

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT



# Comments and Responses to Comments

Volume 2 of 2

## 2016 AIR QUALITY MANAGEMENT PLAN



March 2017

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Section 4 – Comments and Responses to Comments on the Draft Final 2016 AQMP

## PREFACE

A total of one hundred nineteen (119) comment letters have been received in the course of the 2016 AQMP development, including eight (8) comment letters received on the preliminary draft control measures for SCAQMD's stationary and mobile sources, 69 comment letters received on the Draft 2016 AQMP, 32 comment letters received on the Revised Draft 2016 AQMP, and 10 comment letters received on the Draft Final 2016 AQMP.

This document consists of two volumes that include written comment letters and staff responses to the specific comments. Each volume comprises two sections. In Volume 1, Section 1 includes eight comment letters received on the preliminary draft control measures for stationary and mobile sources that were released to the public in April 2016. Section 2 includes 69 comment letters received on the Draft 2016 AQMP that was released on June 30, 2016.

In Volume 2, Section 3 has 32 comment letters received on the Revised Draft 2016 AQMP that was released on October 7, 2016. Section 4 has 10 comment letters received on the Draft Final 2016 AQMP that was released on December 2, 2016. The overview of comment letters received are summarized in the following table.

<b>Volume</b>	<b>Section</b>	<b>Comment Letters Received On</b>	<b>Total Number</b>	<b>Comment Letter Number</b>
Volume 1	Section 1	Preliminary Draft Control Measures for Stationary and Mobile Sources	8	A–H
	Section 2	Draft 2016 AQMP	69	1–69
Volume 2	Section 3	Revised Draft 2016 AQMP	32	70–101
	Section 4	Draft Final 2016	10	102–111

For some comments similar remarks have been previously made in other comment letters so the response may indicate where the reader can locate the appropriate previous response(s). Modifications have been made in the various versions of the Plan and/or Appendices in response to key comments received.

# **VOLUME 2**

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## **SECTION 3**

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### **COMMENTS AND RESPONSES TO COMMENTS ON THE REVISED DRAFT 2016 AQMP**

## COMMENT LETTER NUMBER

AGENCY / COMPANY	DATE	Comment Letter Number	Page Number
Automobile Club of Southern California (AAA)	11/29/2016	100	856
American Trucking Associations (ATA)	11/7/2016	91	733
Building Industry Association of Southern California, Inc. (BIASC)	11/7/2016	86	709
California Construction and Industrial Materials Association (CalCIMA)	11/7/2016	75	617
California Council for Environmental and Economic Balance (CCEEB)	11/7/2016	85	701
California Small Business Alliance	11/7/2016	81	647
City of Irvine	11/7/2016	79	634
Construction Industry Air Quality Coalition (CIAQC)	11/2/2016	99	853
Del Amo Action Committee (Florence Gharibian)	11/7/2016	97	833
Diesel 2 Gas Solutions (Jim Villa)	10/21/2016	71	588
Earthjustice	11/7/2016	84	696
Eastern Municipal Water District	11/7/2016	80	640
ES Engineering	11/4/2016	73	603
Gatzke Dillon & Ballance LLP (GDB) on behalf of John Wayne Airport	11/7/2016	76	620
Individual Trucking Companies	10/13/2016	70	567
Latham & Watkins LLP on behalf of Regulatory Flexibility Group (RFG)	11/7/2016	87	714
Los Angeles County Business Federation (BizFed)	11/7/2016	95	756
Minuteman Transport Inc. (Peter Amundson)	11/7/2016	82	656

**COMMENT LETTER NUMBER (CONCLUDED)**

<b>AGENCY / COMPANY</b>	<b>DATE</b>	<b>Comment Letter Number</b>	<b>Page Number</b>
Orange County Sanitation District (OCSD)	12/6/2016	101	860
Orange County Transportation Authority (OCTA)	11/2/2016	88	720
Pacific Merchant Shipping Association (PMSA)	11/7/2016	94	749
Ports of Long Beach and Los Angeles (San Pedro Bay Ports)	11/7/2016	96	767
Public Solar Power Coalition (Harvey Eder)	11/7/2016	98	843
Realtors Committee on Air Quality (RCAQ)	11/7/2016	92	737
Rhett Alexander	11/5/2016	74	610
Southern California Air Quality Alliance	11/7/2016	77	624
Southern California Alliance of Publicly Owned Treatment Works (SCAP)	11/7/2016	78	627
Southern California Gas Company (SoCalGas)	11/7/2016	83	658
Southern California Leadership Council (SCLC)	11/7/2016	93	741
Truck and Engine Manufacturers Association (EMA)	11/7/2016	90	729
Valley Industry and Commerce Association (VICA)	11/7/2016	89	727
Western States Petroleum Association (WSPA)	11/4/2016	72	590

**Comment Letter from Individual Trucking Companies (Comment Letter 70)**

-----Original Message-----

From: Peter Amundson [mailto:Peter@minutemantransport.com]  
Sent: Wednesday, October 12, 2016 12:44 PM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Yes to Incentives! No to AQMD Draconian Rules!

Peter Amundson  
14840 E Proctor Ave  
City of Industry, CA 91746

October 12, 2016

Dear Wayne Nastri,

My company has spent hundreds of thousands of dollars to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Peter Amundson

70-1

-----Original Message-----

From: Edward Boe [mailto:edward.boe@xpo.com]  
Sent: Wednesday, October 12, 2016 9:29 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: The South Coast AQMD

Edward Boe  
2200 Claremont Ct.  
Hayward, CA 94545

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Ed Boe

70-2

-----Original Message-----

From: Mike Burkett [mailto:mburkett@biagibros.com]  
Sent: Wednesday, October 12, 2016 9:09 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Incentives Can Help My Business

Mike Burkett  
500 Tower Rd  
Napa, CA 94559

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-3

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Mike Burkett

-----Original Message-----

From: Tony Corriea [mailto:tonyc@weststar.us]  
Sent: Wednesday, October 12, 2016 11:44 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Yes to Incentives! No to AQMD Draconian Rules!

Tony Corriea  
5760 E. Lerdo Hwy  
Shafter, CA 93263

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-4

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Tony Corriea

-----Original Message-----

From: Scott Cramer [mailto:Scramer@cfl-usa.com]  
Sent: Wednesday, October 12, 2016 10:40 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Incentives Can Help My Business

Scott Cramer  
1344 White Ct  
Santa Maria, CA 93458

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-5

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Scott Cramer

-----Original Message-----

From: Greg Dubuque [mailto:greg@libertylinehaulwest.com]  
Sent: Wednesday, October 12, 2016 9:49 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: AQMD VS. ME....AND I WANT TO BE ON YOUR TEAM!!!

Greg Dubuque  
1501 Chapin Road  
Montebello, CA 90640

October 12, 2016

Dear Wayne Nastri,

My small trucking company has spent close the \$3,000,000 to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5. However, because I compete at national level, I enter "the game" with a competitive disadvantage.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime as well as shorten the life cycle of the engine.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

How can you improve air quality immediately? ENFORCE THE RULES WE ALREADY HAVE. Everyday CARB allows non compliant out-of-state trucks to come in to my state and haul the freight I bid on. They win it because they have a cheaper cost of operation. Enough with the excuses of "we don't have enough funds" to enforce. CARB targets fleets within the state as "low hanging fruit" and does nothing to enforce out of state carriers. I am on the roads everyday and see this. If these trucks were off the road, and replaced with today's technology, you would see that 2% improvement you are looking for without any new rules enacted.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Greg Dubuque

-----Original Message-----

From: Steve Hansen [mailto:steve@hansenadkins.com]

Sent: Wednesday, October 12, 2016 11:24 AM

To: Wayne Nastri <wnastri@aqmd.gov>

Subject: AQMD Take a Break on Trucking!

Steve Hansen  
3552 Green Ave  
Los Alamitos, CA 90720

October 12, 2016

Dear Wayne Nastri,

I have spent my 52 years in the Los Angeles area, my professional life in trucking, and do recognize and appreciate the improvement in air quality over the years.

As a trucking company we do more than our fair share to do our best. Give trucking time to absorb the important and effective changes that are now taking effect before attacking our industry once again with additional regulation and cost.

My company has spent over \$12 Million to upgrade to newer, clean emissions trucks to comply with existing CARB regulations. These investments have resulted in tremendous reductions in truck emissions.

Our Company is still absorbing the cost of purchasing 80 new CARB compliant trucks. Our customers have still not recognized the full increase in cost burden nor brought rates in line with expenses associated with changes we have made due to new CALIFORNIA regulations.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State.

Now is absolutely not the time to adopt new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable, dangerous, patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Sincerely,  
Steve Hansen

70-7

70-7  
Con't

-----Original Message-----

From: William Jarvis [mailto:william.jarvis@mclanefs.com]

Sent: Wednesday, October 12, 2016 10:29 AM

To: Wayne Nastri <wnastri@aqmd.gov>

Subject: AQMD Rules Will Be Bad For My Business and Our Teammates(Voters)

William Jarvis  
14813 Meridian Parkway  
Riverside, CA 92562

October 12, 2016

Dear Wayne Nastri,

I urge you to think for yourself and not be influenced by your peers. My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
William Jarvis - General Manager

70-8

-----Original Message-----

From: Fredrick Johring [mailto:fred@gsitrans.com]  
Sent: Wednesday, October 12, 2016 11:24 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: AQMD Rules Will Be Bad For My Business

Fredrick Johring  
2999 Pacific Commerce Dr.  
East Rancho Dominguez, CA 90221

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-9

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Fred Johring

-----Original Message-----

From: Michael Kelso [mailto:mikek@trimodal.com]

Sent: Wednesday, October 12, 2016 5:55 PM

To: Wayne Nastri <wnastri@aqmd.gov>

Subject: SCAQMD Proposed Measures

Michael Kelso  
6962 Cerritos Ave.  
Cypress, CA 90630

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Michael Kelso

70-10

-----Original Message-----

From: Tiffany Leal [mailto:tiffanyleal@inland-group.com]  
Sent: Wednesday, October 12, 2016 9:49 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: AQMD Rules Will Be Bad For My Business

Tiffany Leal  
9730 Cherry Ave  
Fontana, CA 92335

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Tiffany Leal

70-11

-----Original Message-----

From: Valerie Liese [mailto:vliese@jttinc.com]  
Sent: Wednesday, October 12, 2016 4:15 PM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Proposed regulations for S. California

Valerie Liese  
1090 E. Belmont St.  
Ontario, CA 91761

October 12, 2016

Dear Wayne Nastri,

My company has spent hundreds of thousands of dollars to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. And yet, you say that's not enough. Unfortunately, manufacturers were not given enough time to develop engines and retrofit equipment, resulting in mechanical failures, thus leaving the trucking industry with trucks in our shops most of time, rather than on the roads being productive.

Because of these rules, just coming out of a recession, and equipment that continuously failed or burnt to the ground, I had to close my doors after 45 years in a family-owned business in California because of your mandates. With your new proposed regulations, you will guarantee even more businesses closing their doors, more unemployment and prices raising dramatically.

Comprehensive rules must be made not only statewide, but nationwide. To make rulings for our area alone, will ensure all industries and businesses suffer.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Valerie Liese

70-12

70-12  
Con't

-----Original Message-----

From: Chris McNatt [mailto:cmcnatt@gmail.com]  
Sent: Wednesday, October 12, 2016 10:19 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: AQMD Overreach

Chris McNatt  
1175 Kipling Avenue  
Los Angeles, CA 90041

October 12, 2016

Dear Wayne Nastri,

My clients' companies have spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-13

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Chris McNatt

-----Original Message-----

From: Robert Nearing [mailto:robert.nearing@mclanefs.com]

Sent: Wednesday, October 12, 2016 10:39 AM

To: Wayne Nastri <wnastri@aqmd.gov>

Subject: AQMD Rules Will Be Bad For My Business

Robert Nearing  
14813  
Riverside, CA 92518

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-14

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Robert Nearing

-----Original Message-----

From: Ron Overacker [mailto:roveracker@socogroup.com]  
Sent: Wednesday, October 12, 2016 9:29 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Incentives Can Help My Business

Ron Overacker  
145 Vernon Way  
El Cajon, CA 92020

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-15

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Ron Overacker

-----Original Message-----

From: anthony peters [mailto:peterstrucking@yaqhoo.com]  
Sent: Wednesday, October 12, 2016 5:05 PM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: AQMD Rules Will Be Bad For My Business

anthony peters  
po box 397  
gustine, CA 95322

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
ANTHONY PETERS

70-16

-----Original Message-----

From: Peter Schneider [mailto:pschneider@tgstrans.com]

Sent: Wednesday, October 12, 2016 1:14 PM

To: Wayne Nastri <wnastri@aqmd.gov>

Subject: Incentives Can Help My Business

Peter Schneider  
PO Box 2668  
Fresno, CA 93745

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

70-17

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Peter Schneider

-----Original Message-----

From: Tobin Shirk [mailto:tobin@mammettrucking.com]  
Sent: Thursday, October 13, 2016 7:56 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Yes to Incentives! No to AQMD Draconian Rules!

Tobin Shirk  
126 N.Heliotope Ave.  
Monrovia, CA 91016

October 13, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

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70-18

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

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Sincerely,  
Tobin Shirk

-----Original Message-----

From: Kenneth Shuemaker [mailto:Pshuemaker@sbcglobal.net]

Sent: Wednesday, October 12, 2016 9:19 AM

To: Wayne Nastri <wnastri@aqmd.gov>

Subject: Incentives Can Help My Business

Kenneth Shuemaker  
744 Q Street  
Firebaugh, CA 93622

October 12, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

Trucking has done more than its fair share to clean the air in the South Coast and is already one of the most highly regulated industries in the State. Now is absolutely not the time to adopt draconian new regulations such as attempting to expand the district's fleet rule authority to private truck fleets and imposing facility emission caps on thousands of freight facilities, creating an unworkable patchwork of rules.

We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Kenneth Shuemaker

70-19

-----Original Message-----

From: Greg Steffire [mailto:gregsteffire@gmail.com]  
Sent: Thursday, October 13, 2016 7:26 AM  
To: Wayne Nastri <wnastri@aqmd.gov>  
Subject: Incentives Can Help My Business

Greg Steffire  
675 Green View Rd.  
La Habra Heights, CA 90631

October 13, 2016

Dear Wayne Nastri,

My company has spent millions to upgrade to newer, cleaner trucks and equipment to comply with existing CARB regulations. These investments have resulted in over 80% reductions in NOx and 99% reductions in PM2.5.

CARB and EPA have signaled that they will adopt lower NOx standards for engines that will result in up to a 98% reduction in NOx. These new emission standards will increase the cost of trucks and will likely result in higher maintenance cost and downtime.

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We urge you to continue to work with truckers on incentive based approaches, fairly enforcing existing rules to provide a level playing field to compliant fleets and to allow CARB and EPA to work with engine manufacturers on the adoption of national emission standards.

Harmful rules are not the way to go. Work with the industry and not against it!

Sincerely,  
Greg Steffire

70-20

**Responses to Comment Letter from Individual Trucking Companies**  
**(Comment Letter 70)**

**Response to Comments 70-1 to 70-20:**

Thank you for your comments. The SCAQMD staff is working with CARB to identify additional funding in the near-term that will help turnover older trucks to trucks which meet and exceed the latest emission standards. Regardless, according to the 2016 AQMP emissions inventory, heavy-duty diesel trucks were still the highest source for NOx emissions in 2012. Although emissions in future years are expected to be lowered, NOx emissions from heavy-duty diesel trucks in the South Coast are still significant and should be reduced to protect public health.

While the acquisition of a truck that meets the current 2010 emission standard is important, the region must go beyond current standards in order to attain federal air quality standards by their applicable deadlines. As such, CARB will be developing new engine standards. Meanwhile, the SCAQMD has petitioned U.S. EPA to establish new national engine emission standards. As incentives funding opportunities are identified, we would encourage the acquisition of trucks with the cleanest available engines.

**Comment Letter from Diesel 2 Gas Solutions (Comment Letter 71)**

**From:** Jim Villa [mailto:jim@diesel2gas.com]  
**Sent:** Friday, October 21, 2016 2:30 PM  
**To:** Diana Thai <dthai@aqmd.gov>  
**Cc:** Bob Butler <bob@generator-services.com>; Drew Butler <drew@diesel2gas.com>  
**Subject:** RE: Request for Additional Information - Diesel2Gas and CNG Direct

Hi Diana,

Here are some questions/comments we have regarding the AQMP in regards to Bi-Fuel and Flare Gas Recovery in CMB-01 and CMB-03 respectively:

For Bi-Fuel

- What other incentive does the end user have by converting to Bi-Fuel? Does it simply help their facility reduce NOx output, or are there benefits for the equipment?
- What does the client have to do to qualify for the funds? Do the funds come after the job is complete? How long will it take to get the funds?
- Since our system is CARB certified, will it still require a source test?
- In Table 4, are the funds available per unit or per facility?
- Will lower Tier levels (T-1 & T-2) be targeted first since the % of NOx levels reduced is greater with a Bi-Fuel system?
- The AQMP lists 60 retrofit opportunities. How are these units or facilities identified? If there are additional units/facilities identified, will they qualify for the funds as well? When do the funds run out?

71-1

For CNG transportation/Flare Gas Recovery

In regards to flare gas recovery, can the option of utilizing CNG trailers be considered? In CMB-03, one of the options that is not discussed is transporting stranded gas (IV-A-80) through CNG trailers to the pipeline or to a site that is able to utilize the gas. This is an option that avoids the need for flares.

We are currently completing construction on a project where we will be doing this in Bakersfield. It will be up and running within the next couple months. The client pays us to transport the fuel to the pipeline, or we have the option to purchase the fuel and sell it to our clients. The gas needs to be cleaned up to pipeline quality. We are currently working with SJVAPCD on flare gas capture incentives and/or grants that would help eliminate all types of flaring occurring in their air districts. Currently this is the only option that eliminates all flaring either emergency, intermittent or constant and uses. If you would like us to share the information we have been working with on SJVAPCD or would like to work with them we would be happy to help in any way.

71-2

Best regards,

Jim

Jim Villa  
Regional Sales Manager  
Diesel 2 Gas Solutions  
909-917-3501 Cell

**Responses to Comment Letter from Diesel 2 Gas Solutions**  
**(Comment Letter 71)**

**Response to Comment 71-1:**

CMB-01 is designed to transition to zero NOx emission technologies where and when technology is feasible and cost-effective and near-zero NOx technologies in all other applications. Along with NOx reductions, equipment owners and operators may experience other co-benefits such as increased energy efficiency, reduced maintenance, greenhouse gas (GHG) reductions, and/or a reduction in criteria pollutants. A facility converting a diesel internal combustion engine (ICE) to a bi-fuel system, in addition to reducing NOx emissions, may also reduce operating costs, reduce maintenance, create fuel savings, and extend run times.

The incentive program will be developed in detail with comprehensive guidelines that are approved by the SCAQMD Governing Board. Public working groups or workshops will take place to discuss the guidelines and incentives, including fund distribution. Facilities that qualify for incentives shall submit applications during an open enrollment period. Projects will be evaluated based on criteria, including, but not limited to, emission reductions, cost-effectiveness, age of equipment, remaining useful life of existing equipment, Environmental Justice (EJ) considerations, and small business status.

The working group will discuss whether zero and/or near-zero emission technologies will require source testing. Source testing may be required to verify proper equipment operation or that equipment meets emission limits.

Older higher emitting NOx equipment will be targeted by this control measure. The purpose of the incentive program is to create opportunities and make it more cost-effective to replace equipment, transition to zero or near-zero technologies, encourage earlier change-out of higher-emitting equipment, and drive technology development and cost reduction. Projects that are more cost-effective may be given priority compared to other projects with less NOx reductions and higher costs (larger incentives needed).

The retrofit opportunities identified in CMB-01, Table 5 - "Incentive Effectiveness by Category" (formerly Table 4) are a demonstration of source categories staff identified for potential emission reductions through incentive funding and costs for replacement or control equipment currently available. Upon implementation and formation of a working group, new zero or near-zero emitting technologies can be identified as well as other sources for potential NOx reductions. If more cost-effective NOx reductions are achieved through one source category, it may lessen the need from another NOx source category. Once a facility applies for an incentive program, the facility will need to identify the zero or near-zero technology with they wish to replace or retrofit their older higher emitting equipment. The number of units/facilities identified for retrofits were based on staffs' estimate of cost-effective emission reduction opportunities. If additional units/facilities are identified, they may qualify for funding if funds are available.

**Response to Comment 71-2:**

The option of utilizing CNG trailers may be considered to transport stranded gas. Staff may need to take into consideration increased vehicle emissions from bringing a sufficient number of CNG trailers to transport stranded gas from a site. Staff is open to methods of control that would eliminate flaring and provide beneficial use of gas from non-refinery sources. A working group will be formed during rulemaking to discuss further options and details of the rule.

**Comment Letter from Western States Petroleum Association (Comment Letter 72)**



Western States Petroleum Association  
Credible Solutions • Responsive Service • Since 1907

Patty Senecal  
Director, Southern California Region

4 November 2016

Via Email: PFine@aqmd.gov

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Re: WSPA Comments on the Revised Draft 2016 Air Quality Management Plan (AQMP)

Dear Dr. Fine:

Western States Petroleum Association (WSPA) is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California, Arizona, Nevada, Oregon, and Washington. WSPA member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will potentially be affected by the information presented in the Revised Draft 2016 Air Quality Management Plan.

WSPA appreciates the opportunity to submit these comments and continues to support the regional air quality planning process. Over the last two decades, Southern California's industrial facilities (i.e., stationary sources including the region's petroleum refineries) have reduced their emissions by over 70 percent for most criteria pollutants including nitrogen oxides (NO<sub>x</sub>) and sulfur oxides (SO<sub>x</sub>). And by 2023, these industries will have further reduced their NO<sub>x</sub> emission by another 45 percent.

72-1

Our general comments in the Revised Draft AQMP are as follows:

- 1. The AQMP control strategy should exclude all measures not needed to minimally achieve the region's carrying capacity targets for attainment of the National Ambient Air Quality Standards (NAAQS).**

As presented in the Revised Draft AQMP,<sup>1</sup> the proposed control strategy continues to include a number of measures which are not necessary for meeting the AQMP objectives. These additional measures are not shown as necessary for reaching the region's "carrying capacity." In fact, most of these extra measures have no quantified emission benefits yet would impose considerable costs on the Southern California economy. They should be removed from the AQMP.

72-2

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<sup>1</sup> SCAQMD, Revised Draft 2016 AQMP, Table ES-2 (October 2016).

2. **The AQMP control strategy should prioritize non-regulatory, incentive based approaches to reducing emissions outside the State Strategy. The AQMP should consider the potential benefits of extending incentives to reduce costs to industrial stationary sources.**

To the extent they are needed to demonstrate attainment, WSPA is supportive of the AQMP's inclusion of control measures based on incentives and other non-regulatory approaches intended to accelerate the transition of vehicles, buildings, and industrial facilities to cleaner technologies. Southern California's industrial facilities (i.e., stationary sources including the region's petroleum refineries) have dramatically reduced their emissions by over 70 percent for most criteria pollutants over the last two decades, and by 2023 these same industries will have further reduced their NO<sub>x</sub> emission by another 45 percent<sup>2</sup>. With these additional reductions, industrial facilities may not be able to further reduce emissions in a cost effective manner absent financial incentives.

72-3

Industrial sector employment is a vital part of the regional economy. The AQMP should extend the use of incentives to include large stationary sources, including major sources presently subject to the RECLAIM program. This could serve to accelerate the deployment of lower emission technologies and would be consistent with recent discussions at the Ad Hoc Committee on Large Compliance Investments and Future Regulatory Certainty to consider targeted incentives, financing, and funding programs as means for promoting emission reductions and helping businesses remain economically viable, especially in environmental justice areas.<sup>3</sup>

3. **Given the December 2015 and October 2016 amendments to the RECLAIM program, Proposed CMB-05 (Further NO<sub>x</sub> Reductions from RECLAIM Assessment [NO<sub>x</sub>]) is unreasonable and lacks any technical foundation. Proposed measure CMB-05 should be completely removed from the AQMP.**

In December 2015, the AQMD Governing Board approved the single largest adjustment to the NO<sub>x</sub> RECLAIM program since it began in 1994. When fully implemented, those amendments will have removed at least 12 tons per day (tpd) from the NO<sub>x</sub> RECLAIM market; a 45% reduction. This is on top of the nearly 70% reduction in NO<sub>x</sub> emissions achieved under RECLAIM since 1994.

The December 2015 rulemaking made RECLAIM adjustments to reflect the (perceived) advancement of NO<sub>x</sub> Best Available Retrofit Control Technology (BARCT) for various equipment by establishing new RECLAIM Trading Credit (RTC) adjustment factors for year 2016 and beyond. That rulemaking also took "credit" for the fact that certain companies had left Southern California, and made adjustments for anticipated future growth of industrial sectors covered by the RECLAIM program. The December 2015 rulemaking also included an "off-ramp" for electricity generating facilities (EGF) at BACT or BARCT. That last provision, if optioned by qualifying EGFs, could result in additional RTCs being removed from the RECLAIM program above and beyond the 12 tpd market adjustment approved by the Governing Board. And in October 2016, the Governing Board adopted further amendments that will remove even more RTCs from the NO<sub>x</sub> RECLAIM Program in the event of future RECLAIM facility shutdowns.

72-4

As presented in the Revised Draft AQMP, the proposed measure purports to address "...issues that arose during recent NO<sub>x</sub> RECLAIM amendments. These measures listed below would be designed to achieve

<sup>2</sup> SCAQMD December 2015 amendments to the NO<sub>x</sub> RECLAIM program, Rule 2002, adopted 12/4/15.

<sup>3</sup> SCAQMD Ad Hoc Committee on Large Compliance Investments and Future Regulatory Certainty, September 2, 2016.

*additional actual and/or SIP creditable emission reductions from the RECLAIM Program and ensure future equivalency with command-and-control regulations.” As detailed below, each of these “issues” has already been addressed in the December 2015 or October 2016 rulemakings or are otherwise moot.*

72-4  
Cont

Specifically, the Revised Draft AQMP suggests the following reasons:<sup>4</sup>

Note: Changes from the first draft AQMP are represented as follows: removed words are crossed out and added words are underlined.

**Issue as Presented:** *“Assess whether more SIP creditable and/or actual emission reductions could be achieved without the RECLAIM program, and if so, explore how the program could be sunset in an orderly and equitable fashion. ~~Assessment of whether~~ The cost-effectiveness benefits that the RECLAIM market was intended to provide may still exist ~~cease to exist~~ given the need for all feasible NOx reductions and the potential lack of lower-cost control options. As many of the program’s original advantages appear to be diminishing and generating increased scrutiny, an orderly sunset of the RECLAIM program may be the best way to create more regulatory certainty and reduce compliance burdens for RECLAIM facilities. Many of the approaches listed below may serve as interim steps in a long-term elimination of the program.”*

72-5

As stated earlier in this letter, the RECLAIM program has been very successful over the past 20 years, and with the recent amendments in December 2015, significant emission reductions will continue to be realized over the next 6 years. A sunset of the program would be a policy matter to be debated by the Governing Board and should not only include a detailed socioeconomic assessment to consider the potential impacts to the regional economy but also a thorough review of the District’s legal obligations under the California Health & Safety Code. Additionally, Staff has not offered any information to suggest such a policy change could even yield creditable reductions. For these reasons, a sunset of the RECLAIM program is, at best, premature, and should not be included as an alternative in the AQMP.

**Issue as Presented:** *“Consider options for facilities at BACT or BARCT and/or facilities with no allocations (structural buyers) to exit the program and be subject to command and control regulations. The most recent NOx amendment allowed EGFs to voluntarily opt-out of RECLAIM. Such an option could be extended to other facilities, and potentially lead to more AQMP creditable emission reductions ~~given that future non-RECLAIM facilities emissions are projected at actual levels with growth rather than total allocations.~~”*

72-6

The December 2015 rulemaking already featured an “off-ramp” for EGFs at BACT or BARCT, and that rulemaking (by design) would force the remaining RECLAIM facilities to meet the Staff’s BARCT levels (found in Rule 2002) on a programmatic basis. As stated previously, if optioned by qualifying EGFs, the provision could result in additional RTCs being removed from the RECLAIM program above and beyond the 12 tpd market adjustment approved by the Governing Board. Therefore, WSPA cautions staff from including additional “off-ramp” provisions in the AQMP until the impact of its implementation is clearly understood on the RECLAIM program.

**Issue as Presented:** *“Consider command-and-control regulation overlays to certain RECLAIM facilities. For some RECLAIM facilities a command-and-control overlay may be the best way to reduce NOx emissions while maintaining the required equivalency with command and control.”*

72-7

<sup>4</sup> SCAQMD Draft AQMP, Appendix IV, page IV-A-88 et seq.

The December 2015 rulemaking by design forces RECLAIM facilities to meet the Staff's BARCT levels (found in Rule 2002) on a programmatic basis. Those BARCT levels in most cases are equal to or more stringent than current BACT.<sup>5</sup> The suggested "command-and-control overlays" would fundamentally conflict with Regulation XX program design. And given the December 2015 amendments, there is no evidence to suggest they would yield additional creditable emission reductions.

72-7  
Cont

**Issue as Presented:** "Assess the need for and the size of the differential between RTC holdings and actual emissions. The size of this unused RTC margin is affected by the possible need for a compliance margin, uncertainties in the growth projections for existing and new businesses, facility and equipment shutdowns, and holdings by investors. A full assessment may allow for an optimization of the size of the margin that could allow for further RTC reductions."

72-8

During the December 2015 rulemaking, it was noted that overall, the NOx RECLAIM market had, in recent years (i.e., 2011-2013), exhibited an unused RTC margin of 4-6 tpd depending on the year and prevailing economic conditions. In the context of that period's market cap of 26.5 tpd, the 4-6 tpd represented 15-25% of the overall NOx RTC market. By its very design, the December 2015 rulemaking will have eliminated nearly all of those previously unused RTCs once fully implemented by 2023. This historical observation does not represent a valid basis for further market adjustment.

**Issue as Presented:** "Assess facility and equipment shutdowns and the removal of associated RTCs from the market. Under command-and-control rules, shutdown emission credits are heavily discounted to BACT, based on the last 2 years of operation. While there is no discount of credits for a RECLAIM facility or equipment shutdown, the overall RTCs available to RECLAIM facilities have been reduced over time to reflect the advancement of BARCT (i.e., command-and-control equivalency). In some cases, these BARCT levels are equal to, or more stringent than, BACT determinations. However, these credits, if not removed from the program, could reduce the incentive to implement cost-effective controls that would otherwise be required under command-and-control. California Health & Safety Code Section 39616(c)(1) requires that RECLAIM, a market-based program, will result in equivalent or greater reduction in emissions at equivalent or less cost compared with current command and control regulations and future air quality measures that would otherwise have been adopted as part of the SCAQMD's plan for attainment. Amendments are currently being considered to address RTCs upon facility shutdowns."

72-9

On 7 October 2016, the Governing Board adopted additional amendments to RECLAIM which comprehensively addressed the facility shutdown issue. This "issue" is now resolved and should be removed from the AQMP.

**Issue as Presented:** "Perform additional or more frequent BARCT assessments and adjust allocations as control technologies improve and are implemented in practice."

72-10

AQMD is already obligated to perform such assessments under the California Health & Safety Code.<sup>6</sup> Such assessments would trigger future rulemaking if it was concluded that BARCT was more stringent than the levels stated in Rule 2002. Given the severity of the BARCT determinations in the December

<sup>5</sup> SCAQMD 2016 AQMP, Appendix IV, page IV-A-89. "In some cases, these BARCT levels are equal to, or more stringent than, BACT determinations."

<sup>6</sup> H&SC §39616(c).

2015 rulemaking, some of which are more stringent than accepted BACT, there is no technical basis at this time to suggest that BARCT advancement will be able to yield an additional 5 tpd of NOx emissions from RECLAIM facilities by 2031.

72-10  
Con't

**Issue as Presented:** *“Re-examination of the RECLAIM program if RTC prices hit the upper or lower threshold amounts. The current NOx RECLAIM regulation has a lower price threshold of \$200,000 per ton (infinite year block) and upper price thresholds of \$22,500 and \$35,000 per ton (discrete year; annual and 3-month average, respectively). The levels of these thresholds or additional thresholds could be modified commensurate with future BARCT assessments and attainment needs.”*

California Health and Safety Code requires the District to make certain findings when adopting rules and regulations to implement a market-based incentive program, including a determination that:

- The program will result in an equivalent or greater reduction in emissions at equivalent or less cost compared with current command and control regulations and future air quality measures that would otherwise have been adopted as part of the district’s plan for attainment.
- The program will provide a level of enforcement and monitoring, to ensure compliance with emission reduction requirements, comparable with command and control air quality measures that would otherwise have been adopted by the district for inclusion in the district’s plan for attainment.
- The program will not result in a greater loss of jobs or more significant shifts from higher to lower skilled jobs, on an overall districtwide basis, than that which would exist under command and control air quality measures that would otherwise have been adopted as part of the district’s plan for attainment.
- The program will not result in disproportionate impacts, measured on an aggregate basis, on those stationary sources included in the program compared to other permitted stationary sources in the district’s plan for attainment.<sup>7</sup>

72-11

Any reconsideration of price triggers or cost effectiveness thresholds would need to be supported by findings that the program will not result in disproportionate impacts, measured on an aggregate basis, on those facilities included in the RECLAIM program as compared to other permitted stationary sources in the District. Given the severity of the December 2015 and October 2016 amendments, we are skeptical that such a finding could be made at this time. We do not believe this issue supports further reductions in the NOx RECLAIM market.

**Issue as Presented:** *“Assess the impacts of investors holding RTCs. Investors have historically played an important role in the RECLAIM program. However, their holding of RTCs has posed problems with the trading and identification of reductions because they are not RECLAIM facilities that have an initial allocation or a potential to reduce NOx emissions.”*

72-12

This topic appears to be a policy matter which would need to be considered by the Governing Board and possibly state legislation. California Health & Safety Code specifically provides that RECLAIM “shall achieve emission reductions across a spectrum of sources by allowing for trading of emissions trading

<sup>7</sup> H&SC §39616(c).

units for quantifiable reductions in emissions from a significant number of different sources.”<sup>8</sup> Absent a change in policy directive, this does not support further reductions in the NOx RECLAIM market.

To summarize, the basis presented in the Revised Draft AQMP for proposed Control Measure CMB-05 do not support this control measure given the RECLAIM program changes already adopted under the December 2015 and October 2016 rulemakings. Furthermore, the proposed measure lacks any rationale to support the notion that 5 tpd of additional creditable emission reductions could be achieved by 2031. For these reasons, proposed measure CMB-05 should be completely removed from the AQMP. If the District insists on including a RECLAIM control measure in this AQMP, the emission reduction should be represented as a range since what is included in the AQMP is the minimum commitment to USEPA that must be met. We recommend a range of 0-3 tpd. WSPA believes this range adequately encompasses the uncertainty on all the components listed above, some already adopted (i.e. facility shutdown credits) and some to be considered (i.e. command-and-control overlays), but none of them have specific reductions that have been analyzed and justified. And further, WSPA believes that any additional adjustment to RECLAIM Trading Credits (RTCs) under the NOx RECLAIM program should be applied equally to all NOx RECLAIM market participants as a proportion of their present RTC holdings consistent with the founding principles of the RECLAIM program.

72-12  
Con't

**4. The costs presented for proposed control measure CMB-05 (RECLAIM) in Table 6-5 are significantly understated. This understatement compromises the Governing Board’s ability to make an informed policy decision.**

Revised Draft AQMP Table 6-5 presents the cost for proposed measure CMB-05 at \$13,500 - \$21,000 per ton of NO<sub>x</sub> reduced. This is supposedly based on information in the Staff Report for the December 2015 amendments to Regulation XX. However, WSPA previously provided information to the District which clearly demonstrated that the cost for refinery sector emission reductions beyond those required in the December 2015 amendments would be significantly higher.

WSPA, through a third party contractor, conducted a confidential cost survey of the Southern California refineries related to total capital and operating costs for compliance with the District’s proposed NO<sub>x</sub> RECLAIM shaves. This proprietary information was submitted by refiners on a confidential basis to the third-party contractor who de-identified and aggregated the compliance costs for the overall industry. That forecast suggested the refinery sector compliance costs for the December 2015 shave would be nearly twice the estimate presented by AQMD staff.

72-13

Furthermore, WSPA’s contractor also projected that additional NO<sub>x</sub> reductions could cost the refining industry as much as \$120,000 per ton, using a 10-year equipment life. Even using Staff’s liberal 25-yr equipment life assumption, the estimated costs for additional reductions came to over \$55,000 per ton of NO<sub>x</sub>. While proposed measure CMB-05 fails to explain how any additional reductions from RECLAIM might actually be achieved (see above), it does openly contemplate the imposition of command-and-control overlays that might further increase compliance costs for RECLAIM sources beyond previous projections.

<sup>8</sup> California Health & Safety Code §40440.1(a).

**5. Proposed measured CMB-01 should be expanded to include facilities in the RECLAIM program.**

Proposed measure CMB-01, Transition to Zero and Near-Zero Emission Technologies for Stationary Sources, would seek emissions reductions of NO<sub>x</sub> and VOCs from traditional combustion sources by replacement with zero and near-zero emission technologies. This incentive measure would help fund qualifying technology changes by deploying funding or grants to encourage the immediate use of clean, low emission technologies. Such facility modernization concepts have been extensively discussed with stakeholders and were summarized in the Business Case for Clean Air Strategies White Paper. But for some reason, the current CMB-01 proposal would exclude RECLAIM facilities without exception. Given the interest in promoting feasible emission reductions from combustion sources, we see no reason for such a broad exclusion.

72-14

Proposed measure CMB-01 should be revised to allow RECLAIM facilities with qualifying projects to participate in the incentive funding program.

**6. Under proposed Measure FUG-01 (Improved Leak Detection and Repair), WSPA supports the use of Smart-LDAR as a substitute for conventional LDAR programs. This would be the intended purpose of "Smart-LDAR" and could help to resolve the inefficient and labor intensive effort associated with conventional LDAR programs.**

The Revised Draft AQMP includes a proposed control measure which describes a wide-ranging approach to potentially further reducing VOC emissions from fugitive emission components at petroleum industry facilities and chemical plants. The control measure again focuses on the potential use of optical gas imaging technology (as it did the 2012 and 2007 AQMPs).<sup>9</sup> Optical gas imaging (OGI) technology was borne out of a desire to conduct fugitive emission LDAR programs in a more efficient manner (thus, the term "Smart-LDAR"). Prior AQMPs have specifically recognized the inefficient and labor intensive effort associated with conventional LDAR programs; however, this concept is not addressed in FUG-01.

72-15

WSPA appreciates that the Revised Draft AQMP's language for this control measure has been revised to (potentially) allow the use of Smart-LDAR technologies as an alternative to inefficient conventional LDAR programs. This would be the intended purpose of "Smart-LDAR" and could help to resolve the inefficient and labor intensive effort associated with conventional LDAR programs.

**7. Proposed Measure FUG-01 (Improved Leak Detection and Repair) should be revised to clarify that Smart-LDAR would not be required as a supplement to conventional LDAR inspections.**

The Revised Draft AQMP states that: "*Consideration will be made, where appropriate, for the use of Smart LDAR as a substitute for existing LDAR programs. Some smart LDAR technologies are qualitative only and the lack of quantitative information would require the continued use of existing LDAR programs in those situations.*"<sup>10</sup>

72-16

As noted above, we support the concept of potentially replacing traditional LDAR programs with Smart-LDAR technologies. Industry would be strongly opposed to requirements for using Smart-LDAR

<sup>9</sup> SCAQMD 2012 AQMP Control Measure FUG-03 and 2007 AQMP Control Measure FUG-01.

<sup>10</sup> SCAQMD, Revised Draft 2016 AQMP, Appendix IV, page IV-A-93.

technologies as a supplement to existing LDAR programs. The highest and best potential use of Optical Gas Imaging (OGI) is as a substitute for conventional inspections of components with an organic vapor analyzer. Adding OGI (or other technologies) to existing requirements is not cost-effective and may not provide environmental benefit.

72-16  
Con't

**8. The emission reductions cited for Proposed Measure FUG-01 are not supported.**

The control measure summary table identifies potential VOC reductions of 2 tpd by 2023 from an inventory of 7.1 tpd.<sup>11</sup> WSPA believes that the emissions reduction estimate (i.e., >25%) is overly optimistic. We also note that the baseline emissions inventory is considerably different than the figures which were presented in the 2012 AQMP for Control Measure FUG-03. WSPA still wants to understand the source of the 7.1 tons/day emissions inventory as well as the basis for the estimated reductions.

72-17

**9. For Proposed Measure FUG-01, all references to new technologies or optical remote sensing technologies are out of place and should be removed.**

The proposed measure also suggests exploring the use of “new technologies to detect VOC fugitive emissions in order to supplement existing programs and achieve additional emission reductions.”<sup>12</sup> But the Draft AQMP does not explain what those technologies might be, how they would be effective, or how much they might cost and to whom. The measure goes on to discuss two phase implementation without these technologies (or so we inferred). Given the lack of an actual proposal for these new technologies, all references to unspecified “new technologies” should be removed from proposed Control Measure FUG-01.

72-18

Furthermore, the Cost Effectiveness section for proposed measure FUG-01 contains a random reference to “SOF” (Solar Occultation Flux).<sup>13</sup> WSPA understands that pilot studies are currently being conducted to develop a variety of ORI technologies that could be used to detect fugitive emission leaks; however, we are concerned that a specific technology would be named in a general document such as the AQMP. Therefore, any references to SOF should be removed from the AQMP.

**10. Proposed measure BCM-02 (Emission Reductions from Cooling Towers) is not needed for the attainment demonstration; it should be removed from the AQMP.**

As presented in the Revised Draft AQMP, this control measure would seek to phase-in the use of drift eliminators with 0.001% efficiency for existing cooling towers. This would be achieved by requiring retrofit of older cooling towers with modification to the cooling fans to accompany the drift eliminators. Newly constructed cooling towers have demonstrated ultra-low drift rate of 0.0005%.

72-19

The Revised Draft AQMP does not present an emission reduction number for this proposed measure, and it is clearly unnecessary for the PM<sub>2.5</sub> attainment demonstration. In fact, the Revised Draft AQMP modeling assessment shows that the region will satisfy the PM<sub>2.5</sub> NAAQS based solely on the ozone

<sup>11</sup> SCAQMD, Revised Draft AQMP, Appendix IV, page IV-A-91.

<sup>12</sup> SCAQMD 2016 Revised Draft AQMP, Appendix IV, page IV-A-93.

<sup>13</sup> SCAQMD 2016 Revised Draft AQMP, Appendix IV, page IV-A-94.

strategy control measures and that no additional measures are needed.<sup>14</sup> As such, this measure should be removed from the AQMP.

72-19  
Cont'

**11. Proposed measure BCM-05 is not needed to support the attainment demonstration; it should be removed from the AQMP.**

As presented in the Revised Draft AQMP, this control measure would require ammonia slip catalysts be installed in combustion sources with Selective Catalytic Reduction (SCR) systems for the control of NO<sub>x</sub>. These would be installed post-SCR and could result in less ammonia slip from these sources.

72-20

The Revised Draft AQMP does not present an emission reduction number for this measure, and the measure is clearly not needed for the PM<sub>2.5</sub> attainment demonstration. In fact, the Revised Draft AQMP modeling assessment shows that the region will satisfy the PM<sub>2.5</sub> NAAQS based solely on the ozone strategy control measures and that no additional measures are needed.<sup>15</sup> Since this measure is unnecessary for regional attainment, it should be removed from the AQMP.

**12. General Comments Regarding CARB's Mobile Source Strategy.**

WSPA is deeply concerned about the costs and impacts presented in CARB's Mobile Source Strategy for South Coast (Appendix IV-B of the draft 2016 AQMP), including the low-emission diesel standard. The total estimated cost for CARB control measures affecting South Coast is \$28.7 billion; \$834 million is attributed to the low-emission standard alone<sup>16</sup>. WSPA has submitted initial comments to CARB on the low-emission diesel standard in June 2016 and will provide additional comments to SCAQMD on the mobile source strategy once the remaining sections of the AQMP Socioeconomic Report are released in the coming weeks.

72-21

WSPA appreciates the opportunity to submit these comments. We may submit additional comments during this process as the District releases additional 2016 AQMP documents including, but not limited to the Final Draft AQMP. We understand all submissions will be given due consideration by the District staff and the Governing Board.

If you have any questions, please contact me at (310) 808-2144 or by email at [patty@wspa.org](mailto:patty@wspa.org).

Sincerely,



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<sup>14</sup> SCAQMD, Presentation to the AQMP Working Group, Meeting #14, Agenda Item 2 (27 October 2016).

<sup>15</sup> Ibid.

<sup>16</sup> AQMD, Preliminary Draft Socioeconomic Report for the 2016 AQMP, August 2016. Page 23.

**Responses to Comment Letter from Western States Petroleum Association (WSPA)**  
**(Comment Letter 72)**

**Response to Comment 72-1:**

Staff appreciates comments and continued support for the regional air quality planning processes.

**Response to Comment 72-2:**

Please see Response to Comment 7-5 regarding TBD measures.

**Response to Comment 72-3:**

Staff appreciates support for the incentive programs. Industrial stationary sources, such as those described in CMB-01, can use incentives for transitioning some of these equipment to near-zero or zero technology. However, the sources located at large RECLAIM facilities are not intended to be included among those eligible to receive incentives under the control measure because these sources currently operate under a cap and trade market structure and the respective RECLAIM facilities have the option of installing emission controls or purchasing emission credits in the open market.

**Response to Comment 72-4:**

Please see Response to Comment 26-4 regarding the RECLAIM program.

**Response to Comment 72-5:**

As stated in the Draft Final control measure, a NO<sub>x</sub> RECLAIM working group will be convened and will result in a detailed analysis regarding technology and economic impacts. All of this will be subject to a public process and will be subsequently reported to the Governing Board with findings and recommendations.

There is no legal requirement for a socioeconomic analysis of AQMP and the proposed control measures included therein. Staff will prepare the potential economic impacts to the regional economy during the rule making process as legally applicable.

**Response to Comment 72-6:**

Please see Response to Comment 26-6 regarding RECLAIM facilities at BACT or BARCT and structural buyers. In addition, the impacts of allowing an opt-out for these types of facilities will be analyzed as part of the RECLAIM working group analysis beginning in 2017.

**Response to Comment 72-7:**

Please see Response to Comment 72-5 regarding the RECLAIM working group analysis of impacts. In addition, creditable reductions may become available from other sources not analyzed as part of the December 2015 amendments and also from facilities that are not subject to the shave.

**Response to Comment 72-8:**

Please see Response to Comment 26-5 regarding the unused RTC margin and Comment 72-5 regarding the RECLAIM working group analysis of impacts.

**Response to Comment 72-9:**

Please see Response to Comment 26-8 regarding facility and equipment shutdowns. In addition, as part of the RECLAIM assessment, the effect of the recently adopted shutdown provisions will also be evaluated.

**Response to Comment 72-10:**

Please see Response to Comment 26-10 regarding additional BARCT assessments.

**Response to Comment 72-11:**

Please see Response to Comment 26-12 regarding the NO<sub>x</sub> RTC price thresholds. Also, the District Board will make the necessary findings required by the Health and Safety Code when making any changes to the RECLAIM program.

**Response to Comment 72-12:**

Please see Response to Comment 26-13 regarding RTCs held by investors and the basis for control measure CMB-05. The Health and Safety Code provision cited by the commenter concerns trading from a significant number of different sources, not investors. The method and application of the emission reductions (across the board or sector-specific, including investors) would be determined at the time of rulemaking. The Health and Safety Code provision cited by the commenter concerns trading from a significant number of different sources, not investors.

**Response to Comment 72-13:**

The costs presented for control measure CMB-05 are based on costs that resulted from an expansive BARCT assessment by District staff that was verified by a third party consultant. While the details of a subsequent BARCT assessment would be determined as part of future rulemaking, it is reasonable that the cost effectiveness would increase for these same sources for a lesser amount of emission reductions than in the previous BARCT assessment. Concerning the commenter's claim that additional NO<sub>x</sub> reductions would cost the refining industry as much as \$120,000 per ton, staff would need to see further details of these costs to fully address and verify them. In the past, such outside analyses have included other ancillary costs for upgrades that are not fully attributable to RECLAIM. The cost effectiveness values assume a 25-year equipment life, consistent with previous rulemakings that have been approved by the Governing Board. If a transition to command and control does occur, subsequent rulemakings would address the various source categories and each would have its own cost effectiveness analysis.

**Response to Comment 72-14:**

Please see Response to Comment 72-3 regarding RECLAIM facilities and CMB-01.

**Response to Comment 72-15:**

As noted in the revised control measure, the use of Smart-LDAR technologies as an alternative to conventional LDAR programs is under consideration where appropriate.

**Response to Comment 72-16:**

Where applicable, Smart-LDAR could replace conventional LDAR programs. However, there may be situations where the application of Smart-LDAR in combination with conventional LDAR programs may bring additional VOC reductions. It is premature to exclude Smart-LDAR as a supplement to conventional LDAR, particularly in cases where the Smart-LDAR does not quantify emissions.

**Response to Comment 72-17:**

The 2012 AQMP Measure FUG-03 emission inventory of 3.8 tons per day only included emissions from petroleum refineries. The 2016 AQMP Measure FUG-01 includes fugitive VOC emissions from oil and gas production sites as well. With improvements to the emission inventory determination, growth assumptions and the inclusion of oil and gas production, the 2016 AQMP inventory for applicable sites is 7.1 tons per day by 2031 (4.5 tons per day at petroleum refineries and 2.6 tons per day at oil and gas production sites). Emission reductions are estimated at approximately 1 ton per day being reduced at petroleum refineries (22 percent reduction) and the remainder from oil and gas production sites. The emission reduction estimates are preliminary as the rapid development of Smart-LDAR technology will likely result in improved fugitive emission control.

**Response to Comment 72-18:**

Further studies of Smart-LDAR technologies are on-going and advances in technology will be considered during rule development. The cost-effectiveness section includes examples and costs of some of the emerging technologies. The cost-effectiveness estimate is based on the Optical Gas Imaging technology as a supplement to conventional LDAR as a worst-case scenario. Potential cost savings from alternative technologies or labor reductions if Smart-LDAR can act as a substitute are not included. Solar Occultation Flux (SOF) is a remote sensing methodology that can be applied to locate and quantify fugitive hydrocarbon emissions. It is included, along with other remote sensing methods, as a technology that SCAQMD is evaluating that can identify, quantify, and locate VOC leaks in real time. While it is a more specific methodology than the others, removing it from the AQMP would omit that SCAQMD is studying its applicability for the control measure.

**Response to Comment 72-19:**

Please see Response to Comment 7-5 with regard to TBD measures.

**Response to Comment 72-20:**

The emission reductions under control measure BCM-05 are listed as “to be determined” (TBD) because further technical and feasibility evaluations are warranted and the attainment demonstration is not dependent on these measures. However, they are included in the AQMP as part of a comprehensive plan with all feasible measures in case there is a possible need for contingency measures and a shortfall in reductions.

Clarification of the TBD measures has been added in Chapter 4 of the Revised Draft Plan.

The impacts and reduction potential of ammonia emissions from combustion sources with SCR may be evaluated at a future time since ammonia is a precursor compound to PM<sub>2.5</sub> whose 24-hour and annual standards have yet been met in the region. Moreover, although modeling demonstrates timely attainment of PM<sub>2.5</sub> standards with ozone measures, the PM<sub>2.5</sub> plan cannot take advantage of §182(e)(5) ozone measures, so additional PM<sub>2.5</sub> measures are needed.

**Response to Comment 72-21:**

Staff appreciates the comments regarding CARB's Mobile Source Strategy and will forward the comments to CARB. Staff looks forward to future comments regarding CARB's measures.

Staff is currently preparing a response to a similar comment (Comment 72-21) submitted to the Draft Socioeconomic Report. The response will be provided in the Final Socioeconomic Report, in consultation with CARB's economist staff.

**Comment Letter from ES Engineering Services (Comment Letter 73)**



1036 W. Taft Avenue  
Orange, California 92865  
714.919.6547

November 4, 2016

Dr. Philip Fine, Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

**Subject: Draft Air Quality Management Plan – CMB01**

Dear Dr. Fine:

Thank you for the opportunity to submit comments regarding the recently issued Draft Air Quality Management Plan (AQMP). ES Engineering Services (ES) offers these comments based upon our experience with the engine dealer community and various operators of emergency engines in the South Coast region.

Control Measure CMB-01 – Transition to Zero and Near-Zero Emission Technologies for Stationary Sources includes SCAQMD's strategy for achieving additional emission reductions through the removal or replacement of existing emergency engines with low emission technologies. ES has several concerns about the control measure reflected in the draft plan. Our concerns are related to the estimated emissions inventory for emergency engines and perceived benefits that can be achieved, as well as the functional requirements for emergency engines that may be foregone by implementing the measure.

73-1

**Inventory**

SCAQMD estimates that the baseline inventory for internal combustion engines is 22.5 tons per day (TPD), with 11.5 TPD attributed to 3,860 engines believed to have been installed the year 2010. We understand that the inventory reflects reported emissions for a subset of the population in SCAQMD's annual emission report (AER) program. The reported emission profile was then applied to the estimated engine population, based upon the number of permit applications submitted to SCAQMD since the year 2010.

73-2

November 4, 2016  
Dr. Philip Fine  
South Coast AQMD

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We believe that several aspects of SCAQMD's inventory methodology may result in a significantly inflated emissions inventory and also overstate the benefit of implementing control measures affecting emergency engines. Although it is quite likely that 3,860 applications for internal combustion engines were submitted since the year 2010, it is also likely that a significant number of those applications are to modify existing permits or record changes of operators. Based upon information previously provided by SCAQMD, it is likely that the actual number of engine installations is less than 2,000 units and over 99% of those engines are dedicated to low-use emergency operations. Additionally, reliance on AER data for emergency engines may overstate fuel consumption and emission rates that SCAQMD would apply to the whole inventory. SCAQMD's default AER emission factors do not reflect technology that has been sold during the past 20 years. Additionally, the operating characteristics of many engines the AER program (hospitals, Title V facilities, etc.) may more intensive than the operation of typical emergency engine operations in the basin.

73-2  
Con't

We believe that a methodology that considers typical operating patterns, permitted emission levels, and engine characteristics will provide a more accurate emissions inventory that is considerably lower than the inventory reflected in the Draft AQMP. This is true not only for engines installed after 2010, but also for the population of remaining engines that were installed during the preceding years. ES encourages SCAQMD to reconsider its method of estimating emergency engine emissions. We have shared our own engine inventory data with SCAQMD staff and hope to discuss our assumptions and concerns during the next week.

### **Emergency Engine Management Strategy**

Several statements that are included on pages IV-A-51 and IV-A-52 of the Draft AQMP warrant discussion and additional clarification.

#### "Old" Versus "New Engines"

SCAQMD distinguishes between old and new emergency engines in an effort to suggest that compliance management strategies for older engines may be more severe than strategies for new engines. While this distinction is likely valid, the evolution of technology since the mid-1990s does not align with the year 2010 threshold. BACT standards in place today for emergency engines generally date back to 2006, and BACT standards as far back as 1998 were only marginally less stringent than current standards. Furthermore, many engines installed in the early to mid-1990s meet the Tier 1 emission standards that were implemented in 1998. As such, any discussion regarding the need for engine replacements should be focused on engines that were installed prior to the mid-1990s. Even for those engines, however, a replacement strategy may not be effective they are already restricted to fewer than 20 hours per year for testing and maintenance activities.

73-3

#### Replacement Technologies

73-4

November 4, 2016  
 Dr. Philip Fine  
 South Coast AQMD

3

SCAQMD suggests that several technologies are viable options for existing older engines as well as new installations. These technologies include batteries with solar recharge capabilities, fuel cells and Tier 4 diesel engines designed to meet prime power emission standards. SCAQMD also specifically mentions the application of two of these technologies (battery and fuel cell) at cell tower sites. SCAQMD is correct that telecommunications companies have incorporated both of these technologies in practice or in demonstration mode, but sole reliance on either of these technologies in critical installations may not be achieved.

73-4  
 Con't

*Batteries*

Batteries are used as a primary backup source at cell towers, but they cannot provide the 24 – 72 hours of backup that is mandated by the Federal Communications Commission for many telecommunications sites. As such the batteries must themselves be supported by redundant reliable backup power. That redundancy is currently available only through the installation of a secondary stationary emergency engine to either charge or replace the depleted battery. This secondary stationary engine requires the same testing and maintenance operations as required for a primary stationary emergency. Alternatively, operators can dispatch a portable engine in any situation where an outage is likely to exceed the battery charge life. These engines tend to have lower testing and maintenance operations, but result in mobile source emissions due to their transport to the site. While solar recharge capabilities may be appropriate in some commercial operations, their function is limited in many telecommunications sites due to the risk of outages occurring when panels are not capable of recharging and the limited space for panel installation at many telecommunications sites.

73-5

*Fuel Cells*

SCAQMD also indicates that telecommunications companies have been testing and even relying on fuel cells for power. It is true that many such installations exist, and many have been completed by our client. However, the installations are typically limited to sites with loads below 6 kW and 30% - 50% of the cost of these systems have been offset through government programs. Our client has yet to conclude that the technology is feasible from either a functionality or economic perspective for sites with larger load demands. Additionally, as a prime power source in many telecommunications sites with larger load demands located in an urban area, a fuel cell would likely necessitate the continued reliance upon a backup emergency generator in the same way that grid power must be supported.

73-6

*Tier 4 Engines*

SCAQMD suggests that Tier 4 engine technology may be suitable for emergency engine operations. ES cautions that the reliance of selective catalytic reduction (SCR) in many Tier 4 applications may not

73-7

November 4, 2016  
Dr. Philip Fine  
South Coast AQMD

4

be compatible with the way in which emergency engines are operated. As such, the emission reductions that SCAQMD envisions may simply not be achieved. Most operations of emergency engines are related to testing and maintenance activities that occur intermittently for very short periods (15 – 30 minutes) and at low operating loads that result in low exhaust temperatures. During these operations, the SCR system would not be activated.

73-7  
Con't

### General Emergency Engine Operations

As SCAQMD suggests, various industries have different needs for emergency engine operations. They may also have vastly different testing and maintenance requirements that affect the feasibility and environmental benefit of any of the strategies suggested by SCAQMD. ES strongly encourages SCAQMD to more thoroughly examine the operating practices of all industries that rely upon emergency generators. Because testing and maintenance activities account for the bulk of emergency engine operations, a strong understanding of actual testing and maintenance practices throughout the basin is needed if SCAQMD is to objectively assess the functional viability, cost effectiveness and environmental impact of potential control strategies

73-8

### Incentives

SCAQMD suggests that policy and economic incentives can be used to offset the cost of its control strategy for emergency engines. ES is concerned about the practicality of relying upon those incentives. Reduced permitting and compliance management costs cannot effectively offset the significant cost of many of the strategies that are suggested for emergency engines. Furthermore, it is hard to envision that funding for economic incentives will be so abundant that one can forgo a cost effectiveness demonstration to qualify for funding, nor would it be appropriate to do so regardless of the level of funding. Due to the restricted operations and limited emissions from emergency engines, and their insignificant contribution to the daily NOx inventory, it is unimaginable that operators of emergency engines will be able to effectively compete against large emitters for incentive funds.

73-9

Again, I appreciate the opportunity to submit these comments. I am also happy to discuss my concerns at your convenience, especially as you continue to evaluate how internal combustion engines are operated in the District and formulate the final control measure for stationary internal combustion sources.

Sincerely,  
ES Engineering Services



November 4, 2016  
Dr. Philip Fine  
South Coast AQMD

5

Karl A. Lany  
Vice President  
Air Quality Regulatory Compliance Services

SCAQMD BACT Comments November 2016

**Responses to Comment Letter from ES Engineering Services**  
**(Comment Letter 73)**

**Response to Comment 73-1:**

Staff appreciates the commenter's concerns which are addressed below.

**Response to Comment 73-2:**

Based on the feedback and further discussions with the commenter, staff reevaluated the inventory of ICEs (number of pieces of equipment and baseline emissions). Staff determined that 60 percent of the new (>2010) permits represented new pieces of equipment, with the other 40 percent representing old ICEs with administrative changes to the permit, that change is reflected in the Draft Final. In addition, staff re-assessed the emission factors used to estimate the baseline emissions and further refined the calculation based on a weighted average of emergency versus non-emergency ICEs. The Draft Final reflects the updated calculation and estimates the overall permitted ICEs to be 5.5 tpd.

