. I estimate it would cost the
8 average homeowner only about \$4,000 to purchase a remote
9 solar system. However, this would be paid back in just
10 over three years from reduced utility bills giving an ROI
11 of about 30 percent per year. So remote solar could be a
12 large, new, and painless way to fund more solar.

13 I hope you Board members will read the executive
14 summary of my white paper and ask a couple members of your
15 senior staff to contact me to discuss it in detail. I
16 really need your help on this, because I have no way to
17 identify who they are or get their contact information.
18 It's timely to do this, because the Public Utilities
19 Commission is currently considering a related concept
20 called community solar. My research suggests remote solar
21 will increase solar generation and reduce greenhouse gas
22 better than community solar.

23 Thank you for your consideration in this hurried
24 two-minute summary. Thank you.

25 BOARD CLERK GARCIA: Thank you.

1 And then lastly, we have Sean Edgar. Sean, I
2 have activated your microphone. Please unmute and begin.

3 SEAN EDGAR: Hi. Good afternoon. How is my
4 volume?

5 BOARD CLERK GARCIA: Sounds good.

6 SEAN EDGAR: Great. Good afternoon. I'm Sean
7 Edgar. I'm the director of clean fleets based in
8 Sacramento. I've had the privilege of working on the CARB
9 diesel risk reduction plan for almost 25 years now. I
10 submitted to the docket for today's meeting under open
11 comment the electric vehicle total cost transport analysis
12 that Ryder System unveiled at the Advanced Clean
13 Transportation Expo in Las Vegas last month.

14 Just at a high level, the analysis is really
15 valuable, I think, for future planning. I know the prior
16 item, you talked about concerns about grid infrastructure
17 costs and vehicle performance, all those issues came up.
18 Just at a high level, Ryder analyzed the total cost of
19 transport in one-to-one comparisons for transitioning
20 Class 4, Class 6, and Class 8 heavy-duty vehicles
21 operating in California and Georgia. They compared
22 internal combustion engines to battery electric vehicles
23 of today. The transitioning that Ryder looked at
24 transitioned from a mixed fleet of 25 internal combustion
25 vehicles compared to 25 battery electric vehicles based on

1 different body types.

2 And what Ryder did is they based their analysis
3 on their own fleet operations, which also includes 13,000
4 commercial vehicles and professional drivers. And the
5 results came up with some interesting conclusions that
6 I'll share with you now about a modest increase of about
7 five percent increased total cost of transport for the
8 light-duty sector, the Class 2b, Class 3 service type van
9 market. However, heavy-duty trucks came in at a whopping
10 94 to 114 percent greater cost to convert. And that mixed
11 fleet example that Ryder came up with was a total for a
12 25-truck fleet of real world results of 56 to 67 percent
13 increased costs.

14 So my direction would be just to ask staff to
15 look at this, as well as the Clean Freight Coalition study
16 and come back with an informational item about ZEV costs.

17 Thank you.

18 BOARD CLERK GARCIA: Thank you.

19 That concludes the commenters.

20 CHAIR RANDOLPH: Okay. Before I let everyone go,
21 I wanted to highlight an announcement that Stellantis made
22 a little While ago. They are no longer using chrome in
23 their car parts. So I thought that was a great thing to
24 highlight given that it was in this room that we adopted
25 the rule phasing out hexavalent chromium. So now they

1 will be switching to trivalent chromium and no longer
2 using hexavalent chromium. So that was very good news.

3 (Applause).

4 CHAIR RANDOLPH: And that -- the -- this meeting
5 is adjourned.

6 Thank you.

7 (Thereupon the California Air Resources Board
8 meeting adjourned at 2:20 p.m.)

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