**Response to Comment 73-3:**

The proposed incentive program plans to target older higher emitting equipment. Staff strives to target larger sources of NO<sub>x</sub> emissions that are more cost-effective to replace. In addition, the replacement strategy developed in CMB-01 is an example of possible NO<sub>x</sub> source categories and the respective zero or near-zero technologies that are currently available and may be applicable to reduce emissions. Please see Response to Comment 71-1 regarding CMB-01, Table 5 – "Incentive Effectiveness by Category" (formerly Table 4). Older higher emitting equipment is targeted for replacement through the incentive program, including engines before the mid-1990s. The incentive program will allow early retirement and advanced replacement or retrofits with zero or near-zero emission technologies that go beyond current emission standards. Regarding future regulations, the specific requirements will be developed with the assistance of the appropriate stakeholders during working group meetings. An implementation schedule based on equipment age can be considered to ensure that the existing units serve their useful equipment life.

**Response to Comment 73-4:**

Staff acknowledges that battery storage and fuel cells may not be feasible replacements for ICEs in all applications and will further refine the details of any regulatory requirements during the rulemaking process. Battery storage and fuel cells are examples of zero and near-zero technology available that may be viable solutions for NO<sub>x</sub> reductions. In certain applications, technology assessments may need to be completed to ensure a viable solution for replacements or retrofits of older existing ICEs. Given the complexity of each facility and its ICE usage, different technologies are available to be implemented and not one solution is appropriate for all ICE replacements or retrofits.

**Response to Comment 73-5:**

Please see Response to Comment 73-4 regarding battery storage.

**Response to Comment 73-6:**

Please see Response to Comment 73-4 regarding the use of fuel cells.

**Response to Comment 73-7:**

Please see Response to Comment 73-4 regarding Tier 4 engines and technology assessments. The operation of the ICEs for testing and maintenance may not activate the SCR system, however; during the operation for longer emergency operations, the SCR system will be activated which will reduce emissions in the Basin. Furthermore, CMB-01 refers to replacement with “zero or near-zero technology, **but at a minimum Tier 4 standards**”. Staff mentions several technologies as possible replacements for diesel ICE and the need to form working groups as well as possibly conducting a technology assessment.

**Response to Comment 73-8:**

Please see Response to Comment 73-4 regarding emergency engine operations and technology assessments. During rulemaking, a working group will be formed to allow industry stakeholders to participate in discussions regarding specific operating practices and needs.

**Response to Comment 73-9:**

Please see Response to Comment 71-1 about higher NOx source categories. The intention of the control measure is to find the most incentive-effective means to reduce NOx emissions or to help technology overcome the initial cost hurdle. Some of the facilities affected may see a more long-term benefit than necessarily an initial cost reduction, including, but not limited to, permitting or maintenance costs.

Staff acknowledges that the individual emissions from an emergency ICE is relatively low as a result of the limited operating hours. However, because of the large number of ICEs in the Basin, those emissions add up to represent a large source of NOx emissions. CMB-01 is looking for ways to reduce those emissions, through either incentives or regulations, and looks forward to working with stakeholders to seek opportunities for emission reductions.

**Comment Letter from Rhetta Alexander (Comment Letter 74)**

November 5, 2016

Michael Krause  
Planning & Rules Manager  
South Coast AQMD  
[mkrause@aqmd.gov](mailto:mkrause@aqmd.gov)

Subject: Comment on the Draft 2016 AQMP

Dear Mr. Krause:

First of all I want to thank you and all the AQMD staff and advisory committee participants for all their hard work in putting together the Draft 2016 AQMP. It is hard to think of a more important document that will have more impact on the health and quality of life for the millions of people who live and work within the South Coast AQMD.

I have attached a copy of the letter dated July 27, 2016 which was addressed to Governing Board Chair Burke and Governing Board Members from ten individuals from environmental and health organizations concerning the Draft 2016 AQMP. The letter outlines seven principles that should frame revisions to the final plan that will help make the plan just and equitable and help bring clean air back to the South Coast region. I concur fully with each of these seven principles and am adding/highlighting a few additional comments about the plan below. Some of these thoughts and observations have been shared with staff at our Environmental Justice Advisory Group meetings.

- Since SCAQMD is currently out of compliance in the 'extreme', voluntary and/or collaborate efforts too-date have not been successful. Among other regulatory requirements, the plan should require companies to include the cost of cleaner technology and equipment in the cost of doing business, as opposed to obtaining public/government money.
- The plan should include a requirement for the use of solar water heaters, solar panels, as well as dual pain windows and insulation in all new commercial and residential developments.
- If not already included, the plan should specifically include annual standards for compliance from all stakeholders as well as consequences for non compliance to ensure that no less than the 43% and 55% emissions reductions are met in 2023 and 2031 respectively.
- The plan should clearly articulate a pathway for third party and/or public enforcement so that when standards are not met people have recourse for engagement and accountability.
- The plan must clearly include in the economic analysis not only the adverse impacts to the environments and public health caused by fossil fuels but the economic and health benefits of renewable energy sources specifically wind, solar, hydrogen and hydro.
- The list of the sources of potential funding opportunities should be realistic and include all stakeholders (corporate, industrial and commercial as well as consumers and taxpayers).

74-1

It is quite clear to most scientists that we really don't have the luxury of these 7 to 15 years to meet these standards. Rather than permitting the expansion of fossil fuel plants, I believe that it is imperative that all stakeholders move beyond our addiction to fossil fuels and, with all due haste, towards clean, renewable and sustainable sources of energy including wind, solar, hydrogen and hydro.

Thank you for this opportunity to share my concerns.

Rhetta Alexander  
Member, SCAQMD Environmental Justice Advisory Group  
Resident: 6903 Burnet Avenue, Van Nuys, CA 91405

Attachment



July 27, 2016  
South Coast Air Quality Management Governing Board  
Attn: Board Chair William Burke  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Dear Governing Board Chair Burke and Governing Board Members,

The 2016 South Coast Air Quality Management District's (South Coast AQMD) Air Quality Management Plan (AQMP) provides an integral opportunity for the South Coast AQMD to bring clean air to a region plagued with dirty air for decades. While air quality has improved in the region, more than 5,000 people die prematurely each year due to unsafe air. In fact, progress in reducing ozone pollution has leveled off in recent years. To make matters worse, the communities bearing the heaviest burden of the region's air quality crisis are disproportionately low-income people of color.

While the organizations represented in this letter are reviewing the draft AQMP and preparing more detailed comments, we write now to provide some immediate feedback on the draft, stipulating seven principles that should frame revisions to the final plan. In sum, these principles reflect a range of policy considerations which will help make the final plan just and equitable and help bring clean air back to the South Coast region and its more than 17 million residents, particularly the region's most vulnerable communities. The seven principles are:

**1) The 2016 plan must demonstrate a measurable, enforceable pathway into compliance with the Clean Air Act and eliminate the "black box," which just defers tough decisions,**

Southern California constantly receives an "F" for air quality and, despite progress, air quality continues to plague communities, particularly communities of color. This is unacceptable. The 2016

Air Quality Management Plan must provide a detailed set of enforceable measures that achieve the 2022, 2023 and 2032 deadlines for attainment. Reliance on black box measures presents an unfavorable trade-off for those who breathe in the South Coast Air Basin. While it may provide additional time to identify the strategies to attain an ozone standard, the track record of failing to actually identify these measures has resulted in decades of South Coast residents breathing smog-polluted air. We need a plan that reflects the urgency on the health impacts felt by Southern Californians, which means actually articulating the measures to meet clean air standards.

**2) The 2016 plan should have early nitrogen oxide ("NOx") reductions, as the South Coast AQMD promised the public at the February 2015 Governing Board meeting.**

During the long deliberation over the prior PM2.5 plan for the South Coast and the monitors in the Inland Empire still showing violations, the Governing Board promised it would explore bringing back measures with early NOx reductions. To date, this has not happened, and residents, particularly those residing in close proximity to polluters, need relief from the heavily polluted air. In fact, the Governing Board wasted an opportunity to fix the NOx RECLAIM program, which could have provided an opportunity for early NOx reductions. Instead, the Governing Board opted to approve a Western States Petroleum proposal that cut fewer credits out of the system on a more prolonged timeline. As people continue to suffer and die from air pollution, we call on the South Coast AQMD not to waste any more time or opportunities. Thus, the plan should include enforceable regulatory measures that reduce NOx in the near term to meet the 2023 deadline.

**3) The 2016 plan must be just and address long standing inequities in air quality that disproportionately harms low income communities of color.**

Recognizing the inequality in air quality that falls along demographic lines of race, ethnicity, and class in Southern California, the AQMP's measures must prioritize regulations, strategies, and investments that frontload reductions in communities ranked in the top 25% most over-burdened communities as designated by CalEPA's CalEnviroScreen tool. There is immense urgency to bring clean air to the communities most harmed by polluting fossil fuels, and the AQMP should demonstrate how it will address this inequity.

**4) We need an enforceable clean air plan, not an incentive dollar wish list.**

The draft AQMP recently released by the South Coast AQMD staff relies too heavily on unsecured incentive funding. More than 90% of proposed future reductions are dependent on incentive-based programs – many funded with unidentified dollars. While incentives can be helpful in pushing clean air gains, it is important that the financial responsibility of paying for clean air not be borne by those who can least afford it. Taxpayers should not be required to subsidize large polluting industries. Furthermore, the strategy to raise much of the money relies on actions well beyond the control of the South Coast AQMD and will not withstand scrutiny by the California Air Resources Board or the Environmental Protection Agency. It is not a viable strategy to assume this money will be made available by Congress, for example. Such unfunded "incentives" are, similar to the

“black box,” an ill-conceived way to avoid legal mandates to impose enforceable control measures. Rather, we need strict regulatory programs to help spur innovation and drive pollution reductions, clean vehicles and clean energy.

**5) The AQMP should prioritize zero-emission technologies that maximize co-pollutant and greenhouse gas reduction benefits.**

Through legislative, administrative, and local actions, California is pursuing strategies to solve the serious problems created by burning fossil fuels, from climate change to unhealthy air and more. Wherever feasible, AQMP measures must require and/or spur zero-emission technologies powered by clean energy.

**6) The AQMP needs to commit to adopting clean energy measures for stationary and area sources.**

There are a panoply of regulations that are excluded from the draft list of measures produced by South Coast AQMD staff. For example, the plan should include a requirement for solar or electric water heaters in all new development. It should require point of sale transition to electric hot water heaters. In addition, there should be a requirement that diesel backup generators are no longer permitted. The advent of clean energy like solar and storage provides important opportunities that do not appear in the current list of measures. The plan should also make sure it is not permitting the construction of new fossil fuel power plants. In particular, the draft measures seek to take credit for many programs designed to reduce energy demand. It is antithetical to take credit for these programs while simultaneously allowing the construction of new power plants.

**7) While the authority over mobile sources of pollution is generally with the California Air Resources Board and the Environmental Protection Agency, the South Coast AQMD does have authority to clean up dirty vehicles. It must use this authority in this Plan.**

The plan should commit to an overhaul of the Fleet Rules, which are purchasing requirements for fleets of vehicles. The plan should also commit to expanding the fleet rules to a broader set of fleets. In addition to fleet rules, the plan should also make use of its indirect source authority. The federal Clean Air Act and California’s Health & Safety Code provide authority for local entities like the South Coast AQMD to advance clean vehicles through indirect source authority and transportation control measures. Under the Clean Air Act, the term “indirect source” means “a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.” 42 U.S.C. § 7410(a)(5)(C).

Particular focus should be placed on indirect sources in the Inland Empire, such as warehouses, where the majority of those displaced and burdened by under regulated logistics sprawl are low-income communities of color. We need this type of regulation to ensure that the massive tidal wave of new warehouses does not worsen air quality in what is already the most polluted area of the South Coast. Incidentally, this type of regulation could also be used to require clean energy at these facilities, including solar panels, microgrids, and other clean technologies.

In sum, these principles provide the framework for an equitable clean air plan that reflects the urgency so many Southern Californians feel when confronted daily with the air pollution killing so many and impairing the quality of life of so many more. We look forward to discussing this with you further in the coming weeks and months.

Sincerely,

Martha Arguello  
Physicians for Social Responsibility – Los Angeles

Tom Dolan  
Inland Congregations United for Change

Bahram Fazeli  
Communities for a Better Environment

Evan Gillespie  
Sierra Club

Michele Hassan  
Center for Community Action and Environmental Justice

Maya Golden Krasner  
Center for Biological Diversity

Fabi Lao  
Coalition for Clean Air

Adrian Martinez  
Earthjustice

David Pettit  
Natural Resources Defense Council

John Yi  
American Lung Association

CC:  
Wayne Nastri, Acting Executive Officer  
Jill Whynot, Chief Operating Officer  
Philip Fine, Deputy Executive Officer

**Responses to Comment Letter from Rhetta Alexander**  
**(Comment Letter 74)**

**Response to Comment 74-1:**

The 2016 AQMP does propose a number of stringent regulatory measures aimed at reducing NOx and VOC emissions from a variety of stationary and mobile sources. These regulatory measures were established after a thorough analysis of all ozone-emitting sources and available methods and technologies to further reduce emissions. Incentive-based approaches are focused on accelerating high-emitting sources to transition to cleaner technologies sooner than would take place under regulations. Some sources are beyond the authority of the SCAQMD so the incentives are a way to gain emission reductions sooner than natural turnover of vehicles and equipment. Accelerating the deployment of cleaner technologies before future rulemaking is established allows the new technology to be commercially available, feasible in more applications, cost-effective, as well as a publicly acceptable. The specific sources of funding have yet to be finalized but staff is working on developing the Financial Incentive Funding Action Plan that maps out the potential opportunities to ensure the proposals secure funding. Such funding is being sought on a federal, state and local level. To ensure the reductions are creditable in the SIP, the U.S. EPA does require these reductions to be quantifiable, surplus (beyond regulations), permanent and enforceable. With such integrity elements in place, the incentive actions can be effective and provide lasting improvements.

SCAQMD can incentivize the use of cleaner technologies, such as solar powered equipment or energy efficiency actions. The 2016 AQMP includes such measures under ECC-03 and CMB-02. The current draft AQMP includes ECC-03 and CMB-02, which outline incentive programs along with future rulemaking for existing residential and commercial buildings to transition to zero and near-zero technologies that include solar electric water heaters, heat pumps, solar thermal pool heaters, electric clothes washers and home weatherization which includes dual pane windows. The proposed ECC-03 and CMB-02 control measures are additional and surplus to Rule 1121 and would maximize emissions benefits by incentivizing renewable heat and power along with increased efficiency. Additionally, the SCAQMD will be working with other agencies and stakeholders to monitor the development of the new Title 24 California new building energy standards. The new upcoming Title 24 standards will be requiring new residential and commercial development to have net zero energy construction.

Pursuant to the Clean Air Act (CAA), emission milestones reductions are required to be quantified and achieved. These milestones can be accomplished with both existing regulations and proposed emission reduction measures. If not met, contingency measures would need to be implemented to make up the shortfall. These quantitative milestones are provided in Appendix VI-C under the discussion of Reasonable Further Progress.

The CAA allows for “citizen suit” challenges to the Plan including compliance with the emission reduction commitments and timely attainment of the standards. The Clean Air Act contains two sections that authorize citizen participation in CAA enforcement and implementation – sections 304 and 307. Section 307 allows a citizen to bring an action in the courts of appeal for review final actions that U.S. EPA has taken under the Act, including the U.S. EPA Administrator’s act in approving or promulgating any implementation plan. Section 304 allows a citizen to bring an action in district court against any person who has violated an emission standard or limitation or an order issued by the Administrator or a State with respect to such a standard or limitation, or against the Administrator if she has failed to perform a

nondiscretionary act. Section 304 has been interpreted to include suing a state or local agency that has made an enforceable commitment to obtain specific emission reductions. *CBE v Deukmejian*, 731 F. Supp. 1448 (N.D. Ca. 1990). All elements of the Plan, future rulemaking and emission reduction tracking are conducted in a transparent manner through a public process.

The Socioeconomic Assessment for the 2016 AQMP has been conducted evaluating costs and public health benefits from the implementation of the control measure strategy. This document is available online (<http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/socioeconomic-analysis>) and the public was provided multiple review and comment periods. With regard to impacts to the environment, a CEQA analysis was also conducted and a Program Environmental Impact Report was prepared (<http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016-aqmp-draft-program-eir-combined.pdf?sfvrsn=2>). The public received a 60-day review and comment period.

Potential funding opportunities are included in the Financial Incentive Funding Action Plan that provides an overview of the funding needed, the sources of funding, and action needed to be taken to secure such funding.

**Comment Letter from California Construction & Industrial Materials Association (Comment Letter 75)**



November 7, 2016

Michael Krause  
Program Supervisor  
South Coast Air Quality Management District  
21865 East Copley Drive  
Diamond Bar, CA 91765

**Re: Second Set of Comments on DRAFT 2016 Air Quality Management Plan**

Dear Mr. Krause,

California Construction & Industrial Materials Association (CalcIMA) appreciates the opportunity to comment on the South Coast Air Quality Management District's (District) draft 2016 Air Quality Management Plan (AQMP). Moving the District's air basin into attainment is a step toward improved air quality and improved economic growth by increasing the ability of businesses to operate in this region.

CalcIMA is a statewide trade association representing construction and industrial material producers in California. Our members supply the materials that build our state's infrastructure, including public roads, rail, and water projects; help build our homes, schools and hospitals; assist in growing crops and feeding livestock; and play a key role in manufacturing wallboard, roofing shingles, paint, low-energy light bulbs, and battery technology for electric cars and windmills.

Pursuant to Appendix IV-A – SCAQMD's Stationary and Mobile Sources Control Measures, posted below are CalcIMA's comments for the District's review and consideration.

CMB-05	Further NOx Reductions from RECLAIM Assessment
--------	------------------------------------------------

Description: There are approximately 275 facilities in the Regional Clean Air Incentives Market (RECLAIM) program which includes facilities with NOx or SOx emissions greater than or equal to 4 tons per year in 1990 or any subsequent year. This control measure identifies approaches that can be explored to make the program comparably equivalent to command and control regulations. RECLAIM allocates NOx and SOx facility emissions allocations known as RECLAIM Trading Credits (RTCs) or facility emission caps which decline over time, as well as monitoring, reporting, and recordkeeping requirements for sources located at RECLAIM facilities. RECLAIM was designed

75-1

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California Construction and  
Industrial Materials Association

to provide BARCT equivalent emission reductions in the aggregate for the facilities in the program. To meet the declining annual facility caps, RECLAIM facilities have the option of installing pollution control equipment, changing operations, or purchasing RTCs from other facilities in the RECLAIM market.

New AQMP directive:

The District is seriously considering a long-term transition to a traditional command-and-control regulatory structure since the District is determining that the program's original advantages appear to be diminishing and generating increased scrutiny. The District has developed a list of suggested approaches that may serve as interim steps in a long-term elimination of the program.

Comment: Until additional information is received from the District pursuant to the more specific dynamics of what the transition to a command and control environment would be, CalcIMA cannot support the sunset of the RECLAIM program.

It should be noted that intermittent changes in regulation significantly increases avoidable material financial costs that may not result in any additional emissions reduction in the air basin when an opportunity for operators to strategically plan compliance is not provided. Coping with regulatory uncertainty challenges the financial viability of our operations, and when regulatory changes are made swiftly it creates potentially futile internal obstacles that curtail our ability to respond effectively to the new regulatory agenda. It is a struggle to take a more planned approach to regulatory implementation in the face of this regulatory uncertainty. In many cases we feel we must adopt a 'wait and see' stance on key issues – which can result in a form of strategic paralysis that may inhibit the aptitude to pursue any emission reductions methods that are above and beyond requirements that improve the air in the District.

CalcIMA respectfully asks the District to consider our comments. Please contact me with any questions or concerns at (951) 941-7981 or at [sseivright@calcima.org](mailto:sseivright@calcima.org).

Sincerely,

Suzanne Seivright  
Director of Local Governmental Affairs

75-1  
Cont

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**Responses to Comment Letter from California Construction & Industrial Materials Association**  
**(Comment Letter 75)**

**Response to Comment 75-1:**

As stated in the draft final control measure CMB-05, a NOx RECLAIM re-assessment working group will be convened in the spring of 2017 to examine various aspects of the RECLAIM program and consider options for an orderly transition into command and control. Participants of the working group will include RECLAIM facilities and the timing of a transition to command and control will be a key focus of the assessment.

**Comment Letter from Gatzke Dillon & Ballance LLP (Comment Letter 76)**



November 7, 2016

*By Electronic Mail*

Michael Krause  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765-4182  
[mkrause@aqmd.gov](mailto:mkrause@aqmd.gov)

Re: *Comments on Revised Draft 2016 Air Quality Management Plan*

Dear Mr. Krause:

This letter is submitted on behalf of John Wayne Airport, Orange County (Airport or JWA) and contains the Airport's written comments on the Revised Draft 2016 Air Quality Management Plan (Revised Draft AQMP) issued by the South Coast Air Quality Management District (SCAQMD or District) in October 2016. These comments are in addition to, and do not replace, the comments the Airport submitted on the Draft 2016 AQMP on August 19, 2016. We appreciate the opportunity to provide additional comments on the Revised Draft AQMP and to continue to work constructively and cooperatively with the SCAQMD in evaluating and developing realistic airport emission reduction strategies for the 2016 AQMP.

76-1

We hope that our past comments, our comments in this letter, and our continued cooperation in the process will allow us to make meaningful contributions toward resolving and addressing the complex airport regulatory issues associated with air quality in the Basin.

**COMMENTS**

**A. INDIRECT SOURCE RULES**

First, although we appreciate the clarity that has been added to the "facility-based" mobile source measures in terms of process, schedule, and the possible formal rule development or alternative implementation processes, we continue to have serious concerns about SCAQMD's proposal to control mobile sources through "facility-based" indirect source rules, including MOB-04 (Emission Reductions at Commercial Airports). Although the Revised Draft AQMP indicates that any development of rules will be "within its existing legal authority," the Airport also remains concerned about the SCAQMD continuing to make commitments to the state and federal governments that it will control emissions through indirect source rules because SCAQMD currently lacks legal authority to adopt indirect source rules at airports. To the extent SCAQMD seeks "additional authority" to implement indirect source regulations we continue to believe that these types of indirect source rules are preempted by state and federal law and regulation.

76-2

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Michael Krause  
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**B. EMISSIONS INVENTORY**

As indicated in our previous comment letter, JWA has provided information to SCAQMD staff relating to its baseline emissions inventory as well as its projections for future aircraft activity (both general aviation and commercial aircraft) at the Airport. It continues to be unclear as to whether the data provided in the Revised Draft AQMP and in Appendix III (Emission Inventory) includes JWA specific emissions inventories. Rather, it continues to appear that all of the emissions inventory data for airport forecasts continues to be based upon categories of sources with a reference to the 2016-2040 RTP/SCS data from SCAG. (*See, e.g.*, Revised Draft 2016 AQMP, Chapter 3). As we have indicated to SCAQMD staff in the past, SCAG did not use the data provided by JWA to forecast fleet mix and Landings and Take-offs (LTO) for 2040. JWA has provided the SCAQMD (via correspondence with Zorik Pirveysian of Intergra Environmental Consulting, Inc.) with JWA specific data. We therefore continue to request that the Final Draft 2016 AQMP use the specific data provided by JWA to forecast fleet mix and LTO's at the Airport rather than the data from SCAG which is not airport specific and that the Final Draft Plan provide sufficient information so that the reader can adequately determine whether airport specific data has been relied upon for the base year and future baseline years.

76-3

**C. POTENTIAL INCONSISTENCIES BETWEEN EXPECTED EMISSION REDUCTIONS FROM SIP STRATEGY AND PROJECTED ANNUAL AVERAGE EMISSIONS**

One of the State SIP strategy measures identified in the Revised Draft AQMP continues to be the further deployment of cleaner technologies for aircraft. The expected emission reduction (tpd) for this measure is provided on page 4-35 in Table 4-5. According to this Table, the expected emission reductions for this measure are 17 tpd of NOx in 2023. However, in Appendix III, Attachment A, the 2023 annual average emissions for aircraft is 17.31 tpd of NOx. Although we understand that the District is focusing on emission reduction strategies that result in no additional emissions, it is neither reasonable nor technologically feasible to expect a reduction of future NOx emissions from aircraft to zero by 2023. Revisions should be made to these expectations to set realistic emission reduction goals for aircraft.

76-4

We are particularly concerned about this issue because, to the extent that the District attempts to impose some type of indirect source rule and/or facility cap on airports in the future which take into account aircraft emission reductions, these unrealistic goals for aircraft emission reductions may result in unreasonable baseline and future emission reduction requirements for airports. Please see our previous comment letter relating to the legality of such measures.



Michael Krause  
November 7, 2016  
Page 3

**D. NAIC EMISSION GROWTH FACTOR BY COUNTY IN THE SCAB**

Table III-2-8 in Appendix III of the Revised Draft 2016 AQMP provides information regarding the NAIC emission growth factors by County in the South Coast Air Basin (SCAB). This Table indicates that the air transportation growth factor for Riverside County is the highest in the SCAB, followed by San Bernardino and Orange County. The Table provides the lowest air transportation growth factor for Los Angeles County. Please explain the reason why the growth factor numbers are higher for Riverside, San Bernardino and Orange County than for Los Angeles County and the basis for these growth factor numbers.

76-5

**CONCLUSION**

In closing, thank you again for this opportunity to comment on the Revised Draft 2016 AQMP. We look forward to continuing to engage in an open, thorough and responsive public process and assisting the District with its efforts to improve air quality in the South Coast Air Basin. If you have any questions regarding the comments set forth in this letter, please do not hesitate to contact us at your convenience.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Lori D. Ballance', is written in black ink.

Lori D. Ballance  
of  
Gatzke Dillon & Ballance LLP

LDB/rif

cc: David Salardino, California Air Resources Board  
Rhonda Runyon, California Air Resources Board  
Jessica Witt, Deputy Chief Operating Officer  
Barry Rondinella, Airport Director  
Melinda McCoy, Airport Environmental Engineer

**Responses to Comment Letter from Gatzke Dillon & Balance LLP**  
**(Comment Letter 76)**

**Response to Comment 76-1:**

Staff appreciates the additional comments on the Revised Draft Plan and continued cooperation with the SCAQMD in evaluating and developing realistic airport emission reduction strategies for the 2016 AQMP.

**Response to Comment 76-2:**

Staff appreciates the additional comments regarding the process in implementing the proposed District Measure MOB-04. The primary intent of the proposed measure is to explore opportunities for emission reductions to help meet the emission reductions associated with CARB's proposed "Further Deployment of Cleaner Technologies" for federal and international sources. As proposed in the Revised Draft AQMP, staff desires to work collaboratively with the region's commercial airport authorities to identify actions that are occurring at the various airports. In addition, through the public process, staff will explore if there are other approaches such as regulatory actions that could potentially result in additional emission reductions at airports. Such actions could occur at the local, state, or federal level. Please see responses to comment letter 43 for the District's position on the legal issues raised.

**Response to Comment 76-3:**

The airport emissions for future years are now replaced with the data provided by Mr. Zorik Pirveysian on Aug 10, 2016. According to the report by Mr. Pirveysian, emissions from John Wayne Airport (JWA) were estimated with EDMS model for the years of 2016, 2021, and 2026. This estimation was conducted based on JWA's detailed operations forecast for these years which covered air carrier, air taxi, and GA operations. The military aircraft emissions for JWA were quantified based on the operations data obtained from FAA's TAF database using U.S. EPA's emission factors. Since 2026 represents the year in which JWA reaches its constrained levels, JWA's 2026 emissions were also used through 2040.

**Response to Comment 76-4:**

It was a typographical error which was corrected in the revision. The reduction that the State SIP strategy has assigned to the aircraft category is 11 TPD in 2023.

**Response to Comment 76-5:**

The growth factors in the table were provided by SCAG. The specific category in question was driven by air transportation employment projections from the 2016 RTP/SCS. The growth in Los Angeles County is projected to be slower than the other three counties due to the fact that LA County is close to, if not already at, its full capacity.

**Comment Letter from Southern California Air Quality Alliance (Comment Letter 77)**



November 7, 2016

VIA E-MAIL

Philip Fine, Ph.D.  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Re: Comments on the Revised Draft 2016 Air Quality Management Plan

Dear Dr. Fine:

On behalf of the Southern California Air Quality Alliance ("Alliance") I am submitting these comments on the Revised Draft 2016 Air Quality Management Plan ("RDAQMP").

The Alliance supports the approach being taken in the RDAQMP of combining ambitious encouragement of the development of zero and near-zero emission technologies along with the incentives required to assure timely implementation of those technologies. We look forward to working with SCAQMD in finalizing and implementing the 2016 Air Quality Management Plan.

77-1

We believe that the SCAQMD has made tremendous progress in cleaning the air in the Southern California region by implementing programs that reflect fuel-neutral, feasible, and cost-effective technologies. These features should continue to guide the development and implementation of the 2016 Air Quality Management Plan. We have been given some degree of reassurance regarding the SCAQMD's intention to continue fuel-neutral, feasible and cost-effective air pollution control measures by statements at AQMP Advisory Group meetings and some supporting references in the RDAQMP. However, we believe that these policies need to be clearly stated and reinforced in the 2016 Air Quality Management Plan so that there can be no misunderstanding or blurring of the policies underlying the air pollution reduction program.

77-2

The Alliance also agrees that incentive programs will be essential to the success of the 2016 Air Quality Management Plan given the constraints inherent in requiring broad scale adoption of new, cleaner technologies by end users not directly regulated by SCAQMD. The implementation of zero and near zero emission technologies in the transportation sector cannot be accomplished by command-and-control alone, as it would be impossible to mandate that millions of individual actors replace their current transportation methods with zero or near-zero emission vehicles within the time frames called for in the RDAQMP. Only by incentivizing the implementation of this technology can the development AND adoption of these technologies be spurred to meet the necessary implementation schedules. We look forward to working with SCAQMD in developing an appropriate approach to getting the funding needed for the proposed incentive programs.

77-3

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Philip Fine, Ph.D.  
November 7, 2016  
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Finally, with regard to specific control measures, we expect to work with SCAQMD staff in the development of CMB-05 Further NOx Reductions from RECLAIM Assessment. SCAQMD staff has given indications that RECLAIM may have outlived its usefulness. We believe that RECLAIM provides significant benefits to RECLAIM facility operators and SCAQMD and would like to see those benefits retained. We are committed to work with SCAQMD staff on issues related to RECLAIM, as we did during the recent RECLAIM amendments dealing with shutdowns. We listened to your recent statements at the AQMP Advisory Group meeting regarding some problems that the RECLAIM program creates in terms of claiming emission reductions under federal law. We believe that there could be ways to address those problems while still maintaining significant benefits of the RECLAIM program and we look forward to further discussions as the 2016 Air Quality Management Plan begins implementation.

77-4

We look forward to reviewing the Draft Final AQMP when it is released in December.

Very truly yours



Curtis L. Coleman

Executive Director  
Southern California Air Quality Alliance

**Responses to Comment Letter from Southern California Air Quality Alliance**  
**(Comment Letter 77)**

**Response to Comment 77-1:**

Staff appreciates the support for the development of zero and near-zero emission technologies along with incentives.

**Response to Comment 77-2:**

See Response to Comment 17-3 regarding fuel-neutral technology. With regard to clearly stating and reinforcing such a policy, the commenter is directed to Page 4-9 in Chapter 4 of the 2016 AQMP that discusses the performance-based policy that includes technology and fuel neutrality.

**Response to Comment 77-3:**

Staff appreciates the comments regarding the need for incentivizing early emission reductions and the need to identify additional funding. Staff looks forward to working with SCAQA on developing approaches for securing additional incentives funds.

**Response to Comment 77-4:**

The RECLAIM re-assessment working group will look at various options for the future of RECLAIM, including those provided by the commenter and command and control overlays with an orderly transition into a command and control regulatory structure. Staff looks forward to working with the stakeholders regarding the RECLAIM program.

**Comment Letter from Southern California Alliance of Publicly Owned Treatment Works  
(Comment Letter 78)**



November 7, 2016

Mr. Wayne Nastri, Acting Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

Dear Mr. Nastri:

**Re: Comments on the Draft 2016 Air Quality Management Plan**

The Southern California Alliance of Publicly Owned Treatment Works (SCAP) appreciates this opportunity to provide comments on the Draft 2016 Air Quality Management Plan (Draft AQMP). SCAP represents 83 public agencies that provide essential water supply and wastewater treatment to nearly 19 million people in Los Angeles, Orange, San Diego, Santa Barbara, Riverside, San Bernardino and Ventura counties. SCAP's wastewater members provide environmentally sound, cost-effective management of more than two billion gallons of wastewater each day and, in the process, convert wastes into resources such as recycled water and biogas.

78-1

This transmittal is our third comment letter regarding the Draft AQMP, but our comments have yet to be addressed. Our members are troubled that some of the proposed control measures appear to negatively impact the beneficial use of biogas produced from municipal wastewater treatment plants and landfills. We would greatly appreciate modifications to the Draft AQMP to address our comments.

78-2

Overall, SCAP is concerned that SCAQMD has not been provided the regulatory authority to control ozone forming emissions in the South Coast Air Basin from mobile and federal sources, which constitute 88 percent of the emissions inventory. Accordingly, we object to the proposed "fair share" concept where SCAQMD, CARB and EPA would each reduce emission sources under their control by 50 percent. We believe that stationary sources are already well-controlled and achieving our "fair share" is not feasible without a significant infusion of incentive funding. The Draft AQMP fails to provide an adequate or reliable incentive funding mechanism for mobile and federal sources, which will likely be funded prior to stationary source control projects. Considering this reality, SCAP believes that CARB and EPA should be solely responsible for securing incentive funding for mobile and federal sources. The Clean Air Act was not crafted to penalize the South Coast Air Basin for CARB and EPA's failure to adequately control mobile and federal sources. We respectfully request that the AQMP be revised to ensure that stationary sources are not penalized in the event that CARB and EPA are unable to adequately control mobile and federal sources.

78-3

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Mr. Wayne Nastri

November 7, 2016

The following outlines our specific comments on the draft stationary source control measures contained in Appendix IV-A:

**Cost effectiveness and feasibility:**

SCAP applauds SCAQMD for placing a priority on feasible and cost-effective control measures. However, in order to ensure that control measures remain feasible and cost-effective, SCAQMD should perform an assessment of actual costs and the technological feasibility of certain rules. Rather than only estimating costs looking forward, we respectfully request that a third party consultant be retained to perform such an assessment looking backward. Specifically, the recent biogas limits contained in Rule 1110.2 should be assessed to validate staff's cost-effectiveness and technology feasibility assumptions. We believe that such an analysis would help refine cost-effectiveness assumptions and shed light on the reliability and cost-effectiveness of applicable biogas projects moving forward. Other recent rules, such as 1147, should also be assessed to help refine cost-effectiveness assumptions to be used during future rulemaking. We believe that such a third party assessment would provide greater transparency and validate whether emission reductions are truly cost-effective and feasible moving forward.

78-4

**CMB-01 Transition to Zero and Near-Zero Emission Technologies for Stationary Sources:**

**Incentives:**

Our members are increasingly concerned that incentive funding will not be available, while new requirements are imposed with little regard for cost-effectiveness or reliability. CMB-01 explains that "*Staff anticipates many facilities and stakeholders will come forth and participate once a working group is established and it will be determined the most cost effective means for distribution of funds to achieve emission reductions.*" Although we appreciate a working group will be established, the Draft AQMP lacks specificity regarding how funds will be distributed and whether cost-effective projects will be required to reduce emissions without incentive funding. We respectfully request that these details be outlined and vetted prior to the adoption of the AQMP.

78-5

**Biogas:**

This draft control measure seeks to replace traditional combustion sources with zero and near-zero emission technologies including electrification or fuel cells. This control measure continues to emphasize that biogas from wastewater treatment plants and landfills can be processed and cleaned for the use in fuel cells or transportation fuels. While our SCAP membership embraces these goals, we would again like to respectfully remind staff that biogas cleanup is not usually cost-effective and fuel cells have consistently failed prematurely due to stack failures, which then requires flaring in order to continue providing necessary management of the biogas. At minimum, to provide a realistic characterization, we again request that these challenges be discussed in the Draft AQMP.

As we have indicated in the past, we appreciate SCAQMD's support in incentivizing zero and near-zero biogas technologies. However, SCAQMD should clarify that biogas technologies are not truly commercially available, reliable or cost-effective yet. We are troubled that performance claims provided by vendors are not fully validated by SCAQMD prior to rule development and as a result our industry has been negatively impacted. Due to these inherent challenges, we request that a third party consultant be retained to perform such a validation prior to the adoption of future biogas rules and the emission reductions associated with such projects not be included in this AQMP.

Mr. Wayne Nastri

November 7, 2016

**Emergency Diesel Engines:**

Considering our members provide an essential public service by treating wastewater and conveying drinking water, we are very concerned about the proposed emergency diesel engine requirements. In the event of a major earthquake event or other significant emergency, sanitation and drinking water infrastructure must have a source of uninterrupted reliable power. Fuel cells, battery storage and alternative fuels are not currently able to provide such a reliable source of backup emergency power. As acknowledged by the Draft AQMP, “...*some essential back-up power applications (hospitals, communications, transportation, etc.) require capabilities for long-term power and fuel storage or delivery under extreme emergency conditions.*” The Draft AQMD should be revised to clarify that essential public services must maintain the ability to respond to a long-term power disruption using a reliable and available fuel.

78-6

Similarly, our members have concerns regarding requiring the ability for Tier 4 engines to operate during an extended emergency. SCR systems associated with Tier 4 diesel engines rely upon urea, which can be depleted in an emergency. The Draft AQMP should also establish the regulatory framework needed to ensure that Tier 4 engines can be used reliably in the event of a significant emergency.

**CMB-03 Emission Reductions from Non-Refinery Flares:**

SCAP is extremely concerned that the Draft AQMP now indicates that our sector will need to clean biogas for vehicle fuel/pipeline injection project or, if not feasible, utilize equipment to produce power and/or heat. This measure continues to indicate that if all other options are infeasible, the installation of newer flares at BACT will be required. Based upon our experience with Rule 1110.2, we believe that SCAQMD staff already deems alternatives to flaring to be feasible and cost-effective. As outlined above, we respectfully request that a third party consultant be retained to validate the cost-effectiveness and feasibility of the technology needed to comply with biogas control measures.

78-7

While we appreciate the acknowledgement that flares are needed for emergency or backup capacity, we are concerned that our previous comments regarding the wastewater sector inventory were not addressed. For example, our previous comments requested that the inventory be amended to reflect that we only contribute 0.01 tons per day of NOx. Considering wastewater flares are an insignificant source of NOx and they are normally used for emergency or backup purposes, SCAP requests that the inventory be revised and the AQMP include an acknowledgment that wastewater flares are an insignificant source of NOx emissions.

**MCS-01 Improved Breakdown Procedures and Process Re-Design:**

As we have previously commented, SCAP requests that this measure be excluded from the AQMP. This measure will not achieve any emission reductions and EPA’s Startup Shutdown Malfunction (SSM) policy is currently being challenged by 36 states. In the event this control measure cannot be removed from the AQMP, we request that a description of the ongoing litigation and potential flexibility afforded by EPA should be included in MCS-01. States subject to EPA’s SIP-Call have proposed alternative compliance approaches that should be considered by SCAQMD prior to any amendment or repeal of Rule 430, if the SSM policy is upheld by the D.C. Circuit.

78-8

Mr. Wayne Nastri

November 7, 2016

**BCM-10 Emission Reductions from Greenwaste Composting:**

SCAP again requests that developing technology not be specifically discussed in the AQMP unless the actual performance can be demonstrated and validated in commercial and sector specific applications.

As described in our previous comment letters, we remain confused by the focus on food waste digestion in association with a greenwaste composting control measure. This draft control measure indicates that increased anaerobic digestion capacity "...at Sanitation Districts could lower emissions of NH3 and VOC for certain waste streams..." We agree that wastewater treatment plants can reduce emissions associated with food waste, but we are unaware of any technology that would allow wastewater treatment plant digesters to process greenwaste. Please revise this control measure to exclude the discussion of greenwaste digestion at wastewater treatment plants.

78-9

**BCM-05 Ammonia Emission Reductions from NOx Controls:**

While we appreciate staff's verbal clarification that this proposed control measure is only intended for large-scale projects and will not impact the NOx control systems associated with Rule 1110.2, we again respectfully request that this clarification be memorialized in the AQMP.

Last, but not least, we would like to remind staff that Clean Air Act Section 185 penalties will be triggered by either the depletion of non-SIP approved funding mechanisms outlined in Rule 317 or by non-attainment of the 8-hour ozone standard. As outlined above, our members believe that stationary sources will bear the brunt of this AQMP because CARB and EPA appear to be unwilling or unable to significantly control mobile and federal source emissions. Because Section 185 would penalize major stationary sources due to lack of control over mobile and federal sources, we respectfully request SCAQMD's commitment to lobby for the revision of this provision of the Clean Air Act, if triggered.

78-10

We would like to take this opportunity to thank you again for supporting legislation and policies that will provide financial incentives for the productive use of biogas. Please do not hesitate to contact Mr. David Rothbart of the Los Angeles County Sanitation Districts, SCAP Air Quality Committee Chair, should you have any questions regarding our comments on the Draft AQMP at (562) 908-4288, extension 2412.

Sincerely,



John Pastore, Executive Director

cc: Dr. Philip Fine, SCAQMD

**Responses to Comment Letter from South California Alliance of Publicly Owned Treatment Works (SCAP) (Comment Letter 78)**

**Response to Comment 78-1:**

Staff appreciates the comments on the Revised Draft 2016 AQMP.

**Response to Comment 78-2:**

Staff appreciates continued participation in the AQMP development and will respond to individual comments in addition to revising the Plan, as appropriate in response to some comments.

**Response to Comment 78-3:**

Please see Responses to Comments 30-5 and 54-2 regarding “fair share” reductions and the SCAQMD responsibility in regulating stationary sources, ensuring attainment of the standards, and fulfilling shortfall of the reductions to obtain those standards.

**Response to Comment 78-4:**

SCAQMD appreciates the support for placing a priority on feasible and cost-effective control measures. As part of the rulemaking process, a socioeconomic analysis is conducted on those rules that may have an economic impact. A cost-effectiveness analysis was conducted for Rules 1110.2 and 1147. Third party consultants along with the public are welcome to comment during the rulemaking process. In 2015, a preliminary retrospective socioeconomic analysis was conducted at the request of stakeholders and was presented at the June 3, 2015 Scientific, Technical & Modeling Peer Review (STMPR) meeting. SCAQMD Rule 1105.1, the SOx RECLAIM program, and Rule 1110.2 were selected as examples for this analysis. An initial review showed that costs determined by SCAQMD, as well as other agencies, are typically overestimated. There are also uncertainties that may be affecting retrospective costs supplied by stakeholders. Examples of these layered costs are rule compliance costs versus costs for other concurrent facility upgrades or corporate decisions resulting in more expensive controls, as compared to other commercially available and less expensive controls.

**Response to Comment 78-5:**

Please see Response to Comment 78-4 about cost-effectiveness. In addition, technology assessments may be conducted to ensure technologies will provide sufficient reliability for specific applications. A Financial Incentive Funding Action Plan is currently under development that will provide more detail as to the possible sources of funding available. The plan will provide an analysis of potential funding opportunities and proposed actions to be taken to secure the funding identified in the AQMP. Staff will lobby for incentive funding to ensure the success of incentive measures. The Financial Incentive Funding Action Plan will also include activities to pursue funding, the schedule, and reporting.

Regulatory measures may be implemented in the future after the implementation of the incentive programs and the cost of technologies decline. If staff identifies sources of NOx reductions that are currently cost-effective, regulatory measures will be pursued without incentives.

Please see Response to Comment 54-3 and 54-4 regarding biogas. Staff has noted some of the challenges in CMB-01 such as costs for pipeline infrastructure and biogas cleanup. A working group will be formed to further discuss the challenges for specific sectors on biogas. Biogas operators are encouraged to explore beneficial use of biogas whenever and wherever technologically feasible and cost-effective.

**Response to Comment 78-6:**

Please see Response to Comment 73-4 and 73-7 regarding technology assessments. Staff included language in CMB-01 to acknowledge some essential back-up power applications may require capabilities for long-term power and fuel storage under extreme emergency conditions. However, new technologies may prove to be as reliable if not more reliable than conventional technology. As reported by the U.S. Department of Energy, fuel cells were instrumental in providing backup power during Hurricane Sandy in 2012. While many of the diesel, propane, and battery cell phone tower backup generators were affected by the storm, the fuel cells performed without issues (<http://energy.gov/articles/calling-all-fuel-cells>). As zero and near-zero technologies evolve, improve, and become more cost effective, they may become the preferred source of reliable backup power for critical applications.

**Response to Comment 78-7:**

Please see Response to Comment 54-4. Staff included language acknowledging wastewater treatment plants may have lower waste gas streams and the options for pipeline injection may be limited. Staff has also included the emission inventory for sewage treatment, which is 0.01 tpd of NOx and is expected to remain so for 2023 and 2031. The emissions inventory will be further refined during the rulemaking process as will the cost effectiveness and technical feasibility of emission reductions from wastewater treatment facilities.

**Response to Comment 78-8:**

Please see Response to Comment 35-10 regarding the inclusion of control measure MCS-01 in the Plan. Staff acknowledges the ongoing national litigation on this matter, and alternative compliance approaches that may be developed elsewhere in the nation will be considered prior to any amendment of Rule 430.

**Response to Comment 78-9:**

Emerging technologies have been discussed in the 2016 AQMP as a potential method to control and/or reduce emissions from stationary sources. Actual performance of a technology and commercial and sector-specific applications will be demonstrated and validated during the rule development process. Please also see Response to Comment 4-1.

As the commenter stated in the comment letter, anaerobic digesters can reduce emissions associated with foodwaste, but cannot currently practically process greenwaste. Staff is well aware of the impracticability of digester for processing greenwaste. This is already stated in BCM-10 as “Capacity at existing digestion facilities at Sanitation Districts could lower emissions of NH<sub>3</sub> and VOC for *certain waste streams*.” It is also indicated clearly in the Emission Reductions section of the measure, stating “Increased use of anaerobic digestion could help lower VOC and ammonia emissions from treatment of organic waste, such as foodwaste, biosolids, or manure *where feasible*.”

**Response to Comment 78-10:**

Large scale projects typically have more emissions that can make improvements or add-on controls more cost-effectively. However, small scale projects do not always lead to small emissions and there may be opportunities whereby small scale projects can cost effectively apply controls to further reduce emissions. Thus, the applicability of this control measure cannot exclude specific facilities or small scale projects at this point in time. Until such time where a rulemaking is conducted, a more extensive analysis of potential applicable sources will be identified and analyzed as to which types of sources could feasibly and cost effectively reduce emissions associated with a particular facility or size of project.

Please see Response to Comments 30-5 and 54-2 regarding “fair share” control of mobile and federal source emissions. Staff is aware of the equivalency exercise under Rule 317 and continues to work with CARB and U.S. EPA to ensure reductions from sources not within our authority.

**Comment Letter from the City of Irvine (Comment Letter 79)**



Community Development

[cityofirvine.org](http://cityofirvine.org)

1 Civic Center Plaza, Irvine, CA 92606-5208

949-724-6000

November 7, 2016

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 92765

**Subject: City of Irvine Comments: Draft 2016 Air Quality Management Plan**

Dear Dr. Fine:

The City of Irvine appreciates the opportunity to provide comments on the revised Draft 2016 Air Quality Management Plan (AQMP) and the associated Socio Economic Analysis. The Draft 2016 AQMP is a monumental effort and the City of Irvine recognizes that the AQMP is critical to the region's ability to achieve federal air quality standards and healthful air.

79-1

The following general comments and recommendations are offered by the City of Irvine on the revised Draft 2016 AQMP released in October. The City of Irvine reserves the right to make further comments at a future date when the full impact of the Draft 2016 AQMP can be assessed:

1. Action Plan for Incentive Strategies: The Draft 2016 AQMP contains a number of measures that are designed to be implemented through incentives to accelerate the penetration of zero- and near-zero emission technologies, and to further reduce emissions from other mobile and stationary control measures. The Draft 2016 AQMP also notes that as much as \$14 billion in funding needs to be identified in order to implement "incentive strategies."

79-2

It is the City of Irvine's understanding that the \$14 billion in funding need represents the total funding need of all the agencies responsible for implementing the proposed measures. The City of Irvine recommends that the incentive funding need for each proposed measure be detailed in the 2016 AQMP Plan and Appendices, particularly Table IV-A-1 and Table IV-A-2 in Appendix IV-A, and that funding need by agency also be summarized and presented. If a funding action plan is not provided, we are unable to verify the financial assumptions made in the Draft 2016 AQMP.

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The Draft 2016 AQMP should include an action plan that identifies the funding source for all incentive strategies. It should also include a discussion on the impact to local jurisdictions. For example, in regards to measures EEC-02 (Co-Benefits from Existing Residential and Commercial Building Energy Efficiency Measures (NOx and VOC) and EEC-03 (Additional Enhancements in Reducing Existing Residential Building Energy Use (NOx and VOC), additional details are needed as to the recipient of the incentive and who will be required to complete the bookkeeping and monitoring.

79-2  
 Cont'

2. Preservation of Local Funding: As noted in the previous comment, the South Coast Air Quality Management District (SCAQMD) has not identified funding sources for the incentive strategies. The City of Irvine is opposed to the redirection of any funds currently allocated to County Transportation Commissions and/or local jurisdictions in order to fund the incentive strategies, as this could result in an inability for the region to deliver the projects and programs used to demonstrate air quality conformity in the Regional Transportation Plan.

79-3

3. EGM-01: Emission Reduction from New Development and Redevelopment Projects: The purpose of this measure is to mitigate and reduce emissions from new development and redevelopment projects. The description of EGM-01 is very broad and could be interpreted to add a new fee to new development or redevelopment in the SCAQMD service area, similar to Rule 9510 adopted by the San Joaquin Valley Air Pollution Control District. While implementation of this measure has been delayed until 2019-2031, the City of Irvine continues to have concern with EGM-01.

79-4

As a local government, Irvine is concerned with this prospective measure absent more information on how a development fee might impact local land use under its authority. To the extent that such a control measure would redistribute or constrain growth in the region, it could undermine the greenhouse gas (GHG) and pollutant emission reductions that are imbedded in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that the City of Irvine worked diligently to complete with the Southern California Association of Governments (SCAG). A fee might not be the best way to ensure that new structures accommodate clean technologies, and the SCAQMD should also explore other cost effective methods.

Because of its ambiguity and potential overlap with the RTP/SCS, this proposed measure should not be included among the AQMP's enforceable, committed measures. The City of Irvine recommends that the Orange County Council of Governments, the subregional agency for Orange County, be included in any SC AQMD Working Group that is established or reconvened on this measure, to allow for meaningful dialogue on this proposed measure. Further, if this measure

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- proceeds to rule development in the future, the SCAQMD needs to assure that any proposed rule will integrate with, and enhance the California Environmental Quality Act (CEQA) process and not impede the project approval process in light of CEQA timelines. 79-4  
Con't
4. CMB-02: Emission Reductions from Replacement with Zero or Near-Zero NOx Appliances in Commercial and Residential Applications: The purpose of this control measure is to seek annual average NOx appliances such as boilers, water heaters, and space heating furnaces, and other natural gas or LPG equipment with zero emitting or lower NOx technologies. There is concern that this measure will further impact the affordability of housing by placing a burden on existing homeowners. 79-5
5. Duplicative Measure: BCM-03. Further Emission Reduction from Paved Road Dust Sources: The AQMP proposes that measures BCM-03 would include a review of existing National Pollutant Discharge Elimination System (NPDES) mandates and that this is conducted in conjunction with any potential rulemaking efforts. NPDES permits are administered by the local regional water quality control boards. The SCAQMD does not have jurisdiction over the issuance and maintenance of mandates required of NPDES permits. The City of Irvine requests that the SCAQMD remove reference to NPDES mandate review as to not confuse jurisdictional and implementation issues related to these permits. 79-6
6. Technology Neutrality: The City of Irvine recommends that the AQMP remain technology neutral. With evolving new technologies, the plan should not single out any particular technology or group of technologies. Remaining technology neutral will allow the plan to be more flexible and will provide property owners with a wide variety of options that are cost effective. 79-7
7. Unquantified Measures: There are a number of measures that have not been quantified in the Draft 2016 AQMP. These are often referred to as "to-be-determined" or "TBD" measures. Based upon the review of the initial Draft 2016 AQMP, it is the City of Irvine's understanding that the Plan is capable of achieving federal air quality standards in absence of any of the TBD measures. The City of Irvine raises a concern regarding whether it is appropriate to include these types of measures in the 2016 AQMP, since they do not advance attainment. Inclusion of TBD measures implies some level of commitment toward delivering those measures even though it has not been determined the amount, if any, emission reductions they can provide, or at what cost. An economic analysis cannot be performed without the quantified benefits. The City of Irvine is concerned that the inclusion of TBD measures in the 2016 AQMP could allow the District staff to substitute a TBD measure in place of other quantified and committed measures after the 2016 AQMP is approved. The City of Irvine understands that in the future, the TBD measures may prove to be more cost 79-8

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effective than other committed measures. This kind of transfer should not be implemented as an administrative change, and should only be pursued through an appropriate public process. Until the time that either a backstop measure is needed or a TBD measure is identified to be more cost effective than one of the currently qualified measures, the City of Irvine requests that the TBD measures either be removed from the plan, or clearly separated from the quantified measures, and called out as uncommitted measures that require further development and evaluation.

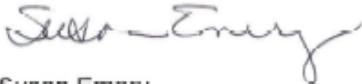
79-8  
Con't

Furthermore, should the TBD measures remain in the 2016 AQMP, the City of Irvine requests that the 2016 AQMP include a discussion that clearly states the purpose for including these strategies and the process required to incorporate them. Preferably, this process would include action by the SCAQMD Governing Board and opportunities for public review and comment.

Thank you again for the opportunity to provide input on the revised Draft 2016 AQMP. We appreciate your consideration of the comments provided in this letter and we look forward to your responses. We look forward to the release of the final draft of the 2016 AQMP tentatively scheduled for December 2016, with a scheduled review and adoption in February 2017. The City of Irvine continues to reserve the right to make further comments at the time of the release of the final draft documents.

If you have any questions, please contact Marikia Poynter, Senior Planner, at 949-724-6456 or [mpoynter@cityofirvine.org](mailto:mpoynter@cityofirvine.org).

Sincerely,



Susan Emery  
Director of Community Development

ec: Tim Gehrich, Deputy Director of Community Development  
Barry Curtis, Manager of Planning Services  
Bill Jacobs, Principal Planner  
Marika Poynter, Senior Planner

**Responses to Comment Letter from City of Irvine**  
**(Comment Letter 79)**

**Response to Comment 79-1:**

Staff appreciates the comments on the 2016 Revised Draft AQMP and recognition of the critical role of the AQMP to achieve federal air quality standards and healthful air.

**Response to Comment 79-2:**

Please see Responses to Comments 7-4 and 11-1 regarding the Financial Incentive Funding Action Plan. A draft Financial Incentive Funding Action Plan was released in December 2016 for public comment. The draft Action Plan focuses on mobile sources and identified potential funding needed to implement the State SIP Strategy “Further Deployment of Cleaner Technologies” measures. The draft Plan provides an evaluation of the funding needed for each of the measures. Since the SCAQMD staff believes that new funding will need to come a variety of sources, SCAQMD staff has not identified any specific funding sources by agency. The draft Action Plan discusses a large of potential opportunities that will be further discussed through a public process. In addition, a rest of guiding principles is proposed as the SCAQMD moves forward in securing new funding. One of the proposed principle is the recognition that any new funding not be through diversion of existing funds from programs not related to air quality.

**Response to Comment 79-3:**

It is not the intent to redirect existing funding from other programs to help incentivize the turnover of older vehicles and equipment, but rather, to seek new sources of revenues. This will be clearly stated in the funding action plan.

**Response to Comment 79-4:**

See Responses to Comments 38-3 and 86-2 regarding a development fee in EGM-01. SCAQMD staff will solicit comments on the feasibility of implementing an approach similar to Sn Joaquin’s rule and whether other approaches will be more appropriate in lieu of a mitigation fee. Staff will ensure that any approach proposed will complement SCAG’s RTP/SCS and not impede with the CEQA process. Lastly, staff welcomes the participation of the City and the Orange County Council of Governments on the working group.

**Response to Comment 79-5:**

Staff believes there can be a balance in achieving the aims of clean air while not imposing an undue cost burden on existing homeowners. Staff’s goal, in collaboration with interested stakeholders, is to identify the most cost-effective approaches that are best in achieving maximum emission reductions for less money spent.

**Response to Comment 79-6:**

Please see Response to Comment 6-2 regarding the NPDES mandate review.

**Response to Comment 79-7:**

Please see Responses to Comments 17-3 and 77-2 regarding technology neutrality.

**Response to Comment 79-8:**

Please see Response to Comment 7-5 regarding TBD measures.

**Comment Letter from Eastern Municipal Water District (Comment Letter 80)**



November 7, 2016

Mr. Wayne Nastri, Acting Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

**Subject: Comments on the 2016 Revised Draft Air Quality Management Plan dated October 2016**

Dear Mr. Nastri:

The Eastern Municipal Water District (EMWD) appreciates this opportunity to provide comments on the 2016 Revised Draft Air Quality Management Plan (2016 AQMP). EMWD operates many stationary sources to provide potable water, water reclamation and recycled water services to over 700,000 people in a service area of 555 square miles. As the provider of both water and wastewater reclamation services, EMWD is responsible for effectively managing its resources economically while being a good neighbor to the community.

80-1

As a stationary source in the South Coast Air Basin, EMWD recognizes the challenges faced by the South Coast Air Quality Management District (AQMD) and would like to thank the AQMD staff for their efforts and consideration of stakeholder comments and feedback during the development of the current 2016 AQMP. We respectfully request that the AQMD consider the following comments:

80-2

In CMB-01, *Zero and Near Zero Emission Technologies (IV-A-46)*, the measure discusses the use of fuel cells to replace emergency diesel engines. This section acknowledges that some essential backup power applications require capabilities for long-term power under extreme emergency conditions; however providers of essential public services such as water and wastewater services are not specifically mentioned.

Board of Directors  
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Essential public services should be included in this exemption consideration for existing and future installations. EMWD requests the following language change to *Appendix A, CMB-01, IV-A-46*, "Some essential back-up power applications (hospitals, communications, transportation, essential public services etc. require capabilities for long-term power and fuel storage or delivery under extreme emergency conditions (earthquakes, long-term power outages, natural gas pipeline disruption, etc.)."

80-2  
Con't

The reason that essential public services, such as EMWD, should be exempt is because the recommendations for replacement of diesel emergency generators with fuel cells or other alternatives will not work for our facilities. EMWD must be able to provide water and wastewater services during an extreme emergency to protect and sustain public health. Specifically, fuel cells have the following limitations:

80-3

- Fuel cells in this application are new and unproven technology in that the reliability in an emergency application has not been evaluated.
- Importantly, the proposed replacement technology relies on natural gas supply which will probably be compromised in an extreme emergency and not be readily available at remote facilities. This will greatly jeopardize the ability to provide essential public services during emergencies, especially under extreme conditions. Emergency generators are self-contained and work effectively under these conditions.
- Financially, fuel cells are expensive in comparison to diesel emergency generators which to EMWD customers does not economically justify the cost effectiveness of fuel cells.

In *CMB-01, Equipment Replacement (IV-A-51)*, a discussion related to engine replacement including different types of Internal Combustion Engines (ICEs) is provided. The discussion in the measure related to the replacement of diesel emergency engines and the potential limit changes for prime engines is concerning to EMWD. In addition to the concerns expressed previously related to replacement of diesel ICEs with fuel cells, EMWD has the following comments regarding the engine replacement of existing diesel emergency generators at our facilities:

80-4

- The availability and reliability of Tier 4 diesel backup generator engines, especially for higher horsepower ranges, is a concern. Certified Tier 4 engines greater than 750 horsepower are limited.
- Tier 4 engines have various after-treatment controls required to attain those standards. Consequently the reliability of these engines to operate in an actual emergency is questionable and has not been demonstrated. This is a concern for essential public services during an emergency.

The estimated Total NOx Emissions of 1.5 tons per day (tpd) for Tier I and Tier II diesel engines specified in *CMB-01 Table 2 (IV-A-51)* appears high assuming these estimates are based on actual operation, which is low since they are installed for emergency back-up use.

Overall, EMWD is concerned with mandated replacements of emergency diesel generators which are rarely operated and in-place for the purpose of emergency back-up. This will not result in

80-5

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substantial emission reductions; therefore it is difficult to justify these actions as cost effective or economically responsible to our customers.

CMB-01 also discusses amending existing regulations to reduce the emission limits for prime natural gas engine installations by employing new catalyst technology with a multi-step approach. The discussion in *CMB-01 (IV-A-52)* implies that this technology can achieve less than 2 ppm NOx in a retrofit non-CHP installation. EMWD is concerned with the statement that this multi-stage catalyst technology supports a new emission limit of 2 ppm equivalent to the CARB Distributed Generation (DG) standards, and recommends that prior to drafting the rule that the technology be proven to meet the new emission limit. EMWD would like to stress the importance of recognizing the difference between package systems and retrofit installations for new technologies. This distinction should be recognized in the measure. In addition, typically new low emission control systems add a level of complexity that are often problematic and impact the operational reliability of our facilities. Operational reliability of essential public services is critical and should not be dismissed.

80-5  
Con't

In CMB-01, *Facility Modernization by Sector (IV-A-53)*, the measure emphasizes the use of biogas from wastewater treatment plants and landfills in fuel cells or transportation fuels. While EMWD embraces these goals, we would like to respectfully remind staff that biogas cleanup is not usually cost-effective. We appreciate AQMD's optimism that technology will evolve to provide solutions for low levels of biogas however this has not occurred yet. The volume of biogas production is a limiting factor related to the feasibility of pipeline injection and is an issue for EMWD operated regional wastewater facilities. Our wastewater facilities are somewhat unique in that they are geographically spread out and their individual biogas production volume is lower than typically required for pipeline injection and transportation fuel projects. EMWD appreciates the added discussion in the draft AQMP related to funding incentives and supports incentive funding for these project types. In addition, EMWD will actively participate in working groups formed for these efforts.

80-6

While we appreciate AQMD's support in incentivizing zero and near-zero biogas technologies, we do not believe these biogas technologies are truly commercially available, reliable or cost-effective yet. Due to these inherent challenges, we request that biogas not be specifically included in this control measure.

With regard to CMB-03, *Emission Reductions from Non-Refinery Flares*, we are concerned with the implications of this measure due to the fact that flares in the wastewater sector are needed for emergency and backup use. Wastewater facilities attempt to use all of this renewable fuel for energy rather than just flaring. We are concerned that the wastewater sector inventory is not accurately portrayed in the AQMP since it is lumped together with the oil and gas facility categories. Based on detailed summer planning inventory from AQMD staff, the wastewater sector contributes only 0.01 tons per day (tpd) of NOx. Based on the 2.4 tpd inventory in CMB-03, the contribution by the wastewater sector is less than 0.5% of the total NOx emissions from non-refinery flares. Considering wastewater flares are an insignificant source of NOx, they are

80-7

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typically used for emergency or backup purposes, and the cost of replacement, EMWD requests that the wastewater sector be excluded from this control measure and the inventory be revised to reflect the insignificance of the wastewater sector.

The *Background (IV-A-78)* discussion in CMB-03, references the Rule 1110.2 amendments relative to the implementation of biogas emission limits. EMWD would like to reiterate that biogas is viewed by our industry as a valuable "renewable" resource, not a waste product. EMWD has made numerous efforts to research effective biogas technologies to preserve beneficial use of biogas. EMWD continues to pursue this goal as we continue our biogas research efforts and expand our focus to Combined Heat and Power (CHP) studies and projects. It is critical that AQMD understand that the beneficial use of this renewable resource is highly important to EMWD as an agency and as commitment to our customers. The *Background (IV-A-78)* should acknowledge understanding of this shared goal and EMWD's support for collaborative efforts.

80-7  
Con't

In addition, CMB-03 does not acknowledge that despite beneficial use of biogas, wastewater treatment facilities will still require a reliable emergency/back-up option which means our flares are essential. Consequently, based on the *Proposed Method Control item 2*, future AQMD rules would drive mandated replacements with newer flares. Based on this path, EMWD would be required to replace our emergency back-up flares that meet the current BACT standard of 0.06 lb per MMBtu. EMWD has difficulty understanding the justification to expend millions of dollars to replace reliable backup flare installation(s) at our wastewater treatment plants when this replacement will not result in meaningful emission reductions.

80-8

CMB-03 (IV-A-80) also discusses changes in flare technology and the utilization of clean enclosed burner (CEB) technologies. EMWD would like to highlight reliability concerns with utilizing more complex emission control system that are often more problematic and consequently affect the operational reliability of essential public services.

80-9

In CMB-03, *Regulatory History (IV-A-78)*, the measure highlights that no source specific rules for NOx emissions from non-refinery flares are currently in place. This statement dismisses the fact that although there is not a source specific rule for the wastewater sector, operators have still been subject to new source review for installations which requires BACT. As noted in the *Proposed Method of Control* section, these 2006 BACT requirements are more stringent than the flare rule implemented in the San Joaquin Valley Air Pollution Control District.

80-10

Wayne Nastri  
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Thank you in advance for considering our comments above and for the opportunity to comment. If you have any questions, please feel free to contact Al Javier at (951) 928-3777 extension 6327 or at [javiera@emwd.org](mailto:javiera@emwd.org)

Sincerely,



Jayne E. Joy, P.E.  
Director of Environmental and Regulatory Compliance

JJ/ARJ/AT:tlg

c: Dr. Philip Fine, SCAQMD  
Michael Krause, SCAQMD  
Records Management, EMWD

**Responses to Comment Letter from Eastern Municipal Water District (EMWD)**  
**(Comment Letter 80)**

**Response to Comment 80-1:**

Staff appreciates comments on the 2016 Revised Draft AQMP.

**Response to Comment 80-2:**

Please see Response to Comment 78-6 regarding the use of fuel cells.

**Response to Comment 80-3:**

Please see Response to Comment 78-6. Natural gas supplies may be provided with natural gas trailers. These trailers may be linked to provide more fuel supply. Incentives will encourage and/or play a significant role in making it cost-effective for facilities or equipment owners to transition to zero or near-zero technologies or replace equipment earlier. In the future, regulatory measures may be considered after the implementation of the incentive programs when the cost of technologies decline and reliability has been demonstrated.

**Response to Comment 80-4:**

Please see Responses to Comments 71-1 regarding CMB-01, Table 5 - "Incentive Effectiveness by Category" (formerly Table 4), 73-2, 73-3, 73-4, and 73-7.

**Response to Comment 80-5:**

Please see Response to Comment 73-9 and 78-6. Regulatory measures may be considered in the future after the implementation of the incentive program programs when the cost of technologies decline and reliability has been demonstrated. If specific regulatory measures are developed in the future, staff will address differences in technologies (package systems and retrofit installations) and the needs of different industries by forming working groups and conducting technology assessments as necessary.

**Response to Comment 80-6:**

Please see Response to Comment 54-4. Options such as those mentioned in Response to Comment 71-2 to transport the fuel using CNG trailers could be an option for the geographically spread out facilities that do not produce a large volume of biogas. Staff encourages EMWD's participation in future working groups. Due to the Basin's extreme non-attainment all sources must be considered during the development of the AQMP.

**Response to Comment 80-7:**

Please see Response to Comment 78-7. Staff appreciates EMWD's efforts to research effective biogas technologies to promote beneficial use of biogas and its expanded focus on combined heat and power (CHP) studies and projects.

**Response to Comment 80-8:**

Please see Response to Comment 54-4. During the rule making process, staff will evaluate the individual facilities and sectors when evaluating the technical feasibility and cost effectiveness of the emission reductions.

**Response to Comment 80-9:**

Please see Response to Comment 54-4. Staff will conduct a comprehensive technical review of the available flares and control technologies during the rule making process.

**Response to Comment 80-10:**

San Joaquin Valley Air Pollution Control District (SJVAPCD) has a source specific rule for flares that includes wastewater treatment plants, oil and gas production, combustion, incinerators, petroleum refining, and VOC control. Although the SJVAPCD flare rule emission limit requirements for NO<sub>x</sub> are less stringent than SCAQMD's 2006 BACT requirements, their rule primarily targets VOC emission reductions. Thus, a regulatory measure is necessary to address existing flares at non-refinery sources and meet limits at least as stringent as other air Districts.

**Comment Letter from California Small Business Alliance (Comment Letter 81)**



November 7, 2016

Mr. Wayne Nastri, Acting Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 917 65

**COMMENTS ON THE DRAFT 2016 AIR QUALITY MANAGEMENT PLAN**

Dear Mr. Nastri:

The California Small Business Alliance (Alliance) is a non-partisan coalition of California trade associations committed to providing small businesses with a single constructive voice before air quality management districts and other environmental regulatory agencies. As active participants in the South Coast Air Quality Management District's (SCAQMD) 2016 Air Quality Management Plan (AQMP) Advisory Group, the 2016 AQMP Advisory Council, and on many AQMP White Paper Working Groups, Alliance members have been consistent contributors in the development of the plan. An Alliance representative has also been designated by the Home Rule Advisory Group to participate in the review of the health impacts of particulate matter air pollution in the South Coast Air Basin (SCAB) during the development of the AQMP. Finally, Alliance members have been actively engaged in the ongoing dialog with other stakeholders representing a broad cross section of business interests, neighborhood community organizations, and local, state and federal agencies. Now, with the October 7, 2016 Draft AQMP out for review and comment by the public, we want to take this opportunity to offer our comments as part of the process.

81-1

Our comments are concentrated in five (5) major areas, as follows:

**SCAQMD Proposed 8-Hour Ozone Strategy**

Our reading of this section of the October 2016 Revised DRAFT 2016 AQMP revealed that the SCAQMD has finally come to realize that to ultimately achieve the ozone ambient air quality standards, significant additional emission reductions will be necessary from sources under the primary jurisdiction of the California Air Resources Board (CARB) and U. S. Environmental Protection Agency (EPA). Alliance members have come to the same realization; that without an ample fair share commitment of emission reductions from CARB and EPA, the emission reduction burden would unfairly be shifted, once again, to stationary sources which are already struggling under the most stringent controls in the nation.

81-2

273 North Spruce Drive • Anaheim, CA 92805

Telephone: (714) 778-0763 • Web: [www.calsmallbusinessalliance.org](http://www.calsmallbusinessalliance.org)

A further reading of this section appears to confirm the SCAQMD's commitment to continue the policy of technology-and fuel-neutrality (i.e. "*All technologies and fuels should be able to compete on an equal footing to meet environmental needs*"). Alliance members support the SCAQMD's long-standing practice of setting performance standards that allow all fuels and technologies to compete. However, a further reading of the Revised Plan seems to suggest that SCAQMD proposes to put a priority on maximizing emission reductions utilizing zero emission technologies wherever cost effective and feasible, and near-zero emission technologies in all other applications. It is not clear to us what those "other applications" would include. While the Alliance applauds the SCAQMD for placing a priority on feasible and cost-effective control measures, we caution you to avoid policies that would effectively pick "winners and losers" in the selection of technologies that are mandated for use by small businesses. Accordingly, Alliance members hasten to remind the SCAQMD that the owners and operators of these businesses are the most knowledgeable as to which technologies are best suited for their operations. Over time, they have built successful businesses, provided thousands of good paying jobs for people in California, and proven that they can compete in the global market.

81-3

Finally, while the Alliance whole heartedly endorses SCAQMD's commitment to establish a working group that will discuss, evaluate and compare the cost effectiveness and feasibility of various technologies including those that have zero and near zero emissions, we believe that this working group must include these very knowledgeable small business owners and operators.

#### **Control Measures**

As mentioned earlier in this comment letter, Alliance members are encouraged that, today, the SCAQMD, CARB, and EPA openly acknowledge that the rules, regulations and programs for stationary sources are not sufficient to achieve the NOx emissions reductions necessary to attain the ozone standards by the approaching deadlines. On balance, we would be remiss if we did not mention that because of the decades where businesses have had to choose to operate under the most onerous command and control regulations in the nation, relocate elsewhere or cease operations, that they are largely responsible for the limited options that are left available to these agencies.

81-4

For the reasons stated, Alliance members object to the proposed "fair share" concept where SCAQMD, CARB and EPA would each reduce emission sources under their control by 50 percent. Stationary sources – particularly small businesses – have borne more than their "fair share" of the emission reduction obligation in the SCAB, and are well-controlled. Any more meaningful reductions from these smaller sources would not be practicable or cost-effective without an adequate or reliable source of incentive funding.

Alliance members believe that CARB and EPA should be solely responsible for incentive funding and emission controls needed for mobile and federal sources. The Clean Air Act was not crafted to penalize the SCAB for CARB and EPA's failure to adequately control mobile and federal sources. We urge the SCAQMD to revise the 2016 AQMP to ensure that stationary sources are not penalized if CARB and EPA are unable to adequately control the sources under their respective direct jurisdiction.

**CTS-01 Further Emission Reductions from Coatings, Solvents, Adhesives, and Lubricants (VOC)**

Alliance members are general supportive of SCAQMD’s proposal pursue a strategic VOC control program; one that will promote strategies and technologies for NOX reductions that also lead to reductions in VOCs, GHGs, and air toxics. However, our support comes with some reservations in that it seeks VOC emission reductions from certain coatings, adhesives, solvent and sealant categories by further limiting the allowable VOC content in formulations or by incentivizing the use of super-compliant technologies. The proposed control measure states that it is intended as an additional tightening of regulatory exemptions that may be used as “loopholes” to avoid the required use of compliant products. The broad diversity of small business industries in the Alliance, and our intense involvement in decades of rulemaking activities has made us aware of many situations that required certain regulatory exemptions. Many of the Regulation 11 series rules contain exemptions for valid reasons. For those reasons, Alliance members strongly urge SCAQMD to work with us and other stakeholders to ensure that appropriate substitute products are not only available, but reliable and acceptable to our local industries.

81-5

**FLX-02 Stationary Source VOC Incentives**

Alliance members are acutely aware of the challenges posed by the 2016 AQMP, and we applaud SCAQMD for considering using “carrots” rather than “sticks” to encourage businesses to make choices that will reduce emissions, while minimizing cost impacts. Using an incentive-based approach may encourage businesses, particularly small businesses, to opt for cleaner technologies at an accelerated rate.

81-6

Our reading of Control Measure FLX-02 revealed that SCAQMD plans to explore mechanisms that would enable facilities to qualify for incentive funding if they utilize equipment or material, or accept permit conditions which result in cost-effective emission reductions that are beyond existing requirements. Industries represented by Alliance, as well as other industry organizations have long disputed the District’s procedures and objectivity for conducting cost-effectiveness analyses. To that end, we urge SCAQMD to work closely with us as they set about the task of exploring and developing mechanisms that would enable facilities to qualify for incentive funding.

**Incentive Funding**

Alliance members generally support the concept by the District, CARB and EPA, to achieve the NOx emission reductions needed to attain the federal ozone air quality standards by 2023 and 2031, using an incentive-based approach. We believe positive outcomes are best achieved through incentives rather than punitive regulatory actions. Yet, given the fact that air quality has unarguably improved over the years, and that the reductions in harmful emissions have come almost entirely from stationary sources (businesses), the question of how these three (3) regulatory agencies will decide on a “fair share” approach to achieve the emission reductions required by the 2016 AQMP and related State Implementation Plan (SIP), is a matter of some concern to us.

81-7

Considering that stationary sources under the jurisdiction of the District constitute approximately 12 percent of the NOx emissions in the region, and considering that mobile sources under the jurisdiction of other regulatory agencies (CARB and EPA) account for 88 percent of the region's total NOx emissions, it seems only "fair" that they should willingly accept sole responsibility for reducing the greater share of the emissions required by the AQMP. Our use of the term "responsibility" is meant to mean financial responsibility as well as jurisdictional responsibility.

Our reading of the AQMP suggests that the SCAQMD has yet to identify and secure adequate or reliable sources of incentive funding for mobile, federal and stationary sources. Moreover, the proposed strategy appears to put a priority on funding state and federal sources before stationary source control projects. At the time of our reading, SCAQMD estimated that \$1 - \$2 billion dollars is needed for incentive programs for stationary sources, and that \$11 - \$14 billion dollars is needed for incentive programs for mobile sources.

Considering the uncertainty of the political climate, both now and after the upcoming election, Alliance members are justifiably skeptical about SCAQMD's ability to secure reliable sources of funding in the amount required to guarantee CARB and EPA that the AQMP will achieve the emission reductions promised. As such, we urge SCAQMD to revise the AQMP to ensure that stationary sources are not penalized if CARB and EPA decline or are unable to fund incentive programs to adequately control the sources under their respective direct jurisdiction.

#### **Air Quality and Health Effects**

In our letter of August 26, 2016, wherein we submitted comments on Appendix 1 - Health Effects, we attempted to point out many inconsistencies in the assignment of causality of certain air pollutants to cancer incidents involving both mortality and morbidity, particularly in the SCAB. In reviewing the October revision of the 2016 AQMP, we were unable to notice any editorial changes in Appendix 1, in response to our letter.

Our letter expressed our deep and continuing concern that SCAQMD is basing the entire AQMP on: 1) achieving "Attainment" in accordance with ambient air quality standards as set forth by both the federal government and the State of California, and 2) improving the health effects of the population in the SCAB due to exposure to criteria air pollutants, as described in Chapter 2 and Appendix 1.

In the above referenced letter, we highlighted many instances where the weight of evidence descriptors for causal determination of adverse health effects seems to call in to question the reliability of the findings and conclusions reported in the research papers cited therein. For example, most of the determinations made by EPA regarding the causality of air pollution health effects, is that there is "likely to be a causal relationship," "suggestive of a causal relationship," "not likely to be a causal relationship" or "inadequate to infer a causal relationship." On its face, the degree to which important uncertainties seem to permeate the research cited in Appendix 1, strongly suggests that more definitive research is urgently needed, especially in an AQMP that is

81-7  
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81-8

projected to cost regulated sources \$38.2 billion dollars, reduce health impacts, and improve air quality.

Alliance members were equally disappointed upon reading the Literature Review of Air Pollution-Related Health Endpoints and Concentration-Response Functions for Particulate Matter, prepared by IEc, dated September 29, 2016. Our impression of the report was that the contractor “cherry picked” the scientific studies that supported the theories advanced in Appendix 1. Noticeably absent were references to studies by credible and respected scientists with different conclusions, particularly when discussing the adverse health effects of exposure to PM2.5.

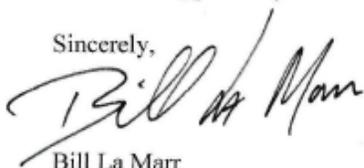
In the same report IEc expresses their reliance on “weight of evidence” to justify their recommendations. This is arguably the criterion which is most debated, since it has subsequently been demonstrated that many chronic diseases can have multiple causes and some substances can cause multiple health effects, but not necessarily death. To reinforce our point, we have attached a chart entitled “Estimated Percentage of Cancer Cases Caused by Identifiable and/or Potentially Preventable Factors.” The chart is an excerpt from a report by the American Association for Cancer Research. The chart shows that of the many known causes of the majority of cancers diagnosed today, 33 percent are attributable to Tobacco (smoking), and only 2 percent is attributable to Pollution.

81-8  
Con't

Our comment letter of August 26<sup>th</sup> urged SCAQMD to cast a wider net and invite credible and respected scientists with differing perspectives to present their work to stakeholders, and even the Governing Board before the AQMP is finalized.

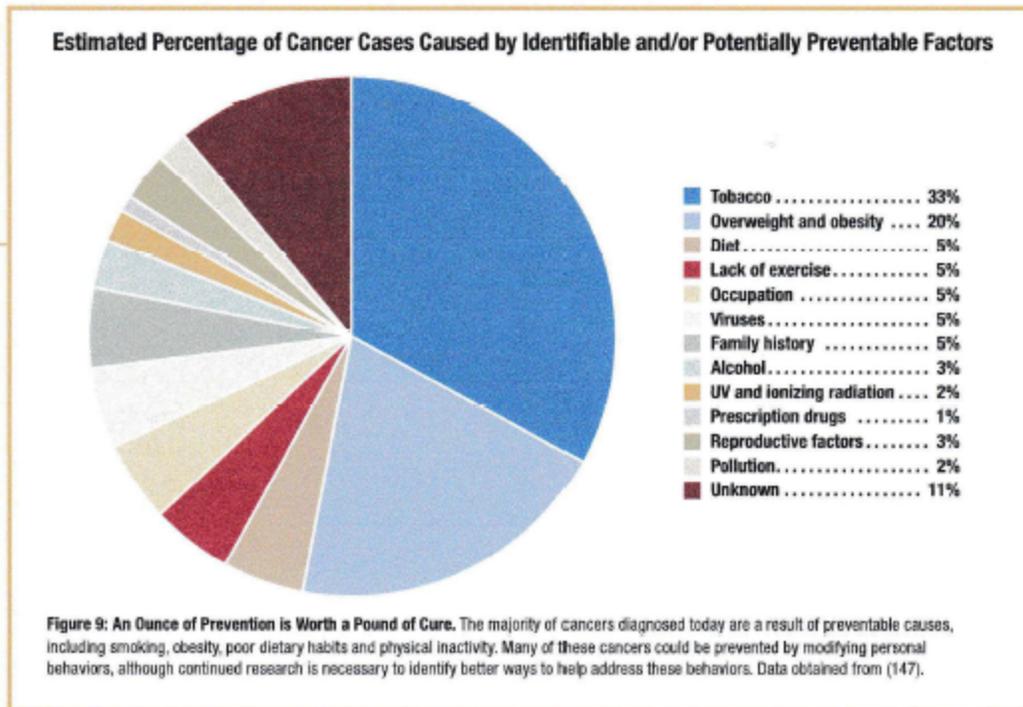
We appreciate SCAQMD allowing us to participate in the development of the 2016 AQMP, as well as the opportunity to comment on this latest revision.

Sincerely,



Bill La Marr  
Executive Director

Attachment (1) – As Indicated



**DID YOU KNOW?** that **17** cancers in addition to lung cancer are caused by smoking?

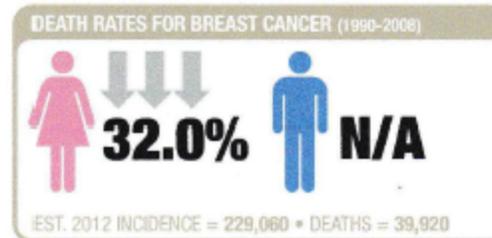
2010, concludes that there is no safe level of exposure to tobacco smoke. Yet, 70 million Americans regularly use tobacco products, and every day in 2010, 8,500 Americans aged 12 years and older smoked their first cigarette (15). It is not only the lives of those who use tobacco products that are at risk; scientific evidence has shown that exposure to secondhand tobacco smoke also causes cancer. Although this has led to some important public health policies restricting smoking in public places, countless lives could be saved in the future through continued research to develop and implement effective tobacco prevention, cessation and control strategies such as those described in "Tobacco and Cancer: An AACR Policy Statement" [(16); see Fig. 11, pg. 30 and **Sidebar on Tobacco Tax**, pg. 31].

**Obesity and Physical Inactivity Weigh in on Cancer**

Data from numerous epidemiological studies have revealed that obesity is clearly linked to an increased risk for the

adenocarcinoma subtype of esophageal cancer and to pancreatic, colorectal, kidney, endometrial and postmenopausal breast cancers (8). Mounting evidence indicates that obesity is also associated with an increased risk for other cancers, including gallbladder and liver cancers (8). In line with the dramatic increase in incidence of obesity, incidence of several of these cancers, including pancreatic, kidney and liver cancers, have increased during the past 10 years (17). Independent of weight, a lack of regular physical activity is associated with an increased risk for colon, endometrial and postmenopausal breast cancers and also may be associated with lung, pancreatic and premenopausal breast cancers (8).

Obesity and physical inactivity are not just associated with increased cancer risk. They also negatively impact tumor recurrence, metastasis and patient survival for several types of cancers (17). Among patients with breast cancer (18), colorectal



**Responses to Comment Letter from California Small Business Association (CSBA)**  
**(Comment Letter 81)**

**Response to Comment 81-1:**

Staff appreciates active participation and contribution in the development of the 2016 AQMP and comments on the 2016 Revised Draft AQMP.

**Response to Comment 81-2:**

Please see Responses to Comments 30-5 and 54-2 regarding “fair share” reductions and the SCAQMD responsibility in regulating stationary sources, ensuring attainment of the standards, and fulfilling shortfall of the reductions to obtain those standards.

**Response to Comment 81-3:**

Please see Response to Comment 17-7 regarding zero and near-zero technology. CMB-01 proposes to incentivize the replacement of equipment with the largest NOx emission reduction potential and the lowest costs. Where technologically feasible and cost effective, priority will be given to zero emission technologies. “Other applications” includes technology that is near-zero or lower-emitting NOx replacement equipment or retrofits. References to specific lower-emitting technologies is not to favor one technology over another as the SCAQMD strives to maintain a fuel neutral policy. In CMB-01, staff references lower-emitting technology only to demonstrate the type of technology currently available for reducing NOx emissions in identified source categories, along with a possible pathway to achieve the NOx emission reductions.

Staff appreciates the endorsement. A working group will include all interested stakeholders including, but not limited to, the public, business owners and operators, equipment manufacturers, and environmental groups.

**Response to Comment 81-4:**

Staff appreciates the comments regarding small businesses. Please see Responses to Comments 30-5 and 54-2 regarding “fair share” reductions and Response to Comment 26-3 regarding the Financial Incentive Funding Action Plan that outlines the existing funding sources as well as the potential funding opportunities. Staff has been in discussions with CARB staff on incentives funding for mobile sources and the need for additional reductions from mobile sources in the longer-term. CARB has committed to meeting the emission reductions associated with the State SIP Strategy. The SCAQMD has also petitioned U.S. EPA to establish new national engine emission standards to help the region meet federal air quality standards. While SCAQMD staff appreciates the comment regarding the state and federal responsibilities to incentive funding, local leadership in securing new funding (whether at the state or federal level) will be needed. As such, the SCAQMD is planning to build a coalition to work together on securing new funding.

**Response to Comment 81-5:**

Staff appreciates support for the strategic VOC control program. SCAQMD plans to take advantage of advances in technology to reduce VOC limits in categories where there are cost-effective alternatives and

will work with interested stakeholder through the rule amendment process to ensure necessary and valid exemptions remain in SCAQMD rules.

**Response to Comment 81-6:**

Staff appreciates the endorsement of the approach in FLX-02. A working group will be formed to explore lower polluting and less toxic alternative processes and materials for existing residential, commercial, industrial, and transportation sources. Staff looks forward to input from all interested stakeholders including, but not limited to, the public, business owners and operators, equipment manufacturers, and environmental groups.

**Response to Comment 81-7:**

Please see Response to Comment 81-4 regarding “fair share” reductions and incentive funding.

SCAQMD staff understands the concerns regarding mobile sources verses stationary sources. As discussed in Response to Comment 81-4, the State is committed to meeting the emission reductions associated with the State SIP Strategy measures. CARB staff indicated that they plan to discuss in greater detail proposed actions should there be a shortfall in incentive funding. These actions will impact primarily mobile sources that are under their authority and would not impact stationary sources. As implementation of the 2016 AQMP moves forward, SCAQMD staff will be seeking additional incentives for both stationary and mobile sources.

**Response to Comment 81-8:**

The comments from Mr. La Marr’s letter from August 26, 2016 are addressed in the Response to Comments for the Appendix I document, Response to Comment Letter 20. Changes were made to the draft Appendix I in response the Comment Letter 20 for Appendix I.

To clarify, the purpose of the AQMP Appendix I is to summarize the state of the health effects and causal determinations as assessed by U.S. EPA and other scientific agencies, to discuss some recent studies published since the latest U.S. EPA reviews, to give some quantitative estimates of the health impacts of particulate matter air pollution in the South Coast Air Basin, and to present a “local perspective” by highlighting studies conducted in the South Coast Air Basin, Southern California, or California. These causal determinations are presented at face value in the Appendix I document. While some pollutants and health endpoints have only limited data to support a causal determination, others, such as PM2.5 and mortality, have a large amount of evidence that led U.S. EPA to conclude a causal relationship. Text was added to the AQMP Appendix I to clarify these points.

While Chapter 2, Appendix I, and the Socioeconomic Report describe the health effects associated with air pollution, these components of the AQMP are meant to provide the reader additional information regarding the state of the science and the projected economic impacts and benefits of the Plan. However, a justification of the Plan is simply the legal requirement to achieve attainment by the specified timelines.

Regarding the IEC report referenced in this letter, the report defined in detail the methodology used to conduct the literature search and to review the studies for relevance and quality. Additionally, the report describes IEC’s review results, and the basis for their recommendations. The weight of evidence definitions presented in the report are defined by U.S. EPA, and are the same criteria used in the U.S. EPA scientific reviews of the health, ecological and welfare effects of the criteria pollutants. It is certainly

recognized that many chronic diseases can have multiple causes, and these weight of evidence criteria account for such nuances. For example, for a Causal Relationship for Health Effects, the definition states that “chance, bias, and confounding could be ruled out with reasonable confidence,” meaning that other potential causes of that disease would be accounted for when evaluating the relationship between the pollutant and the health endpoint. Additionally, it is recognized that a substance can cause multiple health effects, as evidenced by the extensive range of health effects included in the U.S. EPA Integrated Science Assessments.

Tobacco smoking and second-hand smoke are certainly important risk factors for cancers and several other health outcomes. However, the importance and potential impact of addressing air pollution cancer risk (and other health risks) cannot be understated. Air pollution is one of only a few known modifiable risk factors for cancer that is an involuntary exposure. In other words, people generally cannot choose not to breathe the air in the communities where they live, work, or play. The SCAQMD staff recognize that there are many risk factors that are important to address in the realm of public health, but the scope of the SCAQMD’s AQMP, upon which Appendix I is developed, is to address the regional ambient air quality standards for ozone and PM2.5 and propose actions to reduce emissions from those source categories contributing to the regional pollution problem.

**Comment Letter from Minuteman Transport, Inc. (Comment Letter 82)**

**From:** Peter Amundson <Peter@minutemantransport.com>  
**Sent:** Monday, November 7, 2016 5:35 PM  
**To:** AQMP Inquiries  
**Subject:** South Coast Air Quality Management District Public Hearing

AQMD

Everyone appreciates clearer air and the combined efforts of the public and industry has paid off resulting with the Southland environment being the best in my lifetime. As a middle aged native of Los Angeles County that is saying allot. The trucking industry has spent nearly a billion dollars a year to reduce emissions by over 80% in the South Coast Basin. The 2010 engine exhaust is cleaner than some of the air it operates in.

I ask for reason as we move forward as transportation in the region is already very heavily regulated and I oppose further expansion of regulation by the South Coast. To reduce the few remaining emissions, I support a collaborative incentive based approach as a win-win for the environment and business.

With a little patience we can reach the clear air goals without costing much needed California jobs and hurting our economy. Incentives are not the answer as businesses typically spend 2-3x the amount of a public incentive to purchase equipment and there is never enough funding to go around. Truckers spent at least \$9 for every \$1 of public incentives to comply with the current rules.

The draft 2016 AQMP seems unnecessarily aggressive and with reason and patience we can get there without horrific impacts on the Southland economy and the families that depend upon it.

Sincerely

Peter Amundson

President

Minuteman Transport, Inc

82-1

**Responses to Comment Letter from Minutemen Transport Inc.**  
**(Comment Letter 82)**

**Response to Comment 82-1:**

Thank you for your comments. The SCAQMD staff is working with CARB to identify additional funding in the near-term that will help turnover older trucks to trucks which meet and exceed the latest emission standards. Regardless, according to the 2016 AQMP emissions inventory, heavy-duty diesel trucks were still the highest source for NOx emissions in 2012. Although emissions in future years are expected to be lowered, NOx emissions from heavy-duty diesel trucks in the South Coast are still significant and should be reduced to protect public health.

While the acquisition of a truck that meets the current 2010 emission standard is important, the region must go beyond current standards in order to attain federal air quality standards by their applicable deadlines. As such, CARB will be developing new engine standards. Meanwhile, the SCAQMD has petitioned U.S. EPA to establish new national engine emission standards. As incentives funding opportunities are identified, we would encourage the acquisition of trucks with the cleanest available engines.

**Comment Letter from Southern California Gas Company (Comment Letter 83)**



George Minter  
Regional Vice President  
External Affairs & Environmental Strategy  
Southern California Gas Company

555 W. 5th Street  
Los Angeles, CA 90013  
(213) 244-2550  
GMinter@semprautilities.com

November 7, 2016

Philip Fine, Ph.D.  
Deputy Executive Officer  
Planning, Rule Development & Area Sources  
21865 Copley Drive  
Diamond Bar, CA 91765

*Submitted via OnBase Comment Form*

**RE: Comments on the Revised Draft 2016 Air Quality Management Plan**

Dear Dr. Fine:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the South Coast Air Quality Management District's (SCAQMD) Revised Draft 2016 Air Quality Management Plan (AQMP or Plan). SoCalGas strongly supports SCAQMD's efforts to attain the federal Clean Air Act standards. The attainment of the ozone and fine particulate matter (PM2.5) standards are vitally important to our company and those communities where SoCalGas operates and provides services.

83-1

We continue to offer our support, expertise, and partnership to SCAQMD to create a technically sound, fuel and technology neutral AQMP that will protect public health by demonstrating timely attainment of the federal Clean Air Act standards, while also sustaining the vitality of Southern California's economy. Following the adoption of the Plan, we look forward to continuing to collaborate with SCAQMD on the implementation of the control measures, efforts to secure incentive funding, and the development of incentive programs. To that end, SoCalGas respectfully submits the following comments on the Revised Draft 2016 AQMP.

**I. Continued Application of SCAQMD's Long-Standing Fuel and Technology Neutral Practice is Critical to Maximizing Emission Reductions Needed for Ozone Attainment**

83-2

*Fuel and Technology Neutrality is an Essential Component of SCAQMD's Mission and Energy Policy.* SCAQMD has historically adhered to a fuel and technology neutral policy in order to carry out its mission to undertake "all necessary steps to protect public health from air

Page 2

pollution, with sensitivity to the impacts of its actions on the community and businesses.”<sup>1</sup> In 2011, the Governing Board approved the “AQMD Air Quality-Related Energy Policy,” (Energy Policy) directing SCAQMD staff to proceed with future clean air program development in a fuel neutral manner by “promot[ing] zero and near-zero emission technologies in both stationary and mobile applications to the extent feasible.”<sup>2</sup> The Energy Policy also recognized that the promotion of “zero and near-zero emission technologies through ultra clean energy strategies” was vital “to meet air quality, energy security, and climate change objectives.”<sup>3</sup> As SCAQMD tackles the monumental challenge of attaining the 1997 and 2008 8-hour ozone standards through a 43 percent reduction in nitrous oxides (NOx) by 2023 and a 55 percent reduction by 2031, a continued fuel neutral approach is key to ensuring that every technological solution will remain available to maximize emission reductions.

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*When Assessing How to Maximize Emission Reductions, Cost-Effectiveness and Feasibility Must Be Assessed Based on Life-Cycle Emissions.* SoCalGas strongly supports SCAQMD’s long-standing practice of setting performance-based standards that allow all fuels and technologies to compete. An equal playing field encourages innovation and competition, thereby reducing the costs of attaining Clean Air Act standards. The Revised Draft AQMP acknowledges SCAQMD’s long-standing policy of fuel and technology neutrality and states a commitment to continuing the policy.

“Air quality regulatory agencies have traditionally set policies and requirements that are performance-based, and thus technology- and fuel-neutral. This is a policy that the SCAQMD intends to continue. All technologies and fuels should be able to compete on an equal footing to meet environmental needs.”<sup>4</sup>

83-3

The Revised Draft AQMP also includes a new policy statement: “Overall, the Revised Plan now puts a priority on maximizing emission reductions utilizing zero emission technologies wherever cost effective and feasible, and near-zero emission technologies in all other applications.”<sup>5</sup> SoCalGas supports prioritizing maximum emission reductions by allowing technologies to compete head-to-head. However, this policy statement should not be read to result in a *de facto* prioritization of zero emission technologies, which would be inconsistent with SCAQMD’s long-standing technology and fuel neutral policy.

When assessing zero and near-zero emission technologies, SoCalGas agrees that “full life-cycle in-basin emissions related to energy and fuel production and transmission pathways must be considered, along with GHG emissions, toxic impacts, and anticipated future changes to

<sup>1</sup> SCAQMD mission statement, available at: <http://www.aqmd.gov/home/about#mission>.

<sup>2</sup> “AQMD Air Quality-Related Energy Policy,” SCAQMD, July 11, 2011, available at: <http://www.aqmd.gov/docs/default-source/planning/Greenhouse-Gases/board-approved-energy-policy-090911.pdf?sfvrsn=6>.

<sup>3</sup> *Id.*

<sup>4</sup> Revised Draft AQMP, Chapter 4, p. 4-9.

<sup>5</sup> Revised Draft AQMP, “Key Changes in This Revised Draft,” p. v.

Page 3

the energy portfolio in the Basin.”<sup>6</sup> Central to this is a recognition that “zero emission” commonly refers only to emissions from the tailpipe or stack. Yet, impacts from electrification happen offsite, away from the source, and still result in local and regional emission increases. The AQMP should specify that all control measures seek to maximize emission reductions, and that subsequent rulemaking will evaluate both zero emission and near-zero emission technologies using full life-cycle analysis.

83-3  
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*The Revised Plan Is Inconsistent in How It Proposes to Prioritize Maximizing Emission Reductions.* While SCAQMD staff have conveyed their intent to continue to implement the agency’s fuel neutral policy and many statements in the Revised Draft AQMP appear to be consistent with that intent, the wording of the “prioritization” language varies from page to page, and control measure to control measure. For example, CMB-01 includes the statement that, “[z]ero emission technology will be *required* whenever and wherever feasible and cost effective, otherwise near-zero technology will be required”; CMB-02 states that, “SCAQMD will propose regulatory requirements *based on* zero emission technologies where feasible and cost effective, and near-zero emission technologies in other applications where *feasible*”; and MOB-08 states that, “District staff will explore the potential to increase the deployment of zero-emission vehicles *wherever feasible* and near-zero emission vehicles everywhere else” (emphases added).<sup>7</sup>

83-4

In each of these statements, and many others scattered throughout the Revised Draft AQMP, the concept of maximizing emission reductions is absent, and key words are altered—i.e., “required” is substituted for “priority,” cost-effectiveness is missing, and there is no mention of life-cycle emissions. SoCalGas urges SCAQMD to carefully examine the Revised Draft AQMP to ensure that the fuel and technology neutral policy is articulated consistently with consideration of cost-effectiveness, feasibility, and the full life-cycle of emission impacts.

*A Public Process is Necessary to Oversee Cost-Effectiveness and Feasibility Assessments to Maximize Emission Reductions.* Although it is incredibly important that the wording in the AQMP is consistent and accurate, ultimately, the continued implementation of SCAQMD’s fuel and technology neutral policy will hinge upon the execution of cost-effectiveness and feasibility assessments for the stationary and mobile sources targeted for emission reductions. We strongly urge SCAQMD to undertake a transparent, public process for determining cost-effectiveness and feasibility thresholds that will inform the development of future rulemakings and incentive programs. Furthermore, SoCalGas agrees that life-cycle emissions are a critical component of any cost-effectiveness and feasibility assessment as assumptions about electrification and grid emissions are often oversimplified. SoCalGas looks forward to participating in a Working Group that will discuss, evaluate, and compare the cost-effectiveness and feasibility of competing technologies applicable to uses such as space and water heating, trucking, and backup generation.

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<sup>6</sup> Revised Draft AQMP, Chapter 4, p. 4-9.

<sup>7</sup> Revised Draft AQMP, Appendix IV-A, pp. IV-A-46, 71,159.

Page 4

## II. An Incentive-Based Approach is the Only Viable Path, and the Most Cost-Effective Path to Near Term Emission Reductions in the Stationary Source Sector

### *Incentivizing Equipment Turnover Results in Accelerated Emission Reductions.*

SoCalGas understands that for SCAQMD to reduce NOx emissions by the order of magnitude mandated by the federal 8-hour ozone standards, all sources of combustion emissions must be examined and assessed. Small area sources such as pool heaters, water heaters, and stoves contribute to the emissions inventory as do larger point sources such as turbines, flares, and engines. SCAQMD should continue to rely upon incentive-based programs to reduce emissions, particularly from residential appliances. These pieces of equipment typically have long life spans, and using incentives to increase turnover rates can lead to significant, near term emission reductions. Alternatively, if the same equipment was instead subject to a regulatory approach, it would carry out the rest of its useful life of a decade or more before emission reductions were realized. Simply put, traditional regulations will not result in the installation of lower emission equipment at the pace needed to achieve the necessary reductions by 2023.

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Nevertheless, the Revised Draft AQMP now places an increased emphasis on the promulgation of stationary source regulations as compared to the prior Draft's emphasis on the development of incentive programs. Incentive programs can be designed to leverage other programs, and help to hold down the cost of the AQMP. Regulatory mandates offer no such flexibility, and emphasizing a regulatory approach significantly drives up the cost of achieving emission reductions.

The cost of this AQMP is already high as compared to the 2012 AQMP, which carried a price tag of \$36.6 million (2005\$) for stationary source measures.<sup>8</sup> The 2016 Draft Plan has an Annual Average Cost of \$402.6 million (2015\$) for the stationary source sector.<sup>9</sup> The primary drivers for this enormous price tag are three stationary source control measures that seek to regulate small, area sources of emissions in residences and in commercial applications. According to the Preliminary Draft Socioeconomic Report, CMB-02, Space and Water Heating, has an amortized annual average of \$99.0 million, CMB-04, Emission Reductions from Restaurant Burners and Residential Cooking, has an amortized annual average of \$118.9 million, and ECC-03, Additional Enhancement in Building Energy Efficiency and Smart Grid Technology, has an amortized annual average of \$103.4 million.<sup>10</sup> These three control measures account for 80 percent of the total amortized annual average costs of all stationary source control measures in the Revised Draft 2016 AQMP, while only reducing emissions by an estimated 6.54

<sup>8</sup> "Draft Cost by Measure," Agenda Item #5 – Socioeconomic Analysis, AQMP Advisory Group Meeting, July 26, 2012.

<sup>9</sup> Preliminary Draft Socioeconomic Report, August 2016, Table 2-1, p. 21.

<sup>10</sup> *Id.* SoCalGas also notes that the dollar figures in the Preliminary Draft Socioeconomic Report do not translate to the incentive and regulatory costs cited in the Revised Draft AQMP. It is nearly impossible to cross-reference these two documents and we strongly urge SCAQMD to ensure that the cost-effectiveness numbers contained in both documents are consistent, comprehensible, and accessible to the public.

tons per day of NOx by 2031 – a small fraction of the emission reductions necessary for attainment. And these three control measures fall primarily on residential consumers and small businesses, with the least financial ability to absorb these costs.

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*Incentives for Energy Efficiency Measures Will Be Most Effective When Layered on Existing Platforms.* SoCalGas encourages the use of incentive dollars to maximize and leverage existing energy efficiency programs. Given SoCalGas' extensive experience implementing energy efficiency programs and low-income energy efficiency and weatherization programs for our customers, we seek to collaborate with SCAQMD on future energy efficiency efforts. These existing programs help customers upgrade the efficiency of their homes, reduce their monthly energy costs, and improve the quality of their living environment. However, approximately 40 percent of existing energy efficiency projects are blocked by a variety of physical and logistical barriers. Collaboration between SoCalGas and SCAQMD to incentivize barrier removal may provide a significant opportunity to reduce emissions through expanded implementation of efficiency measures such as weatherization, equipment replacements, and upgrades.

83-7

When developing energy efficiency initiatives, SoCalGas emphasizes the importance of flexible strategies, offering a range of fuel and technology neutral solutions to optimize savings. We strongly urge SCAQMD not to abandon its long-standing fuel and technology neutral policy by selecting technologies as "winners" in the energy efficiency realm. SoCalGas also offers its technical expertise and support to SCAQMD as the agency seeks to participate in Title 20 and 24 proceedings at the California Energy Commission.

*Incentivizing the Beneficial Use of Biogas Provides a Pathway for Both Stationary and Mobile Source Emission Reductions.* SoCalGas also enthusiastically supports the use of incentives to develop a pathway for the beneficial use of biogas. By diverting biogas from flares at landfills, wastewater treatment facilities, and municipal solid waste facilities, and then conditioning and utilizing the waste gas as a transportation fuel or injecting into a natural gas pipeline, SCAQMD has a unique opportunity to reduce emissions from both stationary and mobile sources. Pipeline injection is a win-win scenario as it both minimizes combustion emissions by utilizing gas that would otherwise be flared and decarbonizes the natural gas supply. Accordingly, greenhouse gas (GHG) reduction co-benefits are realized while contributing to Low Carbon Fuel Standard and Renewable Fuel Standard goals. Further, SoCalGas agrees with SCAQMD that using biogas for transportation fuel is optimal. When biogas is used for transportation purposes it provides a source of renewable fuel, avoiding NOx from combustion, reducing GHG emissions, and facilitating ultra-low-NOx natural gas vehicle deployment.

83-8

**III. Mobile Sources Are the Most Significant Emitters, and Most Cost-Effective to Control**

*Large-Scale, Cost-Effective Emission Reductions Can Be Achieved by Incentivizing the Deployment of Low NOx Heavy-Duty Trucks.* Mobile sources are responsible for the large majority of in-Basin NOx emissions. More than 80 percent of the region’s NOx emissions come from mobile sources, with heavy-duty trucks as the single largest contributor. Because SCAQMD has limited authority to regulate mobile source emissions, a fair-share, incentives-based approach properly assigns responsibility to the California Air Resources Board (ARB) and to the United States Environmental Protection Agency to control mobile sources under state and federal jurisdiction.

83-9

Both SCAQMD and ARB recognize that dramatic reductions in NOx emissions from heavy-duty trucks must be achieved by 2023. To do so, California needs an accelerated transition to near-zero heavy-duty trucks for those trucks based in California, and a complimentary new federal heavy-duty truck emission standard to address trucks that operate in the state but are not based here. As SCAQMD is well aware, in 2015, Cummins Westport Inc. (CWI) certified the world’s first 8.9-liter heavy-duty engine at near-zero emission levels – 90 percent below the existing federal NOx standard, and certified to meet ARB’s lowest-tier optional near-zero emission standard (0.02 g/bhp-hr NOx), while also reducing GHGs by 15 percent. CWI has begun production of this “next generation” heavy-duty natural gas engine for transit bus, school bus, refuse, and medium-duty truck applications. And, CWI is now working on the development of a 12-liter, heavy duty engine that is expected to be demonstrated next year with full-scale commercialization by the beginning of 2018.

Incentivizing widespread deployment of these near-zero heavy-duty trucks and buses, as contemplated in MOB-07 and MOB-08, is the single most impactful emission reduction strategy. SoCalGas strongly supports the appropriation and designation of incentive dollars for near-zero heavy-duty trucks.

**IV. The Development and Execution of an Incentive Funding Plan is Key to the Successful Implementation of the AQMP**

*Collaboration Amongst Stakeholders is Critical.* All stakeholders recognize that the success of this AQMP is contingent upon the development and execution of a realistic, comprehensive Incentive Funding Plan. Identifying and securing funding on the scale of one billion dollars per year is a monumental task. SoCalGas supports a collaborative effort drawing upon the resources of political leaders, industry, interest groups, nongovernmental organizations, and the public to work at the local, state, and federal levels to leverage existing funding and develop new funding programs. We offer our resources and expertise towards this endeavor, and look forward to participating in an Incentive Funding Plan Working Group.

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*The Funding Plan Must Include Realistic Timelines, Which Are Consistent with Control Measure Commitments.* As the Incentive Funding Plan is developed, it is important to make sure that the incentive funding timelines are consistent with the assumptions in the AQMP. For example, to the extent that the funding plan seeks to leverage monies appropriated by ARB, the control measures must take into account the annual budgetary process. Specifically, the facility based measures (MOB-01 to 04), and the heavy-duty truck measure (MOB-08) now include a timeline stating that if funding is not realized one year after the adoption of the Final 2016 AQMP, SCAQMD staff will return to the Governing Board with recommendations contemplating rulemakings.<sup>11</sup> SoCalGas would like to point out that the one-year funding window may be unrealistic as ARB budgets are approved in June, which only provides SCAQMD with four months to secure funding from the state for this series of control measures. We raise this as an example of the type of coordination that must occur when developing the Incentive Funding Plan alongside the AQMP.

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*Funding Dollars Should Be Leveraged to Maximize Near Term Emission Reductions.* SoCalGas also urges SCAQMD to leverage existing and upcoming funding programs for investment where it is most needed – in the heavy-duty trucking sector. One-time funding sources like the Volkswagen settlement funds (\$381 million for California) provide an opportunity to facilitate market penetration of near-zero, low NOx trucks, achieving significant emission reductions by 2023. The use of the funding from the Volkswagen settlement funds will directly achieve the settlement objective – to immediately address diesel emissions. Unlike electric alternatives, these low NOx trucks are less expensive, available to drive today, and can service a wide variety of trucking applications. SoCalGas recommends that other funding programs including Low Carbon Transportation Funding, Carl Moyer, and potential new funding sources be utilized to incent near-zero heavy-duty trucks.

83-12

#### V. Comments on Individual Control Measures

In addition to the comments provided in this letter, SoCalGas has also drafted more detailed comments on several control measures, which are provided in the enclosed attachments. To facilitate further discussion and mutually beneficial coordination, we have included a SoCalGas subject matter expert's name and email address for each of the individual comments. Please do not hesitate to also reach out to Noel Muyco, Environmental Affairs Program Manager, at (213) 215-3397 or [NMuyco@semprautilities.com](mailto:NMuyco@semprautilities.com), with any questions.

83-13

Comments are provided on the following control measures:

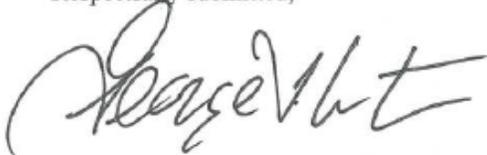
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<sup>11</sup> Revised Draft AQMP, Appendix IV-A, pp. IV-A-8, 159.

Appendix	Control Measure / Chapter	SoCalGas Contact
1	CMB-01: Transition to Zero & Near-Zero Emission Technologies for Stationary Sources	Daniel McGivney DMcGivney@semprautilities.com
2	CMB-02: Emission Reductions From Commercial And Residential Space And Water Heating	Steve Simons SSimons@semprautilities.com
3	ECC-03: Additional Enhancements in Reducing Existing Residential Energy Use	Noel Muyco NMuyco@semprautilities.com
4	CMB-04: Emission Reductions From Restaurant Burners and Residential Cooking	Steve Simons SSimons@semprautilities.com
5	FUG-01: Improved Leak Detection and Repair	Charles Humphrey CHumphrey@semprautilities.com
6	BCM-05: Ammonia Emission Reductions from NOx Controls	Gregg Arney GArney@semprautilities.com

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Respectfully submitted,



George I. Minter  
Regional Vice President, External Affairs & Environmental Strategy

SoCalGas Comments on the Revised Draft 2016 AQMP

**APPENDIX 1**

**CMB-01: Transition to Zero & Near-Zero Emission Technologies for Stationary Sources**

**I. Summary of the Control Measure**

This measure seeks NOx and VOC emission reductions from replacement of traditional combustion sources, including internal combustion engines (stationary and emergency), turbines, boilers, furnaces, ovens, and flares with zero and near-zero emission technologies. Replacement technologies are identified as including fuel cells, electrification, beneficial uses of waste gas, energy storage, as well as maximizing existing energy efficiency measures.

**II. Proposed Method of Control**

Two pathways for emission reductions are contemplated:

*(1) Zero and Near-zero Emission Technologies*

In the October 7 Revised Draft AQMP, SCAQMD proposes to rely upon a combination of regulatory and incentive-based strategies in order to transition non-power plant combustion sources to zero or near-zero emission technologies as those technologies become technologically feasible and cost-effective. Incentive measures could be implemented to allow early retirement and advanced replacement of equipment with zero and near-zero emission technologies.

*(2) Facility Modernization*

SCAQMD proposes to use regulatory and incentive measures to obtain reductions from various stationary sources including landfills, wastewater treatment, and municipal solid waste facilities. Incentive funding could be used to accelerate replacement of older equipment with zero or near-zero technology or to encourage facilities to accept permit conditions resulting in cost-effective emissions reductions that go beyond existing requirements.

**III. Comments**

***A. SCAQMD's Commitment to Continue Its Long-Standing Technology and Fuel Neutral Policy Should Be Supported Through Consistent Statements in the AQMP***

SoCalGas appreciates that SCAQMD has committed to continue its long-standing policy to establish performance-based rules and incentive programs that are correspondingly technology and fuel neutral. SoCalGas agrees with and fully supports the statement in the Revised Draft AQMP emphasizing that "all technologies and fuels should be able to compete on an equal footing to meet environmental needs."<sup>1</sup>

However, if SCAQMD truly intends to continue to implement the fuel and technology neutral policy, then the Revised Draft AQMP must use consistent language to explain staff's intent. For example, despite a number of statements explaining that maximizing emission reductions will be "prioritized," the Proposed Method of Control in CMB-01 states that:

<sup>1</sup> Revised Draft AQMP, Chapter 4, p. 4-9.

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SoCalGas Comments on the Revised Draft 2016 AQMP

“CMB-01 is *designed* to transition to zero emission technologies where and when feasible and cost-effective, and near-zero in all other applications. In assessing the cost-effectiveness of these technologies, the life-cycle in-basin emissions under current and future energy productions and transmission portfolios must be considered” (emphasis added).<sup>2</sup>

SoCalGas is very concerned that “designing” a control measure to transition to zero emission equipment is a slippery slope towards choosing technological winners, and could provide justification for future regulatory mandates and incentive programs that stray from SCAQMD’s long-standing, neutral policy. Throughout this control measure and the entire AQMP, there are many variations of this language and the lack of a consistent message regarding the use of terms “maximizing emission reductions,” “cost effectiveness,” and “feasible” is problematic. For example, CMB-01 includes statements describing the prioritization of zero emissions technologies at least nine times where the language is inconsistently applied (e.g., sometimes the terms “technically feasible” and “cost-effective” are not included; another includes the term “economically feasible,” but no reference to “technologically feasible”; another states the use of zero and near-zero technology be used to “go beyond current emission standards”).<sup>3</sup>

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SoCalGas appreciates SCAQMD staff’s transparency and communication on this measure, and the AQMP as a whole. We urge SCAQMD staff to continue to effectuate their intent of implementing a fuel and technology neutral approach when promulgating future regulations and developing incentive programs. The AQMP is the blueprint for those future actions and, accordingly, the language must be internally consistent and clearly stated. SoCalGas requests that language discrepancies in CMB-01 (as well as CMB-02, ECC-03, and the mobile source measures) be reconciled.

*B. SCAQMD Should Clarify the Definitions of Terms Describing Equipment Emissions*

In this control measure and throughout the Revised Draft, SCAQMD has used various terms to describe new technologies and products including “zero emission,” “near-zero emission,” and “lower-emission.” SoCalGas finds the use of these terms to be confusing and requests that the terms be defined and used consistently. Further, when defining “zero emission” equipment, SCAQMD must be careful to consistently apply life-cycle, in-basin emission analysis.<sup>4</sup> Zero emission technologies are likely electric, and should reflect electric grid

<sup>2</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-49.

<sup>3</sup> *Id.* at pp. IV-A-44, 45, 46, 49, 52, 53.

<sup>4</sup> We note that Southern California Edison’s Utility Owned Generation had a NOx emission factor of 0.1 lbs/MWh, as described in their 2014 Corporate Responsibility Report, which includes a significant proportion of renewable generation. See “2014 Corporate Responsibility Report,” Southern California Edison, p. 52, available at: <http://viewer.epageview.com/Viewer.aspx?docid=63f974d3-069f-46db-beb1-a53200e1b3c5#?page=52>.

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emissions and the low grid system efficiency (typically around 35 percent).<sup>5</sup> We seek clarification as to what emissions factor SCAQMD is using for grid emissions, and we ask that assumptions and methodologies for calculating grid emissions be shared with the public.

The CMB-01 narrative also frequently uses other terms that may or may not be interchangeable with the terms zero and near-zero, such as “low emissions technology,” “much cleaner, less polluting, products and equipment,” “lower-emitting technology or equipment,” “cost-effective emission reductions that are beyond existing requirements,” “cleanest technologies,” “ultra-clean technologies,” and “newer more efficient and lower polluting equipment.”<sup>6</sup> The use of these descriptions for equipment replacements or to obtain emission reductions beyond existing limits only create confusion and difficulty in distinguishing between what is and what is not considered to be “zero- or near-zero” emission technologies, and how these technologies will be assessed for use in future regulatory strategies and incentive programs.

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SoCalGas strongly urges SCAQMD to review and revise control measure CMB-01 to utilize consistent language describing the use of technologically feasible and cost-effective zero and near-zero technologies to maximize achievable emission reductions.

*C. Cost-Effectiveness Calculations Should Be Transparent in Both the Draft AQMP and the Preliminary Draft Socioeconomic Report*

The use of incentives in the stationary source sector is the most efficient and effective manner to obtain the emission reductions necessary to reach attainment. Incentives lead to the replacement of equipment that otherwise would live out the rest of its useful life of a decade or more if subject to regulation. Additionally, it is much costlier to obtain emission reductions within the stationary source sector as compared to a similar amount of emission reductions within the mobile source sector. However, SoCalGas also recognizes the need to complement incentive programs with regulatory strategies where technologically feasible and cost-effective solutions are available to maximize achievable emission reductions within the stationary source sector.

SoCalGas is concerned about the contradiction between the cost-effectiveness and incentive cost data cited in the draft Control Measure Summary table for CMB-01 (e.g., a Total Incentive of \$450 million and revised per ton incentive of \$53,000)<sup>7</sup> and what is cited in the Preliminary Draft Socioeconomic Report (e.g., CMB-01 Total Incremental cost of \$853 million with the present value of incentives totaling \$337.5 million, and Amortized Annual Average cost of approximately \$35 million).<sup>8</sup> There is a significant gap (over \$100 million) between the incentives with no explanation, and it is nearly impossible to attempt to crosswalk between the two documents. It is extremely difficult for industry to determine the worthiness or viability of

<sup>5</sup> See e.g. “Accounting Methodology for Source Energy of Non-Combustible Renewable Electricity Generation,” Department of Energy, October 2016, p. 2; ASHRAE Standard 105-2014 Informative Appendix J; EPA Combined Heat and Power (CHP) Partnership, available at: <https://www.epa.gov/chp/chp-benefits>.

<sup>6</sup> Revised Draft AQMP, Appendix IV-A, pp. 45, 48, 49, 53, 54, 58.

<sup>7</sup> *Id.* at p. IV-A-44.

<sup>8</sup> Preliminary Draft Socioeconomic Report, August 2016, p. 21, Table 2-1.

SoCalGas Comments on the Revised Draft 2016 AQMP

the proposed strategies within CMB-01, regulatory and incentive, without having a solid estimate of the cost or incentive dollars necessary to fully implement the measure.

SoCalGas requests that SCAQMD review the cost estimates and data used in both CMB-01 and the Preliminary Draft Socioeconomic Report and provide a more robust and transparent analysis that better aligns these regulatory costs and incentives, the source data, and the cost estimation methodologies. In the end, one should be able to understand how these numbers were derived and determine that the result is a reasonable cost estimate based upon the data available and used in the analysis. Additionally, the results analyzed in the Socioeconomic Report should be easily understood and linked to the cost data in CMB-01.

*D. Emission Inventories Should Be Refined*

In the Control Measure Summary table for CMB-01, the total Summer Planning inventory for 2012 is identified as 22.3 tons per day of NOx and the NOx reductions in 2021 and 2031 are 2.5 and 6.0 tons per day, respectively.<sup>9</sup> However, Table 2 provides data on internal combustion engines and references an emission inventory of 22.5 tons per day NOx solely from engines, with approximately 11 tons per day from older diesel and non-diesel fueled engines.<sup>10</sup> Though engines are one of the key equipment categories affected by this control measure and contribute the most significant share of the emission reductions, there are several other equipment categories (e.g., afterburners, boilers, dryers, flares, furnaces, heaters, incinerators, ovens, and turbines).<sup>11</sup> It is troubling that the internal combustion engine inventory is equal to the entire baseline emissions for this control measure. We raised this issue in our August 19 letter, and continue to be concerned about these inventory figures. SoCalGas requests that SCAQMD add supporting analysis and discussion to explain these discrepancies and, where appropriate, revise the data accordingly.

Further complicating this issue is data provided in Table 3, which identifies the various equipment categories (including internal combustion engines) affected by this control measure along with each category's annual emissions and the resultant emission reductions obtained through implementation of CMB-01 (based upon Annual Emission Report (AER) data).<sup>12</sup> SCAQMD goes on to note that the emission reduction data identified in Table 3 are different than those identified in the CMB-01 Control Measure Summary table because the numbers are derived from AER data, as opposed to being Summer Planning inventory data, but does not provide any insight as to why they are different or how they can be reconciled with each other. The use of differing data to support CMB-01 strategies should be clear and easily understandable to the public and all interested parties, and the methodologies used to generate the data should be identified. SoCalGas requests that SCAQMD harmonize the emissions data used in this measure so that the inventory and the estimated emission reductions are easily recognized and understood.

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<sup>9</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-44.

<sup>10</sup> *Id.* at p. IV-A-51, Table 2.

<sup>11</sup> *Id.* at p. IV-A-50, Table 1.

<sup>12</sup> *Id.* at p. IV-A-61, Table 3.

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*E. SoCalGas Supports the Use of Incentives for the Beneficial Use of Renewable Gas for Transportation and Pipeline Injection*

SoCalGas has been engaged in many conversations with SCAQMD staff about the further development of control measures, especially in regard to Facility Modernization, that focus on the beneficial use of biogas to achieve NOx reductions from existing flaring and other on-site uses. We offer our strong support for a strategy that provides a pathway for gas conditioning and utilizing waste gas as a transportation fuel or for pipeline injection. By developing viable alternatives to flaring, SCAQMD has a unique opportunity to promote emission reductions from both stationary and mobile sources. Pipeline injection is a win-win scenario as it not only diverts gas from being combusted in a flare, but also decarbonizes the natural gas supply. Then, when utilizing renewable gas, the lowest carbon intensity transportation fuel, in an ultra-low NOx engine, SCAQMD can achieve significant criteria pollutant as well as GHG reductions.

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*F. Incentives Are Most Effective to Transition Older, Higher Emitting Equipment to Zero and Near-Zero Emission Technology*

SCAQMD has discussed that while regulated sources already meet existing emission standards, there are inventories of older, less energy efficient equipment that meet applicable concentration based emission limits but have higher mass emissions than more modern equipment. CMB-01 also considers the replacement of 1,000 pieces of permit exempt equipment currently located at permitted facilities. One of the core strategies of CMB-01 is to transition these older, higher emitting equipment to zero and near-zero emission technologies. SoCalGas, once again, strongly encourages and supports the use of incentives to achieve this goal, especially towards capital costs, which are frequently the largest barrier to new investment.

The use of incentives for equipment retrofits would also be a benefit, allowing business to avoid stranded investments while achieving cost-effective emission reductions. Incentives should be used in SCAQMD's effort to replace older, higher emitting permit exempt equipment. SoCalGas also supports SCAQMD's efforts to explore additional solutions for incentives, including reduced permitting fees, New Source Review and Emission Reduction Credit Incentives, as well as expedited California Environmental Quality Act review and other concepts for expediting retrofits.

*G. Additional, Specific Comments on this Control Measure*

- *"Beyond BACT"*: CMB-01 states that "[n]ew businesses can be required to install and operate zero-emission equipment, technology and processes beyond the current Best Available Control Technology (BACT) requirements."<sup>13</sup> SoCalGas requests that

<sup>13</sup> Revised Draft AQMP, Appendix IV, p. IV-A-46 (first paragraph, second sentence under "Zero and Near-Zero Technologies").

SoCalGas Comments on the Revised Draft 2016 AQMP

SCAQMD provide more discussion explaining this concept. Pursuant to New Source Review, only BACT can be required of a new source when seeking a permit. Thus, such a “beyond-BACT” policy appears to stray from both the federal Clean Air Act and SCAQMD’s long-standing fuel neutral policy.

- **Combined Heat and Power:** Under the discussion of zero and near-zero Emission Technologies, SCAQMD states that fuel cells are more energy efficient (between 45 and 50 percent more efficient) than single cycle combustion-based engines, citing an energy efficiency range of 25 to 35 percent.<sup>14</sup> The United States Environmental Protection Agency notes that Combined Heat and Power (CHP) can be anywhere from 60 to 90 percent efficient.<sup>15</sup> SoCalGas requests that SCAQMD include CHP along with fuel cell applications as a possible near-zero technology to replace older, higher emitting equipment.
- **Battery Storage:** In SCAQMD’s discussion of possible control strategies regarding internal combustion engines, SCAQMD profiles the use of battery storage as a zero or near-zero emission technology for replacing both diesel-fueled, engine-driven emergency electrical generators and prime natural gas fueled engine-driven equipment.<sup>16</sup> According to the released “2013 SGIP Impact Report” released in April 2015, however:

“Batteries inherently consume more electricity than they discharge due to electrochemical losses; therefore, to provide GHG reductions, batteries must charge from the grid during relatively “clean” hours of grid generation and discharge during “dirty” hours of grid generation to overcome their net increase in energy consumption.”<sup>17</sup>

Because batteries use more electricity than they discharge, it is imperative that time of use be considered when batteries are connected to the grid— i.e., they should be required to charge during periods when emissions on the grid are low and only discharged when emissions from the grid are high. Roundtrip efficiencies should also be considered when evaluating the technical feasibility and cost-effectiveness of battery systems for the purpose of obtaining NOx emission reductions.

In addition, stationary backup generators are only permitted for 200 hours of use per year and are routinely tested only a few hours per year for reliability and maintenance testing (typically once per week or month for approximately one hour). If a battery is used in place of a backup emergency generator, the battery will constantly be drawing electricity from the grid to maintain a charge due to the electrochemical losses in order to be available for the rare emergency event. As part of the analysis regarding the efficacy of

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<sup>14</sup> *Id.* at p. IV-A-46 (second paragraph, first sentence).

<sup>15</sup> “CHP Benefits,” U.S. Environmental Protection Agency, available at <https://www.epa.gov/chp/chp-benefits>.

<sup>16</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-51 (first paragraph under category “Equipment Replacement, Engines”).

<sup>17</sup> “2013 SGIP Impact Evaluation,” Self-Generation Incentive Program, California Public Utilities Commission, section 8.3, page 8-5, available at: <http://www.cpuc.ca.gov/sgip/>.

SoCalGas Comments on the Revised Draft 2016 AQMP

this equipment replacement strategy, SCAQMD should investigate whether the electrical draw from the grid is a net reduction compared to the small usage of a backup generator.

- *Non-Catalytic After-Treatment Emerging Technologies:* SCAQMD states that there are non-catalytic after-treatment “emerging technologies” that can achieve the same 2 ppm NOx emissions level as selective catalytic reduction (SCR) on a refinery boiler.<sup>18</sup> SoCalGas is not aware of these emerging technologies and requests that SCAQMD either delete this discussion or identify these emerging technologies.
- *“Unpermitted” Equipment:* In this measure, SCAQMD identifies 1,000 “unpermitted” ovens, furnaces, and kilns that exist at “permitted facilities” throughout the Basin.<sup>19</sup> Use of the term “unpermitted” is not an accurate description of this equipment and implies that this equipment is being operated out of compliance. The more appropriate term is “permit exempt.” SoCalGas recommends that the word “unpermitted” be replaced with “permit exempt” or another more accurate description. For this permit exempt equipment category, SoCalGas supports the use of incentives to obtain the noted emission reductions.

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<sup>18</sup> Revised Draft AQMP, Appendix IV-A, p. V-A-53 (first paragraph, second to last sentence).

<sup>19</sup> *Id.* at IV-A-53 (in the paragraph under the heading “Ovens/Furnaces/Kilns”).

SoCalGas Comments on the Revised Draft 2016 AQMP

**APPENDIX 2**

**CMB-02: Emission Reductions from Replacement with Zero and Near-Zero NOx Appliances in Commercial and Residential Applications**

**I. Summary of the Control Measure**

This measure seeks NOx emission reductions from unregulated commercial space heating furnaces and reductions from incentive programs to replace older boilers, water heaters, space heating furnaces, and pool heaters with new low emission and more efficient units. In this Revised Draft, the control measure has been expanded to include all residential water and space heating appliances, with consideration being given to incentives and regulations for other appliances such as clothes dryers, pool heaters, etc.

**II. Proposed Method of Control**

This measure includes a mix of regulatory and incentive-based methods of control. SCAQMD is proposing to continue to implement the existing Rule 1111 (Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces) emission limit of NOx for residential space-heaters and to consider adopting a similar rule to regulate commercial heating units. Another component of this measure may be to require that residential water heaters meet the heat input based emission limits in Rules 1121 (Control of Nitrogen Oxides from Residential - Type, Natural-Gas-Fired Water Heaters) and 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters) to ensure that energy efficiency incentive programs for these residential appliances achieve NOx emission reductions. Additionally, this measure proposes to incentivize the voluntary replacement of older boilers, water heaters, space heaters, and pool heaters with currently available low NOx technologies. This version places more emphasis on a traditional regulatory approach than the previous one.

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**III. Comments**

***A. Cost-Effective and Technologically Feasible Pathways to Maximize Emission Reductions Should Be Prioritized, Not Any One Particular Technology***

The new draft of this measure states that it “will focus on cost effective zero emission technologies wherever and whenever feasible and near-zero technologies in other applications.”<sup>20</sup> SoCalGas is deeply concerned that such an approach could result in a change in SCAQMD’s long-standing policy of fuel and technology neutrality. SCAQMD must be careful to avoid policies and statements that will *de facto* result in mandating the selection of certain technologies. SoCalGas supports SCAQMD’s long-standing practice of setting performance standards that allow all fuels and technologies to compete. This encourages innovation and competition, which will reduce the costs of attaining air quality goals.

SoCalGas appreciates SCAQMD staff’s transparency and communication on this measure, and the AQMP as a whole. We urge SCAQMD staff to continue to effectuate their

<sup>20</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-67.

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intent to implement a fuel and technology neutral approach when promulgating future regulations and developing incentive programs. However, the AQMP is the blueprint for those future actions and, accordingly, the language must be internally consistent and clearly stated. SoCalGas requests that language discrepancies in CMB-02 (as well as CMB-01, ECC-03, and the mobile source measures) be reconciled.

The most effective way to ensure that SCAQMD continues to follow its long-standing policy of fuel and technology neutrality is to establish a working group that will discuss, evaluate, and compare the cost-effectiveness and feasibility of the various technologies (zero emission, near-zero emission, and lower-emission) applicable to a particular use like residential space and water heating. SoCalGas looks forward to participating in and contributing to future cost-effectiveness analyses and technology feasibility assessments.

*B. Clarity is Needed on the Definition of Terms Describing Appliance Emissions*

In this control measure and throughout the Revised Draft, SCAQMD has used various terms to describe new technologies and products including “zero emission,” “near-zero emission” and “lower-emission.” SoCalGas finds the use of these terms to be confusing and ill-defined. Zero emission technologies (likely electric) are not actually zero emission, but rather should reflect electric grid emissions and the low system grid efficiency (typically around 35 percent).<sup>21</sup> In fact, CMB-02 recognizes that life-cycle in-basin generation emissions are not zero:

“In assessing the cost-effectiveness of these technologies, the life-cycle in-basin emissions under current and future energy productions and transmission portfolios will be considered. As the energy supply and distribution system change over time, certain technologies may become more or less effective at reducing emissions. GHG emissions and toxic impacts must also be considered.”<sup>22</sup>

SCAQMD must be careful when using the term “zero emission.” Life-cycle in-basin emissions analysis should be consistently applied during the implementation of this control measure, and everywhere “zero emission” technologies are being compared for use in the AQMP. We note that Southern California Edison’s Utility Owned Generation had a NOx emission factor of 0.1 lbs/MWh, as described in their 2014 Corporate Responsibility Report, which includes a significant proportion of renewable generation.<sup>23</sup> However, it is unclear what emission factor SCAQMD is using for grid emissions. We seek clarification on SCAQMD’s assumptions and methodology.

From a natural gas equipment perspective, in the long-term, “near-zero emission” technologies (approaching grid emissions) are technologically feasible. However, their

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<sup>21</sup> See e.g. “Accounting Methodology for Source Energy of Non-Combustible Renewable Electricity Generation,” Department of Energy, October 2016, p. 2; ASHRAE Standard 105-2014 Informative Appendix J; EPA Combined Heat and Power (CHP) Partnership, available at: <https://www.epa.gov/chp/chp-benefits>.

<sup>22</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-67.

<sup>23</sup> “2014 Corporate Responsibility Report,” Southern California Edison, p. 52, available at: <http://viewer.epageview.com/Viewer.aspx?docid=63f974d3-069f-46db-beb1-a53200e1b3c5#?page=52>.

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commercial acceptance will depend upon the application, price sensitivity of markets, equipment and installation constraints, product system safety, product durability, and reliability. Essentially all point and area sources (with a few exceptions such as cooking equipment) in SCAQMD are currently regulated under New Source Review (new or modified permitted sources) or Regulation 11 (existing permitted and unpermitted sources). However, there are timing issues associated with replacement of existing permitted and unpermitted older equipment with newer “lower-emission equipment” that meet the existing regulations. In the case of permitted and unpermitted equipment, the amount of remaining useful life will be a critical factor in determining the cost-effectiveness of a replacement strategy.

SoCalGas recommends a public process with operator and manufacturer involvement to make sure that pursuing replacements is truly a cost-effective strategy. SoCalGas strongly supports the AQMP proposals to use voluntary incentives to accelerate the replacement of older equipment with these newer lower polluting and higher efficiency products and technologies.

*C. Further Research and Development is Needed to Bring Ultra-Low Emission Burners to Market*

In this Revised Draft, SCAQMD states, “[t]here are also burner technologies available in the near future that can achieve NOx emissions of 5 to 10 ppm.”<sup>24</sup> While there are burners that can achieve lower emissions than the current regulations, they have not been successfully adopted into actual products. The existing Rule 1111 NOx emission limits are a cautionary tale. Though the Rule 1111 NOx emission limit (14 ng/J (20ppm)) for residential space heaters went into effect in 2015, manufacturers have yet to bring a product to market. In coordination with the development of the Rule, SCAQMD and SoCalGas cosponsored research work to develop 14 ng/joule NOx central furnaces. Four separate proposals from manufacturers were funded with all four projects showing initial success in building prototype furnaces that could meet the NOx emission target.

However, none of these burner technologies and furnace designs have gone forward to commercialization due to concerns regarding product reliability, durability, and safety. In fact, the Air-Conditioning, Heating, and Refrigeration Institute and furnace manufacturers have asked for reconsideration and leniency from the Rule 1111 limits and mitigation fee program. SoCalGas strongly recommends that SCAQMD work closely with industry to resolve these design and safety issues before proposing similar mandatory emission limits on commercial-size space heating equipment.

Further, SoCalGas cautions that, before eliminating the heat output based emission limits for water and space heating equipment, SCAQMD should consult with manufacturers to gain a better understanding of the costs for equipment redesign and safety recertification. Such a change in regulatory direction could impose a significant burden on manufacturers who have been subject to constantly changing emission limits. Over the long term, SoCalGas would like to work

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<sup>24</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-68.

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with the manufacturing community and with SCAQMD to develop improved lower-emission products that are also safe and meet consumer needs.

*D. SoCalGas is Actively Pursuing the Development and Demonstration of Residential Advanced Technologies*

As discussed in our comments on ECC-03, SoCalGas welcomes the opportunity to collaborate with SCAQMD on research, development, and deployment of advanced technologies in the residential sector. To that end, we are currently working to identify market demonstration opportunities for residential and community scale fuel cell technologies. The California Energy Commission (CEC) had a recent solicitation to fund research, development, and demonstration projects that advance the state of technology of small and micro-scale combined heat and power (mCHP) systems and complementary enabling technologies. CEC has not yet announced the awards for their mCHP solicitation, but the targeted use for these mCHP systems (20-30 kW) are multifamily and small commercial buildings.

SoCalGas has partnered with mCHP developers to demonstrate their products in Southern California. We have tested a mCHP EC power (25 kW) at the Gas Technology Institute (GTI), and we are planning to conduct a field demonstration at SoCalGas' Energy Resource Center. We are also evaluating other, similar mCHP systems such as the 1.5 kW SolidPower fuel cell at University of California, Irvine for ZNE single family residential application, and the AO Smith system (21 kW).

Additionally, SoCalGas is actively engaged in several other field demonstrations that have also received CEC grants. We are engaged in a demonstration targeted for 2017-18 to test Stone Mountain's residential and commercial heat pumps in Southern California, a field demonstration project for a new residential space heater by Canadian-based Dettson, and we are evaluating the potential of conducting a field demo of MTrigen (4 kW electric plus a 5 ton cooling) heat pump. As additional funding opportunities arise, SoCalGas looks forward to partnering with SCAQMD, and continuing to work with both established and upcoming technology manufacturers, as well as home builders, to develop and demonstrate residential advanced technologies.

*E. Incentivizing Equipment Replacement is the Most Cost-Effective Path to Achieving Near-Term Emission Reductions*

In this Revised Draft, SCAQMD has put an increased emphasis on regulations compared to the emphasis on incentives in the prior Draft AQMP. SCAQMD should continue to rely upon incentive-based programs, particularly in this control measure, and especially in the near-term (pre-2023). This equipment is typically long-lived and increasing turnover is a more cost-effective NOx emission reduction strategy than regulations that have to rely upon normal equipment replacement rates (15 to 25 years for various categories of boilers/water heaters).<sup>25</sup>

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<sup>25</sup> Preliminary Draft Socioeconomic Report, p. 57.

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Traditional regulations will not result in the turnover of equipment to lower-emission equipment needed to attain the 2023 ozone standard.

SoCalGas continues to support the development of an incentive program designed to take advantage of existing energy efficiency programs targeting higher efficiency water and condensing gas space-heating products. Any incentive program developed by SCAQMD should provide funding for both high efficiency, low emission gas and electric technologies and should be fuel neutral without emphasizing electric alternatives over gas options. We are committed to introducing new, low NOx water and space heaters into the marketplace and would offer our assistance to SCAQMD on how to best use incentive funding to augment existing energy efficiency programs. We also would welcome partnerships to create new programs to incentivize the replacement of older, higher-emitting units.

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We are also concerned about the significant increase in total cost of all stationary source control measures in this plan, as compared to the 2012 AQMP. The 2012 Annual Average Costs for all stationary source measures was \$36.6 million (2005 \$), compared to the 2016 Annual Average Costs for all stationary source measures of \$402.6 million (2015 \$). This control measure stands out as one of three that are the primary contributors to this increase. The three control measures are CMB-02 (\$99.0 million), CMB-04, Emission Reductions from Restaurant Burners and Residential Cooking NOx (\$118.9 million), and ECC-03, Additional Enhancement in Building Energy Efficiency and Smart Grid Technology (\$103.4 million). With the exception of CMB-01, no other proposed control measure even comes close to these three, as can be seen in this table from the Preliminary Draft Socioeconomic Report.<sup>26</sup>

<sup>26</sup> *Id.* at p. 21.

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Table 2-1: Preliminary Cost Summary of Draft 2016 AQMP Measures

	Implementation Period for Cost Analysis	Present Value of Remaining Incremental Cost (Millions, 2015\$)	Present Value of Incentives (Millions, 2015\$)	PWV of Total Incremental Cost (Millions, 2015\$)	Amortized Annual Average (2017-2031, Millions, 2015\$)
<b>SCAQMD Stationary Source Measures</b>					
BCM-01: Commercial Cooking	2021	\$163.0	+ \$0.0	= \$163.0	\$17.0
BCM-10: Greenwaste Composting	2017-2031	\$18.4	+ \$0.0	= \$18.4	\$1.7
CMB-03: Non-Refinery Flares	2017	\$36.3	+ \$0.0	= \$36.3	\$2.2
CMB-02: Space & Water Heating	2018-2031	\$1,891.4	+ \$327.7	= \$2,219.1	\$99.0
CMB-04: Restaurant Burners and Residential Cooking	2018-2031	\$1,552.7	+ \$388.2	= \$1,940.9	\$118.9
CTS-01: Coatings, Solvents, Adhesives, and Lubricants	2020 and beyond	\$59.0	+ \$0.0	= \$59.0	\$5.4
ECC-03: Building Energy Efficiency	2018-2031	\$1,553.4	+ \$313.5	= \$1,866.9	\$103.4
CMB-01: Transition to Zero & Near-Zero Emission Technologies	2018-2031	\$515.8	+ \$337.3	= \$853.1	\$34.8
CMB-05: (RECLAIM)	2026-2031	\$837.8	+ \$0.0	= \$837.8	\$19.3
FUG-01: Leak Detection and Repair	2017-2031	\$11.5	+ \$0.0	= \$11.5	\$1.0
<b>Total for SCAQMD Stationary Source Measures</b>		<b>\$6,639.3</b>	<b>+ \$1,366.6</b>	<b>= \$8,005.9</b>	<b>\$402.6</b>

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While cost-effectiveness is a primary concern of SoCalGas, the relative cost of these three measures demands additional scrutiny and serious efforts to significantly reduce the costs of the stationary source control strategy. We also note that these control measures will fall mostly on small businesses and individual residents within the South Coast Air Basin.

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**APPENDIX 3**

**ECC-03: Additional Enhancements in Reducing Existing Residential Energy Use**

**I. Summary of the Control Measure**

Energy consumption in existing residential and commercial buildings results in direct and indirect criteria, toxic, and greenhouse emissions. Co-benefit reductions from current building codes and SB350 (Clean Energy Pollution Reduction Act of 2015) are accounted for in control measure ECC-02 (Co-benefits from Existing Residential and Commercial Building Energy Efficiency Measures). ECC-03 sets targets to achieve increases in efficiency, along with increased renewable energy sources within the residential sectors, to achieve category emission reductions of 15 percent by 2023 and 30 percent by 2031.

**II. Proposed Method of Control**

Achieving reductions beyond SB350 and Title 24 is expected to be administered through state agencies and implemented, in part, through electrical and natural gas utilities. SCAQMD staff will work with agencies, utilities, and other stakeholders to further implement weatherization and other measures that provide energy savings along with emission reductions within the Basin. SCAQMD staff will also assist in developing new tools that help effectively implement efficiency measures along with quantifying energy savings and emission reduction benefits.

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**III. Comments**

***A. SCAQMD's Long-Standing Technology and Fuel Neutral Policy Should Apply to the Energy and Climate Control Measures***

SoCalGas has significant concerns with the stated objective of this control measure to set, "a path to implement advanced highly efficient *zero-emission* appliance technologies" (emphasis added).<sup>27</sup> As discussed extensively in our other control measure comments, we urge SCAQMD not to change its long-standing policy of fuel and technology neutrality. If interpreted verbatim, this statement will lead to the selection of "winning" technologies instead of continuing the long-standing practice of setting performance standards that allow all fuels and technologies to compete. It contradicts many other statements in the AQMP explaining that, "all technologies and fuels should be able to compete on an equal footing to meet environmental needs."<sup>28</sup> Fuel neutrality encourages innovation and competition, which will reduce the costs of attaining air quality goals. Therefore, we request that SCAQMD affirm the continuation of the fuel and technology neutral policy here, and throughout the AQMP.

<sup>27</sup> Revised Draft AQMP, Appendix IV, p. IV-A-34.

<sup>28</sup> Revised Draft AQMP, Chapter 4, p. 4-9.

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We also note that another objective of this control measure is to incorporate “efficiency measures, including weatherization along with renewable energy sources.”<sup>29</sup> SoCalGas encourages SCAQMD to clarify that the use of renewable gas is an eligible strategy in this control measure as a renewable energy source. Utilization of renewable gas furthers other goals in the AQMP, and would maintain consistency with a fuel and technology neutral policy.

*B. SoCalGas is Actively Pursuing the Development and Demonstration of Residential Advanced Technologies*

When fuels and technologies compete, new, cost-effective technologies are developed. SoCalGas welcomes the opportunity to collaborate with SCAQMD on research, development, and deployment of advanced technologies in the residential sector. SoCalGas is currently working to identify market demonstration opportunities for residential and community scale fuel cell technologies. The California Energy Commission (CEC) had a recent solicitation to fund research, development, and demonstration projects that advance the state of technology of small and micro-scale combined heat and power (mCHP) systems and complementary enabling technologies. CEC has not yet announced the awards for their mCHP solicitation, but the targeted use for these mCHP systems (20-30 kW) are multifamily and small commercial buildings.

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SoCalGas has partnered with a couple of mCHP developers to demonstrate their products in Southern California. We have tested a mCHP EC power (25 kW) at the Gas Technology Institute (GTI), and are planning to conduct a field demonstration at SoCalGas’ Energy Resource Center. We are also evaluating other, similar mCHP systems such as the 1.5 kW SolidPower fuel cell at University of California, Irvine for ZNE single family residential application, and the AO Smith system (21 kW).

Additionally, we are in the early stages of developing a demonstration project that would address cost parameters, technical feasibility, home design and appliance integration, operation and maintenance, and builder education and public awareness. SoCalGas is collaborating with several different national and regional builders that are focused on constructing high quality, energy efficient homes that achieve ZNE (Zero Net Energy) performance criteria for both single and multi-family projects. While no firm contracts or development agreements have been established to date, SoCalGas intends to identify and initiate a demonstration project in 2017-18, likely within a single new housing community encompassing at least 20 to 40 homes depending on funding availability. Wide-scale adoption of residential fuel cell technologies would be based upon successful demonstration of the technology’s market viability.

SoCalGas is also actively engaged in several other field demonstrations that have also received CEC grants. We are engaged in a demonstration targeted for 2017-18 to test Stone Mountain’s residential and commercial heat pumps in Southern California, a field demonstration project for a new residential space heater by Canada-based Dettson, and we are evaluating the potential of conducting a field demo of MTrigen (4 kW electric plus a 5 ton cooling) heat pump. As additional funding opportunities arise, SoCalGas looks forward to partnering with SCAQMD,

<sup>29</sup> *Id.*

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and continuing to work with both established and upcoming technology manufacturers, as well as home builders, to develop and demonstrate residential advanced technologies.

*C. Partnering to Implement Energy Efficiency Programs Will Maximize Emission Reductions*

SoCalGas looks forward to partnering with SCAQMD and other stakeholders to effectively implement efficiency measures to satisfy the goals of ECC-03, as well as ECC-02. We have extensive experience implementing energy efficiency and low income and weatherization programs for our customers, and we seek to collaborate with SCAQMD on future energy efficiency efforts. Moreover, we have successfully partnered with SCAQMD in the past and look forward to continuing our collaborative relationship.

For example, we recently partnered on the Weatherization Program for Homes Near Freeways and Intermodal Facilities. In June 2015, SCAQMD Board approved \$500,000 of its Targeted Airshed Fund to collaborate with SoCalGas to layer their fund with SoCalGas' Energy Savings Assistance Program to weatherize homes and reduce residential exposure to criteria pollutants and diesel particulate matter in areas adjacent to freeways and heavily used intermodal facilities with trucks and locomotives. Weatherization of homes along freeways and intermodal facilities is critical to improve indoor air quality, minimize exposure to criteria pollutants such as NOx, CO and PM, and reduce energy usage. These measures also include attic insulation, door weather stripping and caulking, and minor repairs to doors and windows. In Boyle Heights and the City of San Bernardino, 1,076 total homes were weatherized under this partnership, which concluded in January 2016.

In 2013, SoCalGas also successfully partnered with SCAQMD to pursue a year-long emissions reduction project using a combination of SoCalGas' Energy Efficiency Program funding and the AB 1318 Mitigation Fees funding. The emission reduction project was pursued to offset emissions from the construction and operation of the CPV Sentinel Energy Project power plant located in Desert Hot Springs. This project successfully installed high efficiency filtration and weatherized many homes in the Desert Hot Springs area.

In addition, SoCalGas was pleased to work with SCAQMD to develop a proposed "Small Boiler Replacement Program (SBRP)" and a "Residential Gas Water Heater Early Retirement Program" in San Bernardino and Riverside counties in 2006. Though this project was not launched at that time, we may be able to use this prior work to develop similar programs in the future. Controlling boiler emissions is a priority of this AQMP – in this control measure, as well as in CMB-01. SoCalGas would be pleased to share the historical program descriptions as the framework for a renewed effort.

*D. Implementing Energy Efficiency Programs Effectively Requires Overcoming Barriers*

Given SoCalGas' extensive experience implementing energy efficiency programs for our customers, we seek to collaborate with SCAQMD on the development of new incentive

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programs. Continuing in our utility tradition, SoCalGas administers energy efficiency programs and low-income energy efficiency and weatherization programs, helping customers to improve the efficiency of their homes, reduce their monthly energy costs, and better the quality of their living environment.

However, a variety of physical and logistical barriers prevent energy efficient equipment upgrades in many projects. Older buildings, for example, are more likely to have structural or design issues that make energy efficient retrofits or installation of renewable technology cost-prohibitive. This is particularly problematic for people in disadvantaged communities who are more likely to live in homes that have asbestos (on old furnaces, water heaters, ducting), aged electrical infrastructure (old unsafe knob and tube wiring, or lack of electrical outlets), aged plumbing configurations (drainage problems for condensate drains for high efficiency equipment), and/or faulty water pressure regulators (preventing installation of other equipment).

Further, financial barriers limit low-income customers' access and means to energy upgrades. Low-income Californians are disproportionately renters; 64 percent of low-income Californians rent their homes. Because large up-front expenditures for energy retrofits are exacerbated by long payback time frames, property owners hesitate to invest in energy efficient upgrades and renewable technology installation if they cannot realize the full savings of such an investment.<sup>30</sup> Moreover, 43 percent of all low-income renters live in multifamily housing, which are frequently "master-metered." For building units that are master-metered (generally older buildings), utilities are either included in the rent or billed flatly by the property owner. In these cases, it is difficult to ensure that the energy savings realized by the property owner are conveyed to the low-income tenant through lower rents or utilities charges.<sup>31</sup>

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California Public Utilities Commission-approved energy efficiency programs preclude assistance or funding for the removal of barriers that prevent implementation, since the primary intent of most programs is to prioritize the lowest cost, lowest barrier "low hanging fruit" opportunities. Accordingly, SoCalGas is concerned that exclusion of funding for removal of these barriers prevents the implementation of a significant number of projects. These barriers include issues such as asbestos, electrical, and water pressure regulation issues. SoCalGas recommends consideration of future, proposed opportunities to utilize funding from local, regional, state and federal sources to address and remediate these barriers. This would enable an increase in overall energy savings, by improving the program cost-effectiveness, and also increase the number of homes retrofitted. Such a program would directly contribute to measurable reductions in natural gas combustion emissions due to expanded installation of newer high-efficient gas heating equipment.

Collaboration between SoCalGas and SCAQMD to identify available funding for barrier removal opportunities may provide significant opportunities in the South Coast Air Basin to

<sup>30</sup> "A Study of Barriers and Solutions to Energy Efficiency, Renewables and Contracting Opportunities Among Low-Income Customer and Disadvantaged Communities," California Energy Commission, available at: [http://www.energy.ca.gov/sb350/barriers\\_report/](http://www.energy.ca.gov/sb350/barriers_report/).

<sup>31</sup> *Id.*

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reduce emissions through expanded implementation of efficiency measures such as weatherization, equipment replacement, and upgrades.

*E. SoCalGas Offers Expertise to Navigate Title 20 and 24 Proceedings*

SoCalGas welcomes the opportunity to continue our discussions with SCAQMD staff on codes and standards. The collective statewide investor-owned utilities make up the body of the codes and standards team focusing on Title 24, Part 6 (Title 24) and Title 20, Sections 1601-1608 (Title 20), where Title 24 speaks to building components and design and Title 20 focuses on appliance standards. This control measure discusses both residential building components and appliances and is focused on achieving large emission reductions as a result of anticipated energy reductions from *existing* building retrofits, while the state focuses on near-to and mid-term ZNE goals. We look forward to more in depth discussion on both Title 24 and 20 and how they may be able to contribute towards SCAQMD's goals.

SoCalGas seeks clarification on the following issues:

- Under Title 24 requirements, new buildings can achieve ZNE through both prescriptive and performance methods. How will SCAQMD align the objectives of the control measure(s) with the methodology and protocols developed pursuant to Title 24 prescriptive and performance methods?
- More specifically, under Title 24, builders may choose from different options to achieve the goals. Yet this control measure is seeking actual emission reductions from specific equipment. Will implementation of this control measure in the context of Title 24 requirements limit the choices that builders currently have? And what type of an effect will this have in the T24 calculation path?
- Will this control measure be implemented in a way so as to limit builders' existing flexibility? If not, then how will such flexibility be handled under the AQMP? Will such flexibility of choices be able to satisfy the EPA Integrity Elements, or allow builders to select the performance method versus the prescriptive?

SoCalGas looks forward to discussion on these threshold issues. If unresolved, implementation of this measure may pose a near-term roadblock for builders, and inhibit their choices in their planning and design phases.

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**APPENDIX 4**

**CMB-04: Emission Reductions from Restaurant Burners and Residential Cooking NOx**

**I. Summary of the Control Measure**

This measure seeks NOx emission reductions from residences, retail restaurants, and quick service restaurants utilizing commercial cooking ovens, ranges, fryers, and charbroilers through the development, installation, and use of low-NOx burner technologies.

**II. Proposed Method of Control**

While the initial focus of this control measure is on commercial cooking equipment, SCAQMD will also consider a program to incentivize higher efficiency or lower emission residential appliances and will evaluate options for rules regulating NOx emissions from new commercial and residential cooking units, including requirements for new construction of commercial and residential buildings.

**III. Comments**

*A. The Completion of a Study Profiling the Emissions of Various Categories of Cooking Equipment is an Important First Step*

Residential and commercial cooking equipment (other than certain types of charbroilers regulated for particulate matter) have never before been subject to NOx regulations. As discussed in our August 19 comment letter, there are numerous barriers to reducing NOx emissions from cooking equipment. However, we are encouraged that SCAQMD has responded proactively to concerns raised from the affected industries, and is working collaboratively with the North American Association of Food Equipment Manufacturers (NAFEM), equipment manufacturers, and the commercial food service industry in pursuing this control measure.

Further, in an effort to better understand the baseline NOx emissions from this equipment category, SoCalGas and SCAQMD have partnered to fund a study to characterize the NOx emissions from commercial cooking equipment. This study will be performed by SoCalGas at the Engineering Analysis Center and Energy Resource Center, and by Fisher-Nickel at the Food Service Technology Center. The study will assess NOx emissions from several common types of cooking equipment, including under fired charbroilers, standard and high efficiency open vat fryers, standard and high efficiency griddles, and various oven types including convection, range, deck, conveyor, and rack.

Additionally, the study will develop and validate test methods for measuring emissions of several types of natural gas fired commercial cooking equipment. All test methods and results will be reviewed by a newly formed Technical Committee comprised of representatives from SCAQMD, Fisher-Nickel, GTI, SoCalGas, and foodservice industry trade associations. SoCalGas appreciates the opportunity to partner with SCAQMD to promote the development, commercialization, and installation of high efficiency, low-emission gas-fired cooking equipment.

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*B. Cost-Effectiveness Remains a Significant Concern*

Any SCAQMD regulation addressing NOx emissions from residential and commercial cooking equipment will be the first of its kind, and carry a heavy cost burden. This control measure could potentially impact many models and types of highly specialized cooking equipment with unique applications, process, and product requirements, such that redesigning cooking equipment will be a significant undertaking for food equipment manufacturers. SoCalGas encourages SCAQMD to consider incentivizing the development of more efficient burners that combust less fuel, with correspondingly lower NOx emissions. Overwhelmingly, commercial food service providers prefer to use natural gas cooking equipment for reasons including taste, cooking method, and operating cost advantages. Such a strong customer preference should be taken into account.

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Further, we continue to caution that for many of SoCalGas' residential customers who are economically challenged, it is nearly impossible to replace older, inefficient equipment without significant financial assistance. SoCalGas strongly encourages the use of incentives for equipment replacement or energy efficiency initiatives to address residential sector cooking emissions. Any regulatory endeavor would be incredibly costly per ton of NOx reduced, as residential cooking equipment is very low-use, with an hour or less of active burner use per day.<sup>32</sup>

Lastly, SoCalGas remains concerned that, according to the Draft Socioeconomic Analysis, this control measure carries a price tag of \$118.9 million dollars per year.<sup>33</sup> This constitutes the highest annual amortized cost of all of the control measures included in the Analysis. Given the challenges associated with mandating behavior change, and the incredibly high cost of regulation, SoCalGas strongly urges SCAQMD to reallocate a much larger portion of control costs to incentives.

<sup>32</sup> Only seven percent of residential fuel use is for cooking (about 31 therms per year or about 0.086 therms per day – 8,630 Btu per day). Range tops commonly have multiple burners with varying input. Small burners for simmer type cooking are rated at around 5,000 Btu per hr, standard burners are rated at about 9,000 to 12,000 Btu per hr, and large high input burners are rated at about 15,000 to 20,000 Btu per hr. See California Statewide Residential Appliance Saturation Study, Energy Commission Publication No. CEC-400-04-009, June 2004, available at: [http://www.energy.ca.gov/HERS/rulemaking/documents/docs\\_relied\\_upon.html](http://www.energy.ca.gov/HERS/rulemaking/documents/docs_relied_upon.html).

<sup>33</sup> Preliminary Draft Socioeconomic Report, August 2016, Table 2-1, "Preliminary Cost Summary of Draft 2016 AQMP Measures," p. 21.

## SoCalGas Comments on the Revised Draft 2016 AQMP

**APPENDIX 5****FUG-01: Improved Leak Detection and Repair****I. Summary of the Control Measure**

This proposed control measure would reduce VOC emissions from a variety of emission sources, including but not limited to, oil and gas production facilities and other sources where fugitive emissions occur from piping components, wastewater system components, and process and storage equipment.

**II. Proposed Method of Control**

This control measure proposes to upgrade existing inspection and maintenance rules to require, at a minimum, a self-inspection program or, where feasible, utilization of optical gas imaging-assisted leak detection and repair (LDAR). In addition, the use of new technologies (Smart LDAR) to detect fugitive VOC emissions as a supplement to existing LDAR programs would be investigated.

**III. Comments****A. How Was the Revised Cost-Effectiveness Calculated?**

As noted in our August 19 comment letter, SoCalGas supports the use of optical gas imaging technology where cost-effective and feasible and we are committed to working with SCAQMD in its investigation of the use of Smart LDAR technologies.

However, SoCalGas would also like to emphasize our previous comments regarding cost-effectiveness. In the June 30 draft of FUG-01, SCAQMD noted an \$11,000 per ton VOC controlled cost estimate. In this October 7 version, the control cost has been reduced to \$4,000 to \$5,000 per ton VOC reduced. SoCalGas is aware of the added language included in FUG-01's "Cost Effectiveness" in Appendix IV.<sup>34</sup> However, there is no discussion regarding why the original cost estimate changed, what data was utilized, and no supporting calculations demonstrating how these cost estimates were derived. Additionally, it is unclear how or why SCAQMD chose the Solar Occultation Flux (SOF) technology for use in its cost-effectiveness discussion and in the estimate of the capital, annual labor, maintenance and electrical costs cited. And, there is no explanation regarding how the estimated emission reductions of 2 tons per day were used to calculate the new cost-effectiveness range of \$4,000 to \$5,000 per ton VOC.

In SoCalGas' August 19 comment letter, we requested that SCAQMD provide the data and calculations that were used to derive the \$11,000 per ton VOC reduced control cost estimate. With the new (and lower) control cost estimates contained in the October 7 draft FUG-01, SoCalGas once again requests that the data and methodology used to calculate the control cost be provided to facilitate public understanding of how SCAQMD arrived at its cost-effectiveness determination.

<sup>34</sup> Revised Draft AQMP, Appendix IV, p. IV-A-94.

SoCalGas Comments on the Revised Draft 2016 AQMP

*B. The Technical Feasibility of LDAR Technology Should Be Assessed*

While SoCalGas welcomes the use of advanced technology, especially when it is more efficient than Method 21, SCAQMD must carefully consider the technological feasibility and the entire range of costs—e.g., capital investment, construction, labor, and maintenance—before promulgating regulatory mandates. Additionally, SoCalGas supports SCAQMD’s proposal to demonstrate feasibility of new Smart LDAR technologies through pilot studies and offer our assistance with these pilot projects and the development of Smart LDAR implementation protocols as noted in FUG-01’s Smart LDAR phased-in approach.

Further, SoCalGas recommends that SCAQMD convene a Working Group to evaluate both the technical feasibility of Smart LDAR at stationary sources and the cost-effectiveness of mandating the technology. Requiring Smart LDAR will require significant investments that should be evaluated in more detail—facilities may have to install multiple units thereby substantially raising the capital and O&M costs. SoCalGas also requests that SCAQMD expeditiously release its analysis and findings of the 2015 study done to characterize technologies that quantify fugitive and stack emissions cited in Appendix IV.<sup>35</sup>

83-18  
Cont

*C. Regulatory Duplication Should Be Avoided*

SoCalGas respectfully requests that as SCAQMD seeks to amend its Rules to require Smart LDAR and associated maintenance and recordkeeping requirements, it also carefully balances the need to avoid additional, duplicative regulation. The California Air Resources Board’s Oil & Gas Rule is currently scheduled for adoption in February 2017, with implementation beginning in 2018. Other agencies such as California’s Department of Conservation’s Division of Oil, Gas and Geothermal Resources and the United States Environmental Protection Agency are also developing regulations that will include similar requirements. SCAQMD should work to minimize regulatory duplication and align any future rule amendments with state and federal regulatory requirements as they become available.

<sup>35</sup> Revised Draft AQMP, Appendix IV, p. IV-A-92 (fourth paragraph).

SoCalGas Comments on the Revised Draft 2016 AQMP

**APPENDIX 6**

**BCM-05: Ammonia Emission Reductions from NOx Controls**

**I. Summary of the Control Measure**

This proposed control measure seeks reductions of ammonia from NOx controls such as Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR).

**II. Proposed Method of Control**

Recent advances in catalyst technology have resulted in the development of ammonia slip catalysts that selectively convert ammonia into nitrogen (N<sub>2</sub>). These catalysts could be installed on boilers, engines, furnaces, and turbines that utilize either selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) resulting in less ammonia slip.

**III. Comments**

*A. Applicability of BCM-05 Should More Specifically Describe the Basic Equipment Targeted by this Control Measure*

Currently, BCM-05 states under the “Description of Source Category” section that this measure would target or be applicable to NOx Controls such as Selective Catalytic and Selective Non-Catalytic Reduction.<sup>36</sup> However, the basic equipment that would be affected by this control measure is not noted in the source category description, nor are any applicable ranges in equipment size or fuel throughput discussed. SoCalGas requests that SCAQMD more specifically identify the base equipment categories and size ranges affected by this measure in the source category description to ensure that affected regulated entities can better understand the applicability of BCM-05 to their operations.

*B. Conditions for Effective Application of an Ammonia Slip Catalyst Should Be More Comprehensively Evaluated*

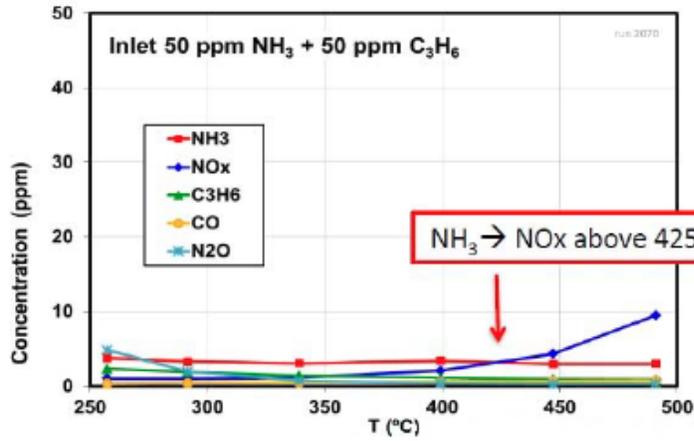
BCM-01 correctly states that the Johnson Matthey Advanced Ammonia Slip Catalyst can reduce ammonia slip with SCR equipped sources. However, the catalyst is not as effective in applications without waste heat recovery. Slide 5 of Johnson Matthey’s presentation given at SCAQMD 2016 AQMP Control Strategy Symposium in June 2015, states that at above 425 degrees Celsius (797 degrees Fahrenheit), ammonia starts converting to NOx.<sup>37</sup>

83-19

<sup>36</sup> Revised Draft AQMP, Appendix IV-A, p. IV-A-214.

<sup>37</sup> Johnson Matthey Presentation, SCAQMD 2016 AQMP Control Strategy Symposium, June 2015, available at: <http://www.aqmd.gov/docs/default-source/Agendas/aqmp/control-strategy-symposium/pm2-5-miller.pdf?sfvrsn=2>

SoCalGas Comments on the Revised Draft 2016 AQMP



83-19  
Cont

A closer look at the graph shows that the conversion curve actually starts increasing around 400 degrees Celsius (752 degrees Fahrenheit). Exhaust temperature in simple cycle turbines, 4-stroke lean burn engines, and in a few 2-stroke lean burn engines exceed these temperatures. If there is no use for waste heat recovery at a site to reduce the exhaust temperature, the Ammonia Slip Catalyst will cause an increase in NOx. This would conflict with the major emphasis of this ozone attainment plan which is to achieve NOx reductions and, in addition, could negatively impact a source's ability to achieve current or future applicable emission limits. SoCalGas requests that SCAQMD add clarifying language better describing the limitations in the applicability of ammonia slip catalysts.

**Responses to Comment Letter from Southern California Gas Company (SoCalGas)**  
**(Comment Letter 83)**

**Response to Comment 83-1:**

Staff appreciates the continued collaboration and close partnership with SoCalGas in developing the 2016 AQMP for the attainment of the federal ozone and particulate matter standards in the Basin.

**Response to Comment 83-2:**

Please see Response to Comment 17-3 regarding fuel and technology neutrality.

SCAQMD strives to remain fuel neutral and CMB-01 is not intended to incentivize one technology over another. Language has been included in CMB-01 to emphasize SCAQMD's fuel and technology neutral stance. In CMB-01, staff references lower-emitting technology only to demonstrate the type of technology currently available for reducing NOx emissions in identified source categories, along with a possible pathway to achieve the NOx emission reductions. The emphasis on zero emission technologies, wherever and whenever technically feasible and cost effective, is not to favor a specific technology but to maximize the potential NOx reductions.

**Response to Comment 83-3:**

Please see Responses to Comments 17-3 and 83-2 regarding fuel and technology neutrality.

A working group will be formed to finalize detailed criteria and guidelines for the incentive program, which will need to be approved by the SCAQMD Governing Board. These guidelines will give additional consideration for a life-cycle analyses and co-benefits to fully assess the comprehensive emission reduction potential. CMB-01 seeks to find the most incentive-effective means to achieve NOx reductions.

**Response to Comment 83-4:**

Staff was provided the specific areas of concern raised by the commenter and many of the suggested clarifications have been made in the Draft Final Plan.

**Response to Comment 83-5:**

See Responses to Comments 17-3, 83-2, and 83-3 regarding fuel and technology neutrality and a working group.

Staff agrees with the commenter on the importance of a transparent public process and looks forward to stakeholder's participation in the working group

**Response to Comment 83-6:**

The SCAQMD is proposing to use incentives to help meet clean air goals for 2022 and 2023. Regulatory programs are also being developed especially for the longer term, and would be more cost-effective after incentive programs lead to development of lower cost, low emission and near zero emission equipment.

The commenter has incorrectly added the cost of the incentive program to the estimated incremental cost to represent the cost to business and property owners of commercial and multifamily properties. The cost impact to property or business owners is the incremental cost minus the incentives. In previous AQMPs, the majority of the cost of a rule-based control measure occurs over only a few years during rule implementation. The cost of the proposed measures in this AQMP are spread over 15 years, as indicated by the commenter, because the control measure has both short and long term goals.

The cost of the 2016 AQMP is higher than the 2012 AQMP mainly because the 2012 plan was not an ozone plan and while a few early ozone control measures were included in the 2012 AQMP, it was not a specific ozone reduction strategy demonstrating attainment. In addition, the costs of CMB-02, CMB-04, and ECC-03 have been revised, mainly to reflect incremental cost instead of total equipment cost. The combined cost net of incentives for CMB-02, CMB-04, and ECC-03 would now amount to about 29 percent of the overall net costs among all proposed stationary source control measures. Please refer to the Draft Socioeconomic Report for the updated cost estimates.

**Response to Comment 83-7:**

Staff appreciates comments and offers to further collaborate with utilities on implementing efficiency incentive programs. In past SCAQMD efficiency incentive efforts, we worked closely with utilities to leverage incentive funds. This collaboration helped achieve greater results for the efficiency program and we fully intend on these collaborative efforts in the future. This intent was further stated within ECC-03. When developing the energy efficiency strategies, the SCAQMD will convene a workgroup and collaborate with utilities, agencies, and other organizations to help leverage funding, coordinate incentives with similar existing programs, and to better understand technologies is current and future years. Please also refer to response to comment 56-3.

**Response to Comment 83-8:**

Staff appreciates the support.

**Response to Comment 83-9:**

Staff appreciates the comments regarding the mobile source contributions to the ozone air pollution problems in the South Coast Air Basin and the need to reduce mobile source emissions as quickly as possible. Staff will continue to work with CARB and U.S. EPA to ensure that emission reductions from mobile sources occur as early as possible. Staff appreciates the support for the AQMP Measures MOB-07 and MOB-08.

**Response to Comment 83-10:**

Staff concurs with the commenter regarding collaborative efforts and looks forward to your participation on the Working Group. Staff will endeavor to work with all stakeholders to pursue new funding.

**Response to Comment 83-11:**

Staff appreciates the comments regarding realistic timelines. Relative to realizing additional funding, staff anticipates that the mechanisms for new funding be identified in the one year period after adoption of the 2016 AQMP. It is important to show progress during this one period to identify new sources of

funding. Actions to implement identified mechanisms may occur within the one year period or may begin after the one year period.

**Response to Comment 83-12:**

Staff appreciates the comments regarding leveraging funding for near-zero emission technologies. Near-zero emission technologies have an important role in the near-term to achieve a significant amount of NOx emission reductions for many vocations where current zero emission technologies may not be feasible or not commercially available. Staff will continue to encourage fleets as they turnover their older vehicles to acquire near-zero and zero emission vehicles.

**Response to Comment 83-13:**

Comment noted. Detailed responses to the individual control measures attached in Appendices 1 to 6 are provided in the following sections.

**Response to Comment 83-14:**

**83-14A:** Please see Responses to Comments 17-3 and 83-2 regarding fuel and technology neutrality. Staff has included language in CMB-01 to further emphasize SCAQMD is fuel and technology neutral.

**83-14B:** Please see Response to Comment 17-7 regarding zero and near-zero emissions. Staff revised the language in CMB-01 to improve consistency. Staff will look at life-cycle emissions as part of subsequent analysis for the prioritizing and disbursement of incentives. Various scenarios will be analyzed for life-cycle emissions, such as those from natural gas power generation and renewables. Grid emissions can be assumed to meet the CARB Distributed Generation standards of 0.07 lb/MW-hr for NOx, which is the emission level for controlled power plants. However, there may be some variability depending on the type of generating equipment (combined cycle gas turbine, boiler, simple cycle turbine, wind, solar, etc.) and whether the power is generated inside or outside the Basin.

**83-14C:** The commenter noted \$450 million of incentives estimated for CMB-01 in the Draft 2016 AQMP Appendix IV-A and was concerned about the lower amount of incentives subsequently reported in the Preliminary Draft Socioeconomic Report. The difference was due to whether the time value of money was taken into account. The Preliminary Draft Socioeconomic Report based the cost analysis using the same \$450 million of incentive funding expected to be needed to implement CMB-01; however, it was reported as the *present worth value* of the stream of incentives anticipated to be allocated between 2018 and 2031. More precisely, the incentives expected to be allocated each year was discounted by a rate of four percent to year 2017 because, generally speaking, one dollar tomorrow is considered to be less valuable than one dollar today.

**83-14D:** Please see Response to Comment 73-2. Staff revised the inventory for ICES.

**83-14E & 83-14F:** Staff appreciates the support for beneficial use of renewable gas for transportation and pipeline injection and for the use of incentives to transition older, higher-emitting equipment to zero and near-zero emission technologies.

**83-14G:**

**“Beyond BACT”:** Staff agrees with the comment and revised the CMB-01 accordingly.

**Combined Heat and Power (CHP):** Staff included a discussion on CHP in CMB-01. Please see Response to Comment 73-4 about technology assessments.

**Battery Storage:** Staff appreciates the feedback on battery technologies and areas to consider when assessing the potential emission reductions. Staff will further evaluate this and all potential technologies during the development of the incentive programs.

**Non-Catalytic After-Treatment Emerging Technologies:** Staff included more detail on the non-catalytic after-treatment technology. More detail can be found in the RECLAIM staff report from December 2015.

**“Unpermitted Equipment”:** Staff agrees with the comment and changed the reference from “unpermitted” to “permit exempt”.

**Response to Comment 83-15:**

**83-15A:** Please refer to the response for comment 83-14 regarding fuel and technology neutrality.

**83-15B:** Please also refer to the response for comment 83-14 regarding the definition of near-zero and zero emission technologies. The SCAQMD will take into account equipment life in the analysis for the AQMP and proposes to include equipment life in establishing effective programs that can be approved by CARB and meet U.S. EPA requirements as discussed in the control measures. The SCAQMD always develops its program through a public process and will continue to do so during the development of the proposed incentive programs.

**83-15C:** Low NO<sub>x</sub> space heaters are currently available for residential and commercial applications. Nortek demonstrated a Rule 1111 ultra-low NO<sub>x</sub> compliant residential space heater at the 2015 AHRI annual meeting. In addition, Nortek currently sells small commercial space heaters in Europe and Australia with NO<sub>x</sub> emissions significantly lower than 30 ppm. A number of companies advertise large commercial space and air heating units with emissions less than 30 ppm. MultiCalor sells a line of Rule 1111 compliant residential space heaters in Europe and other companies’ compliant products will be available next year. One U.S. manufacturer has started certifying a line of Rule 1111 low NO<sub>x</sub> furnaces under the SCAQMD certification program. The SCAQMD has been meeting with Rule 1111 furnace manufacturers individually to discuss their concerns and will continue to meet with affected companies during the next year. With regard to large commercial space heating furnaces, the SCAQMD is proposing to incentivize development of lower emission units and rule development will be considered at a later date. With respect to changing the form of emission limits in SCAQMD rules, any proposed change that would be considered would be addressed through the public process the SCAQMD uses for all of its programs.

**83-15D:** The SCAQMD will continue to work with the Gas Company on high efficiency and low emission advanced technologies.

**83-15E:** Incentives are critical in meeting clean air goals for 2022 and 2023. Regulatory programs would be developed for the longer term and would be more cost-effective after incentive programs lead to development of lower cost low emission and near zero emission equipment.

Please see Response to Comment 83-6 regarding the cost of the incentive program.

**Response to Comment 83-16:**

**83-16A:** Please see response to comment 83-7 regarding energy efficiency strategies. It should be noted that ECC-03 states “Zero emission and high efficiency applications will be prioritized to the extent they are feasible and cost-effective at the time of implementation.”

**83-16B:** Staff appreciates the participation in the development of ECC-03 and look forward to future participation in the upcoming workgroup.

**83-16C:** Staff appreciates the participation in the development of ECC-03 and look forward to future participation in the upcoming workgroup.

**83-16D:** Staff appreciates the participation in the development of ECC-03 and look forward to future participation in the upcoming workgroup. Energy usage within the residential sector shows a correlation with household income. ECC-03 will assist to remove some of the financial barriers by providing incentive funds to help lower the upfront capital equipment cost and will also lower operation and maintenance costs as compared to an older existing appliance. The funds saved could then be used to offset potential physical or logistical barriers in a residence. It should be noted that each residence may have varying barriers depending on age of home, existing infrastructure, and other factors.

As mentioned in the SCAQMD Residential and Commercial White Paper, incorporating non-energy benefits into energy savings programs may provide more of a motivating factor to utilize existing programs. A recent UCLA study showed a study group of Los Angeles residents were least motivated to undertake energy saving measures when they were linked to reduced energy costs; a more significant motivator was to link energy saving efforts with reduced emissions. Therefore coupling energy savings with the amounts of emissions reduced may provide additional motivation to implement energy savings measures.

**83-16E:** ECC-03 is a voluntary incentive program available to increase turnover to more energy efficient appliances or other applications and is designed to reduce end use energy consumption and provide emission reductions within existing residences. It will not affect Title 24 Zero Net Energy methods, calculation path, or other aspect. Incentive funds from ECC-03 would be available to an eligible purchaser of the designated energy efficient applications to assist in meeting the Title 24 requirements. SCAQMD will participate in the Title 24 2020 Zero Net Energy (ZNE) efficiency development process to advocate for criteria pollutant and GHG emissions consideration.

**Response to Comment 83-17:**

**83-17A:** This control measure does not propose to incentivize replacement of residential cooking units. The focus of the proposed incentive program is on commercial cooking appliances, incentivizing purchase of more efficient and lower emission units and incentivizing development of lower emission burners for commercial cooking equipment.

**83-17B:** Please see Response to Comment 83-6 regarding cost-effectiveness of the incentive program.

In addition, the cost estimates for CMB-02, CMB-04, and ECC-03 include substantial amounts of incentives that are proposed to significantly lower the costs incurred by private businesses and consumers. Moreover, the cost estimates of these three proposed control measures have been revised since the August release of the Preliminary Draft Socioeconomic Reports. Please refer to the November 19, 2016 Draft Socioeconomic Report for the updated cost estimates.

**Response to Comment 83-18:**

The original cost-effectiveness estimate was based on the 2012 AQMP control measure. The \$11,000 per ton cost-effectiveness was based on the cost of implementing traditional LDAR programs. Basically, it assumed that the cost to implement Smart-LDAR would be at worst the same as a traditional LDAR program. The previous cost-effectiveness estimate reflected an upper bound considering the lower expected cost of OGI techniques. The revised cost-effectiveness figure is based on the Optical Gas Imaging technology as a supplement to conventional LDAR. Potential cost savings from alternative technologies or labor reductions if Smart-LDAR can act as a substitute are not included. SCAQMD plans to implement the control measure through a public process. Both the pilot program to demonstrate feasibility of Smart-LDAR and any rule development to control fugitive emissions will be pursued in a public process allowing interested stakeholders to participate. Any rule development process that occurs will consider aligning requirements with similar efforts from other regulatory agencies.

**Response to Comment 83-19:**

BCM-05 lists the potential source categories such as boilers, engines, furnaces, and turbines that operate with either NSCR or SCR control equipment. Staff acknowledges that there may be limitations for certain specific high temperature flue gas installations and a future assessment of these categories and potential emission reduction opportunities would narrow down the applicability of specific source categories of equipment and size ranges.

Comment Letter from Earthjustice (Comment Letter 84)



November 7, 2016

Wayne Nastri  
Executive Officer  
South Coast Air Quality Management District  
21865 Copley Dr.  
Diamond Bar, CA 91765  
[wnastri@aqmd.gov](mailto:wnastri@aqmd.gov)

**Re: Comments on Revised Draft 2016 Air Quality Management Plan (“AQMP”)**

Dear Mr. Nastri:

On behalf of the undersigned organizations, we submit this comment letter on the Revised Draft 2016 Air Quality Management Plan (“Revised AQMP” or “Revised Plan”). Overall, we are pleased that the Revised AQMP incorporated some of the suggestions we have provided on how to improve this vital plan. But, we continue to be concerned that the plan will not succeed in its ultimate goal of bringing clean healthy air to the millions of residents in the South Coast air basin. We need a plan that focuses on regulatory measures first. To the extent the Air District pursues voluntary programs, there needs to be a clear evaluation and timetable to pivot to regulations when these programs do not succeed. And the backup rule-makings need to start immediately.

84-1

**I. Our Coalition Appreciates the Added Regulations.**

We are pleased the Revised AQMP includes a commitment to two additional regulatory actions – achieving additional Nitrogen Oxide (“NOx”) emission reductions from diesel back-up generators (CMB-01) and home appliances (CMB-02). These are important rulemakings to push truly clean technologies in the region, in addition to reducing our reliance on dangerous fossil fuels. These regulations should be started immediately to make sure the benefits accrue to the full extent prior to the 2022, 2023 and 2031 attainment dates for ozone.

84-2

**II. Incentives Still Dominate the Plan, which is Risky.**

We continue to be concerned about the massive reliance on huge unfunded incentives as the foundation of this plan. We have not seen the full funding plan, but the concepts floated to date are more like aspirational wishes than a real plan to clean the air. As such, we reiterate that certainty in pollution reductions comes from regulations as opposed to vague and uncertain fundraising programs for voluntary incentives.

84-3

**III. The NOx REgional CLean Air Incentive Market (“RECLAIM”) Commitment Should Be Strengthened.**

The Revised Plan alters the NOx RECLAIM commitment (CMB-05) by noting one option is a “long-term transition to a traditional command-and-control regulatory structure.” We appreciate the acknowledgment that some industries have used the NOx RECLAIM program as a shield from installing life-saving, readily-available pollution controls. The best example is the failure of oil refineries to install Selective Catalytic Reduction (SCR) units on many pieces of equipment at their facilities. This has created huge ongoing environmental injustice, especially in the areas around the refineries. Breathers in the region cannot wait for a “long-term” change to this broken system. There is no reason it should take another 15 years for the refineries to install equipment that can be installed in the next two to three years. Accordingly, we request a commitment to shift to command and control on a shorter timeframe.

84-4

**IV. The Plan Needs to Commit to More Regulations to Curb Mobile Source Emissions within the Air District’s Authority.**

We continue to be disappointed that the Revised Plan does not propose robust regulations to address the significant health threat from large diesel truck magnets in the region. Sources like warehouses and ports impose immense pollution burdens on communities. We need regulatory programs to address these large sources. The Revised Plan suggests a voluntary program with vague notions of pivoting to regulations down the road. While we understand the Air District’s authority is not boundless, it does have authority for indirect sources, which should be immediately implemented to the maximum extent. Accordingly, we ask that the Air District be a leader in making sure these diesel magnet sources do their part to stop polluting the region’s air and communities.

84-5

**V. The Air District Should Target Incentives to Disproportionately Impacted Communities for True Zero Tailpipe Emission Technologies and Associated Charging Infrastructure.**

The Air District currently administers more than \$100 million dollars in incentive dollars each year. The Revised Plan proposes to dramatically increase the annual contribution to polluting industries to clean up. Whether some or all that money is raised, the District should focus on providing truly zero emission technologies in disadvantaged communities. As we shift away from dangerous natural gas and diesel fuels, we need the Air District to focus first on providing truly transformational technologies to the disadvantaged communities because they need it first. This could come in the form of funding to develop charging infrastructure for bus depots serving these communities or funds to promote zero emission equipment projects at freight facilities. This type of targeted investment should be a cornerstone of the Air District’s programs moving forward. We request the final Plan explicitly present a detailed analysis showing how much of the incentive funds will be going directly to disadvantaged communities. This is necessary for environmental justice.

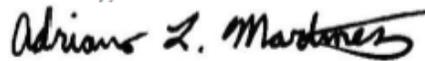
84-6

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**VII. Conclusion**

We appreciate your consideration of these comments. We expect the plan to be improved in the coming months to make sure the promise Congress made to all Americans of breathing clean air will be achieved. We will provide additional written comments and testimony as this process further unfolds. Please do not hesitate to contact us if you have questions.

Sincerely,



Adriano L. Martinez  
Earthjustice

Taylor Thomas  
East Yard Communities for Environmental Justice

Evan Gillespie  
Sierra Club

**Responses to Comment Letter from Earthjustice**  
**(Comment Letter 84)**

**Response to Comment 84-1:**

Staff appreciates the participation of the environmental coalition groups and support for the changes in the Revised Draft Plan. Staff acknowledges the concerns raised regarding the success of the Plan with a comprehensive control strategy of regulatory measures, incentives and co-benefits. As discussed in Response to Comment 11-1, regulatory measures are the first approach taken to achieve emission reductions, however, incentives are critically needed to achieve reductions for fast-approaching deadlines to meet ozone standards by 2022 and 2023, and can help advance deployment of cleaner technologies that traditionally would need more time for deployment.

**Response to Comment 84-2:**

CMB-01 and CMB-02 are designed to first target emission reduction opportunities through an incentive program. The purpose of the incentive program is to create opportunities and make it more cost-effective to replace equipment, transition to zero or near-zero technologies, encourage earlier change-out of higher-emitting equipment, and drive technology development and cost reductions. The incentive program will be followed by a regulatory program to ensure future emission reductions continue permanently.

**Response to Comment 84-3:**

Staff is working to secure funding for the incentive programs and recently released the Financial Incentives Funding Action Plan (<http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/draftfinancialincentivefunddec2016.pdf?sfvrsn=6>). SCAQMD is committed to meeting the emission reduction in the Plan including incentives and regulations and provide for any shortfalls in commitments that may occur in the future.

**Response to Comment 84-4:**

The timing of an orderly transition into a command and control regulatory structure for RECLAIM facilities will be assessed as part of the RECLAIM working group that will convene in the spring of 2017 and will include stakeholders from the regulated community as well as environmental organizations.

**Response to Comment 84-5:**

Staff appreciates the comments regarding developing new rules and regulations for mobile sources. Staff believes that the one year period provides sufficient time for staff to work with affected parties and the public to identify actions that could be voluntary or regulatory. Voluntary actions will need to be “backstopped” if these actions are to be credited in the SIP. The commenter is referred to Chapter 4 of the 2016 AQMP regarding the actions to be taken for voluntary measures. If a direct regulatory process was followed, staff may need at least one to two years to develop any new rule proposal. Staff does not believe that any time will be lost with the approach proposed in the 2016 AQMP and will use this one year period to assess whether formal rulemaking will be taken. If so, staff will be able to build upon the input provided during the one-year period, which may have occurred if the SCAQMD proceeded with direct rulemaking.

**Response to Comment 84-6:**

Staff appreciates the concerns raised on ensuring incentive funding for both mobile and stationary sources is prioritized for reducing emissions in disadvantage communities and staff agrees that disadvantaged communities should be a priority. The incentive programs will contain a reporting element so the reductions achieved in Environmental Justice areas can be highlighted. The process and procedure in funding distribution will be discussed and determined during the working group meetings that will be established when developing the incentive program guidelines. The distribution will also examine the cost-effectiveness of projects so more emission reductions can be achieved with the same amount of incentive funding.

The SCAQMD will continue to encourage the deployment of zero and near-zero emission technologies where feasible. Historically, much of the incentive funding have occurred in environmental justice communities per provisions in the Health and Safety Code. The SCAQMD will continue to prioritize funding to environmental justice and disadvantaged communities. The priority on incentive spending in disadvantaged communities was emphasized in the Draft Final AQMP.

**Comment Letter from California Council for Environmental and Economic Balance  
(Comment Letter 85)**



**California Council for Environmental and Economic Balance**

101 Mission Street, Suite 1440, San Francisco, California 94105  
415-512-7890 phone, 415-512-7897 fax, [www.cceeb.org](http://www.cceeb.org)

November 7, 2016

Dr. Phillip Fine  
Deputy Executive Officer, Planning and Rules  
South Coast Air Quality Management District  
Submitted electronically to [pfine@aqmd.gov](mailto:pfine@aqmd.gov)

Re: October 2016 Revised Draft Air Quality Management Plan

Dear Dr. Fine,

We are pleased to submit the following comments on behalf of the California Council for Environmental and Economic Balance (CCEEB). CCEEB is a non-profit, non-partisan association of business, labor, and public leaders, which advances balanced policies for a strong economy and a healthy environment. CCEEB represents major mobile and stationary sources across California and is an active stakeholder at the South Coast Air Quality Management District (SCAQMD).

CCEEB shares in the commitment of the SCAQMD to clean air and the protection of public health. For more than two decades, CCEEB and its members have been proud to work in close partnership with the District, its Governing Board, and its highly regarded professional staff on planning, development and implementation of the nation's strongest and most effective air pollution control regulations for stationary sources. The 2016 Air Quality Management Plan (AQMP) will be the most ambitious effort undertaken by the District in its history, and its success will rely on broad-based support from the Air Resources Board (ARB), the federal Environmental Protection Agency, and state Legislature and Administration, and the many public stakeholders in the South Coast Air Basin. CCEEB is pleased to provide these comments in furtherance of the AQMP goals, and looks forward to continuing our successful work with the District and its partners in achieving attainment of state and federal ambient air quality standards.

85-1

What follows are comments on a few areas of the AQMP related to the recent October revisions.

**Incentive Funding**

At the October 27 meeting of the AQMP Advisory Group, staff presented a list of potential funding opportunities in support of the draft AQMP. While some of the

85-2

Dr. Philip Fine  
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proposals could be politically challenging to implement, CCEEB believes that all options should be under consideration at this time, and we appreciate staff's efforts to identify viable funding opportunities. CCEEB is pleased to support District efforts in this area, and volunteers to participate in any stakeholder working group to further explore and secure funding opportunities. A good model for collaboration is the broad-based coalition formed in support of AB 8 (Perea, 2013), a bill which extended funding for the AB 118, Carl Moyer, and AB 923 mobile source programs. Given the short timeframe to achieve needed AQMP and State Implementation Plan (SIP) incentive-based emissions reductions, we urge all haste in pursuing this line of work.

85-2  
Con't

For existing state programs, including ARB administered penalty monies and climate change investments, funding should be designed to *maximize* emission reductions, particularly NOx and PM2.5 emissions. Where ARB does not have discretionary authority, or where ARB faces competing priorities in funding goals, the District and its partners must emphasize health benefits of achieving air quality standards in South Coast as well as the San Joaquin Valley to administrative and legislative decision makers the public. Importantly, and as shown in the District's environmental justice (EJ) analysis, the AQMP will deliver significantly larger per capita health benefits to EJ communities and, "the most vulnerable and susceptible communities will experience proportionally more of the projected health benefits of cleaner air."<sup>1</sup> The added annual monetized public health benefit to EJ communities ranges from 23 percent to 31 percent higher than for non-EJ communities, depending on how EJ communities are designated. This added benefit holds true for both avoided premature deaths among adults as well as avoided asthma-related emergency department visits among children. Aligning existing programs with this goal in mind provides near immediate funding towards AQMP and SIP targets, and allows more time to implement additional funding opportunities. It is also consistent with the "fair share" doctrine since these incentives would be directed to mobile sources under state and federal control.

Although mobile sources will receive the preponderance of incentive funding (as appropriate, given that this source category accounts for 88 percent of NOx emissions), identifying incentives for stationary sources remains important. We discuss the benefits of stationary sources incentives further in our comments on CMB-01 and CMB-02 below.

#### **CMB-05: NOx RECLAIM**

CCEEB members are concerned over revised language in CMB-05, which states that a sunset of the RECLAIM program is now under "serious consideration." The measure fails to describe when or how this could happen, and is vague about whether or not there

85-3

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<sup>1</sup> SCAQMD Preliminary Draft Socioeconomic Report (September 23, 2016), Chapter Six: Environmental Justice, Page 10.

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would be interim program adjustments before a full sunset of RECLAIM. These are all important considerations. Our chief concern here is that CMB-05 could inadvertently and negatively affect market behavior due to program uncertainty.

CCEEB, along with a broad coalition of RECLAIM participants, worked extensively with the District on the recent NOx “shave,” which will adjust the supply of RECLAIM trading credits to reflect equivalency with an updated assessment of Best Available Retrofit Control Technology (BARCT). Additionally, the District has made other program enhancements, such as new provisions regarding facility shutdowns. Throughout those rulemakings, it has been shown that RECLAIM consistently outperforms command-and-control in terms of emissions reductions, and in doing so, with lower (but still significant) compliance costs. Given this background, it is not clear in CMB-05 what is needed to, “make the program more effective in ensuring equivalency...with BARCT,” or how a sunset of RECLAIM could achieve further NOx reductions.

85-3  
Con't

In terms of the five tons per day of NOx reductions assigned to this measure, CCEEB reiterates our concern from our August 19 comments that there are too many unknowns at this time. This concern is now compounded by uncertainty over whether reductions would be achieved through further program reductions, sunset of RECLAIM, or a combination of both. For these reasons, at this time, we ask that “TBD” be used in the AQMP for CMB-05 instead of the assigned five tpd.

Finally, CCEEB asks staff to provide more information in the AQMP about how such a transition to command-and-control could occur, which entities would be affected, including those currently not in the RECLAIM program, what would be the potential timing, and what process the Board will use to make a decision. Any discussion of CMB-05 should take adequate precautions to minimize potential market distortions. We support the continuance of the RECLAIM advisory group to help work with staff on refining and implementing this measure.

**CMB-01: NOx Stationary Sources --and--  
CMB-02: Commercial and Residential Appliances**

The October revision made significant changes to CMB-01 and CMB-02, measures that previously had focused on incentives intended to accelerate technology deployment. The revised AQMP adds a regulatory overlay to these measures, but does not clarify how new rules would work in conjunction with incentives.

85-4

The choice between using either a regulatory approach or an incentive-based approach depends on many factors. Regulations should be technologically feasible, cost effective, based on commercially available control technology, and practical for the application. Determining Best Available Control Technology (BACT) for a piece of equipment or

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process is a prime example of this. Incentives, on the other hand, help advance new, emerging commercial technologies; overcome market failures to prompt behavior change and accelerate fleet and equipment turnover; achieve reductions from ubiquitous small, area sources that would be administratively burdensome to directly regulate; and assist small businesses and individual households with regressive compliance costs. Incentivizing equipment turnover also results in near-term emission reductions, as incentives increase turnover rates in equipment with long lifespans.

Regulatory approaches intended to force changes in the *types* of equipment or processes being used are more problematic. For example, District rules can require Tier 4 engines for new or modified backup generation, but incentives should be used to encourage switching to alternate technologies like fuel cells, microturbines, and battery storage. CCEEB recommends that the AQMP be explicit in terms of what criteria or principles would guide the District in choosing between regulatory and incentive-based approaches (or a mix of the two), and that consistent language be used throughout the AQMP. For example, an incentive program would assist early adopters of near zero emission technologies, prior to the implementation date of a standard requiring near zero emission technologies.

Another concern with the October revision is that the regulatory push for zero emission engines and equipment seems misaligned with the District's longstanding commitment to the principle of fuel and technology neutrality ("fuel neutrality"). Performance-based, fuel-neutral policies allow different technologies to compete openly and with a level playing field, thereby speeding innovation and market penetration of cleaner products and advanced controls. Similarly, fuel neutrality helps avoid mistakes in predicting unknown technological futures, that is, picking winners. For end users, fuel neutrality provides flexibility for people and businesses to choose the tools and processes they need or want to enjoy economic prosperity, mobility, and high-quality lifestyles, while guaranteeing progress towards environmental and public health goals. Fuel neutrality also allows service providers, such as water and waste water, to determine the most appropriate available technology that enables them to provide uninterrupted, reliable services to the public.

Fuel neutrality does not preclude encouraging the development and utilization of zero or near zero emission technologies, but it should guide how such policies are developed. The AQMP should specify that all control measures seek to maximize emission reductions, and that subsequent rulemaking will evaluate both zero emission and near zero emission technologies using full lifecycle analysis. Lifecycle analysis should consider both direct and indirect emissions, timing—that is, when emissions can be achieved—and cost effectiveness. If a near-zero technology can be deployed faster, with greater market penetration, and at a lower cost, it should be considered, as it may ultimately achieve better environmental outcomes. Conversely, it should not be assumed that zero

85-4  
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emission by way of electrification automatically results in the maximum reduction of emissions; this must be evaluated in lifecycle analysis.

Lifecycle analysis must also consider operational performance for intended equipment and engine applications, and any indirect costs or constraints stemming from needed structural or process changes. For example, in CMB-02, switching from a space heater to a heat pump could require onsite excavation, changes to the physical structure of buildings and HVAC systems, and diminished performance in certain applications. These issues would need to be factored into any rulemaking. As another example, in CMB-01, switching from a backup generator to battery storage could limit operating time during electrical outages, which could be impractical or unsafe in certain circumstances.

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We are interested to understand how the new regulatory overlay will affect the socioeconomic analysis for these measures. In the June draft AQMP, which reflected an incentive-only approach, these two measures alone were one-third (33.24%) of total stationary source costs. The cost impact of the new regulatory overlay needs to be evaluated, along with analysis of the incremental cost of achieving the estimated 2.3 additional tons per day by 2031. It is worth noting that the cost of these two measures will primarily fall upon small- and medium-sized businesses and residential households.

#### **MCS-01: Improved Breakdown Procedures and Process Re-Design**

CCEEB requests that this measure be excluded from the AQMP. This measure will not achieve any emission reductions and EPA's Startup Shutdown Malfunction (SSM) policy is currently being challenged by 36 states. In the event this control measure cannot be removed from the AQMP, we request that a description of the ongoing litigation and potential flexibility afforded by EPA should be included in MCS-01. States subject to EPA's SIP-Call have proposed alternative compliance approaches that should be considered by SCAQMD prior to any amendment or repeal of Rule 430, if the D.C. Circuit upholds the SSM policy.

85-5

#### **MOB-01 Emission Reductions at Commercial Marine Ports; MOB-02 Emission Reductions at Rail Yards and Intermodal Facilities; MOB-03 Emission Reductions at Warehouse Distribution Centers; and MOB-04 Emission Reductions at Commercial Airports**

The revised AQMP continues to propose four "Facility-Based" Mobile Source Measures that reference facility based targets. CCEEB again requests that all references to facility-based targets be removed. Emissions from the goods movement sector are projected to fall significantly from current levels due to regulations already in place and new State and Federal measures identified in CARB's Mobile Source Strategy. To achieve further emission reductions in the South Coast, we continue to support voluntary, incentive-

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based approaches that do not put our Region at a competitive disadvantage. For these reasons, we strongly oppose Facility Measures.

85-6  
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We would be pleased to meet with you and your colleagues to discuss our comments in more detail.

Thank you.

Sincerely,



William J. Quinn  
Chief Operating Officer

cc: Ms. Karen Magliano, Air Resources Board  
Mr. Wayne Nastri, SCAQMD Acting Executive Officer  
Mr. Michael Krause, SCAQMD Planning and Rules Manager  
Mr. Gerald Secundy, CCEEB President  
Ms. Janet Whittick, CCEEB Policy and Communications Director  
Mr. Jackson Gualco, CCEEB Consultant  
Ms. Kendra Daijogo, CCEEB Consultant  
Members, CCEEB's South Coast Air Project

**Responses to Comment Letter from California Council for Environmental and Economic Balance (CCEEB) (Comment Letter 85)**

**Response to Comment 85-1:**

Staff appreciates the close, long-standing partnership with the SCAQMD on planning, development, and implementation of effective air pollution control regulations for stationary sources. Staff also appreciates comments on the 2016 Revised Draft AQMP to achieve attainment of the federal and State ambient air quality standards.

**Response to Comment 85-2:**

Please see Response to Comment 84-6 regarding incentive funding, environmental justice communities, and designing distribution based on maximizing emission reductions.

**Response to Comment 85-3:**

As stated in the draft final control measure CMB-05, a NO<sub>x</sub> RECLAIM working group will be convened in the spring of 2017 to assess various aspects of the program and also to develop options for the future of the program, including an orderly transition into a command and control regulatory structure and the timing of such a transition to achieve more SIP-creditable NO<sub>x</sub> reductions. Absent an orderly transition into a command and control regulatory structure, a five ton per day NO<sub>x</sub> reduction of the current market-based program is a reasonable target based on previous BARCT assessments.

**Response to Comment 85-4:**

Please see Responses to Comments 11-1, 28-1, 35-5, 45-2 regarding regulations and incentives.

Please see Responses to Comments 17-3 and 83-2 regarding fuel and technology neutrality. The push for zero or near-zero technologies is consistent with the District's goal to achieve the maximum NO<sub>x</sub> reductions that are technically and economically feasible; it is not a departure from fuel and technology neutrality. The technology replacements will be based on facilities or equipment owners indicating the type of technology they are requesting to replace or retrofit.

Please see Response to Comment 83-3 for life-cycle analysis.

During rulemaking process, a socioeconomic analysis will be conducted. Incentive-effectiveness will also be considered when awarding incentive funds.

**Response to Comment 85-5:**

Please see Response to Comment 35-10 regarding the inclusion of control measure MCS-01 in the Plan. Staff acknowledges the ongoing national litigation on this matter, and alternative compliance approaches that may be developed elsewhere in the nation will be considered prior to any amendment of Rule 430.

**Response to Comment 85-6:**

Staff believes that there is only one reference to specific "facility-based targets" in the four referenced measures as proposed in the "Control Measure Summary" section of MOB-01, which will be revised prior

to the Board's adoption of the AQMP. There are references to the State SIP Strategy emission reductions associated with the "Further Deployment of Cleaner Technologies" measures that the SCAQMD will strive to help implement through the four facility-based measures. The emission reductions associated with the "Further Deployment" measures serve as a starting point for discussions in identifying actions that may be voluntary or regulatory in nature. It is not expected that the identified actions will achieve the full emission reduction committed by the State, but will provide some certainty that emission reductions will be realized. As such, the emission reductions are proposed to be credited as part of future Rate-of-Progress reporting and recognized in future AQMP revisions.

**Comment Letter from Building Industry Association of Southern California, Inc. (Comment Letter 86)**



Building Industry Association of Southern California, Inc.

Southern California

November 7, 2016

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 92765

**RE: Revised Draft 2016 Air Quality Management Plan**

Dear Dr. Fine,

The Building Industry of Southern California, Inc. (BIASC) is pleased to provide the following comments to the Revised Draft 2016 AQMP in continuing collaboration with the SCAQMD to produce a final plan which will both serve the goals of the District in a productive and cost effective approach, and serve the constituency and stakeholders of the SCAQMD region, through improved air quality, health benefits and economic opportunity.

86-1

BIASC is a regional trade association that represents more than 1,100 member companies within a six county region and is comprised of Chapters in Orange, Los Angeles/Ventura, Riverside/Imperial and San Bernardino counties. Together, BIASC's members build most of the new home communities throughout the same six-county region.

**EGM-01: Emission Reduction from New Development and Redevelopment Projects**

The Revised Draft AQMP continues to have several measures which have not been included into the District's attainment strategy and as such, will appropriately not be accountable in the State Implementation Plan (SIP). One such proposed measure, EGM-1 (Emission Reductions from New Development and Redevelopment, all pollutants) is included as one of these TBD measures and is not even emission specific.

86-2

BIASC contends that under the Health & Safety Code (Cal. Health & Safety Code, § 39602.), only provisions required to meet Clean Air Act requirements should be included in the State implementation Plan (SIP). Since the TBD emission reductions listed in the current Revised AQMP Draft are not required to meet current attainment targets, they should not be included in the 2016 AQMP at all.

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949.553.9500 | [biasc.org](http://biasc.org)

Baldy View  
LA/Ventura  
Orange County  
Riverside County

**Revised Draft 2016 Air Quality Management Plan  
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Measures being included under the Health & Safety Code "consideration of all feasible measures" provision should be considered outside of the 2016 AQMP process, such as through the ISR working group soon to be reconvened.

All feasible measures need only be considered expeditiously as possible (Health & Safety Code § 40914(b)), and as such, not required to be included prematurely in the 2016 AQMP.

BIASC remains aware of the intention to continue to explore potential application of an indirect source rule (ISR), with the SJVAPCD rule 9510 as a primary comparative value. While we acknowledge that this evaluation is appropriate, we believe it again falls into the on-going consideration of feasible measures, outside of the current 2016 AQMP.

Additionally, we strongly oppose the implementation of fee based mitigation as an ineffective approach to meeting air quality improvement goals, alternatively AQMD should encourage incentive based approaches targeted at reducing both construction costs and encouraging environmentally friendly consumer behavior.

**Commitment to Participate in the Title 24 Net Zero Efficiency Development Process**

BIASC is committed to working with the SCAQMD and others to help quantify reasonable design and construction standards to apply to GHG emissions measurements. We routinely do this now to help inform mitigation practices and design options in meeting compliance for local Climate Action Plans.

With regard to criteria pollutants, the application to all six NAAQS is less clear with regards to energy efficiencies as applicable to new development. BIASC will be available to discuss in more detail how we can be a collaborative partner in this endeavor.

The housing affordability crisis is a major contributor to the increasing critical housing shortage in southern California. Regulatory efforts ranging from the Federal, State and Regional levels are often disjointed, redundant and counter-productive, leading to inordinate cost impacts to new home construction.

BIASC notes that several layers of regulatory structures exists that addresses Air Quality concerns including the recently adopted 2016 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) which provides a primary template for integrating land use and transportation planning region wide, while reducing Green-House-Gas (GHG) emissions though intended reduction in vehicle trips.

86-2  
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86-3

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The California Environmental Quality Act (CEQA) also provides a comprehensive environmental analysis for AQ, including GHG analysis. BIASC opposes redundant and overlapping regulatory efforts as major contributors to increasing the cost of housing.

86-4

BIASC provides these comments as ongoing partners with SCAQMD in advancing the goal of clean air and eventual "Attainment" status for the South Coast Air Basin.

Respectfully,

**BUILDING INDUSTRY ASSOCIATION OF SOUTHERN CALIFORNIA, INC.**



Steven S. Schuyler  
Executive Vice President, Government Affairs

**Responses to Comment Letter from Building Industry Association of Southern California  
(Comment Letter 86)**

**Response to Comment 86-1:**

Staff appreciates participation in the 2016 AQMP development process.

**Response to Comment 86-2:**

Proposed Control Measure EGM-01 is included in the Draft 2016 AQMP based on the provisions of the California Clean Air Act, which requires the plan to include “every feasible measure” and an “expeditious adoption schedule” (Health and Safety Code § 40914). On its website, CARB provided the following interpretation of “All Feasible Measures” ([https://www.arb.ca.gov/ssps/ssps.htm#N\\_1\\_](https://www.arb.ca.gov/ssps/ssps.htm#N_1_)):

“The CCAA requires districts that are unable to achieve five percent annual emission reductions to demonstrate to the ARB's satisfaction that it has included every feasible measure in its plan and an expeditious adoption schedule. However, the CCAA did not define the term every feasible measure. When the initial CCAA plans were being prepared, we [CARB] looked to related environmental statutes that offered useful definitions and precedent for defining this term. The most relevant definition found, and the one used, was in the guidelines issued to implement the California Environmental Quality Act (CEQA). In these guidelines, "feasible" is defined as:

Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” (14 California Code of Regulations, Section 15364)

Thus, we [CARB] interpret the adoption of every feasible measure to mean that, at a minimum, a district consider regulations that have been successfully implemented elsewhere. They should also consider going beyond what has already been accomplished by evaluating new technologies and innovative approaches that may offer potential emission reductions. Further, districts should consider not only technological factors, but also social, environmental, economic (e.g., cost-effectiveness), and energy factors which prevail in the district, along with the resources realistically available to the district to adopt, implement, and enforce the measures.”

The 2016 AQMP serves as a blueprint for the SCAQMD to implement measures to meet air quality standards including proposed measure EGM-01, which provides a mechanism for the SCAQMD to consider San Joaquin’s Rule 9510 as discussed above. The proposed measure envisions initiating a public process to determine whether development of a rule similar to San Joaquin’s Rule 9510 will be appropriate for the South Coast Air Basin and Coachella Valley or if there are other approaches that potentially result in additional emission reductions. If other approaches are identified and if the approaches are voluntary in nature and proposed to be credited in the SIP, there will be a public process to ensure that the reductions meet U.S. EPA integrity elements discussed in Chapter 4 of the 2016 AQMP. Given that specific implementation actions are not identified at this time, the emission reductions associated with EGM-01 are shown as “TBD.” As specific actions are identified and the associated emission reductions are

proposed to be credited in the SIP, the emission reductions will be credited as part of the Rate-of-Progress reporting and credited in future AQMP revisions. As such, inclusion of EGM-01 and other TBD measures should not be considered outside the 2016 AQMP process and are not being prematurely considered.

Staff appreciates the comment regarding incentives funding and looks forward to working with the commenter and other stakeholders to identify incentives funding.

While we understand the concerns relative to fee-based approaches, the SCAQMD staff will be soliciting comments and input on such an approach and the feasibility of implementing such an approach in the South Coast Air Basin.

**Response to Comment 86-3:**

Staff appreciates participation in the 2016 AQMP development process. Control measure ECC-03, a voluntary incentive measure for residential energy efficiency to reduce NOx and VOCs, will closely follow the Title 24 Zero Net Energy developments and advocate for Title 24 to include criteria pollutant reductions. The SCAQMD will convene a workgroup and collaborate with utilities, agencies, and other organizations such as the Building Industry Association of Southern California.

**Response to Comment 86-4:**

It is not the intent of control measure EGM-01 to conflict with other regulatory efforts such as the responsibilities of evaluating and disclosing the potential adverse impacts from a project, including new development or redevelopment projects, under CEQA. On the contrary, if developed properly, successful implementation of EGM-01 could be relied upon by CEQA practitioners in their air quality and GHG analysis, and maybe more importantly, demonstrates a reduction of the potential adverse impacts from mobile sources.

**Comment Letter from Latham & Watkins (Comment Letter 87)**

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November 7, 2016

***Via Electronic Upload***

Dr. Phillip Fine  
Deputy Executive Officer  
Planning, Rule Development, and Area Sources  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Re: Regulatory Flexibility Group Comments on the South Coast Air Quality Management District ("SCAQMD") 2016 Air Quality Management Plan

Dear Dr. Fine:

Thank you for the opportunity to provide comments regarding the October 2016 draft of the SCAQMD 2016 Air Quality Management Plan (the "AQMP" or "Plan"). We submit these comments on behalf of the Regulatory Flexibility Group ("RFG"), a coalition of California entities whose operations are subject to regulation under the Clean Air Act and corresponding state and regional air quality programs. RFG members include manufacturers, electric utilities and electric generating facilities, natural gas utilities, oil and chemical companies and other regulated entities. RFG members have participated in the review of and comment on SCAQMD regulations since its formation in the fall of 1990. We applaud District Staff for its extensive effort with respect to this iteration of the AQMP, and we look forward to continuing to work with Staff in advance of the Governing's Board's consideration of the Plan. Our general comments follow.

87-1

***RFG Supports a Technology- and Fuel-Neutral AQMP***

We appreciate that Staff has affirmatively stated in the draft AQMP that it intends to apply the long-standing approach of air quality regulatory agencies to set policies and requirements that are fuel and technology neutral. As we have previously advocated, the AQMP should not pick winners and losers, but instead should force technologies to compete against one another to maximize air quality benefits and provide products that meet residential, commercial, and industrial needs at reasonable cost.

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Technology and fuel neutrality promotes competition, which forces technologies to become cleaner and drives down prices. In regulatory regimes around the Country, and in this District, technology and fuel neutral policies have succeeded in encouraging a clean air competition, which has resulted in the development and improvement of cleaner technologies powered by a number of energy sources. Importantly, technology and fuel neutrality also protects against price spikes and shortages, which can have devastating impacts on the economy. For all of these reasons, RFG fully supports the affirmative statement that the AQMP is intended to be fuel and technology neutral; we do, however, request that the District include additional affirmative statements throughout the AQMP (and, in particular, in CMB-01 and CMB-02) so that there is no ambiguity as to the District’s intent in this regard.

87-2  
Con't

***RFG Supports an Incentive-Based AQMP***

We appreciate the District’s ongoing sensitivity to the delicate balance between the region’s economic health and continued air quality progress. We believe that the next 15 years will pose unique and unprecedented challenges in crafting an air quality strategy that can meet the region’s dual economic and environmental goals. In light of these interrelated goals, we were particularly encouraged by the draft AQMP’s focus on aggressive, incentive-based programs targeting opportunities across industries and sectors for additional cost-effective emission reductions. As RFG has consistently advocated for the last decade, an incentive-based approach protects against the significant risk that mandating further reductions will result in Southern California businesses (which generally have already implemented Best Available Control Technology (“BACT”)) incurring costs that are well beyond those that would be considered reasonable relative to the corresponding environmental benefit.

87-3

Nevertheless, we have some concerns that the textual revisions (*e.g.* the addition of the phrase “aggressive new regulations” to the overall strategy discussion on page 4-3 and the significant revisions to CMB-01 and CMB-02) made in the October 2016 draft of the AQMP preview an intent by the District to pull back from the incentive approach in favor of a traditional regulatory regime. While RFG recognizes that in order to achieve the Clean Air Act requirements, a combination of incentives and regulation will be necessary, we also feel strongly that an aggressive, multi-stakeholder effort to obtain the incentive funding necessary to derive air quality benefits in advance of implementing any regulations provides the best opportunity to meet air quality goals without risking the overall economic vitality of our region. RFG stands ready to work with the District to pursue the federal, state, and local funding opportunities in support of the incentive approach.

***Regulatory Measures and Cost-Effectiveness***

To the extent incentives alone are not sufficient to capture additional emission reduction opportunities from stationary sources, the District should only proceed with future regulatory measures after very careful technical evaluation of the feasibility of achieving further reductions at a reasonable cost. We are concerned with the District’s increasing acceptance of higher values for cost effectiveness, particularly for those stationary sources that have already invested significantly in the control measures and from which there are limited further emission reduction opportunities available when compared to mobile sources.

87-4

Given the economic and employment risk of further burdening stationary sources, we strongly believe that any future regulation should include very clear incremental cost-effectiveness benchmarks to ensure that control measures, as implemented, remain within reasonable economic boundaries. Furthermore, any future stationary source measures should contain appropriate alternative compliance mechanisms (*e.g.*, an alternative compliance fee set at the relevant incremental cost benchmark level and used to fund clean technologies) to ensure that sources have a ready compliance alternative when costs near the benchmark level.

87-4  
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***RFG Advocates for the Immediate Implementation of Certain AQMP-Identified "Incentives" for Stationary Sources***

Currently, there is a material risk in Southern California that the traditional permitting process, offset scarcity and continued imposition of technology-forcing regulations will result in environmental regulations thwarting economic health. This can happen whenever stationary sources choose not to site their operations, and their jobs, in our region due to the length, uncertainty and relatively high cost of seeking a permit here rather than in more hospitable regions. We are also concerned that we may lose many of the businesses currently operating in the District if they believe they will be unable to achieve or afford emerging regulations. These unfavorable conditions can be avoided, or at least substantially reduced, by reforming the current regulatory program. This AQMP offers the opportunity to establish the framework to facilitate this needed reform.

We were particularly appreciative of the opportunity to share our concerns in this regard during the development of the Industrial Facility Modernization White Paper. In our comments on that document, we advocated for, among other things, the reform of the New Source Review ("NSR") program and the development of a presumptive BACT approach to expedite permitting. While AQMP CMB-01 lists permitting and NSR enhancements (along with a number of worthwhile proposals) as "potential" incentive measures for stationary sources, RFG feels strongly that the AQMP needs to go further in this regard. ***Without near term, meaningful NSR and permitting reform, we risk losing job creating opportunities because our region cannot permit new facilities fast enough or cheaply enough to compete with alternative destinations.***

87-5

RFG, therefore, recommends that the AQMP commit the District to moving forward with the rapid deployment of the following two critical "incentives" to preserve existing manufacturing in the South Coast Basin and to capture new opportunities:

- ***Expedited Permit Processing:*** The District now has over 40 years of experience in evaluating control options (*e.g.*, BACT for the permitting of new and modified stationary sources). Certainly, the time has come when the District can identify, in advance, for the vast majority of the stationary sources it permits in the region, precisely what the control technologies will be for sources permitted here. We urge the District, in addition to expansion of the existing equipment certification program and pre-approved permit program, to develop a presumptive BACT approach by which sources can immediately receive a permit for most equipment types without the traditional extensive review period. Provided that the District develops a process for distinguishing between permit

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applications that reasonably require further evaluation and those that do not, we believe that such an approach can be approved under existing law.

87-5  
Cont

- *NSR Reform:* For well over a decade, we have urged the District, the California Air Resources Board and the EPA to pursue major offset reform. The current system is broken and the result is that it is nearly impossible for a manufacturing or energy project to be sited in the South Coast Basin even though any such facility would necessarily install BACT. Given this reality, we support the CMB-01-listed approaches of expanding the number of exemptions under Rule 1304, expanding the use of the priority reserve under Rule 1309.1, and providing short-term leasing options. We also see the contemplated clean air investment fund (“CAIF”) as fitting into a three-tier approach for the comprehensive reform of the current system that RFG has been advocating for the last several years. Under the RFG-proposed approach: (1) a facility would seek to obtain any available offsets at or below a predetermined offset price (e.g., similar to the AQMP cost-effectiveness benchmarks); (2) if a sufficient supply is not available on the market, then the facility would purchase offsets from a pre-funded CAIF administered by the District or by other appropriate publicly-accountable entities; and (3) to the extent a sufficient offset supply is still not available, then the facility would pay the benchmark fee to the CAIF. The CAIF would invest in appropriate emerging low-emissions technologies that the Board determines will be necessary for attainment and to meet the region’s public health objectives.

87-6

While RFG also supports and deems critical a number of the other CMB-01-listed potential incentive opportunities for stationary sources (including incentive funding, CEQA initiatives, and recordkeeping reform), we feel strongly that expedited permitting and offset reform have the best opportunity to balance air quality improvement with the facilitation of needed opportunities for economic growth in our region and, therefore, request that the District make an affirmative commitment to immediately move forward with the implementation of these reforms in the AQMP.

***The Future of RECLAIM Requires Careful Consideration***

The RECLAIM program has been highly successful. As the District is well aware, regulated facilities under the RECLAIM program have dramatically reduced NOx emissions since the program’s inception in the mid-1990s. In fact, the RECLAIM program has achieved an approximately 70% reduction in emissions from covered sources over the last two decades, which significantly exceeds the reductions from non-RECLAIM stationary sources over the same period. Critics of RECLAIM tend to evaluate the program against a “technology benchmark,” and point to the absence of specific control technologies at certain facilities as “evidence” of the program’s shortcomings. The problem with this approach is that it applies a completely inappropriate benchmark for evaluating the effectiveness of a market-based cap and trade program, which, by design, does not mandate any specific control technologies. The appropriate measure of success for a program such as RECLAIM is an “emissions benchmark,” which evaluates whether or not the program has achieved the intended emission reductions. As indicated above, when evaluated against the appropriate benchmark, RECLAIM has exceeded both requirements and expectations.

87-7

Dr. Philip Fine  
November 7, 2016  
Page 5

LATHAM & WATKINS<sup>LLP</sup>

The past success of the RECLAIM program does not mean that it should not be reevaluated from time to time, or that there are not ways to further improve upon the program. RFG supports continued evaluation of the program, as has been done since its inception, to determine whether or not there are ways to improve upon its past success. While additional analysis would be required before any informed decisions could be made, it may be appropriate to transition certain sources or categories of sources, particularly those that currently operate at BACT or BARCT levels, to a more traditional command and control regulatory regime. However, any transition of even a portion of the RECLAIM program to a command and control model will require extremely careful planning and consideration that takes into account the substantial investments that facilities have made over the past two decades consistent with the RECLAIM market-based model. In evaluating any proposed changes to the RECLAIM program, care should be taken to preserve those elements of the program that have worked effectively to achieve substantial emission reductions.

87-7  
Con't

Finally, given the clear indication that the District intends to reevaluate at least certain aspects of the RECLAIM program, we do not believe it is appropriate at this time for the District to project a five ton emission reduction by 2031. Instead, we recommend assigning a "TBD" in the AQMP.

Thank you for the opportunity to submit these comments. We look forward to further discussions with the SCAQMD staff and with other stakeholders.

Sincerely,



Michael J. Carroll  
of LATHAM & WATKINS LLP

**Responses to Comment Letter from Latham & Watkins (Comment Letter 87)**

**Response to Comment 87-1:**

Staff appreciates the support of SCAQMD's extensive effort to develop the AQMP. Staff also appreciates comments on the 2016 Revised Draft AQMP and looks forward to continuing to work with regulated entities under the federal Clean Air Act and other state and regional air quality programs.

**Response to Comment 87-2:**

Please see Responses to Comments 17-3 and 83-2 regarding fuel and technology neutrality. Clarifying statements regarding fuel neutrality were also added to the control measures.

**Response to Comment 87-3:**

Staff appreciates the support. Please see Responses to Comments 11-1, 28-1, 35-5, 45-2 regarding regulations and incentives.

**Response to Comment 87-4:**

Please see Response to Comment 85-4 regarding socioeconomic analysis.

**Response to Comment 87-5:**

Staff notes the commenter's remarks and appreciates the support for potential incentive opportunities. All possible incentive concepts will be investigated during the implementation of incentive programs, including facilitated permit processing and NSR Reform.

**Response to Comment 87-6:**

Please see Response to Comment 87-5 regarding NSR Reform.

**Response to Comment 87-7:**

Staff acknowledges that the RECLAIM program has resulted in significant emission reductions since its inception and that its market-based cap and trade approach does not require emission controls on every piece of equipment. A thorough evaluation will be conducted as part of the RECLAIM working group, which will be convened in the spring of 2017, to assess various aspects of the program, including an orderly transition to a command and control regulatory structure. Staff also acknowledges that certain facilities such as those that are already at BACT or BARCT may be more easily transitioned into command and control. The timing of a programmatic transition of all RECLAIM facilities to command and control will be a focus of the assessment. Absent an orderly transition into a command and control regulatory structure, a five ton per day NO<sub>x</sub> reduction of the current market-based program is a reasonable target based on previous BARCT assessments.

**Comment Letter from Orange County Transportation Authority (Comment Letter 88)**

**DRAFT 2016 AIR QUALITY MANAGEMENT PLAN**



2016 AQMP Comment Form

Please enter your contact information, comments and/or upload comment files below. The information collected may be used to provide further information about public workshops and hearings, and other events related to the 2016 AQMP. Responses to comment will be compiled and included in the final Plan package.

\*Fields Required to Submit a Comment

Form Information				
Date Created	Time Created	AQMP Year		
11/02/2016	4:02 PM	2016		
Commentor Contact Information				
Commentor's Name *	Organization *	City	State	Zip Code
GREG NORD	OCTA	ORANGE	CA	92868
If not representing a specific organization, please enter "No Affiliation".				
Comments (Unlimited Size)				
<p>The Orange County Transportation Authority (OCTA) appreciates that AQMD addressed our initial comments, but we would like to reiterate some of the comments originally submitted by OCTA on August 9, 2016 (attached). OCTA continues to have concerns regarding the Advanced Clean Transit measure, which is still being discussed and refined through the California Air Resources Board. At this time, it is difficult to analyze costs or benefits associated with this measure, since it is yet to be defined. Additionally, OCTA remains particularly concerned with the costs of implementing this measure, and the potential impacts those costs could have on service and our transit dependent communities.</p> <p>Related to the Advanced Clean Transit measure are the bus fleet assumptions identified in Appendix III, Attachment D. The numbers of diesel buses assumed to be in operation seem very high for all the years, including the 2012 base year. OCTA has the second largest bus fleet in the region at about 550 buses, which are almost entirely CNG. Metro has the largest fleet with about 2500 buses that are also almost entirely CNG. Therefore, it is difficult to understand how the assumption that nearly 7000 diesel "urban buses" is justified for the base year. This may be impacting the model results as well as the socioeconomic analysis for the measures, especially the Advanced Clean Transit measure.</p> <p>OCTA also remains concerned with the broad description used for EGM-01, and we request to be included on the working group noted in Table 4-3.</p> <p>While the AQMP now includes a year-by-year analysis of funding needs, the current scenarios do not seem to present a reasonable strategy for achieving the 2023 standards. Therefore, additional discussion and outreach on this issue should be sought through the development of the action plan that is intended to identify the necessary steps for securing the required funding. OCTA would appreciate the opportunity to participate in this process.</p> <p>Finally, OCTA would like to emphasize that we are concerned about any strategies that may impact funding, or any other aspect of delivering projects in the Regional Transportation Plan. Such strategies would be counterproductive, as they could impact the ability for the region to implement the projects and programs used to demonstrate air quality conformity through the Regional Transportation Plan.</p>				
<p>Upload Additional Comment and Supporting Files ( 30 Mb Maximum per file) (1)</p> <p>AQMP Comments Files</p> <p><u>PLN - AQMP Comments - 11/2/2016 - Comment Type: REVISED DRAFT 2016 AQMP - Author: GREG NORD - Agency: OCTA - N</u></p>				
<p>Note: Supported upload files include all versions of Microsoft Office, jpeg, tiff, PDF, mp3, mp4, and text files.</p> <p>Commentor Signature *</p> 				
<p>For More Information Contact: Angela Kim (akim@aqmd.gov) (909) 396-2590</p>				

88-1

88-2

88-3



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August 9, 2016

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Re: **Draft 2016 Air Quality Management Plan**

Dear Dr. Fine:

The Orange County Transportation Authority (OCTA) appreciates the opportunity to provide comments on the Draft 2016 Air Quality Management Plan (AQMP). In addition, OCTA appreciates your diligent efforts to include a wide variety of stakeholders in your process as the final 2016 AQMP is developed.

Consistent with many of the strategies proposed in the AQMP, OCTA is currently taking actions that benefit air quality. These include upgrades to our bus fleet, such as: utilizing renewable natural gas, repowering 199 buses with 0.2 grams per brake horse-power engines (down from 2.0 grams per brake horse-power), ordering 0.02 gram per brake horse-power engines for 98 buses in our fleet, and acquiring a hydrogen fuel-cell bus, with another ten hydrogen fuel-cell buses and five electric buses pending a grant award. Other actions by OCTA that benefit sustainability include implementation of a regional network of bikeways, reallocation of transit resources to more efficiently serve high-demand areas, studying opportunities for transit-oriented development, and improving active transportation connectivity to transit services.

88-4

Furthermore, OCTA has a voter-approved sales tax measure to fund a multi-modal set of programs and projects that improve mobility in the region, reduce emissions, and preserve and enhance the environment. These include signal synchronization, system preservation, a new streetcar line, enhanced commuter rail services, freeway congestion management, an advanced-mitigation program that has set aside over 1,300 acres as permanent open space in Orange County, and a competitive funding program to mitigate water runoff beyond required standards.

88-5

OCTA does, however, have several concerns that we believe deserve further consideration prior to finalizing the AQMP. These concerns are outlined in the discussion below.

88-6

Dr. Philip Fine  
August 9, 2016  
Page 2

Advanced Clean Transit

The California Air Resources Board's (CARB's) Advanced Clean Transit Regulation is included in the AQMP. This is intended to ensure that nearly every heavy-duty vehicle operated in California in 2023 will meet the 2010 heavy-duty engine emission standard. However, even a highly aggressive full-fleet penetration of 2010-compliant engines would not provide sufficient nitrous oxide (NOx) reductions to attain the federal ozone standard in the timeframe required. This proposed rulemaking also requires transit operators to replace their entire bus fleets with zero-emission technologies between 2018 and 2040.

88-6  
Con't

The basic requirement to update bus fleets does not appear to be cost-effective, considering a battery electric or hydrogen fuel-cell bus costs between \$900,000 and \$1.5 million, plus the cost of fueling/charging infrastructure. A conventional compressed natural gas bus costs about \$600,000. As such, implementation of the CARB regulation for buses could potentially lead to less funding for bus operations, which would likely result in reduced service levels and discretionary transit uses, which would disproportionately affect transit dependent populations in Orange County and the South Coast Air Quality Management District (SCAQMD) region. Given this, OCTA proposes that the Advanced Clean Transit regulation be performance based and technology neutral. This would help to reduce potential service impacts, and account for emission reduction efforts already underway, such as the current OCTA initiatives noted earlier.

Further, this level of investment by all of the transit operators throughout the region is only estimated to reduce NOx emissions by less than 200 pounds per day by 2023, and about 200 pound per day by 2031. This contributes extremely little to the 115 tons per day (tpd) reduction that is targeted for 2023, or the 124 tpd reduction targeted for 2031.

EGM-01 – Emission Reductions from New Development and Redevelopment Projects

The purpose of this measure is to mitigate and reduce emissions from new development and redevelopment projects. However, the description of EGM-01 is overly broad, and OCTA suggests that SCAQMD work with stakeholders to narrow this description or eliminate the strategy prior to finalizing the 2016 AQMP. Further, there are no quantifiable emission reductions associated with this measure, nor is there a cost-effectiveness analysis.

88-7

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Page 3

An EGM-01 working group consisting of affected stakeholders from local governments, the building industry, developers, realtors, other business representatives, environmental/community organizations, and other stakeholders, was established as part of the 2007 AQMP. OCTA respectfully requests inclusion in the working group when, and if, it is reconstituted.

88-7  
Con't

In addressing indirect sources, the SCAQMD should develop implementation and compliance methods that will not unduly restrict local or regional jurisdictions' prerogatives with respect to land use approvals. During rule development, special consideration should be given to assure that any rule adopted will integrate with, and enhance, the California Environmental Quality Act (CEQA) process, and not impede the project approval process in light of CEQA timelines.

#### Incentive Strategies

The 2016 AQMP contains a number of measures that are designed to provide incentives to accelerate the penetration of zero- and near-zero emission technologies. Many of the measures target mobile sources that are regulated by the CARB and the United States Environmental Protection Agency (U.S. EPA).

It is therefore important to demonstrate within the 2016 AQMP that CARB and U.S. EPA are committed to these strategies, since they will likely be the implementing agencies. If they are not committed, these strategies should not be included in the 2016 AQMP, due to SCAQMD's inability to delegate to these agencies.

88-8

The Draft 2016 AQMP also notes that as much as \$14 billion in funding must be identified in order to implement the "incentive strategies." Without identification of funding sources, these measures do not seem to be any more useful than the "black box" strategies that were included in previous AQMPs. OCTA is also concerned about the types of funding sources that could be considered and would appreciate involvement in making these determinations. OCTA's primary concern is related to potential increases in regulatory fees, or potential diversion of funds that OCTA depends on to deliver transit service, and the other programs mentioned earlier that contribute toward sustainability and quality of life.

Dr. Philip Fine  
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Page 4

Unquantified Measures

There are a number of measures that have not been quantified in the Draft 2016 AQMP. These are often referred to as "to-be-determined" or "TBD" measures. It may not be appropriate to include these types of measures in the 2016 AQMP, since the inclusion of measures implies some level of commitment toward delivering those measures. This could become problematic, considering an economic analysis cannot be performed without the quantified benefits.

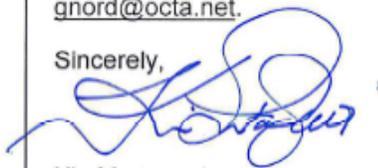
Currently, it appears as though these measures could easily be put in place of the other quantified and committed measures by SCAQMD staff after the 2016 AQMP is approved. This kind of transfer of commitment should not be an action that can be implemented as an administrative change. OCTA also understands that the TBD measures may prove to be more cost effective than some of the other measures, and so it would make sense to pursue them. However, until the time that either a backstop measure is needed or a TBD measure is identified to be more cost effective than one of the currently quantified measures, OCTA requests that the TBD measures either be removed from the plan, or clearly separated from the quantified measures, and called out as uncommitted measures that require further development and evaluation.

88-9

Furthermore, should the TBD measures remain in the AQMP, OCTA requests that the 2016 AQMP include a discussion that clearly states the purpose for including these strategies and the process required to incorporate these strategies. This process would preferably include action by the SCAQMD Governing Board and opportunities for public review and comment.

Thank you once again for the opportunity to provide input on the Draft 2016 AQMP. Should you have any questions regarding the comments above, please contact Greg Nord, Principal Transportation Analyst, at 714-569-5885, or [gnord@octa.net](mailto:gnord@octa.net).

Sincerely,



Kia Mortazavi  
Executive Director, Planning

KM:gn

c: Board of Directors  
Executive Staff

**Responses to Comment Letter from Orange County Transportation Authority (OCTA)**  
**(Comment Letter 88)**

**Response to Comment 88-1:**

Staff appreciates your comment regarding CARB's Advanced Clean Transit measure rule development. Your comment will be forward to CARB for their consideration. The SCAQMD staff will be following CARB's rule development and will consider your comments as we evaluate the merits and benefits of CARB's proposed regulation.

Relative to the Urban Bus emissions inventory, it is SCAQMD staff's understanding that the category titled "Diesel Urban Buses" actually includes natural gas buses operated by OCTA and the other transit agencies in the region. The emissions inventory appropriately reflects the natural gas buses despite the title for this category.

**Response to Comment 88-2:**

Staff welcomes OCTA's participation on the EGM-01 Working Group.

**Response to Comment 88-3:**

As mentioned in the funding analysis provided in Chapter 4 of the Draft 2016 AQMP, the funding analyses are meant to provide an overall understanding of the levels of funding that would be needed to help meet the emission reductions associated with the State SIP Strategy "Further Deployment" measures. Specific actions to pursue funding will be proposed as part of the Incentives Funding Action Plan. Staff welcomes OCTA's participation on the Working Group.

In developing the Funding Action Plan, staff will clarify its intent to seek new funding and not divert funding from existing transportation related projects or other existing or future programs that do not have air quality benefits as their primary objective (e.g., education funding and revenues to local governments).

**Response to Comment 88-4:**

SCAQMD appreciates the participation in the development of the 2016 AQMP and the efforts taken by OCTA to benefit air quality including upgrades to the bus fleet.

**Response to Comment 88-5:**

SCAQMD appreciates the participation in the development of the 2016 AQMP and the efforts taken by OCTA to benefit air quality including upgrades to the bus fleet.

**Response to Comment 88-6:**

Comments regarding the Advanced Clean Transit regulation have been provided to CARB since the measure is part of the State Mobile Source Strategy. It is not the intent of the control measure to result in reduced service levels but CARB has not released specific proposals for the rule amendment at this time. However, CARB has discussed concepts for a proposed regulation, which includes consideration of near-zero emission buses as a transition to zero-emission buses.

**Response to Comment 88-7:**

San Joaquin Valley Air Pollution Control District has an adopted rule, Rule 9510, that is approved by U.S. EPA. Rule 9510 achieves emission reductions from development and re-development projects (e.g., residential, commercial, industrial). Under State law, as a nonattainment area, the SCAQMD must evaluate all feasible measures to determine if other areas have passed rules more stringent than our own to be adopted and implemented in the South Coast Air Basin and Coachella Valley. San Joaquin's Rule 9510 covers a broad sector of development projects and these project types will be evaluated through a public process.

As noted, a working group will be established to develop EGM-01 and we encourage participation. The intent of EGM-01 is to seek emission reductions through greater deployment of cleaner technologies and not restrict local government prerogatives with land use approvals.

**Response to Comment 88-8:**

The SCAQMD has been in discussions with CARB regarding implementation of the State Mobile Source Strategy. The emission reductions associated with the State Mobile Source Strategy are primarily the responsibility of CARB and U.S. EPA. For the "Further Deployment" measures, the SCAQMD has a shared responsibility to help implement the measures and incentive funding is one of the implementation components.

Staff has developed a Financial Incentive Funding Action Plan as a companion document to the 2016 AQMP. Staff will explore potential funding opportunities and will seek input from stakeholders and the public. Opportunities may include new sources of funding on the federal, state and local level. Staff does not intend for these measures to divert existing funds.

**Response to Comment 88-9:**

The "TBD" (to be determined) measures require further technical and feasibility evaluations and the attainment demonstration is not dependent on these measures. However, they are included in the AQMP as part of a comprehensive plan with all feasible measures in case there is a possible need for additional measures and a shortfall in reductions. As emission reductions are realized and to the extent that the reductions can be SIP creditable, the reductions will be taken as part of future rate-of-progress reporting or as part of future AQMP revisions. For the SCAQMD TBD mobile source measures, emission reductions are accounted for under the CARB SIP Strategy so emission reductions are not listed to avoid overlap. These emission reductions will take place locally and will be determined when the programs, such as facility-based measures, are implemented.

Clarification of the TBD measures has been added in Chapter 4 of the Revised Draft Plan.

**Comment Letter from Valley Industry Commerce Association (Comment Letter 89)**



November 7, 2016

Michael Krause, Planning & Rules Manager, AQMP  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

**Subject: 2016 Revised Draft Air Quality Management Plan – Comments**

Dear Mr. Krause,

The Valley Industry and Commerce Association (VICA) represents over 400 businesses and non-profits across California. We welcome the opportunity to comment on the revised draft 2016 Air Quality Management Plan (AQMP). VICA supported the original draft AQMP's focus on incentive-based models and the emphasis on working with business and affected industries.

We are concerned that the revised draft focuses more on regulations than the original draft. VICA would urge the AQMD to continue maintaining the RECLAIM Program, which has successfully resulted in significant air quality improvements. Finally, VICA supports a fuel-neutral mobile source plan which allows consumer choice.

Besides the significantly increased costs, it is not clear that increased regulation is feasible to support attainment. We are concerned that increased regulation and a prescriptive approach will harm our small businesses and local residents. We support continuing the emissions reductions progress through incentive-based frameworks, cost effectiveness and options for businesses. Some of the new emission control technologies are not currently cost-effective, but may be necessary to achieve standards by 2023. We support appropriate incentives to offset the capital and operational costs of implementing these technologies. In contrast, a prescriptive or regulatory approach will drive up costs for everyone.

We look forward to continuing our work with the AQMP Advisory Group, developing a plan which will help grow our economy and protect our jobs.

Sincerely,

Kevin Tamaki  
Chair

Stuart Waldman  
President

89-1

**Responses to Comment Letter from Valley Industry and Commerce Association (VICA)**  
**(Comment Letter 89)**

**Response to Comment 89-1:**

The draft final AQMP focuses on both incentive-based and regulatory measures in order to achieve the attainment targets. Although the RECLAIM program has resulted in emission reductions since its inception, a re-assessment is necessary in order to achieve further SIP-creditable emission reductions, including a possible transition into a command and control regulatory structure.

Regulations are necessary to achieve emission reductions and to further the development of control technologies. Incentives offer additional technological momentum. Although some emission technologies may not be fully implemented or cost effective today, they may be feasible in the future and will aid to achieving air quality standards by 2031. The total cost of control technology are the same whether funded entirely by incentives or required by regulations. The AQMP is designed to offer incentives to offset some of these costs when needed to accelerate deployment of cleaner technologies.

Concerning the comment on fuel neutrality, staff added language conveying the SCAQMD's continued support for fuel neutrality.

Staff appreciates the comments provided and looks forward to VICA's participation in and comments on implementing CMB-05. Staff looks forward to VICA's participation in identifying new incentive funding to help offset the additional costs associated with advanced deployment of zero and near-zero emission technologies.

**Comment Letter from Truck and Engine Manufacturers Association (Comment Letter 90)**



333 West Wacker Drive, Suite 810  
Chicago, Illinois 60600  
Tel: (312) 929-1970 | Fax: (312) 929-1975  
www.truckandenginemanufacturers.org

November 7, 2016

Mr. Wayne Nastri  
Acting Executive Director  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

**Re: Proposed Revisions to the 2016 Air Quality Management Plan – CMB-01**

Dear Mr. Nastri:

The Truck and Engine Manufacturers Association (EMA) is the trade association representing the primary manufacturers of engines used in a wide variety of applications, as well as the manufacturers of heavy-duty trucks. EMA members include the leading manufacturers of compression-ignition, diesel-fueled engines used to power stationary prime and emergency generators and pumps, including those stationary engines that are subject to regulation under AQMD Rule 1470 and AQMD Rule 1110.2. EMA represents engine manufacturers on issues relating to emissions, and has worked closely with both the United States Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) to develop the national and California-wide emission standards governing stationary engines.

90-1

EMA has participated in various AQMD rule development efforts, including the most recent efforts to revise Rules 1110.2 and 1470. The AQMD is proposing to adopt new language and requirements regarding stationary engines in the draft 2016 Air Quality Management Plan that is currently under review. Specifically, AQMD is proposing to adopt requirements for zero and near-zero emissions equipment in control measure “CMB-01” of the Plan. EMA has a number of concerns and comments regarding those proposed requirements as they apply to stationary internal combustion engines, and more specifically, emergency engines.

First, EMA questions the inventory and air quality emissions assumptions used to justify any new control measures for emergency engines in the District. By regulation and permit conditions, emergency engines in the District are limited to 20 hours of testing and maintenance and 200 hours of emergency operation annually, and actually operate on average less than 30 hours per year for maintenance, testing, and operation during an emergency. The very small number of operating hours makes emergency engines an extremely small source of all emissions, especially if the emergency engine is relatively new. The inventory used to justify further regulatory actions appears disproportionately large when compared to the very low number of operating hours that emergency engines run. Moreover, because of the very small amount of annual emissions from emergency engines, there will be no measurable or significant benefit of the rule on air quality or human health. There is no good evidence that the requirements proposed in CMB-01 will meet any public health goal or are necessary to meet air quality goals in the District.

90-2

November 7, 2016  
Wayne Nastri  
Page 2 of 3

Second, emergency engines are designed to meet very strict and demanding performance requirements since their function is to protect human life, keep essential services functioning, and preserve both physical assets and services during times of emergency. The AQMP proposes to replace emergency engines with other technologies such as fuel cells or battery storage facilities. However, those alternative technologies have not been proven to be capable of providing the level of protection and reliability of emergency engines. Requiring the use of such unproven technology threatens to jeopardize the safety of citizens throughout the District. 90-3

Third, the AQMD is designating a specific technology solution rather than setting an achievable and cost-effective technology-neutral standard. Regulatory agencies should not, as a normal practice, dictate specific and unique technologies since doing so distorts markets and limits technological solution and advancements. Designating specific technologies, especially unproven ones, in the AQMP is an unsound policy. 90-4

Fourth, the AQMD also seeks to set a minimum emission standard in cases where zero emissions technology is not feasible and indicates that standard for emergency engines should be final Tier IV nonroad emissions standards. The U.S. EPA, CARB, and even AQMD when developing Rule 1470, have already looked at those aftertreatment forcing standards for emergency engines and have determined that the use of the emissions control equipment necessary to meet those standards – generally diesel particulate filters (DPF) and selective catalytic reduction (SCR) – is not technically or economically feasible. Nothing has changed to alter that view or conclusion, and the AQMD should not seek to require a standard that cannot be effectively or economically applied to emergency engines. 90-5

Finally, replacing all emergency engines with zero-emissions technology or requiring Tier 4 level emission standards will not be cost-effective. As mentioned above, both the US EPA and ARB have determined that the use of aftertreatment technology cannot be considered cost-effective since the addition of the technology as well as the need for increased maintenance costs greatly increases the capital and operating costs of the emergency engine system, but results in only minimal emissions reductions. Cost-effectiveness calculations by the US EPA and ARB related to using DPF's to reduce PM emissions from emergency diesel engines resulted in values well in excess of \$1 million/ton of PM reduced, far higher than almost all other actions to reduce ambient PM levels. In addition, fuel cell costs are considerably higher than costs for reciprocating engines, and it is not clear what type of cost comparison could be made to replace engines with batteries sufficient to meet the performance and duty-cycle specifications for emergency engines. 90-6

Based on the above, EMA believes that there are valid technical and economic reasons that the AQMP should not include a requirement to replace stationary emergency engines with unproven and very expensive zero, near zero, or Tier IV Final emissions technology. The primary reason for not approving such a mandate is related to safety – emergency engines need to operate properly in order to protect human life and property. The potential direct impacts to human life and health from the proposed AQMP requirements far outweigh the negligible benefits from minimal emissions reductions from emergency standby generators. In addition, the costs of implementing the revisions to CMB-01 would be extremely high. Consequently, EMA strongly recommends that the provisions related to stationary emergency engines should be removed from the final AQMP, since they 90-7

November 7, 2016  
Wayne Nastri  
Page 3 of 3

are infeasible, produce no substantial emissions or health benefits, and will only add unnecessary costs to businesses and citizen within the District.

90-7  
Con't

EMA appreciates the opportunity to submit these comments, and trust that AQMD staff will give careful consideration to the issues we have identified. To that end, please feel free to contact me if you have any questions regarding these comments.

Sincerely,

*Joseph L. Suchecki*

Joseph L. Suchecki  
Vice-President, Public Affairs

**DRAFT 2016 AIR QUALITY MANAGEMENT PLAN**



2016 AQMP Comment Form

Please enter your contact information, comments and/or upload comment files below. The information collected may be used to provide further information about public workshops and hearings, and other events related to the 2016 AQMP. Responses to comment will be compiled and included in the final Plan package.

\*Fields Required to Submit a Comment

**Form Information**

Date Created	Time Created	AQMP Year
11/07/2016	12:19 PM	2016

**Commenter Contact Information**

Commenter's Name *	Organization *	City	State	Zip Code
JOSEPH L. SUCHECKI	TRUCK AND ENGINE MANUFACTURERS ASSOCIATION	CHICAGO	IL	60606
If not representing a specific organization, please enter "No Affiliation".				

**Comments (Unlimited Size)**

The Truck and Engine Manufacturers Association (EMA) provides the attached comments on the 2016 AQMP related to CMB-01 regarding emergency engines. Emergency engines provide essential services to protect life and property and contribute minimally to air emissions due to their very limited use. The measures proposed in CMB-01 are not feasible and certainly are not cost effective and should not be adopted. EMA looks forward to working with the District on the proposed measures.

90-8

**Upload Additional Comment and Supporting Files ( 30 Mb Maximum per file) (1)**

**AQMP Comments Files**

PLN - AQMP Comments - 11/7/2016 - Comment Type: REVISED DRAFT 2016 AQMP - Author: JOSEPH L. SUCHECKI - Agency: TRUCK AND ENGINE MANUFACTURERS ASSOCIATION - N

Note: Supported upload files include all versions of Microsoft Office, jpeg, tiff, PDF, mp3, mp4, and text files.

**Commenter Signature \***

For More Information Contact: Angela Kim (akim@aqmd.gov) (909) 396-2590

**Responses to Comment Letter from Truck and Engine Manufacturers Association (EMA)**  
**(Comment Letter 90)**

**Response to Comment 90-1:**

Staff appreciates the commenter's experience in the trucking industry and providing your insight.

**Response to Comment 90-2:**

Please see Response to Comment 73-2 regarding the emissions inventory and the Draft Final Appendix IV A for the revised inventory calculations. Also see 73-9 regarding the emissions for emergency ICE.

**Response to Comment 90-3:**

Please see Response to Comment 73-4 about technology assessments and 78-6 about fuel cell reliability.

**Response to Comment 90-4:**

Please see Responses to Comments 17-3 and 83-2 regarding fuel and technology neutrality. CMB-01 mentions many technologies and lays out a path for achieving 3.9 tpd NO<sub>x</sub> reductions. Staff is not mandating the technologies mentioned, just demonstrating that the projected emissions reductions are feasible. Once the incentive program is initiated, the facilities will seek incentives for replacement technologies or control equipment that serves their individual needs. Alternatively, any regulatory requirements will look at setting emissions standards to achieve NO<sub>x</sub> reductions.

**Response to Comment 90-5:**

Please see Response to Comment 73-4 regarding technology assessments. Please see Response to Comment 35-5 regarding Tier 4 engines. If regulatory measures are implemented, staff will only propose technology that is feasible or cost-effective. The incentive option was put in place to assist and accelerate a transition to zero and near-zero technologies that are not currently cost-effective.

**Response to Comment 90-6:**

The incentive measure strives to help facilities transition to zero and near-zero technologies that are not currently the most cost-effective option. The purpose of the incentive program is to create opportunities or make it more cost-effective to replace equipment, transition to zero or near-zero technology, encourage earlier change-out of higher-emitting equipment, and drive technology development and cost reductions.

**Response to Comment 90-7:**

Please see Response to Comment 73-4 about technology assessments.

**Comment Letter from American Trucking Associations (Comment Letter 91)**



**American Trucking Associations**  
950 North Glebe Road, Suite 210 \* Arlington, VA \* 22203  
[www.truckline.com](http://www.truckline.com)

November 7, 2016

South Coast Air Quality Management District  
21865 Copley Dr.  
Diamond Bar CA 91765

Submitted Electronically

RE: ***Revised Draft 2016 Air Quality Management Plan***

The American Trucking Associations, Inc. (ATA) submits these comments in response to the South Coast Air Quality Management District's (District) "*Revised Draft 2016 Air Quality Management Plan (AQMP)*."<sup>1</sup> ATA is the national trade association representing the American trucking industry. As such, ATA is vitally interested in environmental initiatives that impact the nation's trucking companies and the flow of commerce.

The trucking industry has made significant progress reducing emissions. As a result of more stringent federal engine emissions standards, a new truck today generates one-tenth the level of particulate matter (PM) and the ozone precursor, nitrogen oxides (NOx), than a similar truck manufactured in 2006. In addition, the fuel economy of these new trucks is improved by at least 20 percent, which directly correlates to greenhouse gas emissions (GHG) emission reductions. An additional 25 percent improvement in fuel economy, and GHG reductions, is being phased-in through 2027. These GHG reductions also reduce NOx and PM emissions.

91-1

Despite these significant emission reductions, the draft AQMP proposes to grant new regulatory authority over trucks to the District. ATA is extremely concerned about this unprecedented approach which could result in different operational requirements at the regional or facility level. The following comments discuss these concerns in more detail.

**1) A Regulatory Framework is Already in Place to Achieve Significant Reductions**

In addition to the emission reductions being achieved through federal engine emission standards, the State of California has implemented an aggressive regulatory program that targets further reductions. This program establishes emission standards for new engines and

91-2

<sup>1</sup> ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interests of the trucking industry. Directly and through its affiliated organizations, ATA encompasses over 34,000 motor carriers and suppliers of every type and class of operation in the United States, Canada, and Mexico.

vehicles and for the in-use trucks, trailers and transport refrigeration units that operate throughout the state. The estimated compliance cost of the in-use portion of this regulatory program is approximately \$1 billion annually with additional regulations affecting the fuel sold in the state adding an additional \$1 billion annually.<sup>2</sup>

91-2

The air quality benefits of the existing federal and state regulatory programs, which impact nearly every aspect of truck operations, will reduce current truck-related NOx emissions in the District by 70 percent by 2031.<sup>3</sup> When the additional statewide truck-related measures identified in the California Air Resources Board's (CARB) Mobile Source Strategy are included, truck-related NOx reductions are projected to surpass 80 percent by 2031.

These reductions are consistent with the "fair share" reduction goal of 80 percent which was discussed throughout the AQMP Advisory Group process. In other words, trucking's fair share goal can be achieved through the existing federal and state regulatory framework.

**2) Proposed Measures MOB-01 through 04 ("Facility Measures") and MOB-08 ("Fleet Rules") will Adversely Impact Interstate Commerce**

ATA is extremely concerned about the District's proposed control measures which could lead to a patchwork of emissions regulations affecting truck operations, specifically the facility measures and fleet rules. As proposed, these measures could establish access restrictions at various freight facilities located in the District as well as unique equipment purchasing requirements on the trucking companies located in the District. These measures represent an unprecedented, and legally questionable, expansion of the District's authority to regulate mobile sources and the flow of commerce.

91-3

While certain aspects of these rules have been found by the U.S. Supreme Court to be preempted, the Clean Air Act further prohibits the state (or subdivision thereof) from creating a "third vehicle" standard.<sup>4,5</sup> Given the legal constraints associated with the District's authority to regulate mobile sources, a more constructive path to achieving further emission reductions will be to continue to work collaboratively with CARB and the freight industry to incentivize and voluntarily accelerate the deployment of lower-emitting, advanced technology vehicles.

**3) Emissions Reductions from All Existing Programs have not been Included**

CARB has indicated that NOx reductions from a number of existing regulatory programs have not been accounted for in the attainment demonstration modeling. Specifically, the modeling does not account for NOx reductions associated with both the Phase 1 and Phase 2 federal GHG

91-4

<sup>2</sup> Estimates provided by the California Trucking Association.

<sup>3</sup> California Air Resources Board, *Mobile Source Strategy*, (May 2016).

<sup>4</sup> *Engine Manufacturers Association v. South Coast Air Quality Management District*, U.S. Supreme Court, No. 02-1343 (April 28, 2004).

<sup>5</sup> 42 USC §7504.

Revised Draft 2016 Air Quality Management Plan; South Coast Air Quality Management District  
Comments of the American Trucking Associations, November 7, 2016  
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emissions standards for medium and heavy-duty trucks. According to the U.S. EPA, the Phase 2 rule alone is projected to reduce downstream (i.e., tailpipe) NOx emissions by 10.2 percent by 2040.<sup>6</sup> NOx reductions associated with the state's existing Periodic Inspection Program, which requires annual tailpipe emissions testing of in-use heavy-duty diesel vehicles, have not been accounted for either. In addition, it is unclear if NOx reductions from the state's Tractor-Trailer GHG Regulation have been included in the demonstration modeling.

91-4  
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It is imperative that all existing emission reductions be accounted for as part of the District's attainment demonstration. To address these deficiencies, the District should work with CARB and other stakeholders to further evaluate the modeling assumptions and create a more transparent process to identify what actions are or are not being accounted for.

ATA remains committed to improving air quality throughout the nation in a practical and efficient manner. We request your careful consideration of these comments.

Respectfully,



Michael Tunnell  
Director, Energy and Environmental Affairs  
American Trucking Associations

<sup>6</sup> U.S. Environmental Protection Agency, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Phase 2, Regulatory Impact Analysis*, p. 5-43 (August 2016).

**Responses to Comment Letter from American Trucking Associations (ATA)**  
**(Comment Letter 91)**

**Response to Comment 91-1:**

Staff appreciates the efforts made by the trucking industry to reduce emissions from heavy-duty vehicles. Regarding the comment “that the draft AQMP proposes to grant new regulatory authority over trucks to the District”, it is the primary intent of AQMP Measure MOB-08 to seek incentives funding in the near-term and identify voluntary actions that the trucking industry is implementing that could potentially result in additional NOx emission reductions. The latest draft 2016 AQMP proposes a one-year period for the SCAQMD staff to work with all stakeholders to identify actions and seek additional incentives funding. Identified actions may be voluntary or regulatory in nature. As noted in Response to Comment 91-4 below, if emission reductions associated with several of the State SIP Strategy measures are quantified and if reductions are obtained through incentive measures, those reductions will help reduce the emission reduction commitment for the “Further Deployment of Cleaner Technologies” heavy-duty measure. However, if sufficient progress is not made in this effort, the SCAQMD staff will report to its Governing Board whether formal rulemaking should proceed or other enforceable mechanisms be developed.

**Response to Comment 91-2:**

As noted in the State SIP Strategy, heavy-duty truck emissions have been significantly reduced. However, as stated in the State SIP Strategy further emission reductions from this category will still be needed for the South Coast Air Basin to attain federal air quality standards. AQMP Measure MOB-08 does not have emission reductions associated with implementation of the measure since this measure is proposed to assist in achieving the emission reductions associated with the State SIP Strategy “Further Deployment” measure.

**Response to Comment 91-3:**

As stated in response to Comment 91-1, the primary intent of MOB-08 is to work collaboratively with the industry and other stakeholders to identify voluntary actions through a public process, which may alleviate some of the commenter’s concerns. The voluntary actions would include incentives funding and voluntary turnover of older trucks. In addition, the trucking industry continues to look at operational efficiencies to save on fuel costs. Such actions may have potential criteria pollutant emission reduction benefits, which could be credited in the SIP.

**Response to Comment 91-4:**

As CARB quantifies the emission reduction associated with the on-road heavy-duty vehicle measures in the State SIP Strategy, it is the SCAQMD staff understanding that this will help reduce the emission reduction associated with the “Further Deployment” measures. Staff intends to work closely with CARB on this effort.

**Comment Letter from REALTORS Committee on Air Quality (Comment Letter 92)**

**REALTORS<sup>®</sup> Committee on Air Quality**

*Carol Banner, Chairman*

*106 South Grand Avenue  
Pasadena, CA 91105  
323/342-9373*

November 7, 2016

Michael Krause  
South Coast Air Quality Management District  
21865 East Copley Drive  
Diamond Bar, CA

**SUBJECT: Comments on the Revised Draft 2016 Air Quality Management Plan**

**Dear Mr. Krause:**

The REALTORS Committee on Air Quality (RCAQ), a voluntary coalition of 35 Associations of REALTORS that serve the South Coast Air Basin, strongly supports clean air in concert with housing affordability and availability. We have reviewed the October 7<sup>th</sup> Revised Draft 2016 AQMP and offer the following additional comments to insure that the proposed control strategies do not exacerbate the region's housing shortage and affordability crisis.

**1. Strong Support for Incentives to Accelerate Implementation of the AQMP**  
SCAQMD has added more regulatory elements to the current Revised Draft AQMP. We believe that measures related to housing and residential uses must continue to be implemented through incentives to avoid damaging impacts to the cost and availability of housing for families of all income levels. To that end, we support the District's ongoing efforts to prepare an incentives action plan that identifies realistic sources for the needed incentive funds. The AQMP must establish that the amount of incentives are commensurate with the amount of emission reductions committed.

92-1

**2. Measure CMB-02, Emission Reductions from Replacement with Zero or Near-Zero NOx Appliances in Commercial and Residential Applications**

This measure has been significantly changed to urge consideration of solar and Zero Emission technology for space and water heating, whenever cost-effective. The previous focus on multifamily residential has been broadened to all residential buildings. This measure also seeks to accelerate the pace of space and water heating change-outs. We also

92-2

note the 90% increase in the amount of emission reductions committed from this measure in 2031 as a result of the new scope.

We urge that this measure impact residential households only through incentives, to insure a win-win outcome for air quality and affordable housing.

We support continued fuel neutrality in this measure. We believe emphasis should be placed on clean technologies and appliances that are most cost/effective and commercially available. We also support a range of compliance options for residents, as one-size-fits all solutions don't address the needs of diverse households, housing stock and geographic locations within the Basin.

Because this measure is proposed to be part of the enforceable commitment to be submitted to USEPA, it is important that the emission reductions be appropriately scaled to the amount of incentive funds that can reasonably be expected to help residents comply. The AQMP estimates that \$520 million in incentives will be needed to implement this measure, and we look forward to details in the Final AQMP that identify likely resources.

We recommend that the District convene a stakeholder working group to advise on CMB-02 rulemaking. RCAQ asks to be included in this effort.

92-2  
Cont

### **3. Indirect Source Measure EGM-01, Emission Reductions from New Construction and Redevelopment**

As we explained in our August 2016 comment letter, an increase in new housing costs will ripple through the entire housing stock, so EGM-01 should be pursued cautiously. We do not support a San Joaquin Valley APCD-type rule: the requirements are arbitrary and not based on the specific characteristics of the South Coast Air Basin. We continue to urge that the EGM-01 development process examine the full range of implementation options appropriate for the South Coast Air Basin, especially in light of already stringent Title 24 requirements.

EGM-01 is not quantified: the draft AQMP includes no cost or emission reduction estimates. As a result, the socio-economic impacts of this measure are not evaluated in the Socioeconomic Analysis. SCAQMD has designated this measure as "To Be Determined" and not part of the enforceable commitment to be submitted to USEPA for approval. We request that SCAQMD insure that this TBD control measure will not generate a federally enforceable rule adoption requirement or emission reduction commitment before the need for, and content of, a rule is fully evaluated by the EGM-01 working group.

92-3

**4. Economic Impact of Proposed AQMP Control Measures**

RCAQ has long asked for a tally of the cumulative costs and impacts of the AQMP on the region and the housing sector – not just the incremental cost of the current proposal. Missing chapters of the Socioeconomic Impact Analysis have just been released three working days before the District has called for comments on the Revised Draft AQMP. We are therefore not able to comment on the newly released information and will submit further comments on those documents during November.

92-4

Thank you for your consideration of these comments. We are available to discuss them with you at your earliest convenience. Please contact RCAQ consultant Carla Walecka at [cwalecka@earthlink.net](mailto:cwalecka@earthlink.net) or 323=342-9373.

Sincerely,



Carol Banner  
**RCAQ Chairman**  
[carolabanner@gmail.com](mailto:carolabanner@gmail.com)

**Responses to Comment Letter from Realtors Committee on Air Quality (RCAQ)**  
**(Comment Letter 92)**

**Response to Comment 92-1:**

Staff appreciates the support for the incentives and encourages the commenter to participate in the further development of the Financial Incentive Funding Action Plan that will help define the ways to obtain funding needed to achieve the corresponding committed emission reductions.

**Response to Comment 92-2:**

The commenter advocates the exclusive use of incentives to reduce emissions and thus eliminate the financial impact on residential households. The application of incentive funds will be considered when the individual incentive program and guidelines are developed. The guidelines are expected to address the detailed implementation specific to the different incentive programs. A Financial Incentive Funding Action Plan is currently under development that will provide more detail as to the possible source of funding available.

The SCAQMD has a long-standing policy of technology and fuel neutrality; however, staff also recognizes the benefits of cleaner technologies and appliances that are most cost-effective and commercially available. Staff, in collaboration with interested stakeholders, will also seek a range of compliance options for residents.

Staff will form working groups to facilitate a dialogue between agencies, utilities, businesses, and other stakeholders to accomplish the proposed controls. Working group meetings could help affected or interested stakeholders, such as the Realtors Committee on Air Quality, address potential concerns that may arise from new technology and equipment replacement.

**Response to Comment 92-3:**

As indicated in EGM-01, staff will consider the appropriateness of implementing an approach similar to San Joaquin Rule 9510 for the South Coast Air Basin. Since the measure does not have any associated emission reductions at this time, there is no enforceable commitment to emission reductions for this measure. As approaches are identified through the public process, more specific emission reductions will be credited in the SIP if the emission reductions meet U.S. EPA's integrity elements for surplus emissions and whether the emissions are permanent and enforceable. At that time, if the emission reductions are generated through voluntary actions, there will be a need to develop an enforceable commitment that the reductions will be maintained.

**Response to Comment 92-4:**

Because control measures that could potentially affect the housing sector such as control measure EGM-01 require more technical analysis, the emission reductions are yet to be determined (TBD). However, as discussed in detail for the control measure in Appendix IV-A, a working group will be established to discuss the development of EGM-01 after the adoption of the AQMP. The outcome will result in a rule or program that will be evaluated for potential environmental impacts under CEQA requirements and potential socioeconomic impacts as requested by the commenter. Because the control measure EGM-01 is a TBD measure and the specific approach to implementing is not yet determined, the Socioeconomic Assessment at this time is limited in its analysis of EGM-01.

**Comment Letter from Southern California Leadership Council (Comment Letter 93)**



**SOUTHERN CALIFORNIA  
LEADERSHIP COUNCIL**

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November 7, 2016

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Steve Williams  
Robert Wolf

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 92765

**Re: Comments Concerning the South Coast Air Quality Management District's Final 2016 Draft Air Quality Management Plan.**

Dear Dr. Fine,

On behalf of the Southern California Leadership Council ("SCLC") and the undersigned group of partner organizations, we thank you for the opportunity to review and comment on the final draft of the 2016 Air Quality Management Plan (the "Draft AQMP"). Our group is comprised of leading Southern California business and industry organizations.

Each of our organizations appreciates the assistance provided by, and the hard work of, the able staff of the South Coast Air Quality Management District (the "District") in the many months leading up to the final Draft AQMP. As we bring the issues set forth below to your attention for consideration as part of your work to finalize the AQMP, we look forward to additional helpful discussions. In particular, we wish to encourage the District's staff to adhere to incentive-based approaches to address the region's air quality challenges, and to recognize that economic considerations call for flexibility and adaptability in such far-reaching regulatory processes.

Our organizations are particularly focused on assuring that the District will continue the region's historically huge progress toward safer air quality, while avoiding any and all unnecessary negative economic and societal impacts. In particular, we share the District's aim for air quality that is cleaner still; but we do so in light of the ongoing need to provide employment and housing for the District's growing population. With that in mind, we applaud the District's attempt to provide economic analyses, including an evaluation of the AQMP's impact on jobs and job creation. Our groups will continue to work with the District and other stakeholders to assure that sound science and strong economic analyses are met with equally sound regulatory policies as we pursue our shared aims.

*Executive Staff:*

Kish Rajan  
President

Richard Lambros  
Managing Director

93-1

Dr. Philip Fine  
November 7, 2016  
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Given this backdrop, we respectfully submit the following comments for your consideration:

**I. The final Draft AQMP reflects an unwise drift away from incentive-based emissions reduction programs.**

In our comments lodged in August, SCLC and a similar group of partner organizations applauded the District staff's then-proposed reliance on the use of financial incentives to accelerate the penetration of, for example, zero-emission and near-zero emission technologies, and to further reduce emissions from other mobile and stationary control measures. Indeed, our organizations generally favor incentive based programs over the far less flexible and more imposing command and control regulations.

With this in mind, our August comments on the earlier draft AQMD focused on the means by which the District may secure such funding for incentive-based programs. Specifically, we emphasized that the chosen means of generating revenue to support incentive programs should be fairly imposed and broad-based, consistent with the broadly-shared societal benefits of the District's efforts to further improve air quality.

We are disappointed that the final version of the Draft AQMP reflects a relative retreat from the earlier projected reliance on incentive based programs. Accordingly, we respectfully ask the District's staff and Board to reconsider and reverse the present direction away from incentives.

Most especially, we oppose the newly stated suggestion that the District's successful RECLAIM program should be scrapped in favor of a return to command and control regulation. The District's RECLAIM program is nationally recognized as the paradigmatic incentive trading market for achieving reductions in emissions from stationary sources. Although the program's participants carry heavy burdens to comply with it, the program nonetheless affords relative predictability and some flexibility of types that are essential to retaining vitally important industries in the region and protecting our regional economy and jobs.

We also urge the District to recognize that incentive-based approaches show the greatest promise as the means to foster and accelerate the acceptance of beneficial fleet and fuel changes in the mobile source context. Our organizations believe that gradual changes in mobile sources, achieved over a length of time that avoids undue economic dislocation, is the best path by which to achieve further air quality improvements – and that such changes should accommodate a range of technologies and fuels so that market forces can adjust and cure over time. The District's use of incentive-based approaches in the mobile source context is wise and pivotal because the District enjoys only limited independent, command-and-control jurisdictional authority over mobile sources.

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93-2

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**II. The District must recognize the primacy of local governmental control over land use decisions, and must avoid imposing any indirect source controls that could stultify development and redevelopment and thus harm the region's economy.**

The Draft AQMP contains a vague, "to be determined" measure labeled as EGM-01, which holds forth the prospect of an indirect source regulation affecting land use. The stated purpose of this measure is to mitigate and reduce emissions from new development and redevelopment projects. The eventual definition of EGM-01 remains uncertain; but the District's space-holder implies the potential for the imposition of new fees on development and redevelopment throughout the District or, selectively and arbitrarily, perhaps in ways similar to Rule 9510 adopted by the San Joaquin Valley Air Pollution Control District.

93-3

Our organizations remain generally opposed to new development and redevelopment fees that may conflict with or be imposed on top of the already highly excessive costs and burdens imposed by the California Environmental Quality Act. Moreover, our organizations have long appreciated and championed the primacy of local governments' decision-making powers concerning questions of land use and development—consistent with our democratic principles and the fact that development invariably unfolds in response to organic demand from countless quarters.

Because EGM-01 is undefined as set forth in the Draft AQMP, and because it hints at the prospect of an unduly heavy-handed new land use regime, our organizations urge the District to exclude this measure from the final AQMP. We look forward to participating in further discussions with the District to make sure that the District's clean air goals are not seen as having such overwhelming importance as to warrant the sacrifice of sensible, locally-based land use prerogatives. Especially, the District must avoid trampling on the prerogatives that local governments continue to enjoy under the SB 375 regime. In addition, the District will need to be strictly mindful of the limitations of its enabling statutes if and when it ever brings forward any proposal affecting land use.

**III. The proposed measures denominated as MOB-1 through MOB-4 and MOB-8 would harm goods movement and the industries related thereto, and should be entirely reconsidered.**

Our organizations continue to oppose the proposed control measures denominated as MOB-1 through 4 and MOB-8. Efficient and economical goods movement is essential to the region's overall economy, especially given that our region is home to the busiest and most important ports in the nation. Emissions related to goods movement should be addressed gradually and without undue local disruption through both fleet change incentives and reasonably paced technological changes, such as the affordable, appropriately gradual adoption of fuel and engine-type changes, which can most sensibly be achieved through standards for new vehicles. To the extent that the above-referenced MOB measures might be read to invite arbitrary caps on goods movement facilities and limitations on what are truly diffuse and dynamic goods movement activities, they should be rejected.

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**IV. The District should reconsider and recast all measures that are proposed without quantified air quality benefits.**

The Draft AQMP discusses various measures for which no air quality benefits are quantified, referred to as “to-be-determined” or “TBD” measures. A broad reading of the Draft AQMP suggests that the AQMD’s implementation should be able to meet the federally imposed air quality standards even if all such TBD measures were to be forgone. Accordingly, our organizations urge the District to either forgo all such TBD measures in the AQMP, or incorporate only those for which both the costs and benefits of the measures can be identified and vetted publicly before they are included. Importantly, no meaningful socio-economic analyses can possibly be performed if there are no quantified air quality benefits from the measures at issue. Therefore, to the extent that the merits of such measures cannot be reasonably proven in the current AQMP process, such measures should be identified only as possible areas of future study and consideration.

93-5

**V. Our organizations urge the District to forgo CMB-05, which as proposed, would make further adjustments to the RECLAIM program outside of the recently-completed, arduous process for updating the program.**

As noted above, the Draft AQMP suggests that the District may consider the eventual abandonment of the RECLAIM program. We oppose any such abandonment. We also note that the Draft AQMP includes a measure (CMB-05) that proposes to make a downward adjustment in permissible NOx emissions under the RECLAIM program applicable to stationary sources.

93-6

Less than a year ago, the RECLAIM program was updated through a process that was, as is typical, robustly attended by all constituencies, and at which large volumes of detailed evidence were provided. The recent program updates reflect a remarkable degree of voluntary concessions, stakeholder engagement and broad-based agreement. In light of this, we believe that the AQMP process is not the proper vehicle through which to make any lurching changes to the RECLAIM program, given that the District, its committees and Board, and all constituents are necessarily now focused on a much broader range of issues. Accordingly, we urge the District to remove CMB-05 as a measure, and rely instead on the discrete, robust process for future adjustments to the RECLAIM program.

**VI. The District needs to take a more robust posture against overly-burdensome and unachievable federal and state air quality mandates.**

Our organizations recognize that the District is legally responsible for taking action to meet goals and stay within parameters mandated by state and federal law, particularly by the U.S. Environmental Protection Agency and the California Air Resources Board. Indeed, the District has long been tasked with trying to achieve increasingly stringent federal standards that are imposed disparately on our highly populous and economically important South Coast region.

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SCLC and its partner organizations continue to urge the District to take a more clear-headed and circumspect stance vis-à-vis the increasingly difficult state and federal targets and mandates that the District is being asked to meet. Many of the most recent federally imposed criteria air pollution standards are based on scientific (health) justifications that are arguable at best. Moreover, air quality standards and timelines are imposed and expected to be met without any regard for non-anthropogenic, natural background loads and the practical realities of our air basin's unique topography and vast economy. Respectfully, the District should be identifying and investigating such issues, and effectively challenging the promulgating agencies to which it must regularly submit its plans and measures.

Our South Coast region has already seen tremendous improvements in air quality in recent decades, but not without very serious economic costs. Achieving still cleaner air quality is reasonably possible only through careful, measured, sensible steps undertaken with great care concerning the economic consequences. Our region's economy will be crippled if the District simply attempts to implement aggressive state and federal mandates, knowing that they will force rapid and extensive transformation on industries that are unable to accommodate such change. When warranted, therefore, the District must be willing to push back against unrealistic mandates, and work to identify and secure more reasonable and achievable pathways and timelines for reaching the targets that are established.

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**VII. Conclusion**

Once again, we wish to applaud the District and its staff for the efforts concerning the AQMP. We hope that the final AQMP will reflect the District's appreciation and embrace of our concerns. We thank you for your consideration of these comments, and for your ongoing work with us and all stakeholders.

Respectfully submitted,

Richard Lambros  
Managing Director



Mike Lewis  
Senior Vice-President



Wes May  
Executive Director



Paul Granillo  
President & CEO



Peter Herzog  
Assistant Director of Legislative Affairs



Rob Evans  
Executive Director



Dr. Philip Fine  
November 7, 2016  
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Bryan Starr  
Sr. Vice President, Govt Affairs



*Clayton Miller*

Clayton Miller  
Executive Vice President



**DRAFT 2016 AIR QUALITY MANAGEMENT PLAN**



2016 AQMP Comment Form

Please enter your contact information, comments and/or upload comment files below. The information collected may be used to provide further information about public workshops and hearings, and other events related to the 2016 AQMP. Responses to comment will be compiled and included in the final Plan package.

**\*Fields Required to Submit a Comment**

**Form Information**

Date Created	Time Created	AQMP Year
11/07/2016	4:45 PM	2016

**Commentor Contact Information**

Commentor's Name *	Organization *	City	State	Zip Code
RICHARD LAMBROS	SOUTHERN CALIFORNIA LEADERSHIP COUNCIL AND PARTNER ORGANIZATIONS			
If not representing a specific organization, please enter "No Affiliation".				

**Comments (Unlimited Size)**

To whom it may concern,

On behalf of the Southern California Leadership Council and eight partner organization, I've attached a group comment letter regarding the South Coast Air Quality Management District's Final Draft 2016 Air Quality Management Plan.

Best,

Richard Lambros  
Managing Director  
Southern California Leadership Council

**Upload Additional Comment and Supporting Files ( 30 Mb Maximum per file) (1)**

**AQMP Comments Files**

PLN - AQMP Comments - 11/7/2016 - Comment Type: REVISED DRAFT 2016 AQMP - Author: RICHARD LAMBROS - Agency: SOUTHERN CALIFORNIA LEADERSHIP COUNCIL AND PARTNER ORGANIZATIONS - N

Note: Supported upload files include all versions of Microsoft Office, jpeg, tiff, PDF, mp3, mp4, and text files.

**Commentor Signature \***



For More Information Contact: Angela Kim (akim@aqmd.gov) (909) 396-2590

**Responses to Comment Letter from Southern California Leadership Council (SCLC)**  
**(Comment Letter 93)**

**Response to Comment 93-1:**

Staff appreciates the participation in the development of the 2016 AQMP and support for incentive-based approaches, as well as an analysis of job impacts from the implementation of the Plan as part of the Socioeconomic Assessment.

**Response to Comment 93-2:**

The Revised Draft 2016 AQMP still maintains incentive-based approaches focused on accelerating high-emitting sources to transition to cleaner technologies sooner than would take place under regulations for both stationary and mobile sources. The only difference is the addition of future rulemaking that ensures emission reductions achieved will continue to be achieved when there is more public acceptance, more clean technology commercially available, and these technologies are more cost-effective. Future rulemaking will ensure emission reductions are permanent and enforceable, thus ensuring credit in the State Implementation Plan (SIP) as our region continues to grow.

The possibility of returning the RECLAIM facilities to a command and control approach was one of the re-assessment concepts considered in the Draft Plan as proposed in control measure CMB-05. The only difference in the Revised Draft Plan is the addition to seriously consider the sunset of the program. All the possible actions listed in the control measure write-up in Appendix VI-A will be assessed during the re-convening of the RECLAIM working group. At that time, program effectiveness can be discussed and recommendations can be formulated for the Governing Board. Staff encourages the commenter to participate in the public process and appreciates the concerns with such a proposal.

**Response to Comment 93-3:**

As noted in responses to Comment 86-2 and 92-3, a public process will be established to consider the appropriateness of implementing a rule similar to San Joaquin's Rule 9510. Staff believes that there are actions other than fees that will result in additional emission reductions, such as from implementing Title 24 and looks forward to working with SCLC on this effort.

**Response to Comment 93-4:**

Staff believes that the approach of working collaboratively with affected stakeholders and the public will lead to actions that will not be disruptive to the industry. There are no emission reductions associated with the measures since implementation of the measures will help meet the emission reductions in the State SIP Strategy.

**Response to Comment 93-5:**

Please see Response to Comment 7-5 regarding the purpose of the TBD measures and why they are proposed to remain in the 2016 AQMP. With regard to meaningful socioeconomic analysis, such an analysis will take place during any rule or program development of these TBD measures when a more in-depth technical evaluation has been performed and more detailed project description has been formulated.

The proposed 2016 AQMP contains control strategies with quantified emission reductions, as well as control measures with to-be-determined (TBD) emission reductions. It is important to note that NAAQS are expected to be attained with the quantified emission reductions alone. For the cost analysis, incremental costs are estimated for the control strategies with quantified emission reductions only. Some of the control strategies with TBD emission reductions may serve as contingency measures to make up for any unexpected emission reductions shortfall. However, many of these control strategies include emerging technologies. Therefore, their emission-reducing potential may still need to be evaluated and their cost-effectiveness, and in some cases their costs too, remain highly uncertain or unknown at this time.

**Response to Comment 93-6:**

The draft final control measure CMB-05 states that a RECLAIM working group will be convened in the spring of 2017 to assess various aspects of the program, including an orderly transition to a command and control regulatory structure. Absent such a transition, a downward adjustment of five tons per day is proposed. Past changes to the RECLAIM program that have resulted in SIP-creditable emission reductions have been the result of control measures that have been a part of previous AQMPs. Control measure CMB-05 proposes to achieve a NOx emission reduction of 5 tons per day from the RECLAIM program. This commitment will result in the emission reductions being submitted into the SIP.

**Response to Comment 93-7:**

Please see Response to Comment 57-8 regarding challenging the promulgating agencies as to the stringency of air quality standards and mandates.

**Comment Letter from Pacific Merchant Shipping Association (Comment Letter 94)**



November 7, 2016

Wayne Nastri  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

*Submitted Electronically at:*

<http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/reviseddraft2016AQMP>

**Comments on the Revised Draft 2016 Air Quality Management Plan**

Dear Mr. Nastri:

The Pacific Merchant Shipping Association (PMSA), on behalf of its member ocean carriers and marine terminals operating in the South Coast Air Basin and throughout California, submits the following comments regarding the South Coast Air Quality Management District's (SCAQMD) Revised Draft 2016 Air Quality Management Plan (AQMP).

On August 19, 2016, PMSA submitted comments on the first draft the AQMP, which are attached and included as part of this comment letter. One of the key areas of focus of the previous comment letter was the facility-based control measures. This revised draft AQMP has done nothing to allay our concerns regarding SCAQMD's inclusion of facility-based control measures, particularly MOB-01. The facility-based measures are fundamentally flawed and should be removed from the AQMP. Among the numerous reasons that the measures should not be approved as part of the AQMP include the following:

- The facility-based measures are not needed to demonstrate attainment
- SCAQMD has no authority over mobile sources
- The measures attempt to implement the California Air Resources Board's (CARB) "Further Deployment of Technology" measure despite that measure being assigned to CARB for responsibility
- The measures do not meet the Clean Air Act's requirements for a State Implementation Plan submittal
- The measures interferes with local land-use decisions
- The measures threaten the future success of the San Pedro Bay Clean Air Action Plan by undermining the voluntary approach that proved so successful in an area of limited regulatory authority

94-1

Pacific Merchant Shipping Association  
300 Oceangate, 12<sup>th</sup> Floor, Long Beach, CA 90802

Phone (562) 432-4040 Fax (562) 432-4048

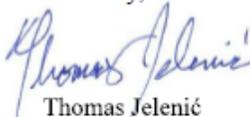
Mr. Wayne Nastri  
Re: Revised Draft 2016 Air Quality Management Plan  
November 7, 2016  
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- The measures risk the future economic growth in San Pedro Bay, which will be necessary to pay for the deployment of advanced technology that SCAQMD seeks

For all of these reasons, SCAQMD must remove the facility-based mobile source measures from the AQMP. The inclusion of the facility-based mobile source measures will only serve to hamper the cooperation necessary to develop and deploy new technologies at our local ports. It will stifle the cooperation of port-related businesses, who will be rightfully concerned that their voluntary efforts would be transformed into command-and-control strictures that will limit their opportunity to grow and thrive. These measures will only ensure conflict among stakeholders which will ultimately prevent and impede progress.

PMSA hopes that it can work with SCAQMD to develop alternatives, like the San Pedro Bay Clean Air Action Plan, to the flawed facility-based control measures as SCAQMD moves toward finalization of the 2016 Air Quality Management Plan.

Sincerely,



Thomas Jelenić  
Vice President

Attachment: PMSA Comment Letter on Draft AQMP, dated August 19, 2016

94-1  
Con't



August 19, 2016

Wayne Nastri  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

*Submitted Electronically at:*

*<http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/Draft2016AQMP>*

**Comments on the Draft 2016 Air Quality Management Plan**

Dear Mr. Nastri:

The Pacific Merchant Shipping Association (PMSA), on behalf of its member ocean carriers and marine terminals operating in the South Coast Air Basin and throughout California, submits the following comments regarding the South Coast Air Quality Management District's (SCAQMD) Draft 2016 Air Quality Management Plan (AQMP).

Over the past decade, the members of PMSA have significantly reduced emissions from cargo operations at the San Pedro Bay ports. In a cooperative approach with the ports of Long Beach and Los Angeles, PMSA members have invested billions of dollars in technology and infrastructure that has made the Clean Air Action Plan both a success and a model throughout the world. Since 2005, diesel particulate matter emissions have been cut over 80%, sulfur oxides by 97%, and nitrogen oxides by 50%. This achievement could have only been achieved through the cooperation fostered by the ports with ocean carriers and terminal operators.

Moreover, the cooperative approach established through the Clean Air Action Plan allows for significant emission reductions, even with the economic shock of the Great Recession, without harming the flow of cargo through the two ports that is the lifeblood of Southern California's economy. While our members have proved resilient that does not mean that poorly considered planning will not seriously harm the ports and the businesses and communities that rely on them. With that in mind, PMSA has two areas upon which it will focus its comments: incentive-based strategies and facility-based mobile source measures.

**Pacific Merchant Shipping Association**  
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### **Incentive Funding Must Be Prioritized**

Emission reduction strategies at the ports rely on expensive infrastructure improvements and significant levels of capital investment by the private sector. Over the past decade, PMSA members have spent billions modernizing terminals, installing infrastructure and upgrading vessels for shorepower, replacing cargo handling and terminal equipment, demonstrating new low-emission and zero-emission technologies, and improving efficiency. All of this has occurred despite significant losses of market share and lack of growth in container volumes.

While our members will continue investing in Southern California, the rate of improvement that the AQMP seeks is not sustainable without higher levels of container throughput long-term, and in the short-term cannot be achieved without incentive funding to accelerate turnover and invest in new technologies. Moreover, it is increasingly more difficult to reach the new goals when compared to the reductions that have already been achieved at great cost. A recent study conducted by Moffat & Nichol for PMSA estimates that terminal operators will invest roughly \$7 billion in California-based marine terminal equipment, but would incur an additional \$16-\$28 billion in order to replace the current cleaner equipment with even cleaner zero and near-zero equipment.

That investment would be a challenge based on normal fleet turnover time frames. It is near impossible on the timeframe envisioned in the AQMP without significant incentive funding. And, a further challenge, it is estimated that ocean carriers will lose \$5 billion this year due to historically low freight rates that are ravaging the industry. As a result, we urge SCAQMD to strengthen the use of incentive funding in the AQMP and identify specific funding needs, consistent with the Moffat & Nichol study, for maritime sources.

Given the importance of incentive funding to meeting the goals of the AQMP, the inclusion of any growth controls on the ports is exceptionally problematic. The inclusion of such measures puts in jeopardy the very ability for terminals and carriers to access the incentive funding necessary to achieve the AQMP's goals. While the ports have used programs like the Technology Advancement Program to spur new technologies for the maritime sector, those funds have been supplemented with other local, state, and federal funding. That funding is nearly always dependent on emission reductions being surplus over and above regulatory baselines. The inclusion in the AQMP of measures such as MOB-01 (discussed further below) will necessarily put that funding into jeopardy by calling into question whether future emission reductions are surplus.

If the goals of the AQMP cannot be achieved by 2024 and 2031 without significant incentive funding, but the very structure of the AQMP risks that incentive funding by being overly proscriptive, then the AQMP must be revised to ensure incentive funding will not be at risk in order to meet the region's goals.

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### **Facility-based Mobile Source Measures Must Be Removed**

The draft AQMP includes several facility-based mobile source strategies that go well beyond SCAQMD's authority. The inclusion of MOB-01, Emission Reductions at Commercial Marine Ports, in particular, attempts to establish SCAQMD control over mobile sources that are outside its jurisdiction. SCAQMD has no authority over mobile sources, particularly port-related sources. Port-related mobile sources are under the authority of the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (US EPA). Further, SCAQMD does not have the authority to limit land use or growth as contemplated in MOB-01. In California, land-use decisions are the domain of local cities and counties. Local air districts do not, and should not, dictate to local governments how they may or may not choose to organize and plan their communities.

Over the course of the public process, SCAQMD staff has described the facility-based mobile source measures, including MOB-01, in varying, contradictory ways. During one AQMP Advisory meeting, staff described the collection of facility-based mobile source measures as not necessary to demonstrate attainment with the National Ambient Air Quality Standards (NAAQS), as evidenced by the lack of an emission reduction commitment. Later, during another AQMP Advisory meeting, SCAQMD staff described the facility-based mobile source measures as the local implementation of CARB's Mobile Source Strategy, specifically the "Further Deployment of Technology" measures. But, while CARB's Mobile Source Strategy does include a reference to SCAQMD's mobile source strategies, CARB's document states that the "further deployment measures will rely on expanded incentive funding programs to accelerate deployment, as well as advocacy for additional actions at the federal and international level, along with efforts to increase system efficiencies," and, significantly, it does not describe facility-based mobile source measures. As the recently-released California Sustainable Freight Action Plan specifically reiterates, "[t]here is no direction to implement a freight facility performance targets measure in either ARB's *Mobile Source Strategy* or *Proposed 2016 State Strategy for the State Implementation Plan*."<sup>1</sup> In any case, staff has not adequately described these measures and, given SCAQMD's clear lack of authority, staff must remove these measures from the final AQMP.

SCAQMD's inclusion of the facility-based mobile source measures in the AQMP threatens the very basis of the success of the CAAP: voluntary cooperation among port stakeholders. The inclusion of these measures will cast a pall over the upcoming efforts at the ports. Both ports have recently announced an update to the CAAP in order to continue their successful efforts to improve air quality. In addition, the Port of Los Angeles recently announced a new effort, establishing the Sustainable Freight Advisory Committee, that seeks the support of port

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<sup>1</sup> Sustainable Freight Action Plan, Appendix C, p. C-41,  
[http://www.casustainablefreight.org/files/managed/Document/282/CSFAP\\_AppendixC\\_FINAL\\_07272016.pdf](http://www.casustainablefreight.org/files/managed/Document/282/CSFAP_AppendixC_FINAL_07272016.pdf)

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stakeholders to accelerate the introduction of electric vehicles and equipment. Both the CAAP and Sustainable Freight efforts are founded on the principle that only through voluntary cooperation can the highest levels of investment and emissions reductions be reached. This essential cooperation will be jeopardized by the vague, unenforceable threat posed by the facility-based mobile source measures.

Despite the fact that there are no emission reductions associated with the facility-based mobile source measures, SCAQMD chose to include these contentious measures in the AQMP. It makes no sense to include strategies that, based on SCAQMD staff statements, are not needed to demonstrate attainment with the NAAQS. The facility-based mobile source strategies do not further goals of the AQMP or State Implementation Plan.

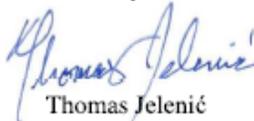
For all of these reasons, SCAQMD must remove the facility-based mobile source measures from the AQMP. The inclusion of the facility-based mobile source measures will only serve to hamper the cooperation necessary to develop and deploy new technologies at our local ports. It will stifle the cooperation of port-related businesses, who will be rightfully concerned that their voluntary efforts would be transformed into command-and-control strictures that will limit their opportunity to grow and thrive. These measures will only ensure conflict among stakeholders which will ultimately prevent and impede progress.

#### **Support National and International Standards**

Finally, PMSA asks SCAQMD to continue its support for national and international standards for federal sources. Improving standards at these jurisdictional levels are necessary to achieve emission reductions at the ports and for allowing the long-term growth that will support our local communities and higher levels of investment in emissions reduction technologies. PMSA supports SCAQMD in efforts that seek to control emissions from the appropriate regulatory body, including the International Maritime Organization, US EPA, or CARB.

PMSA looks forward to working with South Coast Air Quality Management District on the next draft of the 2016 Air Quality Management Plan and its eventual finalization.

Sincerely,



Thomas Jelenić  
Vice President

**Responses to Comment Letter from Pacific Merchant Shipping Association (PMSA)**  
**(Comment Letter 94)**

**Response to Comment 94-1:**

The SCAQMD along with U.S. EPA are identified as co-implementing agencies for the State SIP Strategy “Further Deployment” measures. As such, the proposed facility-based measures are intended to facilitate discussion on collaborative efforts that potentially could provide emission reductions to assist in achieving the goals of the State SIP Strategy. As such, the SCAQMD staff intends to work with all affected parties including the public to identify actions that may be voluntary or regulatory in nature. Even though the facility-based measures do not specify specific emission reductions (since the emission reductions are associated with the “Further Deployment” measures), staff believes that the inclusion of the measures provides a forum for the one-year period discussion. Staff believes that the concerns raised by the commenter will be alleviated to some extent given that the identified actions may be actions that the industry is currently taking to improve operational efficiency and reduce fuel costs.

Also, see response to Comment 49-3.

Responses to comments provided in the attachment to this letter are found in responses to Comment Letter 49.



significant emissions with producing either of those forms of energy.

The Revised Draft AQMP acknowledges the relationship between this new policy statement and SCAQMD's long-standing neutrality policy, and states the District's intent to continue implementing its neutrality policy (see Revised Draft AQMP, page 4-9, paragraph one). Ultimately, however, the implementation parameters of the new "prioritization" policy will determine whether the new policy will serve to trump the SCAQMD's long-standing neutrality policy.

We request that SCAQMD affirm its neutrality policy wherever the new "prioritization" policy is explained, with a statement to read as follows:

"The SCAQMD will continue to follow its long-standing Fuel and Technology Neutral Policy as all technologies and fuels should be able to compete equally to meet environmental needs."

We also believe the best way to assure that SCAQMD continues to follow its long-standing neutrality policy is to establish a working group that will discuss, evaluate, and compare the cost effectiveness and feasibility of the various technologies (e.g., zero emission, near zero emission, and lower emission) applicable to a particular use (e.g., residential space and water heating).

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### **A Regulatory Approach to Control Stationary Sources Drives Up the Cost of the AQMP**

In the Revised Draft AQMP, SCAQMD has put an increased emphasis on regulations as compared to the prior Draft AQMP. However, the facts clearly prove that, even if all stationary sources are regulated to achieve a zero emissions level, the region will still not be in attainment. In other words, we cannot regulate our way to attainment. Thus, incentive-based programs, especially in the near term (pre-2023), are essential to advance the region's air quality goals.

By way of an example, residential appliances, as well as commercial and industrial equipment, typically have long useful lives, and increasing turnover is a more cost effective NOx emission reduction strategy than regulations that must rely upon normal equipment replacement rates (e.g., 15 to 25 years for various categories of boilers/water heaters per the Preliminary Draft Socioeconomic Report, page 57). In fact, traditional regulations will not result in the turnover of equipment to lower emission equipment needed to attain the 2023 ozone standard.

Nevertheless, the Revised Draft AQMP now places an increased emphasis on the promulgation of stationary source regulations as compared to the prior Draft AQMP's emphasis on the development of incentive programs. Such an approach significantly drives up the cost of achieving emission reductions. As compared to the 2012 AQMP, which carried a price tag of \$36.6 million (as measured by 2015 dollars) for stationary source measures, the 2016 AQMP has an Annual Average Cost of \$402.6 million (as measured by 2015 dollars) for the stationary source sector. The primary drivers for this enormous price tag are three stationary source control measures that seek to regulate small, area sources of emissions in residences and commercial applications. Per the Preliminary Draft Socioeconomic Report, CMB-02, Space and Water Heating, has an amortized annual average of \$99.0 million; CMB-04, Emission Reductions from Restaurant Burners and Residential Cooking, has an amortized annual average of \$118.9 million; and ECC-03, Additional Enhancement in Building Energy Efficiency and Smart Grid Technology, has an amortized annual average of \$103.4 million.

95-3

While cost-effectiveness is a primary concern, the relative cost of these three measures demands additional scrutiny and serious efforts to significantly reduce the costs of the stationary source control program. We note that the burden of these control measures will fall mostly on small businesses and individual residents within the air basin. Except for CMB-01, no other proposed control measure even comes close to these three (see Table 2-1 on page 21 of the Preliminary Draft Socioeconomic Report). We also have concerns about the accuracy of the emission reductions proposed for emergency generators, which operate our region's communications systems, hospitals, schools and elevators in power emergencies.

**MOB-01 through -04, and -08 Will Negatively Impact Regional Goods Movement and Goods Movement-Dependent Industries**

We continue to have serious concerns about the proposed control measures MOB-01 through -04 ("Facility Measures") and portions of MOB-08 ("Fleet Rules"). The Revised Draft AQMP does not reflect the serious concern expressed by the business community to these control measures.

Facility Measures and Fleet Rules put the region at a competitive disadvantage with the rest of the country for the following reasons:

- They push private investments in freight facilities and infrastructure outside of the region, thereby lengthening vehicles miles traveled to reach Southern California population centers and increasing emissions.
- They negatively impact wage growth and job creation in a sector which is one of the region's largest providers of working class jobs.
- They create an unnecessary patchwork of regulations as California has already adopted the strictest fleet regulations in the country to meet the basin's needs.

95-4

Emissions from the goods movement sector are projected to fall significantly from current levels due to regulations already in place and new State and Federal measures identified in CARB's Mobile Source Strategy. To achieve further emission reductions in the South Coast, we continue to support voluntary, incentive-based approaches that do not put our Region at a competitive disadvantage. For these reasons, we strongly oppose Facility Measures and expansion of Fleet Rules.

**BizFed Has Serious Concerns About SCAQMD's Proposals to Control Growth and Indirect Sources**

The proposed control measures that identify the emission reductions as "TBD" should be removed from the Revised Draft 2016 AQMP. Per the Revised Draft 2016 AQMP, "TBD" is for emission reductions to be determined once the measure is further evaluated, the technical assessment is complete, and the inventory and cost-effective control approaches are identified. Importantly, the "TBD" control measures are *not* relied upon for attainment demonstration purposes.

As these "TBD" control measures stand, they cannot meet the Clean Air Act requirements for a SIP submittal. Further, by including these control measures in the 2016 AQMP, the District is committing to develop rules regardless of the process outcome and putting the South Coast Air Basin at risk of sanctions if the process shows these measures should not be implemented.

95-5

Additionally, MOB-01 through MOB-05 and EGM-01 are indirect source control measures that cannot be required as a condition of SIP approval by EPA or CARB. (42 U.S.C. § 7410(a)(5)(A)(ii); Cal. Health & Safety Code, § 40468.) Only those provisions necessary to meet the requirements of the Clean Air Act can be included in the SIP. (Cal. Health & Safety Code, § 39602.) Therefore, the District is not required statutorily to adopt EGM-01 simply because another air district has adopted this measure.

Moreover, the District intends to utilize EGM-01 to promote a regionwide shift toward compact development and active transportation with implications for trip generation, as documented in SCAG's 2016 RTP/SCS pursuant to SB 375. This is a violation of the California Health and Safety Code that prohibits the District from assuming any land use control. This measure also overlaps with the CEQA process and will delay projects (including air quality beneficial projects) and unnecessarily increase development costs.

Via MOB-01 through MOB-05 and EGM-01, the District is also inappropriately attempting to enforce the unattainable modeling assumptions in the SCAG's SCS, and any modified assumptions the District utilized in the Draft 2016 AQMP. If EPA approves this novel and significant change in SIPs in its final

rulemaking, it will be signaling to states and local agencies that they can enforce assumptions. This will undermine the SIP process and lead to serious disagreements and controversies over all assumptions states and local agencies include in their SIPs because the regulated community will be fearful that any technical assumptions included in the SIP will be enforced in the future. Technical assumptions estimated by scientists will become political decisions. Further, this approach has been disapproved by the Ninth Circuit Court of Appeals in *Bayview Hunters Point Community Advocates v. Metropolitan Transportation Commission*, 366 3d 692 (9th Cir. 2004).

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We also note that the District is relying on securing significant funding for incentives to implement early deployment and commercialization of zero and near-zero technologies, and there are a number of funding sources available provided the emission reductions are not required by a plan or rule. Thus, by making voluntary actions, mandatory, the District will reduce the funding sources that would otherwise be available.

### **BizFed Supports Maintaining the RECLAIM Program**

The District's RECLAIM (REgional CLEAN Air Incentives Market) Program is the world's first comprehensive market program for reducing air pollution. The success of the program is well documented: it has resulted in a 70% reduction of NOx & SOx emissions at RECLAIM facilities over the last 20 years, and currently requires NOx emissions to be reduced another 45% over the next 6 years. (This rate of pollution reduction is far greater than any other program in the region.) The facilities currently regulated by RECLAIM (power plants, refineries, breweries, amusement parks, etc.) produce only 5% of the NOx emissions in the air basin, while emissions from mobile sources such as cars & trucks make up 88% of the air basin's emissions.

BizFed supports maintaining the RECLAIM Program, which is viewed as an innovative, more economical approach to clean air when compared to traditional command-and-control regulations. The flexibility offered by RECLAIM allows facilities to recognize emissions below their cap as part of the "bottom line", which further incentivizes facilities to reduce their emissions. A traditional command-and control approach does not address growth rates and could potentially interfere with expected emissions reductions for the region. Without RECLAIM, Southern California companies and the regional economy would suffer unnecessary constraints on economic growth by making it even more difficult for the region to attract new businesses or to encourage upgrades of existing businesses. Until a suitable alternative is formulated that provides similar flexibility to facilities to achieve emission reductions that meet or exceed command and control regulations in the most cost-effective way, the Program should remain intact to give businesses the flexibility to comply with air regulations through the trading program.

95-6

We firmly believe RECLAIM will continue to be a successful program that merits recognition of past achievements and appreciation of what it can continue to accomplish in the future. Until a suitable incentive and/or market-based program is developed for businesses that allows the flexibility for emission reductions to be achieved in the most cost-effective manner, RECLAIM should continue to be supported by SCAQMD. Such an approach will help protect against endangerment of the regional economy now and in the future.

In addition, the basis presented for proposed Control Measure CMB-05 is fundamentally flawed and lacks any technical rationale to support the notion that 5 tons per day (tpd) of additional creditable emission reductions could be achieved by 2031 given the amendments to the RECLAIM Program adopted in December 2015 (see pages 3 and 4 of BizFed's comment letter dated August 18, 2016 on the Draft 2016 AQMP).

### **BizFed Continues to Have Concerns About Cost-Effectiveness**

We are acutely aware of the considerable disagreement that exists between SCAQMD staff and many segments of the business community - large and small - over the ways in which cost-effectiveness

95-7

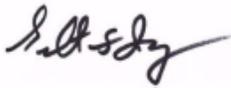
values are calculated and used to justify certain regulatory actions. We wish to re-affirm our stance that, when the District calculates such values and offers cost-effective alternatives, stakeholders should not be adversely burdened either operationally or financially, as is too often the case.

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In closing, BizFed continues to appreciate the District's engagement with the business community during the development of the 2016 AQMP, and we remain committed to working with SCAQMD to ensure the Plan fulfills its legal requirements while also protecting and promoting job creation and economic success for Southern California.

Thank you for considering our viewpoints on this important matter.

Sincerely,



Gilbert F. Ivey  
BizFed Chair  
Former CAO,  
Metropolitan Water District



David Fleming  
BizFed Founding Chair



Tracy Hernandez  
BizFed Founding CEO  
IMPOWER, Inc.



While likely evident, we must underscore that this is not simply an academic concern. The costs of further under-predicted reductions would be extremely high. SCAQMD's preliminary cost summary for the Draft 2016 AQMP's control measures is \$38 billion (2017 present value), which includes almost \$14 billion in incentives, between 2017 and 2031. If future ozone reductions are under-estimated (leading to an over-estimation in needed reductions), perhaps dramatically, then standards imposed on the regulated community and incentive funds may be unnecessarily large.

The District has a well-earned reputation of being on the forefront of regulatory emissions and photochemical modeling science. BizFed recommends that SCAQMD dedicate funding and staff resources to work with ARB and industry technical experts on an expedited basis, with resolution of these issues in 2017 being a priority. Ultimately, these issues may not be resolved in the timeframe of the 2016 AQMP development; at a minimum, however, they should be acknowledged in control strategy commitments to USEPA. In addition, the public should be allowed at least one-month (30 days) to review and comment on Appendix V, entitled "Modeling and Attainment Demonstrations," of the Draft AQMP upon its issuance.

### **The Overall Policy Framework Should Prioritize Cost-Effective, Non-Regulatory, and Innovative Approaches to Emission Reductions**

BizFed is supportive of an AQMP establishing a policy framework that prioritizes non-regulatory, innovative approaches to emission reductions that are cost-effective and minimize operational disruptions. Programs or control measures must allow for and should incentivize voluntary and collaborative approaches to achieving air quality goals. Furthermore, we believe that an AQMP should not be punitive, especially as the region has made tremendous strides lowering emissions from stationary and mobile sources. To this end, the Draft 2016 AQMP includes incentives to encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits air quality and the local economy. We support this approach and appreciate the District's efforts to partner with industry.

Currently, the Plan estimates that the amount of incentive funding needed is approximately \$11 – 14 billion over a seven to fifteen-year period. We urge the District to provide additional information as to how much funding has been secured, how much funding has yet to be obtained, and the timeline over which the balance of funds is expected to be received and become available for use. BizFed is committed to collaborating proactively with the District to help develop solutions for obtaining the needed funding. We understand that this will take a strong public-private effort, and we look forward to working with SCAQMD on this matter.

### **BizFed Has Serious Concerns About SCAQMD's Proposals to Control Growth and Indirect Sources**

SCAQMD proposes one growth management measure, EGM-01 - Emission Reductions from New Development and Redevelopment Projects, and four "facility-based" mobile source measures: MOB-01 - Emission Reductions at Commercial Marine Ports, MOB-02 - Emission Reductions at Rail Yards and Intermodal Facilities, MOB-03 - Emission Reductions at Warehouse Distribution Centers, and MOB-04 - Emission Reductions at Commercial Airports. These control measures seek to reduce emissions from on- and off-road sources, which are within the exclusive purview of ARB and the U.S. EPA. Importantly, both ARB and the U.S. EPA already have rules and regulations in place for these sources to significantly reduce NOx emissions. According to the Draft 2016 AQMP, "[t]he effect of the rules and regulations are significant, showing reductions of over 67 percent in NOx emissions and close to 60 percent in VOC emissions between 2012 and 2023, even with increases in fleet population," (Draft 2016 AQMP, Chapter 3, p. 3-4.)

BizFed has serious concerns about the SCAQMD making commitments to the state and federal governments that it will control growth and indirect sources because SCAQMD lacks authority to control growth or overrule local land use decisions, and land use is within the exclusive purview of

local cities and counties. Furthermore, not only does SCAQMD lack the authority to adopt indirect source rules, such rules would likely have a chilling effect on business development.

Critically, both the District and ARB have acknowledged that the growth management and indirect source control measures are not necessary to meet the requirements of the federal Clean Air Act. Further, there is no emission reduction target for these control measures in the Draft 2016 AQMP, and there is little to no emission reduction benefit from the indirect source control measures. Instead, additional mobile source emission reductions will come from new measures that call for greater emission reductions through accelerated turnover of older vehicles to the cleanest vehicles and equipment currently available and increased penetration of commercially-available near-zero and zero-emission technologies through existing incentives programs.

### **Measures MOB-1 through MOB-4, and MOB-8 Will Negatively Impact Regional Goods Movement and Goods Movement Dependent Industries**

We have serious concerns about the effects that the proposed control measures MOB-1 through MOB-4 ("Facility Measures") and portions of MOB-8 ("Fleet Rules") will have on goods movement and goods movement-dependent industries.

BizFed has repeatedly opposed freight facility emission caps and performance targets. The proposed Facility Measures may leave the door open for the adoption of such regulations. These concepts would represent an unprecedented, and legally questionable, expansion of the SCAQMD's regulatory authority of the freight industry at a time when the industry is spending billions of dollars to reduce key pollutants by as much as 99 percent.

We are also concerned about any expansion of the District's Fleet Rules to private trucking fleets, which was already struck down by the United States Supreme Court.

Facility Measures and Fleet Rules put the region at a competitive disadvantage with the rest of the country because they:

- Push private investments in freight facilities and infrastructure outside of the region.
- Negatively impact wage growth and job creation in a sector that is one of the region's largest providers of working class jobs.
- Create inefficiencies by creating incentive to cite freight facilities outside the region, thereby lengthening vehicle miles traveled to reach Southern California population centers and increasing emissions.
- Create an unnecessary patchwork of regulations as California has already adopted the strictest fleet regulations in the country to meet the basin's needs.

### **Measure CMB-05 Is Not Needed Due to the December 2015 Amendments to the RECLAIM Program, and Its Reductions Are Unsubstantiated**

The Draft AQMP, in control measure CMB-05, proposes a reduction target of 5 tpd from the NO<sub>x</sub> RECLAIM program by 2031. The presented basis for this measure is to address "issues that arose during recent NO<sub>x</sub> RECLAIM amendments." (Draft 2016 AQMP, Appendix IV, p. IV-A-77.)

However, all of the so-called "issues" were addressed by the December 2015 amendments to the RECLAIM program or about to be moot based on pending rulemaking. For example, by its very design, the December 2015 RECLAIM rulemaking will essentially eliminate all previously "unused" RTCs once fully implemented by 2023. The December 2015 rulemaking also features an "off-ramp" for Electrical Generating Facilities at BACT or BARCT, so that remaining RECLAIM facilities will have to meet the Staff's BARCT levels (found in Rule 2002) on a programmatic basis. Staff also is now proposing

RECLAIM amendments for confiscation of RTCs from shutdown facilities. Further, several other "issues" are no longer valid concerns given the 2015 amendments to RECLAIM. And several of the other concepts (e.g., command-and-control overlays, the role of investors, etc.) are matters of District policy and/or State law, and should be considered beyond the scope of this AQMP.

Given the substantial emission reductions already achieved by the RECLAIM program, and the very large pending reductions being required under the December 2015 amendments, we are very concerned about proposed CMB-05 and the cost burden it would impose on the Southern California economy. Furthermore, Staff has provided no factual basis to support taking 5 tpd of additional reductions out of the NOx RECLAIM program. We strongly recommend this measure be removed from the AQMP. If the district insists on including a RECLAIM control measure in this AQMP, it should be a range since what is included in the AQMP is the minimum commitment to USEPA that must be met. We recommend a range of 0-3 tpd.

In closing, as the District moves forward to finalize the 2016 AQMP, the business community that we represent and, we believe, the business community at large remain committed to working with SCAQMD to ensure the Plan fulfills its legal requirements while also protecting and promoting job creation and economic success for Southern California. Thank you for allowing us the opportunity to provide our comments on this important matter.

Sincerely,



Gilbert F. Ivey  
BizFed Chair  
Former CAO,  
Metropolitan Water District



David Fleming  
BizFed Founding Chair



Tracy Hernandez  
BizFed Founding CEO  
IMPOWER, Inc.

**Responses to Comment Letter from Los Angeles County Business Federation (BizFed)**  
**(Comment Letter 95)**

**Response to Comment 95-1:**

Staff appreciates comments on the 2016 Revised Draft AQMP and continued participation in the AQMP development process.

**Response to Comment 95-2:**

Please see Response to Comment 17-3 regarding technology and fuel neutrality. Staff does not view prioritizing maximum emission reductions from the cleanest technology as favoring a particular technology. There are many paths to reduce emissions and we encourage businesses and consumers to make choices that will benefit air quality. With regard to clearly stating and reinforcing such a policy, the commenter is directed to Page 4-9 in Chapter 4 of the 2016 AQMP that discusses the performance-based policy that includes technology and fuel neutrality.

**Response to Comment 95-3:**

SCAQMD continues to recognize the short-term benefits from encouraging and supporting transitions to cleaner technologies outside the regulatory framework with the application of incentive opportunities. Staff believes there can be a balance in achieving the aims of clean air while not imposing an undue cost burden on the regulated community, including small businesses. Staff's goal, in collaboration with interested stakeholders, is to identify the most cost-effective approaches that are best in achieving maximum emission reductions for less money spent. This approach includes the application of incentivized opportunities.

Staff agrees that increasing turnover is a cost-effective approach to reduce emissions and therefore the 2016 AQMP has identified several incentive control measures to accelerate this turnover. The increased appliance efficiencies and emission reductions within measures ECC-03 and CMB-01, will incentivize equipment beyond current SCAQMD regulations and existing efficiency programs which will ease the burden of complying with possible upcoming control measures. For many of these control measures we anticipate the incentives will lead to further technology development along with declining costs for high efficiency and low emission technologies. While the upfront costs for many of these control measures appear high, the increases in efficiency with replaced equipment often has short payback periods.

The cost of the 2016 AQMP is higher than the 2012 AQMP mainly because the 2012 plan was not an ozone plan and while a few early ozone control measures were included in the 2012 AQMP, it was not a comprehensive ozone reduction strategy to demonstrate attainment included in the 2016 AQMP. In addition, the costs of CMB-02, CMB-04, and ECC-03 have been revised, mainly to reflect incremental cost instead of total equipment cost. The combined cost net of incentives for CMB-02, CMB-04, and ECC-03 would now amount to about 29 percent of the overall net-of-incentive costs among all proposed stationary source control measures. Please refer to the Draft Socioeconomic Report for the updated cost estimates.

**Response to Comment 95-4:**

The SCAQMD staff acknowledges the concerns raised that Measures MOB-01 through MOB-04 and MOB-08 will cause a competitive disadvantage to the industry. It is the primary intent of the measures to work

collaboratively with affected stakeholders and the public to identify actions that will not be disruptive to the industry.

**Response to Comment 95-5:**

See response to Comment 86-2.

The commenter stated that “the District intends to utilize EGM-01 to promote a region-wide shift toward compact development and active transportation with implications for trip generation, as documented in SCAG’s 2016 RTP/SCS pursuant to SB 375.” This is not the intention of the staff. Proposed Measure EGM-01 seeks to mitigate emission impacts from new and redevelopment projects. There is no specific control method proposed for EGM-01, but rather, through a public process, staff will work with affected parties to identify actions that potential result in emission reductions. These actions can be voluntary or regulatory in nature, but must be enforceable if they are to be credited to the SIP. The *Bayview Hunters Point* case cited held that an emission inventory by itself was not enforceable but did not preclude agencies from adopting enforceable measures to limit emissions from indirect sources. Moreover, the RTP/SCS incorporated into the AQMP pursuant to Health & Safety Code § 40460(6)

**Response to Comment 95-6:**

Staff acknowledges the success of the RECLAIM program and its resultant emission reductions since its inception. The draft final control measure CMB-05 states that a RECLAIM working group will be convened in the spring of 2017 to assess various aspects of the program, including potentially an orderly transition to a command and control regulatory structure and possible overlays of command and control with cap and trade for some facilities to provide flexibility. Please see Response to Comment 23-6 regarding the basis for the proposed control measure CMB-05.

**Response to Comment 95-7:**

The 2016 AQMP has updated cost-effectiveness thresholds provided in Chapter 4 of the 2016 AQMP that provides staff guidelines in developing the proposed control measures. If determined to exceed those recommended thresholds, staff revisits the proposal, the affected universe, the control and expected reductions to ensure the proposed measures are cost-effective. Further, during rule development, more information will be determined during the technical evaluation that could modify the cost-effectiveness of the proposed rule, but the thresholds to compare the cost-effective values do not change.

**Responses to the Attachment to this letter are found in Responses to Comment Letter 23.**

**Comment Letter from the Ports of Long Beach and Los Angeles (Comment Letter 96)**

SAN PEDRO BAY PORTS  
**CLEAN AIR ACTION PLAN**

November 7, 2016

Mr. Wayne Nastri  
Acting Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

*Electronic Submittal Via:*  
<https://onbase-pub.agmd.gov/sAppNet/UnityForm.aspx?key=UFSessionIDKey>

**SUBJECT: COMMENTS BY PORTS OF LONG BEACH AND LOS ANGELES ON  
REVISED DRAFT OF SOUTH COAST AIR QUALITY MANAGEMENT  
DISTRICT'S 2016 AIR QUALITY MANAGEMENT PLAN**

Dear Mr. Nastri:

The Port of Long Beach and Port of Los Angeles (Ports) appreciate the opportunity to participate in the South Coast Air Quality Management District's (District or SCAQMD) 2016 Air Quality Management Plan Advisory Committee, and to comment on the *District's Revised Draft 2016 Air Quality Management Plan* (either "Revised Draft" or "AQMP") released to the public on October 7, 2016.

The Ports previously submitted comments on the June 2016 draft of the 2016 AQMP on August 19, 2016, which are attached hereto. The Revised Draft, however, does not acknowledge or respond to the Ports' previous comments and objections to the proposed AQMP (and in some cases appears to further aggravate issues to which objections have been raised). The Ports therefore respectfully request that their comments be deemed to be incorporated in the Ports' comments on the current Revised Draft.

The Ports also note that their ability to provide comments on all aspects of the proposed new 2016 AQMP is precluded by the lack of complete information in the Revised Draft AQMP;

96-1



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e.g., proposed control measure MOB-01 is incomplete and vague, the socio-economic analysis and incentive funding plans have not yet been completed and the critical Appendices V and VI have not yet been finalized or released to the public. Accordingly, the Ports request that the District extend the comment period on the 2016 AQMP to allow the public an adequate opportunity to review and further comment on all Appendices and other critical components of the AQMP (e.g., the socioeconomic analysis, Incentive Funding Action Plan, etc.) well before the AQMP is to be submitted for consideration by the District Board.

96-1  
Con't

### OVERVIEW OF ISSUES

The cities and businesses that move goods in and out of the Ports are vital to the regional, state, and national economy. The international cargo handled by the Ports accounts for over 1.1 million jobs in California and 3.3 million jobs in the United States; however, competition for much of this cargo is intensifying particularly with other international ports (Panama Canal, Canada, Mexico). The Ports are global leaders in the highly successful Clean Air Action Plan (CAAP) and other environmental programs, working in partnership with the port-related industry to reduce emissions from goods movement sources (ships, trains, trucks, cargo handling equipment, harbor craft). The CAAP, however, is not a blue print for the AQMP. The control measures in the Revised AQMP holds the Ports and related facilities responsible for shortfalls in voluntary CAAP measures, and will deter other ports and industries from any type of voluntary action.

The Ports have been innovative and effective leaders in the efforts of public agencies to improve air quality despite the fact that the Ports do not have regulatory authority or control over the emissions sources. Working collaboratively and voluntarily with the EPA, CARB, and the District, the Ports' efforts have achieved unprecedented success in helping the maritime goods movement industry obtain substantial reductions in emissions. The Ports continue to remain firm in our position that the District's attempt to regulate the Ports as "indirect sources" is unnecessary and counterproductive to the successful collaborative approach, and should not be included in the SIP. The District is inappropriately proposing to impose enforcement actions on the Ports for emissions generated by emissions sources that the Ports do not own, operate, or control. The District should, respectfully, focus on funding efforts as opposed to regulation that would detour from the overall objective of improving air quality.

96-2

As the Ports have noted in these and prior comments, the District lacks authority to adopt any control measure or "backstop" rule that would go into effect if the emission targets for NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>2.5</sub> from port-related sources are not met. Nor are such measures necessary because the Ports' recent emissions inventories show that the ports have exceeded the projected emission reduction targets identified in the CAAP. For example, diesel particulate matter (DPM) emissions have been reduced by 85% over the 9 year period between 2005 and 2014. In addition, emissions of nitrogen oxides (NO<sub>x</sub>) are down by 51%, and sulfur oxides (SO<sub>x</sub>) emissions have been reduced by 97%.

The Ports continually develop and support emission reduction strategies and programs that will result in cleaner air for the local communities and the region. These efforts have been entered into voluntarily, working cooperatively with the operators in the port area and the air quality regulatory agencies working aggressively with the goods movement industry to reduce

air quality impacts from the equipment they operate. The potential for additional regulation by the District on the Ports brings significant uncertainty that will have broad negative effects on the goods movement industry and the economy as a whole, and will jeopardize the voluntary, collaborative partnership between the cities, the industry, and all of the air agencies that has led to the significant emissions reductions achieved to date.

96-2  
Con't

The current Revised Draft 2016 AQMP raises many concerns, and grounds for objection, in addition to the numerous concerns with the 2016 AQMP previously raised by the Ports. Those comments and objections are detailed in the attachment(s) to this letter. However, we take this opportunity to briefly note, and highlight for the District's consideration and response, the following points raised by the Revised Draft AQMP:

**1. The District Lacks Jurisdiction To Adopt Or Implement Several Of The Control Measures Proposed By The 2016 AQMP.**

The Ports, and others, have repeatedly pointed out the limitations imposed by federal and state law on the District's authority to impose regulations on emission sources that are not within its jurisdiction. Air pollution control districts only have the authority "to adopt and enforce rules and regulations" as to "emission sources under their jurisdiction. (Health & Safety Code, § 40001, sub. (a).)" (*Friends of Oceano Dunes, Inc. v. San Luis Obispo County Air Pollution Control District* (2015) 235 Cal.App.4th 957, 963, as modified on denial of reh'g (Apr. 23, 2015).

The revisions to the current draft AQMP have not only ignored those objections, but have actually proposed to move the District into even more flagrant excesses of the District's limited regulatory jurisdiction by repeatedly calling not just for incentive-based "control measures" but threatening the creation of new rule-making and "regulations" that would be imposed on emission sources beyond the District's existing legal jurisdiction. (E.g., Revised Draft AQMP, p. 4-3: "These strategies include *aggressive new regulations and* development of incentive funding ... " [newly revised text in italics]; *id.* at p. 4-22 & 23, also, Appendix IV-A-6 through 9.)

96-3

The District's authority to regulate is limited to its jurisdictional boundaries. The District was created by the California Legislature "in those portions of the Counties of Los Angeles, Orange, Riverside, and San Bernardino included within the area of the South Coast Air Basin, as described in Section 60104 of Title 17 of the California Administrative Code, as now or hereafter amended." (Cal. Health & Safety Code, § 40410.) The District's boundaries do not include the ocean area adjacent to the South Coast Air Basin. Thus, the District lacks authority to adopt and enforce measures in the AQMP because it does not have jurisdiction to regulate emission sources outside of its geographical boundaries as would be required if the CAAP programs become involuntary and mandatory.

The Cities' management of the Ports is largely subject to their roles as trustees of tidelands under the legislative acts that granted tidelands to the Cities under a public trust. As tidelands trustees, the Cities have been granted the discretion over how to best fulfill the express trust purposes. The District cannot adopt policies, control measures, or regulations that might attempt to compel the Ports to violate these tidelands trust obligations.

2. **The 2016 AQMP Would Exacerbate The Legal Conflicts Resulting From The District's Attempts To Regulate Mobile Sources Disguised As "indirect source control measures and regulations."**

The District has no authority to regulate mobile sources, or to arbitrarily group source categories or invoke geographic boundaries (e.g., the Ports) and declare those areas or groups of sources, by mischaracterizing them as an "indirect source." The Ports and the activities conducted there are not "indirect sources" of emissions within the meaning of the federal Clean Air Act (42 U.S.C. § 7410(a)(5)(C).) An "indirect source review program" is "the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution" that would contribute to the exceedance of the NAAQS. (42 U.S.C., § 7410(a)(5)(D)(i).) "Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose" of an indirect source review program. (42 U.S.C. § 7410(a)(5)(C).) Indirect source control measures cannot be required as a condition of SIP approval by EPA or CARB. (42 U.S.C., § 7410(a)(5)(A)(ii); Health & Safety Code, § 40468.) There are no provisions in the Clean Air Act for including "backstop" measures. Only those provisions necessary to meet the requirements of the Clean Air Act can be included in the SIP. (Health & Safety Code, § 39602.) Backstop measures are not necessary to meet the 24-hour PM<sub>2.5</sub> NAAQS requirements of Clean Air Act, and there is no emission reduction target in the attainment strategy for AQMP which the proposed measures purport to implement. (See e.g., 40 C.F.R. §§ 51.112-51.114.)

96-4

Furthermore, air pollution control districts such as SCAQMD are not authorized to regulate or impose a permit system on "indirect sources" of emissions. (*Friends of Oceano Dunes, Inc. v. San Luis Obispo County Air Pollution Control District*, *supra*, 235 Cal.App.4th at 964.)

The AQMP control measures appear to be yet another misguided effort to use the Clean Air Act's indirect source provisions as a guise to impermissibly regulate mobile sources. The District cannot regulate emissions from on- and off-road mobile sources operating at, and to and from, the Ports, which includes ocean-going vessels and locomotives. The District cannot regulate emissions from the tailpipes of on-road and off-road mobile sources, or enact mobile source regulations. The District also cannot regulate off-site emissions (emissions occurring during transit "to and from" the purported "site"). Congress did not intend or authorize the use of the indirect source provisions of the Clean Air Act as a way to circumvent mobile source preemption.

3. **The 2016 AQMP Would Violate The Dormant Commerce Clause.**

The control measures proposed in the Revised Draft AQMP would have serious negative effects on international and interstate commerce, navigation, maritime as well as land-based commerce, and will add unique and 'discriminatory' burdens which will have the effect of impeding California's and the Ports' economic competitiveness. Accordingly, these measures will likely undergo close scrutiny under the federal constitution's "dormant commerce clause" and "rights and immunities" protections.

96-5

“The high court’s dormant commerce clause jurisprudence “significantly limits the ability of States and localities to regulate or otherwise burden the flow of interstate commerce.” (*McBurney, supra*, 569 U.S. at p. \_\_\_ [133 S.Ct. at p. 1719] ....) . Generally speaking, the Commerce Clause protects against inconsistent legislation arising from the projection of one state regulatory regime into the jurisdiction of another State. [Citation.]” (*Healy, supra*, at pp. 336-337.)” (*Alamo Recycling, LLC v. Anheuser Busch InBev Worldwide, Inc.* (2015) 239 Cal. App.4th 983, 996.)

96-5  
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**4. The AQMP Would Unconstitutionally Impose Unfunded State Mandates.**

The California Supreme Court recently ruled in *State Department of Finance v. Commission of State Mandates (County of Los Angeles)* (2016) 220 Cal.App.4th 740, that certain requirements of the 2001 Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit could be considered unfunded State mandates that would violate the constitutional prohibition against such unfunded mandates (Cal.Const. art. X III B, sec. 6(C), unless adequate state reimbursement was also provided. The same rationale would apply to any unfunded requirements that are imposed upon the Ports under the 2016 AQMP. As framed, the requirements being imposed on the Ports are the creation of the District. The requirements are not “federal mandates” that might be exempted from this constitutional mandate.

96-6

**5. The 2016 AQMP Would Unnecessarily And Erroneously Include Measures Based On Inapplicable NAAQS.**

The District asserts that it is required to have a new attainment demonstration for three NAAQS: (1) the 8-hour ozone NAAQS established in 2008, 75 ppb (2008 8-hour Ozone); (2) the annual PM2.5 NAAQS established in 2012, 12 µg/m3 (2012 annual PM2.5); and, (3) the 24-hour PM2.5 NAAQS established in 2006, 35 µg/m3 (2006 24-hour PM2.5). This is not entirely accurate. EPA has yet to decide whether to revoke the 2008 8-hour ozone NAAQS or to impose appropriate anti-backsliding requirements. EPA will provide guidance on these issues in a subsequent rulemaking. It is premature to address the 2008 8-hour Ozone in the 2016 AQMP until EPA finalizes its rule. The 2016 AQMP demonstrates that the 2006 24-hour PM2.5 standard will be met by the 2019 attainment year with no additional reductions needed beyond already adopted measures. Therefore, the 2016 AQMP does not need to include new control measures to meet this standard. The 2016 AQMP states that the 2012 annual PM2.5 standard cannot be met by 2021, which is the attainment year for the current “moderate” designation. Therefore, the District will be requesting EPA re-designate the Basin as a “serious” nonattainment area, which will provide four more years to attain the annual PM2.5 standard by 2025. The Ports agree this request should be included in the draft 2016 AQMP. The District also concedes it is voluntarily submitting attainment demonstrations for the following NAAQS: (1) 1997 8-hour Ozone NAAQS, 80 ppb and (2) the 1979 1-hour Ozone NAAQS, 120 ppb. The District has prematurely chosen to provide for the alternative NOx/VOC reductions instead of the reasonable further progress demonstration under 42 U.S.C., § 7511a(c)(2) without conducting an economic analysis of these options. (40 C.F.R., § 51.1100(o)(12).) This economic analysis should be conducted and public input sought on this issue before the draft 2016 AQMP addresses the 1997 8-hour Ozone NAAQS and 1979 1-hour Ozone NAAQS.

96-7

6. The District should not conduct its CEQA review or require public comment on the AQMP before all aspects of the Plan have been completed.

The Ports note the difficulty, if not the inefficiencies, posed by the District's continuing practice of releasing the proposed new 2016 AQMP in piecemeal and incomplete fashion. It appears that the current Revised Draft AQMP is itself not yet complete, and anticipates additional substantive content. The necessary socio-economic analysis is also not yet complete.

96-8

As noted in the Ports comments on the Draft EIR, it is procedurally and legally inappropriate for the District to be conducting its CEQA review before the details of the proposed AQMP have been completed. The Ports and the public should not be required to review and comment on important environmental documents before the full shape of the proposed project (2016 AQMP) is better known and disclosed. (See, e.g., *City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1450: "A complete project description is necessary [for CEQA] to assure that all of a project's environmental impacts are considered.")

Additional comments and objections are further detailed in the attachment(s) to this letter.

CONCLUSION

The Ports strongly encourage the District to strongly consider the issues identified herein and in its prior comments on the Draft 2016 AQMP, and to make the above-requested changes to the Draft 2016 AQMP, including but not limited to the following:

- eliminate control measure MOB-01 as it is unnecessary and exceeds the District's authority;
- clarify that control measure EGM-01 and any subsequent rulemaking related to indirect source review does not apply to the Ports; and
- revise control measure MOB-14 to clarify that it does not preclude the maritime goods movement industry's ability to secure grant funding for early actions.

96-9

The Ports also urge the District to complete the appropriate Incentive Funding Action Plan, as well as the appropriate socioeconomic impact analysis, and to provide the Ports and other members of the public with an adequate opportunity for comprehensive review and comment on those documents along with the (revised) Draft 2016 AQMP *prior to* submitting the Plan to the Board for consideration.

The Ports remain committed to achieving our clean air goals identified in the CAAP to help improve regional air quality. We strongly believe that the voluntary and cooperative CAAP process established by the Ports remains the most appropriate forum for the Ports and the air regulatory agencies to discuss technical and policy issues related to reducing emissions from port-related sources.

The Ports appreciate this opportunity to provide comments on the proposed 2016 AQMP. We look forward to continuing to work with the District on advancing our shared goals for clean air in the South Coast region.

96-9  
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Sincerely,



RICHARD D. CAMERON  
Managing Director,  
Environmental Affairs and Planning  
Port of Long Beach



CHRISTOPHER CANNON  
Director  
Environmental Management  
Port of Los Angeles

# SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN

## ATTACHMENT DETAILED COMMENTS ON THE REVISED DRAFT 2016 AQMP

### I. The District Lacks Jurisdiction Over Ocean-Going Vessels.

The District’s authority to regulate is limited to its jurisdictional boundaries. The District was created by the California Legislature “in those portions of the Counties of Los Angeles, Orange, Riverside, and San Bernardino included within the area of the South Coast Air Basin, as described in Section 60104 of Title 17 of the California Administrative Code, as now or hereafter amended.” (Cal. Health & Safety Code, § 40410.)

The South Coast Air Basin includes the portion of Los Angeles County “[b]eginning at the Los Angeles-San Bernardino County boundary and running west along the township line common to T.3 N and T.2 N, San Bernardino Base and Meridian; then north along the range line common to R.8 W and R.9 W; then west along the township line common to T.4 N and T.3 N; then north along the range line common to R.12 W and R.13 W to the southeast corner of Section 12, T.5 N, R.13 W; then west along the south boundaries of Sections 12, 11, 10, 9, 8, 7, T.5 N, R.13 W to the boundary of the Angeles National Forest which is collinear with the range line common to R.13 W and R.14 W; then north and west along the Angeles National Forest boundary to the point of intersection with the township line common to T.7 N and T.6 N (point is at the northwest corner of Section 4 in T.6 N, R.14 W); then west along the township line common to T.7 N and T.6 N; then north along the range line common to R.15 W and R.16 W to the southeast corner of Section 13, T.7 N, R.16 W; then along the south boundaries of Sections 13, 14, 15, 16, 17, 18, T.7 N, R.16 W; then north along the range line common to R.16 W and R.17 W to the north boundary of the Angeles National Forest (collinear with township line common to T.8 N and T.7 N); then west and north along the Angeles National Forest boundary to the point of intersection with the south boundary of the Rancho La Liebre Land Grant; then west and north along this land grant boundary to the Los Angeles-Kern County boundary. (17 Cal. Code Regs., § 60104(d).)

The District’s boundaries do not include the ocean area adjacent to the South Coast Air Basin. Thus, the District lacks authority to adopt and enforce measures in the AQMP (e.g., MOB-01, MOB-02, MOB-03, and EGM-01) because it does not have jurisdiction to regulate emission sources outside of its geographical boundaries as would be required if the CAAP programs become involuntary and mandatory. The Ocean Going Vessel (OGV) Vessel Speed Reduction program would require OGVs to slow vessel speed to 12 knots during their approach and departure from the ports at a distance of either 20 nm or 40 nm from Point Fermin, which is outside the District’s jurisdictional boundary. The OGV Low Sulfur Fuel for Auxiliary Engines

96-10



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November 12, 2015

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and Auxiliary Boilers program would require OGVs to switch to low sulfur distillate fuel within 40 nm from Point Fermin, which is outside of the District's jurisdictional boundary. The OGV Low Sulfur Fuel for Main Engines program would require OGVs to switch to low sulfur distillate fuel within 40 nm from Point Fermin, which is outside of the District's jurisdictional boundary.

The OGV Vessel Speed Reduction program is the only CAAP measure that is not already part of regulations adopted by other agencies. Yet, the Ports also lack jurisdiction to mandate any OGV actions of the ship owners if CAAP voluntary incentive targets are not met. OGVs are regulated by the federal government implementing its treaty obligations under MARPOL, administered by the IMO, specifically MARPOL Annex VI Regulations for the Prevention of Air Pollution from Ships (Annex VI), which sets global limits for SOx, NOx, and PM emissions from OGVs. Congress vested MARPOL and Annex VI authority with the Secretary of the U.S. Coast Guard (Secretary) and the Administrator (Administrator) of the EPA. (33 U.S.C., § 1903.) The Secretary has exclusive MARPOL administrative and enforcement authority. (33 U.S.C., § 1903(a).) The Administrator has Annex VI administrative, regulatory, investigative, and enforcement authority. (33 U.S.C., §§ 1901 et seq.)

The District's ability to adopt, enforce, and require the Ports to comply with any measure mandating the Vessel Speed Reduction program is precluded and preempted by Annex VI and federal regulations. (40 CFR § 1043.10.) The federal government has historically been the principal regulator of emissions from U.S. and foreign-flagged ships (or OGVs) under Annex VI. (40 C.F.R., § 94; 40 C.F.R., § 1043, 33 C.F.R. § 151).

The Ports are located within the "North American Environmental Control Area" (ECA) established under Annex VI. The North American ECA's limits are much stricter than Annex VI's global requirements. It would be unlawful for the District to require the Ports to collect and report NOx, SOx, and PM emissions information from OGVs subject to Annex VI requirements in the North American ECA. To collect this information, the Ports must impose a reporting requirement for OGVs coming and going from the Ports—effectively regulating them under Annex VI. The Ports lack authority to regulate U.S. and foreign-flagged ships in this manner. (33 U.S.C., §§ 1903, 1907.) Federal recordkeeping and reporting requirements for fuel and marine engines are expressly allowed (40 C.F.R., § 1043.70(b)-(c)), but no other recordkeeping and reporting requirements are authorized by statute or regulation. Any reporting requirement by the District is thus preempted by both Annex VI's record-keeping requirements for NOx engine standards and sulfur content in fuel (Regulations 13 and 14, Annex VI; incorporated by reference at 40 C.F.R., § 1043.100) and federal regulatory record-keeping and reporting requirements (40 C.F.R., § 1043.70).

The District's attempt to mandate certain voluntary CAAP programs would also be preempted on enforcement grounds. Congress expressly reserved enforcement authority of Annex VI regulations to the U.S. Coast Guard and EPA. (33 U.S.C., §§ 1903, 1907.) Enforcement inspections will be conducted only by the U.S. Coast Guard and, when referred by the Secretary, investigated by the Administrator. (33 U.S.C., §§ 1907(f)(1)-(2).) The U.S. Coast Guard and EPA are authorized to impose civil penalties for violations of MARPOL (including Annex VI) and 33 U.S.C., §§ 1901 et seq., § 1908(b)(1). The Ports and the District are not so authorized and cannot inspect, penalize, or undertake enforcement actions against OGVs under Annex VI and 33 U.S.C., §§ 1901 et seq.

96-10  
Con't

The District's Executive Officer also lacks authority to decide that any emission target is not met. To satisfy the Emission Reduction Plan requirement, the Ports may have to impose more stringent emissions requirements on U.S. and foreign-flagged vessels than required by Annex VI. The Ports and the District both lack this authority.

96-10  
Con't

**2. The District Lacks Authority To Regulate Port Activities As "Indirect Sources."**

The District has no authority to regulate mobile sources, and may not do so by mischaracterizing them as "indirect sources." (*Friends of Oceano Dunes, Inc. v. San Luis Obispo County Air Pollution Control District*, *supra*, 235 Cal.App.4th at 964 [air pollution control districts are not authorized to regulate or impose a permit system on "indirect sources" of emissions].) The Clean Air Act defines an indirect source as "a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution." (42 U.S.C., § 7410(a)(5)(C).) The Ports are not within this definition. "Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose" of an indirect source review program. (42 U.S.C., § 7410(a)(5)(C).)

Indirect source control measures cannot be required as a condition of SIP approval by EPA or CARB. (42 U.S.C., § 7410(a)(5)(A)(ii); Health & Safety Code, § 40468.) There are no provisions in the Clean Air Act for including "backstop" measures. Only those provisions necessary to meet the requirements of the Clean Air Act can be included in the SIP. (Health & Safety Code, § 39602.) Backstop measures are not necessary to meet the 24-hour PM2.5 NAAQS requirements of Clean Air Act, and there is no emission reduction target in the attainment strategy for AQMP which the proposed measures purport to implement. (See e.g., 40 C.F.R., §§ 51.112-51.114.)

96-11

The District advances the novel theory that it can designate a geographic area, such as a city or a Port, to be an "indirect source." Further, the geographic line drawn by the District does not respect political boundaries and lumps portions of the cities together as a single indirect source. The District believes it can draw any geographic boundary it desires and declare that area to be an "indirect source" without regard for whether the landowner operates or controls mobile sources that pass through the area. Under the District's theory, a local air district could designate as a stationary source, and an indirect source, any city or county that has natural features that attract ships or cars or other mobile sources, even if the city or county does not own, operate or control those sources. Is a city with oil fields a stationary source and indirect source because it attracts refineries, trucks and trains to transport the petroleum products? If Riverside County has increased the numbers of warehouses and distribution centers within its borders, is the governmental agency or county geographical area now a stationary source and indirect source because such distribution centers within their borders attract trucks and trains?

The AQMP control measures would use the Clean Air Act's indirect source provisions as a guise to impermissibly regulate mobile sources. The District cannot regulate emissions from on- and off-road mobile sources operating at, and to and from, the Ports, which includes ocean-going vessels and locomotives. The District cannot regulate emissions from the tailpipes of on-road and off-road mobile sources, or enact mobile source regulations. The District also cannot regulate off-site emissions (emissions occurring during transit "to and from" the purported

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“site”). Congress did not intend or authorize the use of the indirect source provisions of the Clean Air Act as a way to circumvent mobile source preemption.

96-11  
Con't

The AQMP measures also fail as an indirect source review program because the Ports are not a “new or modified indirect emissions source.” The Clean Air Act defines modification as “any physical change in, or change in the method of operation, of a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of an air pollutant not previously emitted.” (42 U.S.C., § 7411(a)(4).) The criteria pollutants targeted are among those that have been identified and reduced for the duration of the CAAP. Because the Ports do not qualify as either a new or modified source, any attempt to regulate them as such exceeds the the District’s authority.

96-12

The AQMP control measures also violate the nexus requirement for indirect source review programs. The purpose of an indirect source review program is to ensure that mobile source emissions do not “cause or contribute to air pollution concentrations exceeding any national primary ambient air quality standard for a mobile-source related air pollutant.” (42 U.S.C., § 7410(a)(5)(D)(i).) The District’s own PM2.5 monitors show that emissions from mobile sources operating in and around the Ports are not causing or contributing to the South Coast Air Basin’s nonattainment of the PM2.5 NAAQS. The District has in the past attributed nonattainment to a single monitor – Mira Loma (Van Buren) – which is located in Riverside, approximately 60 miles northeast of the Ports. This monitor has purportedly failed to attain the PM2.5 NAAQS because of drought conditions in Southern California, even though all of the South Coast Air Basin has experienced the drought and none of SCAQMD’s other monitors have failed to demonstrate attainment with the PM2.5 NAAQS, including the two State and Local Air Monitoring Stations nearest to the Ports – in North and South Long Beach. The Long Beach monitors have consistently demonstrated attainment for at least the last four years and are projected to continue attaining the standard through 2019. The data thus suggest a nexus between nonattainment and a source located near the Mira Loma (Van Buren) monitor – not the Ports.

96-13

MOB-01 also fails as an indirect source review program because the businesses within the geographic and source designated areas are not a “new or modified indirect emissions source.” (42 U.S.C., § 7410(A)(5).) A source is new if it adds to the air basin’s existing emissions baseline. (*National Ass’n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.* (9th Cir. 2010) 627 F.3d 730, 731-32.) The Clean Air Act defines modification as “any physical change in, or change in the method of operation, of a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of an air pollutant not previously emitted.” (42 U.S.C., § 7411(a)(4).)

96-14

**3. “Mobile Sources” Are Beyond The Scope Of District Authority.**

The revised AQMP continues and aggravates previously-objected-to proposals seeking to create and assert novel District regulatory authority over emission sources attributed to the Ports, which are mischaracterized as “facility-based mobile sources” – without identifying any legal authority for those proposed actions. (Revised Draft, pp. 4-27 through 4-33.) While the District acknowledges that it only has “limited authority to regulate mobile sources” (Revised Draft, p. ES-7), the AQMP nonetheless persists in attempting to do just that in MOB-01. The current revisions make explicit the threat to take such unauthorized actions “in the form of a regulation

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by the SCAQMD ... “ in order to characterize the Ports’ voluntary, but effective, CAAP measures as “*enforceable commitments*.” (Revised Draft, p. 4.28.) The Revised Draft continues to describe MOB-01 as a control measure to achieve and enforce emission reductions at commercial marine ports and continues to erroneously characterize it as a “facility-based mobile source control measure.” The proposed MOB-01 is yet another attempt by the District (like prior IND-01 and PR 4001) to justify the imposition of illusory regulatory authority over the Ports as “indirect sources” of emissions.

96-15  
Con’t

By characterizing the Ports as a “facility-based mobile source,” it appears that the District intends to use MOB-01 as not just an “indirect source” control measure, but as a prelude to “immediate” rule-making and enactment of regulations that might be enforced against the independent Ports. The Ports continue to oppose any form of a “rule” that would shift the District’s oversight obligations on the Ports. They strongly oppose the District creating or relying on any concept of a “facility-based mobile source measure,” whether described as an “Indirect Source Rule,” “Backstop Rule” or the “freight hub,” “facility cap,” and/or “freight facility performance targets” approach.

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The Ports are not a “Facility” as required by the Clean Air Act’s indirect source provisions. Together, the Port of Los Angeles and Port of Long Beach encompass 10,700 acres, miles of waterfront and features 50 passenger and cargo terminals, including dry and liquid bulk, container, breakbulk, automobile and warehouse facilities, and a cruise passenger complexes. While some U.S. ports are “operating ports” that own and operate their terminals and equipment and hire longshoremen to handle cargo, the Ports are “non-operating” or “landlord” ports that hold the tidelands property in trust for the State of California and lease it out to port tenants that operate the terminals. Each port tenant is treated as an individual stationary source facility by the District and their activities are separately regulated and permitted by the District.

“Mobile sources” of emissions are beyond the limited regulatory authority conferred by the Legislature on local or regional districts (e.g., Health & Safety Code § 40001(a); *also see*, 76 Ops. Cal. Atty. Gen. 11 (1993); 75 Ops. Cal. Atty. Gen. 256 (1992); 74 Ops. Cal. Atty. Gen. 196 (1991); 73 Ops. Cal. Atty. Gen. 229, 234-35 (1990)). Congress vested the federal government with the authority to set nationwide emissions standards for mobile sources, including non-road mobile engines and vehicles. (42 U.S.C. §§ 7521, 7547.) Congress expressly and impliedly preempted states from setting standards or other requirements relating to the control of emissions for mobile sources. (42 U.S.C., § 7543, (a) & (e).) The maritime goods movement emission sources are within the express and implied preemption. The Clean Air Act allows California to seek authorization from EPA to adopt “standards and other requirements related to the control of emissions” for some, but not all, mobile sources covered by MOB-01. (42 U.S.C., §§ 7543 (b) & (e)(2)(A).) Thus, the District simply does not have mobile source regulatory authority.

96-17

The mobile emission sources that utilize the Ports already exist and are part of the baseline. Moreover, only those provisions necessary to meet the requirements of the Clean Air Act are included in the SIP. (Health & Safety Code, § 39602.) The purpose of an indirect source program is to ensure that mobile source emissions do not “cause or contribute to air pollution concentrations exceeding any national primary ambient air quality standard for a mobile-source related air pollutant.” (42 U.S.C., § 7410(a)(5)(D)(i).) MOB-01 is not necessary to meet the NAAQS requirements of Clean Air Act. The emissions reductions listed in the Revised Draft for MOB-1 for the years 2023 and 2031 are listed as “**To Be Determined**” -- which indicates that

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the reductions will be determined once the inventory and control approach are identified, and are not relied upon for attainment demonstration purposes. In reality, there would be little to no emission reduction benefit from indirect source measures because state, federal and international authorities have adopted rules and regulations to significantly reduce NOx emissions from these on- and off-road mobile sources. According to the AQMP, “[t]he effect of the rules and regulations are significant, showing reductions of over 67 percent in NOx emissions and close to 60 percent in VOC emissions between 2012 and 2023, even with increases in fleet population” (p. 3-4).

96-17  
Con’t

Despite repeated requests, the District still has not identified any legislation purporting to confer authority on the District to regulate public marine facilities as “mobile sources.”<sup>1</sup> The District itself acknowledges that it does not have “primary regulatory authority” over the Port (or other large facilities identified as major sources of emissions, e.g., rail yards, airports, and distribution centers). Nevertheless, the Revised Draft states: “[T]he enforceable commitment may be in the form of a regulation by the SCAQMD within its existing legal authority, or by the State or federal government, or other enforceable mechanisms.” (p. 4-28.) This statement raises the very same legal issues regarding the extent of the District’s limited “existing legal authority” that the Ports have previously raised in opposition to PR 4001, and in their August 19, 2016 comment letter. The Revised Draft continues to ignore these basic, jurisdictional, flaws in the approach proposed to be taken by the 2016 AQMP.

96-18

The Ports maintain their fundamental objections to the provisions of the new AQMP that would inject the Ports into a newly-contrived regulatory scheme in an attempt to extend de facto District jurisdiction over mobile emission sources where no such jurisdiction exists as a matter of law. We refer to and incorporate the objections to this approach previously detailed in comment letters submitted in response to proposed IND-01, and to Proposed Rule 4001, and the Ports’ August 19, 2016 letter commenting on the June draft AQMP.

**4. The AQMP Includes Procedural Deficiencies.**

Even though the Revised Draft AQMP would impose a strict timeline on the District to undertake rulemaking to create enforceable regulations “immediately” after the adoption of the Final 2016 AQMP (Table 4-3), the District has not complied with the procedural requirements to adopt indirect source control rules that are contemplated in MOB-01. The requirements are: (1) ensure, to the extent feasible, and based upon the best available information, assumptions, and methodologies that are reviewed and adopted at a public hearing, that the proposed rule or regulation would require an indirect source to reduce vehicular emissions only to the extent that the district determines that the source contributes to air pollution by generating vehicle trips that would not otherwise occur; (2) ensure that, to the extent feasible, the proposed rule or regulation does not require an indirect source to reduce vehicular trips that are required to be reduced by other rules or regulations adopted for the same purpose; (3) take into account the feasibility of implementing the proposed rule or regulation; (4) consider the cost effectiveness of the proposed rule or regulation; (5) determine that the proposed rule or regulation would not place any requirement on public agencies or on indirect sources that would duplicate any requirement

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<sup>1</sup> The EPA itself treats “facilities based” emission sources as distinct from “mobile sources”. See, e.g., 66 FR 65208 “Database of sources of environmental releases of dioxin-like compounds in the U.S.”, ref year 1987-1995. December 18, 2001.

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placed upon those public agencies or indirect sources as a result of another rule or regulation adopted pursuant to Health and Safety Code sections 40716 or 40717. (Health & Saf. Code, § 40717.5.)

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The Revised Draft also inappropriately refers to the Ports as an “Implementing Agency,” (Appendix IV-A, p. 126), which the AQMP elsewhere defines as “the agency(ies) responsible for implementing the control measure.” On pages IV-A-127, the Revised Draft AQMP now purports to commit the Ports and District staff “to develop an enforceable mechanism to recognize the voluntary actions ... that can be credited in the SIP in a timely manner.” However, to the extent the AQMP would mischaracterize the Ports as “Implementing Agencies,” without including all of the other public and private partners working to achieve emission reductions, it improperly shifts an unwarranted burden of regulatory implementation to the Ports and erroneously implies that the Ports would have an assigned enforcement obligation. While the Ports have successfully adopted voluntary efforts to reduce emissions from maritime goods movement sources, and continue to be devoted to reducing emissions by working with the District as well as their own initiatives, the Ports are not air agency regulators. The AQMP should not commit the Ports to regulatory responsibility for “development” of enforceable mechanisms or control measures as to sources over which they do not have jurisdiction, ownership or operational control.

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Further, as the District is well aware from the Ports’ previous comment letters on these issues, the Ports lack authority to enforce as mandates the programs on all mobile sources operating in the Ports as they are preempted by state, federal and international law. This portion of the AQMP, requiring the Ports to select and implement the control measures, does not address or overcome these legal impediments.

**5. Control Measures in the AQMP would violate the dormant Commerce Clause.**

The “facility-based mobile source measure” approaches proposed in the revised draft AQMP would have serious negative effects on international and interstate commerce, navigation, maritime as well as land-based commerce, and will add unique and ‘discriminatory’ burdens which will have the effect of impeding California’s and the Ports’ economic competitiveness. Accordingly, these measures will likely undergo close scrutiny under the federal constitution’s “dormant commerce clause” and “rights and immunities” protections.

“[A]ny state statute or regulation that impacts domestic interstate or foreign commerce is subject to judicial scrutiny under the commerce clause unless the statute or regulation has been preempted, or expressly authorized, by an act of Congress. (See, e.g., *Atlantic Coast Demo. v. Bd. of Chosen Freeholders* (3d Cir. 1995) 48 F.3d 701, 710.) The commerce clause’s implicit, self-executing restriction on the states’ power to regulate domestic interstate and foreign commerce is commonly referred to as the “negative” or “dormant” commerce clause. (*Barclays Bank, supra*, 512 U.S. 298, fn. 9....)” (*Pacific Merchant Shipping Assn. v. Voss* ( 1995 ) 12 Cal.4th 503, 514-15.)

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The California Court of Appeal recently explained the broad scope of these constitutional limitations on state or local “regulations” impacting commerce, in *Alamo Recycling, LLC v. Anheuser Busch InBev Worldwide, Inc.* (2015) 239 Cal.App.4th 983, 996:

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The high court’s dormant commerce clause jurisprudence “significantly limits the ability of States and localities to regulate or otherwise burden the flow of interstate commerce.” (*McBurney, supra*, 569 U.S. at p. \_\_\_ [133 S.Ct. at p. 1719] ...) More broadly, the high court in *Healy* explained that, taken together, its dormant commerce clause cases “stand at a minimum” for the three propositions. (*Healy, supra*, 491 U.S. at p. 336.) First, a state law violates the commerce clause if it applies to commerce that takes place wholly outside of the state’s borders, regardless of whether the commerce has effects within the state. (*Id.* at p. 336, ...) Second, a state law that “directly controls” commerce occurring wholly outside the state’s borders is invalid regardless of whether the law’s extraterritorial reach was intentional....*Brown-Forman Distillers v. N. Y. Liquor Auth.* (1986) 476 U.S. 573, 579 [A statute that “directly regulates or discriminates against interstate commerce ... is virtually *per se* invalid under the Commerce Clause ... .”].) Third, “the practical effect of the statute must be evaluated not only by considering the consequences of the statute itself, but also by considering how the challenged statute may interact with the legitimate regulatory regimes of other States and what effect would arise if not one, but many or every, State adopted similar legislation. Generally speaking, the Commerce Clause protects against inconsistent legislation arising from the projection of one state regulatory regime into the jurisdiction of another State. [Citation.]” (*Healy, supra*, at pp. 336-337.)

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Con’t

Those burdensome and counter-productive approaches would be directly in conflict with the goals of Governor Brown’s Executive Order to improve freight transportation efficiency and increase competitiveness of California’s freight system, as well as the recently-released California Sustainable Freight Action Plan.

**6. The AQMD’S Imposition Of Unfunded Obligations On The Ports Violates The California Constitution, Article XIII B, Section 6.**

Article XIII B, Section 6(a) of the California Constitution states in relevant part as follows: “Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service ....”

The California Supreme Court recently ruled in *State Department of Finance v. Commission of State Mandates (County of Los Angeles)* (2016) 220 Cal.App.4th 740, that certain requirements of the 2001 Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit could be considered unfunded State mandates that would violate the above quoted constitutional mandate unless state reimbursement was provided.

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The same rationale would apply to any unfunded requirements that are imposed upon the Ports under the 2016 AQMP. As framed, the requirements being imposed on the Ports are the creation of the District. The requirements are not “federal mandates” that might be exempted from this constitutional mandate.

7. **The AQMP Is Duplicative Of CARB and EPA Actions**

Control Measure MOB-01 is duplicative of existing ARB, EPA and international rules. When the CAAP was first released in 2006, there were few if any rules regulating port-related sources. A decade later, many of the voluntary port-related control strategies implemented under the CAAP have been superseded by state or international regulation. Much of the unprecedented emissions reductions from port-related sources that have been achieved to date rely on, and are largely (over 90% of emission reductions), the result of regulations for port-related sources at the state and international levels, including:

- CARB Truck Bus Regulation
- CARB Ocean-going Vessel At-Berth Regulation
- CARB and International Ocean-going Vessels Low-Sulfur Fuel Regulations
- CARB Cargo-handling Equipment Regulation
- CARB Commercial Harbor Craft Regulation
- International Maritime Organization North American Emission Control Area

The draft 2016 AQMP acknowledges this regulatory history and that the CAAP has been superseded by existing regulations.

8. **The District Cannot Adopt Control Measures Based On Unattainable Modeling Assumptions.**

Through MOB-01 through MOB-05 and EGM-01, the District is also inappropriately attempting to enforce the unattainable modeling assumptions in the SCAG's SCS, and any modifications the District utilized in the draft 2016 AQMP. If EPA approves this novel and significant change in SIPs in its final rulemaking, it will be signaling to states and local agencies that they can enforce assumptions. This will undermine the SIP process and lead to serious disagreements and controversies over all assumptions states and local agencies include in their SIPs because the regulated community will be fearful that any technical assumptions included in the SIP will be enforced in the future. Technical assumptions estimated by scientists will become political decisions. Further, this approach has been disapproved by the Ninth Circuit Court of Appeal in *Bayview Hunters Point Community Advocates v. Metropolitan Transportation Commission*, 366 3d 692 (9th Cir. 2004).

9. **The Requirements For RACM/RACT (Technologically And Economically Feasible) Have Not Been Met.**

The requirements in subparts 1 and 4 relative to RACM/RACT have not been met. EPA states that RACM includes any potential control measure for non-road emission sources that is both technologically and economically feasible. (80 Fed. Reg. 63647.) There must be an evaluation of technical feasibility that includes operation conditions, and non-air quality impacts as well as an economic feasibility that includes consideration of cost per ton of pollutant reduced, capital costs and annualized costs. There is no such analysis in the AQMP. The District cannot evade these requirements by calling a control measures an indirect source measure or a measure to simply enforce an attainment demonstration assumption.

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**10. No Emission Reductions Are Attributed To The MOB-01 Measure.**

EPA has never approved the 2012 Backstop Measure for Indirect Sources of Emissions from Ports and Port-Related Facilities [PR4001] as part of the SIP. No emission reductions from this measure are included in the attainment demonstration for the 2012 AQMP. Yet, the draft 2016 AQMP states that rulemaking is underway for PR 4001. There is no requirement or legal basis for continuing to develop PR 4001. MOB-01 addresses the same emissions sources. The District is singling out the Ports for double regulation. The impacts of this double regulation have not been assessed in the socio-economic analysis. The Ports' will be at a competitive disadvantage compared to other west-coast Ports. This will negatively impact the regional economy.

The District Governing Board previously found that without Control Measure IND-01: (1) "the 2012 AQMP, in conjunction with earlier AQMPs contains every feasible control strategy and measure to ensure progress toward attainment..."; (2) "the AQMP satisfies all the attainment deadlines for federal ambient air quality standards for 24-hour PM2.5 and 1-hour ozone NAAQS"; (3) "the 2012 AQMP satisfies the planning requirements set forth in the federal and California Clean Air Acts"; and, (4) "the 2012 AQMP includes every feasible measure and an expeditious adoption schedule". (Attachment 21, Resolution, motions, deleted Control Measure IND-01.)

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On January 25, 2013, the CARB Board adopted Resolution No. 13-3. (Attachment 22, Resolution.) The CARB Board found that without Control Measure IND-01: (1) "the attainment analysis in the 2012 AQMP demonstrates that the 24-hour PM2.5 standard will be met throughout the [South Coast Air] Basin by the proposed attainment date"; (2) the 2012 AQMP demonstrates the [South Coast Air] Basin will attain the 1-hour ozone standard by 2022"; (3) "[t]he 2012 AQMP meets the applicable planning requirements established by the [Clean Air] Act and the Rule for 24-hour PM2.5 SIPs, and includes the required air quality and emissions data, modeled attainment demonstrations, RACM/RACT demonstrations, new source review, transportation conformity emission budgets, and contingency measures"; (4) "[t]he 2012 AQMP identifies contingency measures that will achieve additional emission reductions, beyond those relied on in the attainment demonstration, in the event that the South Coast Air Basin does not attain the 24-hour PM2.5 standard by 2014"; and, (5) "[t]he 2012 AQMP meets applicable planning requirements established by the [Clean Air] Act for 1-hour ozone SIPs, and includes the required air quality and emissions data, modeled attainment demonstrations, new source review and RACM/RACT demonstrations".

EPA proposes to conclude that RACM/RACT have been met without Control Measure IND-01/Proposed Rule 4001. Because there is no need for Control Measure IND-01/Proposed Rule 4001, there is no basis for approving it as part of the SIP.

**11. Provisions Of The Proposed AQMP Would Improperly Infringe Upon The Ports' Roles As Trustees Of California Tidelands.**

The Cities' management of the Ports is largely subject to their roles as trustees of tidelands under the legislative acts that granted tidelands to the Cities under a public trust. (E.g., *State of California ex rel. California State Lands Com. v. City of Long Beach* (2005) 125 Cal.App.4th 767, 771: "In 1911, the State granted the City of Long Beach all of its right, title and

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interest in the tidelands situated within the boundaries of the city, to be held in trust and used to establish a harbor and to construct anything necessary or convenient for the promotion of commerce and navigation.”) As tidelands trustees, the Cities have been granted the discretion over how to best fulfill the express trust purposes. The District cannot adopt policies, control measures, or regulations that might attempt to compel the Ports to violate these tidelands trust obligations.

The Revised Draft AQMP would strip the Cities of their discretion in administering the tidelands for the benefit of the State of California and compels the Cities to utilize their revenues for air quality purposes ahead of the purposes expressly set forth in the enactments granting tidelands to the Cities. As a practical matter, compliance with the incentives, control measures, and regulations proposed by the AQMP would depend in part on the Cities providing financial incentives to the owners and operators of mobile sources to incentivize emission reductions. If the District’s Executive Officer could effectively require the Ports to develop an Emission Reduction Plan that requires more generous financial incentives must be offered by the Ports to achieve the emission targets (which is contemplated by the Revised Draft AQMP), this would ultimately impair and diminish the Cities’ ability to execute their tidelands trust obligations by depleting revenues reserved for express trust purposes.

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In their discretion, the Ports consider environmental quality to fall within the implied scope of the tidelands trust and have in fact made substantial expenditures when their operating budgets allow. The Ports also fully comply with the California Environmental Quality Act when developing their properties for tenants’ use, which may include providing mitigation such as air quality reduction measures to address any environmental impacts. However, the tidelands trust does not expressly require revenues be expended for “air quality improvement”, and the financial incentive programs and control measures proposed in the Revised Draft appear to infringe on the Cities’ jurisdiction over their own funds, if the only way to increase compliance with a CAAP incentive program, for example, would be to increase the amount of incentives.

The proposed AQMP also compels the Cities to violate their Tidelands Trust obligations by mandating requiring the Ports to utilize trust for an entirely local program to reduce PM 2.5, SOx, and NOx emissions. The funding to implement the AQMP would confer only an emission reduction benefit to the South Coast Air Basin rather than to the entire State of California. Thus, funding or financial incentives compelled by the AQMP would require the Ports to provide “mitigation” beyond their direct impacts, and in conflict with the tidelands trust.

Moreover, the proposed AQMP would place the Ports at a competitive disadvantage to other California or West Coast ports. If commercial maritime business meant for the Los Angeles or Long Beach ports is diverted elsewhere as a result of compliance with the novel regulations and economic burdens arising from the AQMP, the Cities will be deprived of revenues they need to fulfill their tidelands trust obligations.

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The Ports respectfully remind the District that the CAAP is a planning document that provides guidance on strategies and targets that are ultimately implemented through individual actions adopted by each Port’s respective Board of Harbor Commissioners (Boards). The State granted to the Cities of Long Beach and Los Angeles exclusive authority to implement the tidelands trust under the oversight of the State Lands Commission. Each City has been appointed as a trustee and has established their respective Board of Harbor Commissions with

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exclusive control and management of the Tidelands and revenues and expenditures from the Tidelands. However, such discretion must be exercised in accordance with their obligations to prudently manage Tidelands assets and revenues within a nexus and proportionality to the Tidelands Trust interest, as well as in accordance with applicable laws such as the California Environmental Quality Act (CEQA) and principles of federal preemption. The District cannot mandate action by each Port's Board of Harbor Commissioners, nor can the District direct how the Ports may be obligated to spend state Tidelands money; only the appointed trustee can make discretionary actions to obligate state Tidelands funds. Specifically, any measures listed in the AQMP or the CAAP must each require the Boards to authorize the expenditure of monies and program costs, or to approve conditions of infrastructure project development in their discretion as a CEQA lead agency and as Tidelands trustees.

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**12. The AQMP Improperly Includes Control Measures That Identify Emissions Reductions as "TBD."**

The proposed control measures that identify the emission reductions as "TBD" should be removed from the draft 2016 AQMP (i.e., EGM-01& MOB-01). According to the draft 2016 AQMP, "TBD" is for emission reductions to be determined once the measure is further evaluated, the technical assessment is complete, and the inventory and cost-effective control approaches are identified. The District also concedes that the "TBD" measures are not relied upon for attainment demonstration purposes. As these control measures stand, they cannot meet the CAA requirements for a SIP submittal. The District has not shown these measures are cost-effective or feasible. The District is also including activities in these measures that the District lacks jurisdiction to adopt (as discussed in the previous section of this letter). These two "TBD" measures have virtually no details explaining how these measures will be implemented. This makes it difficult for the Ports' to assess the impacts, which is contrary to a public review and comment process.

It is not until after adoption of the 2016 AQMP, that the District proposes to engage in a public process to develop rules to implement these AQMP control measures. All of this "process" was supposed to take place during the development of the 2016 AQMP. The post adoption process includes identifying actions (voluntary and regulatory) that will result in emission reductions. The District intends to convene working groups for EGM-01 and MOB-01 within one month after adopting the 2016 AQMP, and then define objectives; seek initial input on the types of actions with potential criteria pollutant reductions; identify existing actions with potential emission reductions; identify future actions with potential emission reductions; develop model quantification methodologies for emission reductions associated with identified actions; quantify potential emission reductions; and develop mechanisms to ensure reductions are real, surplus and enforceable on-going on a monthly basis. This process is supposed to be completed in the next six months. After this task is completed, District staff will report to the Mobile Source Committee and Governing Board as to whether the District should continue with the process or recommend formal rule development. There is no option for dropping the control measures if the process concludes these control measures should not be implemented. By including these control measures in the 2016 AQMP, the District is committing to develop these rules regardless of the process outcome, and will place the South Coast Air Basin at risk of sanctions if the process shows these measures should not be implemented. Because these measures are not sufficiently developed, the impacts of these measures on the economy are not

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taken into consideration in the socio-economic analysis, which significantly underestimates the costs associated with the 2016 AQMP.

The District's approach is not consistent with the Clean Air Act. In *Sierra Club v. Environmental Protection Agency* (D.C. Cir. 2004) 356 F.3d 296, 301-304, the court struck down the EPA's approval of a SIP that contained similar deferral and ambiguous strategies. The court held that the EPA's interpretation of the Act "cannot be squared with the unambiguous statutory language. The statute requires that the States commit to adopt *specific* enforceable measures. Here, the agency has accepted as sufficient a commitment to adopt what it concedes are *unspecified* measures –with the specifics to be named later." (*Id.* at 302, emphasis in original). These "TBD" measures must be removed from the 2016 AQMP.

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The "TBD" measures do not qualify as feasible at this time, and as such are not required to be in the 2016 AQMP. The District asserts that the emission reductions achieved and quantified by these "TBD" measures can be applied toward contingency requirements, make up for any shortfalls in reductions from other quantified measures, be credited towards rate-of-progress reporting, and/or be incorporated into future Plan revisions. Accordingly, it is premature to include these "TBD" measures in the 2016 AQMP.

### **13. The AQMP Over-Reaches On Toxics And Enforceable Commitments.**

The Revised Draft 2016 AQMP also "embraces strategies that reduce toxic risk impacting local neighborhoods and disadvantaged communities adjacent to goods movement and transportation corridors." The Ports concur that reducing toxic risk is important and that there should be a strategy. However, the CAA does not address toxics through the SIP process; it is through NESHAPs, MACTs, etc. The strategies that reduce toxic risk should not be submitted to CARB or EPA as a SIP submittal. There is no reason for the District to put the South Coast Air Basin at risk of SIP sanctions or FIPs by including control measures that are not required by the CAA.

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In the Revised Draft AQMP, the District implies it intends to only rely upon the EPA's economic incentive programs (EIP) to render the incentive measures enforceable. None of the incentive programs meet the requirements of the EIP. In addition, there are other more worthy options that the District excludes such as MOUs and EPA's Voluntary Mobile Source Emission Reduction Program (VMEP). EPA has issued guidance on incorporating VMEPs into SIPs pursuant to Section 110 of the federal Clean Air Act. EPA developed the VMEP as an innovative program to assist states and local air agencies in implementing incentive programs. The VMEPs accommodates the uncertainty associated with the incentive and voluntary measures in the 2016 AQMP. For example, the SIP submittal must include a "good faith estimate" of emission reductions, including assumptions, and addressing both compliance and programmatic uncertainty. EPA's Guidance suggests that states enter into a Memorandum of Understanding with VMEP sponsors.

**14. Comments Specific To Individual Proposed Control Measures.**

**a. EGM-01: “Emission Reductions From New Development And Redevelopment Projects [All Pollutants].”**

There is only proposed control measure in the category for “emission growth management measures” in the AQMP ... “EGM-01. The Revised Draft (p.IV-A-7) explains that this proposed measure is intended to “evaluate the applicability” of the “Indirect Source Review – Rule 9510” as adopted by the San Joaquin Valley Air Pollution Control District (“SJVAPCD”), apparently pursuant to the District’s belief that such evaluation is required by “a provision under state law.” The Ports recognize the District’s interest in evaluating “all feasible measures” to reduce emissions, but respectfully urge that any such evaluation of a “Rule 9510-style” indirect source review be framed so as to exclude the Ports or activities at the Ports.

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**i. Ports Should Not Be Subject To EGM-01.**

The SJVAPCD adopted its Rule 9510 back in December 2005, near the height of a land development and residential construction boom in the San Joaquin air basin. The SJVAPCD explained that its primary purpose for pursuing its novel “indirect source review” program under Rule 9510 was “to reduce the impacts of growth in emissions resulting from new land development in the San Joaquin Valley.” Those types of concerns – emissions from new land development” and housing construction – are not applicable to the Ports or the types of activities typically conducted at the Ports.

The Revised Draft explains that the “purpose” of EGM-01 is to mitigate emissions from new development and redevelopment projects, which it characterizes as “indirect sources.” (Appendix IV-A, p. 185.) The Ports have previously pointed out, however, that the AQMP misuses that term at least as it seeks to use the “indirect source” characterization as a justification for imposing measures on mobile sources (even “facility-based mobile sources”) associated with the Ports. To the extent that this measure appears to be an attempt to assert “indirect source” regulatory authority over activities at the Ports, it would be in excess of the District’s jurisdiction, as explained in the comments on “indirect sources” and MOB-01.

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The Ports have further explained that even if authority to regulate “indirect source” emissions may be appropriate as to some types of stationary facilities, such authority applies only to “new” sources of air pollution. The Revised Draft appears to justify this measure based on its anticipation that unspecified “outlying areas continue to be developed” in parts of the District. (Cf. Appendix IV-A, p. 185.) However, the Ports do not fit that description either, and cannot be characterized as areas of significant “new land development” such as served as the justification for SJVAPCD’s Rule 9510.

Accordingly, the AQMP should make clear that this measure and any rule-making that may emerge from the District’s evaluation of an indirect source review program like Rule 9510 would not be intended to be applicable to the Ports.

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ii. **Adoption Of An “indirect source rule” Like San Joaquin Valley APCD Rule 9510 Would NOT Be Appropriate Or Lawful.**

The Revised Draft AQMP further states: “[f]or the purposes of this measure [EGM-01], indirect sources include all facilities not covered by another 2016 AQMP Control Measure, specifically, control measures MOB-01 through MOB-14 to the extent that these control measures are part of the adoption of the Final 2016 AQMP.” . In addition, during the rule development process, additional indirect sources may be included or excluded” (Appendix IV-A, p. 185).

The Ports should not be included within this control measure in the event MOB-01 is removed from the Final 2016 AQMP or during the rule development process. In addition to the reasons stated above, the Ports have serious concerns about the District making a commitment to the state and federal governments that the SCAQMD will control growth or dictate land use decisions in areas subject to the Cities’ police power (and the Ports’ tidelands trust roles). SCAQMD has no authority to control growth or overrule local land use decisions. (Health & Saf. Code, § 40716 [air districts cannot infringe on the existing authority of counties and cities to plan or control land use]; see also Health & Safety Code, §§ 40000, 40414, 40440.1, 40717.5(c)(1).) Land use is within the exclusive preview of local cities and counties.

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In addition, the legal constraints on the establishment or imposition of fees and charges, may no longer allow the District to pursue an indirect source review program with fees like Rule 9510. That Rule was adopted in 2005, and was subjected to judicial review in 2008, prior to passage of Proposition 26.. Accordingly, the District’s evaluation of a similar rule (to the extent that such an contemplated rule may include a component requiring the payment of ISR mitigation fees or regulatory fees) may need to be able to meet the requirements of these subsequent constitutional amendments, imposing more stringent burdens on state and local agencies when they seek to establish or impose fees or other charges. (Cal. Const. art. XIII A, § 3 subd. (d); art. XIII C, § 1, subd. (e); art. XIII D, § 6, subd. (b)(5); *Schmeer v. City of Los Angeles* (2014) 213 Cal.App.4th 1310, 1322.) Accordingly, provisions for voter approval may need to be considered.

Further, the District cannot justify the inclusion of EGM-01 in the 2016 AQMP based on the premise that the CAA requires that all measures adopted by other air district must be included in the 2016 AQMP. Because EGM-01 is an indirect source control measure, the measure cannot be required as a condition of SIP approval by EPA or CARB. (42 U.S.C., § 7410(a)(5)(A)(ii); Cal. Health & Safety Code, § 40468.) Only those provisions necessary to meet the requirements of the Clean Air Act can be included in the SIP. (Cal. Health & Safety Code, § 39602.) Therefore, the District is not required by the CAA to adopt EGM-01 simply because San Joaquin Valley APCD adopted this measure.

b. **MOB-01: “Emission Reductions At Commercial Marine Ports.”**

The Revised Draft continues to recognize the Ports’ successful efforts in implementing the CAAP since 2006, exceeding our emission reduction goals in 2014. The Revised Draft, however, now asserts that the goal of proposed control measure MOB-01 is related to sources, admittedly mobile sources that “operate in and out of” the Ports. (Appendix IV-A, p. 121, also, p. 124.) The Revised Draft AQMP continues to mischaracterize the Ports as a “facility-based

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mobile source,” and seeks to justify MOB-01 as an indirect source control measure in order to quantify and to further the “enforceability” of emissions reductions achieved by the Ports under the CAAP. MOB-01 is described as a control measure to achieve emission reductions at commercial marine ports and is characterized in the AQMP as a “facility-based mobile source control measure.”

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The Revised Draft continues to attempt to hold the Ports responsible for achieving the Port Standards, and the AQMP continues to propose MOB-01 in this attempt. Further, MOB-01 suggests that if the emission reductions occurring at the Ports are not maintained after they are reported into the SIP that this measure may be implemented in the form of new rule-making or other “regulatory” action by the SCAQMD, or other “enforceable mechanisms,” notwithstanding the limitations of the federal Clean Air Act. The Ports have previously addressed those limitations on the District’s authority, above as well as in prior communications on this topic.

The most recent revisions to the Draft AQMP appear to signal that the District is seeking to even more aggressively pursue this “regulatory” approach, despite the objections to such measures. (Appendix IV-A, pp. 125-126.) It proposes to go so far as to “provide a schedule” for implementation of rule-making leading to new regulations or “other enforceable mechanisms” “immediately after adoption of the Final 2016 AQMP.” (*Ibid.*) The Revised Draft would even commit the District staff to report “within six months after adoption of the Final 2016 AQMP” as to whether the Board should consider adopting rules within its existing authority or seek additional authority to adopt and implement measures. (Revised draft AQMP p. 4.23.) It also would require the District to make a recommendation “whether to proceed with formal rulemaking” no later than one year after adoption of the Final 2016 AQMP. (Appendix IV-A, p. 125) and would include a “schedule” for such enforcement and rulemaking (Table 4-3.)

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The Revised Draft reveals that the District still fails to identify any statutory authority for its continued pursuit of this measure, despite its recognition that its authority in this regard is “limited.” The Ports raised many questions and objections when the District has previously considered various other approaches, e.g., control measure MOB-03 in the 2007 AQMP and control measure IND-01 in the 2012 AQMP, to pursue this approach. The District ultimately appeared to recognize their shortcomings. The 2007 MOB-03 was described as “a backstop measure for indirect sources of emissions from ports and port-related facilities” and in the ensuing years, District staff proposed and sought public review of a “backstop” rule that would be enforceable and applicable to the Ports, “Proposed Rule 4001.” EPA, in its April 2016 action partially approving the 2012 SIP, excluded the commitments proposed by IND-01 from its action and stated that would respond to that in a separate rulemaking. (See 81 FR 22025 (April 14, 2016) “US EPA Partial Approval and Partial Disapproval of California Air Quality SIP.”) The District has reported that Proposed Rule 4001 has been placed on hold, in light of work to develop supposedly different approaches for the pending 2016 AQMP.<sup>2</sup>

i. Exceeds District Authority.

Neither EPA nor CARB can require the District to adopt a control measure such as MOB-01 because indirect source control measures cannot be required as a condition of SIP

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<sup>2</sup> Minutes of the District’s “Mobile Source Committee” meeting of April 15, 2016, included in the District’s Board Meeting minutes from May 6, 2016 (agenda item #21).

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approval. (42 U.S.C. § 7410(a)(5)(A)(ii); Health & Safety Code, § 40468.) Therefore, the Ports have serious concerns about, and continuing objections to, the proposals in the revised draft AQMP for the District making enforceable commitments to the state and federal governments that the Ports will control and regulate “indirect sources.”

The District has not identified any legislation purporting to confer authority on the SCAQMD to regulate public marine facilities as “mobile sources.”<sup>3</sup> The District itself acknowledges that it does not have “primary regulatory authority” over the Port (or other large facilities identified as major sources of emissions, e.g., rail yards, airports, and distribution centers), and acknowledges that “additional authority provided to the State or SCAQMD for sources traditionally under the jurisdiction of the federal government (e.g., locomotives, aircraft and ships.)” (Revised Draft AQMP at p. ES-5.)

The District has no authority to regulate mobile sources or to draw any geographic boundary or to arbitrarily characterize source categories and declare those areas or groups of sources to be an “indirect source.” “Mobile sources” of emissions are beyond the limited regulatory authority conferred by the Legislature on local or regional districts (e.g., Health & Safety Code § 40001(a); also see, 76 Ops. Cal. Atty. Gen. 11 (1993); 75 Ops. Cal. Atty. Gen. 256 (1992); 74 Ops. Cal. Atty. Gen. 196 (1991); 73 Ops. Cal. Atty. Gen. 229, 234-35 (1990)).

The Ports respectfully suggest, as more feasible and lawful alternatives to MOB-01, that these portions of the AQMP should pursue the District’s reasonable goals by a collaborative, voluntary approach that will continue to be the most effective means for controlling emissions from maritime goods movement activities within the jurisdiction of Ports. This approach, which could be memorialized under a cooperative agreement between the Ports and SCAQMD, CARB, and EPA, would benefit all parties because it continues the collaborative effort that has resulted in unprecedented emission reductions at the Ports, shares responsibility between Parties, provides more certainty for the local economy, avoids litigation, insures incentive funding that is tied to excess emissions will continue to be available, and will result in better air quality.

ii. **Preemption By The Federal Clean Air Act.**

Congress vested the federal government with the authority to set nationwide emissions standards for mobile sources, including nonroad mobile engines and vehicles. (42 U.S.C., §§ 7521, 7547.) Congress expressly and impliedly preempted states from setting standards or other requirements relating to the control of emissions for mobile sources. (42 U.S.C., § 7543, (a) & (e) The goods movement sources that would be regulated by Proposed Rule 4001 are within the express and implied preemption. The Clean Air Act allows California to seek authorization from the EPA to adopt “standards and other requirements relating to the control of emissions” for some but not all mobile sources that would be covered by Proposed Rule 4001. (42 U.S.C., §§ 7543, (b) & (e)(2)(A).) The Clean Air Act does not allow for California to seek an EPA waiver for every one of the goods movement emission sources, nor has CARB made such a request.

c. **MOB-14: “Emission Reductions From Incentive Programs [NOx, PM].”**

<sup>3</sup> The EPA itself treats “facilities based” emission sources as distinct from “mobile sources”. See, e.g., 66 FR 65208 “Database of sources of environmental releases of dioxin-like compounds in the U.S., ref year 1987-1995. December 18, 2001.

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**i. Impact On Existing Funding Programs.**

The District is relying on securing significant funding for incentives to implement early deployment and commercialization of zero and near-zero technologies.” There are a number of funding sources available provided the emission reductions are not required by a plan or rule. By making voluntary actions, mandatory, the District will reduce the funding sources that would otherwise be available.

Specifically, the Revised Draft 2016 AQMP mobile source control measures include development of incentive funding programs and supporting infrastructure for early deployment of advanced control technologies. MOB-14 states that it seeks to develop a rule similar to the San Joaquin Valley Air Pollution Control District Rule 9610 – “State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs” -- such that emissions reductions generated through incentive programs can be credited in the SIP emission inventories (p. 4-33.). MOB -14 would also create “a new administrative mechanism to credit toward SIP requirements for future emission reductions achieved... through incentive programs administered by the District, CARB or US EPA.” (Appendix IV-A-178.)

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It will be critical to prioritize and secure the necessary funding needed to implement the proposed incentive-based measures in the Draft AQMP and achieve the aggressive emission reduction targets in the South Coast Air Basin. The Ports know first-hand that the move toward zero emissions is a costly endeavor and have placed significant emphasis on efforts to advance the development of near-zero and zero emissions equipment for on-terminal and on-road applications. Through the Ports’ Technology Advancement Program (TAP), we have been involved with funding the demonstration of clean technologies used in port operations for nearly a decade. Significant progress has been made and we expect that zero emissions operations will be feasible in the future. The scale of this effort will be significant, with cost for the equipment and fueling infrastructure in the *Billions* of dollars.

The Ports and the maritime goods movement industry will require a substantial amount of funding assistance from the local, state and federal agencies. As such, the Ports are supportive of incentive funding to accelerate advancement of technologies. The Ports continue to strongly support the implementation of funding programs such as the Proposition 1B Goods Movement Emission Reduction Program and the Carl Moyer Memorial Air Quality Attainment Program, both of which have provided funding for much needed assistance with upgrading wharves for shore power, the replacement of drayage trucks, and the replacement and repower of engines in cargo-handling equipment, harbor craft, and locomotives.

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While the Ports support funding programs and the need to credit emissions reductions generated from through incentive funding programs, the Ports strongly recommend that MOB-14, or any resulting regulatory strategy be structured in such a way that does not preclude the maritime goods movement industry’s ability to secure grant funding for early actions. For example, it is not clear from the description of MOB-14 whether facility emission caps or port backstop rules could effectively disqualify companies and agencies from received grants, because typically grants funds cannot be used for regulatory compliance. The Ports believe that this unintended consequence of a control measure like MOB-14 could significantly impede early equipment replacement and transition to zero emission technologies, and also severely affect the economic competitiveness of the maritime goods movement industry. In addition, if the required

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emission levels for attainment are not be met in the region, the Ports must not be held accountable for attaining emission reductions that are predicated on incentive funding if the funding does not come through at the necessary and appropriate levels.

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We also note that the AQMP is vague as to how this measure may be “implemented,” and merely asserts that “the District has developed [unspecified] policies and procedures to ensure that this control measure is successfully implemented.” (Appendix IV-A-182.) Concerns would be raised if the AQMP were to contemplate “implementation” by measures including the imposition of purported “regulatory fees” such as those in the San Joaquin Valley APCD Rule 9510 scheme, as discussed above.

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The District also proposes to revise Credit Rules 1612 and 1612.1 so that mobile source emission reduction credits generated under these rules would only be available to help facilities affected by the facility-based measures (MOB-01 through MOB-04 and EGM-01). The credits are proposed to not be eligible for offset stationary source emissions. This will unnecessarily constrain the market for mobile source emission reduction credits and reduce the incentives for the conversion of mobile sources to zero and near-zero technologies.

15. **The District Lacks Authority To Require The Ports To Enforce Or Implement The Control Measures.**

The AQMP unlawfully compels the Ports to regulate local air quality in violation of California Health and Safety Code sections 40414 and 40440. The District’s authority is confined to air quality and cannot infringe on the land use authority of counties and cities. (42 U.S.C., § 7431; Cal. Health and Safety Code, § 40414.) The Ports, not the District, have the authority to determine their own land use needs to advance trade and commerce. The Ports play a critical role in facilitating domestic and international maritime commerce. The Los Angeles City Charter charges the Port of Los Angeles with possession, management, and control of all navigable waters, tidelands, submerged lands, and other lands as specified in the City Charter. (City Charter, Sections 602 and 651.) Similarly, the Long Beach City Charter vests in the Long Beach Harbor Department the authority to control and supervise the Harbor District to provide for the needs of commerce, navigation, recreation and fishery. (Long Beach charter Article X11.) As an exercise of this authority, the ports decided to develop an emission inventory and implement CAAP programs after having weighed the risks of losing business to other ports without a CAAP-equivalent program. These emissions are not caused by the ports’ own equipment or operations – they are caused by tenants and other goods movement customers that operate in or near the ports.

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The Ports are not authorized by state or federal law to carry out the air quality responsibilities of an air district or state. (40 C.F.R., § 51.232(a).) The delegation requirements are also not met. (40 C.F.R., § 51.232(b).) The AQMP nevertheless requires the Ports to conduct regulatory activities, such as developing and adopting emission reduction strategies for maritime goods movement emission sources, which may include retrofit, idling, or fuel requirements; seeking the District’s approval to implement the ERP regulations; and establishing enforcement procedures to ensure that PM2.5 emission reductions from mobile sources operating in or near the ports meet the 2012 AQMP assumptions.

16. **The AQMP’s Contingency Measures Are Inconsistent With The Control Measures.**

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The District intends to utilize the “TBD” control measures as contingency measures, which is inconsistent with the proposed control description in the “TBD” control measures. The inclusion of contingency measures is for federally enforceable attainment demonstrations (i.e., those SIP submittals approved by EPA). The 2016 AQMP attainment demonstration has not been approved by EPA as a SIP submittal. Under the CAA contingency measures consists of other available control measures that are not included in the control strategy and become effective upon a determination by the EPA Administrator that the area has failed to make reasonable further progress or to attain the NAAQS by the applicable statutory deadline. Reasonable further progress is quantitative emissions reduction milestones which are to be achieved every 3 years until the area is redesignated attainment. The contingency measures are supposed to be interim measures that address only the shortfall of either the reasonable further progress target or specific attainment deficiency until a SIP revision is prepared. The MOB-01 control measure is not a suitable contingency measure. Such measures must be fully adopted rules that are ready for rapid implementation upon failure to achieve RFP or attainment. The issues that are listed in this letter prove MOB-01 cannot and will not meet the contingency measure requirements.

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The District should instead explore using excess emission reductions from existing rules as contingency measures. The RFP contingency requirement may also be met by utilizing an RFP above the requirement amount. EPA also allows reductions achieved through early implementation of an emission reduction measure to be used towards the contingency requirement. According to the 2016 AQMP, U.S. EPA’s March 2015 ozone implementation rule provides that “extreme” areas with approved Section 182(e)(5) commitments only had to submit contingency measures under three years before the attainment date, and not the general CAA contingency measures.

17. **The AQMP Prematurely Includes Attainment Demonstrations For Revised And Revoked NAAQS.**

The draft 2016 AQMP addresses five NAAQS. The District asserts that it is required to have a new attainment demonstration for three NAAQS: (1) the 8-hour ozone NAAQS established in 2008, 75 ppb (2008 8-hour Ozone); (2) the annual PM<sub>2.5</sub> NAAQS established in 2012, 12 µg/m<sup>3</sup> (2012 annual PM<sub>2.5</sub>); and, (3) the 24-hour PM<sub>2.5</sub> NAAQS established in 2006, 35 µg/m<sup>3</sup> (2006 24-hour PM<sub>2.5</sub>). The District concedes it is *voluntarily* submitting an attainment demonstration for the following NAAQS: (1) 1997 8-hour Ozone NAAQS, 80 ppb and the 1979 1-hour Ozone NAAQS, 120 ppb.

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**2008 8-hour Ozone:** The 2016 AQMP includes control measures and an attainment strategy to reach attainment of this standard by 2032. As part of EPA’s development of an ozone NAAQS Implementation Rule for the revised 2015 8-hour ozone standard, EPA intends to, among other things, decide whether to revoke the 2008 8-hour ozone NAAQS, and to impose appropriate anti-backsliding requirements to ensure that the protections afforded by that standard are preserved. It is premature to include a full-scale attainment demonstration when anti-backsliding controls would govern the strategies available for the applicable demonstrations if and when the 2008 standard is revoked. The draft 2016 AQMP currently shows a transportation conformity demonstration under 42 U.S.C. § 7506(c) is required for the 2008 standard. (Table 6-1, page 6-10.) However, this requirement became inapplicable after revocation of the 1997 standard and may also become inapplicable under the Implementation Rule for the 2015

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standard. (See 80 FR 12264, 12284.) Further, the anti-backsliding requirements applicable to a revoked 2008 standard may include those currently set forth for the 1997 revoked standard. (40 C.F.R. §§ 51.1105(a)(1), 51.1100(o); 42 U.S.C. §§ 7502(c)(4), 7511a(b)(1) and (c)(2).) But they could also be amended, as they were in the Implementation Rule for the 2008 standard. (80 FR 12264, 12298.)

**2012 annual PM2.5:** The 2016 AQMP states that the 2012 annual PM2.5 standard cannot be met by 2021, which is the attainment year for the current “moderate” designation. Therefore, the District will be requesting EPA re-designate the Basin as a “serious” nonattainment area, which will provide four more years to attain the annual PM2.5 standard by 2025. The Ports believe this is a prudent approach.

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**2006 24-hour PM2.5:** The 2016 AQMP demonstrates that the 2006 24-hour PM2.5 standard will be met by the 2019 attainment year with no additional reductions needed beyond already adopted measures. Therefore, no additional measures should be included in the 2016 AQMP to achieve this standard.

**1997 8-hour Ozone:** In 2008, the 1997 8-hour Ozone standard was lowered to 75 ppb (the 2008 8-hour Ozone standard). EPA revoked the 8-hour 1997 standard, effective in 2015. The District included new control measures and prepared an attainment demonstration of 2031 in the 2016 AQMP. The District has prematurely chosen to provide for the alternative NOx/VOC reductions instead of the reasonable further progress demonstration under 42 U.S.C. § 7511a(c)(2) without conducting an economic analysis of these options. (40 C.F.R. § 51.1100(o)(12).) The District should study the costs associated with each analysis to determine which results in lower costs to businesses and the Ports. Additionally, it is unclear whether the attainment demonstration incorporates transportation conformity thereby subjecting the District to possible sanctions. Transportation conformity should be excluded because it became inapplicable after revocation of the standard. (See 80 FR 12264, 12284.)

**1979 1-hour Ozone:** EPA revoked the 1-hour standard entirely, effective in 2005. As stated above, the District should conduct an economic analysis of the NOx/VOC reductions and the reasonable further progress demonstration before selecting one over the other. It is also necessary to know whether the attainment demonstration incorporates transportation conformity for the reasons set forth above.

**18. The Socio-Economics Analysis Is Incomplete.**

The Ports note the difficulty, if not the inefficiencies, posed by the District’s continuing practice of releasing the proposed new 2016 AQMP in piecemeal and incomplete fashion. It appears that the current Revised Draft AQMP is itself not yet complete, and anticipates additional substantive content. The necessary socio-economic analysis is also not yet complete.

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The Revised Draft 2016 AQMP also indicates that there will be no analysis of contingency measures in the Socioeconomic study. Also, it appears that several measures that do not have emissions reduction targets or other information will not be included in the Socioeconomic analysis. This means there will be no comprehensive review of the impact

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associated with implementation of all measures or the repercussions of the potential adoption of the “facility-based mobile source measures” discussed in the MOB-1 section above.

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The Revised Draft (p.9-7) states that it anticipates that “the 2016 AQMP Socioeconomic Report will contain enhanced impact analyses on Environmental Communities....” That information should be made available as part of a complete analysis.

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Furthermore, it appears that the Socioeconomic study will only analyze the impacts associated with approximately \$16 billion in government subsidies, not including the match funding that will be required from private operators. The Ports are concerned that this amount is substantially underestimated and ignores the necessary private capital that will be necessary to purchase thousands of pieces of costly near-zero and zero emission equipment to be deployed at the ports and throughout the region.

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Finally, the description of the anticipated socioeconomic study assumes that there will be no tax increases to fund these incentives; however, the Revised Draft AQMP contradicts this assumption as it clearly states AQMD’s intent to seek local and state ballot measures, which would include taxpayer funding (p. 4-68).

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The Socioeconomic analysis must include an analysis of the impacts on the private sector from having to invest in significant new capital costs associated with cleaner equipment, and it must include an analysis of the impact on taxpayers as a result of higher taxes.

96-49

To the limited extent portions of the Socioeconomic Report have been released, it appears that it may: (a) Underestimate the costs of compliance with new measures contemplated by the 2016 AQMP; (b) Overestimate the extent and benefits of changes in health costs and risk reductions; and (c) Fail to accurately address or quantify the likely impacts on Port competitiveness and other related impacts on the regional economy.

96-50

The Ports request a full socioeconomic analysis of all control measures, and that the socioeconomic analysis be completed and an adequate opportunity for public comment be provided *prior to* action on the Revised Draft 2016 AQMP.

96-51

**19. The District Is Improperly Conducting CEQA Review Before The AQMP Is Complete.**

The draft Environmental Impact Report for the proposed 2016 AQMP is now out for public review and comment. The Ports are submitting separate comments on that Draft EIR, and we refer to and incorporate those comments here as well.

96-52

As noted in the Ports comments on the Draft EIR, it seems to be procedurally and legally inappropriate for the District to be conducting its CEQA review before the details of the proposed AQMP have been completed. The Ports and the public should not be required to review and comment on important environmental documents before the full shape of the proposed project (2016 AQMP) is better known and disclosed. (See, e.g., *City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1450: “A complete project description is necessary [for CEQA] to assure that all of a project’s environmental impacts are considered.”).)

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**20. Specific Technical Comments On AQMP**

The Ports previously submitted specific technical comments on the June 2016 draft AQMP, and we appreciate that some of these comments are reflected in the revised draft, particularly the revised emissions under MOB-01, which are more consistent with the Ports' emission inventories. Many of our comments, however, are not explicitly addressed in the revised draft, and it is not clear that the current revised draft AQMP has acknowledged or responded to those comments.

96-53

We therefore incorporate by reference the technical comments raised in our August 19, 2016 letter, which is attached, and additionally, highlight the following new and/or restated technical issues.

**a. Appendix IV-A, Table IV-A-2 SCAQMD Proposed Mobile Source 8-Hour Ozone Measures, p. IV-A-4.**

For MOB-01, the emission reductions in tons per day (tpd) for 2023/2031 is identified as "TBD" with a corresponding footnote "b", which states "Submitted into the SIP as part of reporting or in baseline inventories for future AQMP/SIP Revisions." We request that the District provide further clarification on how the "Rate of Progress" will be calculated and compared to ensure that the emissions reductions achieved by the proposed control measure are surplus emissions.

96-54

**b. Appendix IV-A, Page 7, Emission Reduction Benefits Of Funding Programs.**

The Ports each prepare annual air emissions inventories of port-related sources. These inventories are based on actual equipment and activity data, and as such, incorporate emission reductions due to funding incentive programs if they occurred in the current or previous years emission inventories. The Revised Draft AQMP contains this language: "In addition, the SCAQMD is implementing several incentives funding programs that have resulted in early emission reductions (e.g., the Carl Moyer Memorial Air Quality Standards Attainment Program, the Surplus Off-Road Opt-In for NOx (SOON) program, and Proposition 1B – Goods Movement Emissions Reduction Program). The emission reduction benefits of the funding programs are quantified and are proposed to be included as part of the overall emission reductions for attainment of the NAAQS." (IV-A, page 7).

96-55

It is important to identify those reductions for port sources to avoid double-counting in the baseline and future emissions reductions analysis. The Ports' emissions inventories include incentive programs in the baseline year but do not project additional benefits that may occur due to additional incentive funding from these programs.

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c. Appendix IV-A, Emission Reductions At Commercial Marine Ports [NOx, SOx, PM], p. IV-A-120.

The Ports each prepare annual air emissions inventories of port-related sources, and in July 2015, transmitted the San Pedro Bay Ports 2012 air emissions inventory, as well as forecasted port-related emissions for each year through 2031 for inclusion on the 2016 AQMP based on discussions with District and ARB staff. The Ports appreciate that emissions under MOB\_01 have been revised, and they are within 5% of the San Pedro Bay Ports emissions that we shared with SCAQMD and ARB.

It is the Ports' understanding that the emissions from port-related sources in the 2016 AQMP would reflect the actual emissions reported by the Ports. These discrepancies should be addressed.

To provide for a meaningful and comprehensive review, the Ports request that the District identify the port-related sources (i.e., ocean-going vessels, harbor craft, locomotives, cargo-handling equipment, and heavy-duty trucks) of emissions that make up the total emissions in the Control Measure Summary (p. IV-A-109). It is also important to identify the assumptions used to estimate future emissions in 2022, 2023, and 2031. For instance, it is important to understand the assumed International Maritime Organization (IMO) tier level of ocean-going vessels calling at the Ports, as well as the fleet makeup of all other port-related source categories, including heavy-duty trucks, cargo-handling equipment, locomotives, and harbor craft. It is also important to identify the source-specific "growth" factors that were used to estimate future year emissions.

96-56

The table below shows a comparison of the emissions provided in the Revised Draft 2016 AQMP and the Ports' actual 2012 emissions and forecasted emissions for 2023 and 2031.

ANNUAL AVERAGE	All Source Categories			
	2012	2022	2023	2031
MOB1 NOx (Draft 2016 AQMP as of October 2016)	43.61	46.57	45.27	41.37
SPBP EIs	41.95	47.80	46.35	42.03
MOB1 /Ratio from 2012	1.00	1.07	1.04	.95
SPBP EIs PM2.5 Ratio from 2012	1.00	1.14	1.10	1.00
MOB1 PM2.5 (Draft 2016 AQMP)	1.03	0.83	0.84	0.93
SPBP EIs	1.03	0.83	0.84	0.93
MOB1 Ratio from 2012	1.00	0.81	0.82	0.90
SPBP EIs Ratio from 2012	1	0.80	0.81	0.91
MOB1 SOx (Draft 2016 AQMP)	3.9	0.81	0.82	0.91
SPBP EIs	3.90	0.81	0.82	0.91
MOB1 Ratio from 2012	1.00	0.21	0.21	0.23
SPBP EIs Ratio from 2012	1.00	0.21	0.21	0.23

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As stated in our previous comment letter, to provide for a meaningful and comprehensive review, the Ports' request that the District identify the port-related sources (i.e., ocean-going vessels, harbor craft, locomotives, cargo-handling equipment, and heavy-duty trucks) of emissions that make up the total emissions in the Control Measure Summary (p. IV-A-120). It is also important to identify the assumptions used to estimate future emissions in 2022, 2023, and 2031. For instance, it is important to understand the assumed International Maritime Organization (IMO) tier level of ocean-going vessels calling at the Ports, as well as the fleet makeup of all other port-related source categories, including heavy-duty trucks, cargo-handling equipment, locomotives, and harbor craft. It is also important to identify the source-specific "growth" factors that were used to estimate future year emissions.

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d. Appendix IV-A, Format Of Control Measures, Emission Reductions, p. IV-A-21.

This section states that: "During the rule development, the most current inventory will be used. However, for tracking rate-of-progress for the SIP emission reduction commitment, the approved AQMP inventory will be used. More specifically, emission reductions due to mandatory or voluntary, but enforceable actions shall be credited toward SIP obligations" (p. IV-A-21).

96-57

We request that any differences between the "most current inventory" used for rule development and the "approved AQMP inventory" be clearly described and addressed prior to any mandatory or voluntary emissions being credited toward SIP obligations.

e. Appendix IV-B, South Coast Mobile Source Emission Reductions, p. IV-B-5.

In this table, NOx reductions for 2031 are shown from 2015 level whereas the AQMP reductions are from 2012 level. SCAQMD should clarify how it plans to reconcile the emission reductions as the discrepancy could cause confusion when setting up goals and emission reduction targets.

96-58

f. Appendix IV-B, Tier 4 Vessel Standards, p. IV-B-50.

Under this proposed action, the ARB intends to work with the EPA, U.S. Coast Guard, and international partners to urge the International Maritime Organization (IMO) to adopt a Tier 4 NOx standard for new ocean-going vessels and efficiency requirements for existing vessels (p. IV-B-50).

The Ports support the advocacy for more stringent IMO standards and efficiency targets for ships. Currently, newly built ships are required to meet IMO Tier 3 standards for NOx. The Ports have developed an IMO Tier distribution forecast based on the existing world fleet, estimated future vessel calls at the Ports, and Tier 3 order information provided by the engine manufacturers. The Ports' Tier distribution forecast indicates strongly that there will be no significant (less than 5%, best case scenario) Tier 3 penetration of the ship calls by 2023. Further, the forecast indicates that the existing world fleet (Tier 0-2) could service the Ports through the mid to late 2030s to 2040s.

96-59

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Recognizing that Tier 3 fleet penetration will be significantly slower than CARB is estimating and coupled with the fact that there have been NO discussions at IMO Marine Environmental Protection Committee related to a Tier 4 NOx engine standard, the Ports believe that it is highly inappropriate to assume aspirational reductions related to Tier 4 fleet penetration until the standard is at least drafted if not promulgated. Taking reductions for standards that are neither in discussion nor in development is not appropriate for SIP planning purposes. Therefore, the Ports request that the estimated emissions reductions associated with Tier 3 fleet penetration this measure be reconsidered for the proposed SIP commitment and that all reductions associated with Tier 4 be removed.

Furthermore, it is stated that: “The new standards would be allowed to enter the fleet using natural turnover and would not be accelerated by additional rules or incentives” (p. IV-B-51). While the Ports are in favor of the ARB advocating for IMO Tier 4 NOx standards and efficiency targets for ships, we believe that effort should be placed on encouraging the cleanest ships to deploy to our ports now. There are currently fewer than 50 ships worldwide on order that will have IMO Tier 3 capabilities and it is unknown where they will be they deployed. We do not foresee a sizeable number of Tier 3 ships servicing our ports in the near term. As more of these ships become available for deployment, the Ports recommend the development of statewide strategies, such as incentive funding programs to attract these clean new ships to our Ports.

96-59  
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# SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN

August 19, 2016

Mr. Wayne Nasti  
Acting Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765  
Electronic Submittal Via:  
<https://onbase-pub.aqmd.gov/sAppNet/UnityForm.aspx?key=UFSessionIDKey>

Dear Mr. Nasti:

**SUBJECT: COMMENTS ON THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT'S DRAFT 2016 AIR QUALITY MANAGEMENT PLAN (JUNE 2016)**

The Ports of Long Beach and Los Angeles (Ports) appreciate the opportunity to participate in the South Coast Air Quality Management District's (District or SCAQMD) 2016 Air Quality Management Plan Advisory Committee and to comment on the *Draft 2016 Air Quality Management Plan* released on June 30, 2016 (AQMP). The Ports recognize the amount of effort that has gone into the development of the 2016 AQMP and acknowledge the efforts of the District to release a plan that seeks to balance "traditional" regulatory measures with innovative incentive-based measures.

The Ports support the development and implementation of programs to achieve the applicable and current national ambient air quality standards (NAAQS). Consistent with that effort, the Ports voluntarily developed the highly successful San Pedro Bay Ports Clean Air Action Plan (CAAP) and continue to be successful in implementing those programs. As a result of the CAAP, between 2005 and 2015, emissions from maritime goods movement sources were reduced at an accelerated rate over command and control rules; accounting for overall reductions of 84% for diesel particulate matter (DPM), 50% for nitrogen oxides, and 97% for sulfur oxides. The Ports' emissions inventories in 2015 show reductions that are in excess of the 2014 emission



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*The San Pedro Bay Ports Clean Air Action Plan was developed with the participation and cooperation of the staff of the US Environmental Protection Agency, California Air Resources Board and the South Coast Air Quality Management District.*

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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reduction goals in the CAAP. Thus, the Ports have a proven track record of developing and implementing appropriate and effective emission reduction strategies based on cooperative and voluntary measures, independent of or in advance of regulatory requirements.

The CAAP relies upon cooperative efforts with the maritime goods movement industry to achieve healthful air for the surrounding communities. The voluntary and cooperative aspects of the CAAP are critical because the Ports set stretch goals under incentive-based programs that rely in part upon federal, state and District monetary grants. Many of these grants are only available for programs that achieve "surplus" emissions reductions (i.e., those emissions reductions that are not required by regulation) by either accelerating the air quality regulatory agency requirements, or implementing non-regulatory programs. A significant concern of the Ports is the potential loss of this grant money, which is essential to continuing the successful implementation of the CAAP, if CAAP measures are included in the 2016 AQMP, directly or indirectly.

In order to meet the NAAQS, a collaborative and concerted effort with our agency partners is also essential, with the understanding that while the Ports can voluntarily achieve significant emission reductions, the CAAP is not a suitable control measure for the 2016 AQMP. United States Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the District are the air quality regulatory agencies, and as such have authority as granted by statute to regulate the emissions directly from maritime goods movement sources. The Ports do not operate, own or control the maritime goods movement emission sources, and do not have the same authority as the air quality regulatory agencies. As such, the Ports should not be the agencies designated as responsible for achieving emission reductions from the maritime goods movement industry.

Additionally, the Ports are currently in the process of developing the next update of the CAAP. Many of the existing CAAP control strategies have been adopted or superseded by state or international requirements, such as the rules for replacing drayage trucks, switching to cleaner marine fuels, and using shore power while at berth. In collaboration with the maritime goods movement industry and our regulatory partners, the Ports seek to identify additional strategies to voluntarily achieve emissions reductions from ships, trucks, locomotives, cargo-handling equipment, and harbor craft to support the state's and region's air quality attainment needs. The CAAP Update will also incorporate strategies to address near-zero and zero emission technologies, greenhouse gas emissions, energy, and operational efficiencies.

In response to the District's request, the Ports respectfully submit the following comments regarding the Draft 2016 AQMP at this time, as well as questions and concerns that must be addressed *prior to* finalization and adoption of the 2016 AQMP by the District. We note, however, that it is difficult for the Ports to specify all comments at this time as the critical Appendices V and VI, Incentive Funding Action Plan, and

socioeconomic analysis have not yet been released to the public. We urge the District to consider extending the comment date on the 2016 AQMP until all Appendices and other critical components of the AQMP (e.g., the socioeconomic analysis, Incentive Funding Action Plan, etc.) have been released to the public so that a more comprehensive analysis can be conducted and comments provided to the District prior to Board consideration. Based on the information currently available, the Ports request that the Draft 2016 AQMP be revised as follows:

- Remove Mobile Source Control Measure MOB-01, as it does not provide emission reductions for the attainment demonstration, exceeds the District's authority, and is duplicative of other proposed control measures and state, federal and international laws.
- Exclude the Ports from the growth management control measure, EGM-01.
- Revise MOB-14 so that it does not preclude the maritime goods movement industry's ability to obtain grant funding.
- Focus on attaining the applicable NAAQS and not the revoked NAAQS.
- Specifically identify which measures are contingency measures as required by the Clean Air Act.
- Include in the socioeconomic analysis prepared for the 2016 AQMP a thorough cost-benefit evaluation of all control measures, including MOB-01 if it remains in the Plan as currently proposed, and all contingency measures.
- Complete and circulate the Incentive Funding Action plan for public review and comment *before* inclusion in the Socioeconomic analysis.
- Respond with changes in the 2016 AQMP to address the Ports' concerns and questions associated with the technical analysis, including the baseline and future year emissions inventory.

**Detailed comments on each of the Ports' requested bullet items above are provided in the following Attachment.**

The Ports strongly encourage the District to make the above-requested changes to the Draft 2016 AQMP, and in particular, eliminate control measure MOB-01 as it is unnecessary and exceeds the District's authority. The Ports also urge the District to complete the appropriate Incentive Funding Action Plan, as well as the appropriate socioeconomic impact analysis, and to provide the Ports and other members of the public with an adequate opportunity for comprehensive review and comment on those documents along with the (revised) Draft 2016 AQMP *prior to* submitting the Plan to the Board for consideration.

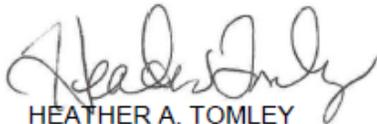
The Ports remain committed to achieving our clean air goals identified in the CAAP to help improve regional air quality. We strongly believe that the voluntary and cooperative CAAP process established by the Ports remains the most appropriate forum for the Ports and the air regulatory agencies to discuss technical and policy issues related to reducing emissions from port-related sources.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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The Ports appreciate this opportunity to provide comments on the Draft 2016 AQMD. We look forward to continuing to work with the District on advancing our shared goals for clean air in the South Coast region.

Sincerely,



HEATHER A. TOMLEY  
Director of Environmental Planning  
Port of Long Beach



CHRISTOPHER CANNON  
Director of Environmental Management  
Port of Los Angeles

CC:LW:TD:mrx  
APP No.: 160818-518

cc: Jon Slangerup, Port of Long Beach, Chief Executive Officer  
Gene Seroka, City of Los Angeles Harbor Department, Executive Director  
Richard Corey, California Air Resources Board, Executive Officer  
Alexis Strauss, Region 9, Acting Regional Administrator

Attachment: Detailed Comments on the Ports' Requested DRAFT 2016 AQMP Revisions

# SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN

## ATTACHMENT

### Detailed Comments on the Ports' Requested DRAFT 2016 AQMP Revisions

#### 1. SCAQMD Mobile Source Control Measure: MOB-01 Emission Reductions at Commercial Marine Ports.

The Ports appreciate the discussion in this control measure that recognizes our successful efforts in implementing the CAAP since 2006 and exceeding our emission reduction goals in 2014. Yet, it appears that the District remains concerned over its ability to claim and quantify credit in the state implementation plan SIP for the emission reductions achieved by the Ports through the CAAP in the absence of District-imposed “enforceable” rules or control measures. The District continues to attempt to hold the Ports responsible for achieving their voluntary stretch goals, and for backstopping requirements that are currently being enforced by state and international regulations. Further, MOB-01 suggests that if the emission reductions occurring at the Ports are not maintained after they are reported into the SIP that this measure may be implemented in the form of a backstop regulation by the SCAQMD or by the State or federal government, or other enforceable mechanisms, notwithstanding the limitations of the federal Clean Air Act.

The District has previously proposed to address its need for enforceable measures by various other approaches, e.g., control measure MOB-03 in the 2007 AQMP and control measure IND-01 in the 2012 AQMP, which characterized the Ports as “indirect sources” of emissions. The 2007 MOB-03 was described as “a backstop measure for indirect sources of emissions from ports and port-related facilities” and in the ensuing years, District staff proposed and sought public review of a “backstop” rule that would be enforceable and applicable to the Ports, “Proposed Rule 4001.” The Ports raised many questions and objections to control measure IND-01 and Proposed Rule 4001 in numerous comment letters<sup>1</sup> sent to the District and EPA. EPA, in its April 2016 action

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<sup>1</sup> Comment Letters to U.S. Environmental Protection Agency dated November 19, 2015; California Air Resources Board dated March 25, 2014; South Coast Air Quality Management



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The San Pedro Bay Ports Clean Air Action Plan was developed with the participation and cooperation of the staff of the US Environmental Protection Agency, California Air Resources Board and the South Coast Air Quality Management District.

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South Coast Air Quality Management District  
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partially approving the 2012 SIP, excluded the commitments proposed by IND-01 from its action and stated that it would respond to that in a separate rulemaking. (See 81 FR 22025 (April 14, 2016) US EPA Partial Approval and Partial Disapproval of California Air Quality SIP.) The District has reported that Proposed Rule 4001 has been placed on hold, in light of work to develop supposedly different approaches for the pending 2016 AQMP.<sup>2</sup>

The Draft 2016 AQMP indicates, however, that the District has not abandoned those efforts to establish policies and control measures that may provide a framework or justification for the District to adopt rules or regulatory measures that may be applied to the Ports, either directly or as a backstop or contingency measures. The Draft AQMP introduces a new proposed control measure "MOB-01" which states: "The proposed measures will replace control measures MOB-03 in the 2007 AQMP and IND-01 in the 2012 AQMP." (Draft 2016 AQMP, p. 4-24.) MOB-01 is described as a control measure to achieve emission reductions at commercial marine ports and is characterized in the Draft AQMP as a "facility-based mobile source control measure." Although the nomenclature may have changed, the Ports believe that proposed new MOB-01 is no different from the District's previous Ports-related control measures, where the District invoked its purported authority to regulate the Ports as "indirect sources" of emissions. The Ports point to the Draft AQMP, which states that "mobile sources" currently contribute about 88% of the region's total NOx emissions. It then acknowledges that "[s]ince the SCAQMD has limited authority to regulate mobile sources, staff worked closely with the CARB and EPA, which have primary authority over mobile sources, to ensure mobile sources perform their fair share of pollution reduction responsibilities" (p. ES-7).

The Ports also note that in describing the MOB-01 control measure, the Draft 2016 Plan characterizes the Ports as a "facility-based mobile source." In addition to the troublesome wording of that characterization, the description of this proposed control

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District dated January 15, 2014, January 31, 2014, October 2, 2013, August 21, 2013, October 31, 2012, and August 30, 2012

<sup>2</sup> According to the minutes of the District's "Mobile Source Committee" meeting of April 15, 2016, included in the District's Board Meeting minutes from May 6, 2016 (agenda item #21), the U.S. EPA "in its recent decision on the approval of the 2012 AQMP did not evaluate IND-01 and will evaluate the control measure at some future date. Staff has been working on Proposed Rule 4001 to implement Control Measure IND-01 and has placed the rule development on hold with the development of the 2016 AQMP."

Mr. Wayne Nastri  
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measure strongly indicates that the District intends to use MOB-01 as an indirect source control measure in order to quantify and lock in the emissions reductions achieved by the Ports under the CAAP. These “facility-based mobile source measure” approaches would have serious negative effects on maritime commerce and impede the State of California’s freight competitiveness. Those burdensome and counter-productive approaches would be directly in conflict with the goals of Governor Brown’s Executive Order to improve freight transportation efficiency and increase competitiveness of California’s freight system, as well as the recently-released California Sustainable Freight Action Plan. The Ports continue to oppose any form of a “rule” that would impose SCAQMD oversight on the Ports and are strongly opposed to the District creating or relying on any concept of a “facility-based mobile source measure,” whether described as an “Indirect Source Rule,” “Backstop Rule” or the “freight hub,” “facility cap,” and/or “freight facility performance targets” approach. Neither EPA nor CARB can require the District to adopt a control measure for MOB-01 because indirect source control measures cannot be required as a condition of SIP approval. (42 U.S.C. § 7410(a)(5)(A)(ii); Health & Safety Code, § 40468.) Therefore, the Ports have serious concerns about the District making enforceable commitments to the state and federal governments that the Ports will control “indirect sources.”

The District has not identified any legislation purporting to confer authority on the SCAQMD to regulate public marine facilities as “mobile sources.”<sup>3</sup> The District itself acknowledges that it does not have “primary regulatory authority” over the Port (or other large facilities identified as major sources of emissions, e.g., rail yards, airports, and distribution centers). Nevertheless, the Draft AQMP further states: “This measure [MOB-01] may be implemented in the form of a regulation by the SCAQMD within its existing legal authority, or by the State or federal government, or other enforceable mechanisms.” (p. 4-24.) This statement raises legal issues regarding the extent of the District’s limited “existing legal authority;” the Ports have previously raised these issues in opposition to PR 4001. The Draft Plan is vague and ambiguous as to the source and extent of any specific “existing legal authority” that may be contemplated by the District or by MOB-01. The District has not previously cited any specific authority under the California Clean Air Act for this type of regulation (Cf., Health & Safety Code §§ 39000 et seq., and more specifically Chapter 5.5 (§§ 40400-40536) dealing with the SCAQMD).

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<sup>3</sup> The EPA itself treats “facilities based” emission sources as distinct from “mobile sources”. See, e.g., 66 FR 65208 “Database of sources of environmental releases of dioxin-like compounds in the U.S., ref year 1987-1995. December 18, 2001.

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In fact, the District has no authority to regulate mobile sources or to draw any geographic boundary or to arbitrarily characterize source categories and declare those areas or groups of sources to be an "indirect source." "Mobile sources" of emissions are beyond the limited regulatory authority conferred by the Legislature on local or regional districts (e.g., Health & Safety Code § 40001(a); *also see*, 76 Ops. Cal. Atty. Gen. 11 (1993); 75 Ops. Cal. Atty. Gen. 256 (1992); 74 Ops. Cal. Atty. Gen. 196 (1991); 73 Ops. Cal. Atty. Gen. 229, 234-35 (1990)). Congress vested the federal government with the authority to set nationwide emissions standards for mobile sources, including non-road mobile engines and vehicles. (42 U.S.C. §§ 7521, 7547.) Congress expressly and impliedly preempted states from setting standards or other requirements relating to the control of emissions for mobile sources. (42 U.S.C. § 7543, (a) & (e).) The maritime goods movement emission sources are within the express and implied preemption. The Clean Air Act allows California to seek authorization from EPA to adopt "standards and other requirements related to the control of emissions" for some, but not all, mobile sources covered by MOB-01. (42 U.S.C. §§ 7543 (b) & (e)(2)(A).) Thus, District does not have mobile source regulatory authority.

The Clean Air Act defines an indirect source as "a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution." (42 U.S.C. § 7410(a)(5)(C).) An "indirect source review program" is "the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution" that would contribute to the exceedance of the NAAQS. (42 U.S.C. § 7410(a)(5)(D)(i).) "Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose" of an indirect source review program. (42 U.S.C. § 7410(a)(5)(C).) Air pollution control districts are not statutorily authorized to impose a permit system on indirect sources. (*Friends of Oceano Dunes, Inc. v. San Luis Obispo County Air Pollution Control District* (2015) 235 Cal.App.4th 957, 964, as modified on denial of reh'g (Apr. 23, 2015).)

The control measures also fail as an indirect source review program because the businesses within the geographic and source designated areas are not a "new or modified indirect emissions source." (42 U.S.C. § 7410(A)(5).) A source is new if it adds to the air basin's existing emissions baseline. (*National Ass'n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.* (9th Cir. 2010) 627 F.3d 730, 731-32.) The Clean Air Act defines modification as "any physical change in, or change in the method of operation, of a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of an air pollutant not previously emitted." (42 U.S.C. § 7411(a)(4).)

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Only those provisions necessary to meet the requirements of the Clean Air Act are included in the SIP. (Health & Safety Code, § 39602.) The purpose of an indirect source program is to ensure that mobile source emissions do not "cause or contribute to air pollution concentrations exceeding any national primary ambient air quality standard for a mobile-source related air pollutant." (42 U.S.C. § 7410(a)(5)(D)(i).) MOB-01 is not necessary to meet the NAAQS requirements of Clean Air Act. The emissions reductions listed in the Draft AQMP for MOB-1 for the years 2023 and 2031 are listed as "To Be Determined" -- which indicates that the reductions will be determined once the inventory and control approach are identified, and are not relied upon for attainment demonstration purposes. In reality, there would be little to no emission reduction benefit from indirect source measures because state, federal and international authorities have adopted rules and regulations to significantly reduce NOx emissions from these on- and off-road mobile sources. According to the 2016 AQMP, "[t]he effect of the rules and regulations are significant, showing reductions of over 67 percent in NOx emissions and close to 60 percent in VOC emissions between 2012 and 2023, even with increases in fleet population" (p.3-4).

MOB-01 further violates the dormant Commerce Clause by impeding the free and efficient flow of commerce by imposing a heavy burden on ports, the shipping industry, navigation and commerce without any local environmental benefit, or an insubstantial local benefit at best.

The Draft 2016 AQMP also inappropriately refers to the Ports as an "Implementing Agency," which the AQMP defines as "the agency(ies) responsible for implementing the control measure" (p. IV-A-20MOB-01 states that "[t]he Ports through its CAAP update can decide the most effective approaches to achieve the overall emission reductions targets" (p. IV-113). However, to the extent the AQMP singles out and mischaracterizes the Ports as "Implementing Agencies," without including all of the other public and private partners working to achieve emission reductions, it erroneously implies that the Ports would have an assigned enforcement obligation, and improperly shifts an unwarranted burden of regulatory implementation to the Ports. While the Ports have successfully adopted voluntary efforts to reduce emissions from maritime goods movement sources, the Ports are not air agency regulators. The Ports do not have the regulatory responsibility or authority to achieve emission reductions from sources over which they do not have jurisdiction, ownership or operational control. Further, the District is well aware from the Ports' previous comment letters on these issues, that generally the Ports lack authority to enforce as mandates the programs on all mobile sources operating in the Ports as they are preempted by state, federal and international law. This portion of the AQMP, requiring the Ports to select and implement the control measures, does not address or overcome these legal impediments.

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The Ports respectfully remind the District that the CAAP is a planning document that provides guidance on strategies and targets that are ultimately implemented through individual actions adopted by each Port's respective Board of Harbor Commissioners (Boards). The State granted to the Cities of Long Beach and Los Angeles exclusive authority to implement the Tidelands Trust under the oversight of the State Lands Commission. Each city has been appointed as a trustee and has established their respective Board of Harbor Commissions with exclusive control and management of the Tidelands and revenues and expenditures from the Tidelands. However, such discretion must be exercised in accordance with their obligations to prudently manage Tidelands assets and revenues within a nexus and proportionality to the Tidelands Trust interest, as well as in accordance with applicable laws such as the California Environmental Quality Act (CEQA) and principles of federal preemption. The District cannot mandate action by each Port's Board of Harbor Commissioners, nor can the District direct how the Ports may be obligated to spend state Tidelands money; only the appointed trustee can make discretionary actions to obligate state Tidelands funds. Specifically, any measures listed in the AQMP or the CAAP must each require the Boards to authorize the expenditure of monies and program costs, or to approve conditions of infrastructure project development in their discretion as a CEQA lead agency and as Tidelands trustees.

Further, the District has not complied with the procedural requirements to adopt indirect source control rules that are contemplated in MOB-01. The requirements are: (1) ensure, to the extent feasible, and based upon the best available information, assumptions, and methodologies that are reviewed and adopted at a public hearing, that the proposed rule or regulation would require an indirect source to reduce vehicular emissions only to the extent that the district determines that the source contributes to air pollution by generating vehicle trips that would not otherwise occur; (2) ensure that, to the extent feasible, the proposed rule or regulation does not require an indirect source to reduce vehicular trips that are required to be reduced by other rules or regulations adopted for the same purpose; (3) take into account the feasibility of implementing the proposed rule or regulation; (4) consider the cost effectiveness of the proposed rule or regulation; (5) determine that the proposed rule or regulation would not place any requirement placed upon those public agencies or indirect sources that would duplicate any requirement placed upon those public agencies or indirect sources as a result of another rule or regulation adopted pursuant to Health and Safety Code sections 40716 or 40717. (Health & Saf. Code, § 40717.5.)

Instead of MOB-01, the Ports suggest that a collaborative, voluntary approach, consistent with the cooperative partnership that has been proven to be successful over the past decade, will continue to be the most effective means for controlling emissions from maritime goods movement activities within the jurisdiction of Ports. This approach,

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which could be memorialized under a cooperative agreement between the Ports and SCAQMD, CARB, and EPA, would benefit all parties because it continues the collaborative effort that has resulted in unprecedented emission reductions at the Ports, shares responsibility between Parties, provides more certainty for the local economy, avoids litigation, insures incentive funding that is tied to excess emissions will continue to be available, and will result in better air quality.

## **2. SCAQMD Growth Management Control Measure: EGM-01**

The Draft 2016 AQMP states: “[f]or the purposes of this measure [EGM-01], indirect sources include all facilities not covered by another 2016 AQMP Control Measure. In addition, during the rule development process, additional indirect sources may be included or excluded” (p. IV-A-169).

The Ports should not be included within this control measure in the event MOB-01 is removed from the 2016 AQMP or during the rule development process. In addition to the reasons stated above in section 1, the Ports have serious concerns about the District making a commitment to the state and federal governments that the SCAQMD will control growth or dictate land use decisions. SCAQMD has no authority to control growth or overrule local land use decisions. (Health & Saf. Code, § 40716 [air districts cannot infringe on the existing authority of counties and cities to plan or control land use]; see also Health & Saf. Code, §§ 40000, 40414, 40440.1, 40717.5(c)(1).) Land use is within the exclusive preview of local cities and counties.

## **3. SCAQMD Mobile Source Control Measure: MOB-14 Emission Reductions from Incentive Programs**

The Draft 2016 AQMP mobile source control measures include development of incentive funding programs and supporting infrastructure for early deployment of advanced control technologies. MOB-14 states that it seeks to develop a rule similar to the San Joaquin Valley Air Pollution Control District Rule 9610 – “State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs” -- such that emissions reductions generated through incentive programs can be credited in the SIP emission inventories.

It will be critical to prioritize and secure the necessary funding needed to implement the proposed incentive-based measures in the Draft AQMP and achieve the aggressive emission reduction targets in the South Coast Air Basin. The Ports know first-hand that the move toward zero emissions is a costly endeavor and have placed significant emphasis on efforts to advance the development of near-zero and zero emissions equipment for on-terminal and on-road applications. Through the Ports’ Technology

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Advancement Program (TAP), we have been involved with funding the demonstration of clean technologies used in port operations for nearly a decade. Significant progress has been made and we expect that zero emissions operations will be feasible in the future. The scale of this effort will be significant, with cost for the equipment and fueling infrastructure in the *Billions* of dollars.

The Ports and the maritime goods movement industry will require a substantial amount of funding assistance from the local, state and federal agencies. As such, the Ports are supportive of incentive funding to accelerate advancement of technologies. The Ports continue to strongly support the implementation of funding programs such as the Proposition 1B Goods Movement Emission Reduction Program and the Carl Moyer Memorial Air Quality Attainment Program, both of which have provided funding for much needed assistance with upgrading wharves for shore power, the replacement of drayage trucks, and the replacement and repower of engines in cargo-handling equipment, harbor craft, and locomotives.

While the Ports support funding programs and the need to credit emissions reductions generated from through incentive funding programs, the Ports strongly recommend that MOB-14, or any resulting regulatory strategy be structured in such a way that does not preclude the maritime goods movement industry's ability to secure grant funding for early actions. For example, it is not clear from the description of MOB-14 whether facility emission caps or port backstop rules could effectively disqualify companies and agencies from received grants, because typically grants funds cannot be used for regulatory compliance. The Ports believe that this unintended consequence of a control measure like MOB-14 could significantly impede early equipment replacement and transition to zero emission technologies, and also severely affect the economic competitiveness of the maritime goods movement industry. In addition, if the required emission levels for attainment are not be met in the region, the Ports must not be held accountable for attaining emission reductions that are predicated on incentive funding if the funding does not come through at the necessary and appropriate levels.

#### **4. Inclusion of Revoked NAAQS in the 2016 AQMP**

The Draft 2016 AQMP includes updates to previous plans for the revoked 1-hour (120 ppb) and 1997 8-hour (80 ppb) ozone NAAQS (p. 4-1), rather than addressing the current and controlling ozone NAAQS. For example,, the Draft 2016 AQMP attainment strategy seeks to reduce NOx emissions sufficiently to meet the revoked 1-hour ozone NAAQS of 120 ppb by 2023 and the revoked 8-hour ozone NAAQS of 80 ppb by 2024, instead of focusing on achieving the applicable ozone NAAQS of 75 ppb by 2032. This approach is inappropriate and unnecessary.

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While the SCAQMD is required to comply with the anti-backsliding provisions of the Clean Air Act [CAA sec 172(e)], which preclude the adoption of controls that are less stringent than existing controls applicable in the District, the 2012 AQMP does not contain any mandates akin to MOB-01 that are applicable to the Ports. Therefore, the removal of MOB-01 from the 2016 AQMP by the District would not be “backsliding” from any existing standards relied upon for attainment under the existing 2012 AQMP.

Furthermore, the proposed approach of targeting the revoked standards and their associated deadlines of 2023 and 2024, which are significantly earlier than the controlling deadline of 2032 in the current regulations, puts the region at unnecessary risk that contingency measures for ozone will be required in the three years leading up to the attainment date for the revoked NAAQS.

## 5. Contingency Measures

The Draft 2016 AQMP states the following regarding contingency measures: “Some measures in the summary table are listed as “TBD” (to be determined) for emission inventory, emission reductions and/or cost control. The “TBD” measures are not relied upon to demonstrate attainment of the standards but have been included if potentially feasible for the integrated, comprehensive plan. “TBD” measures require future technical and/or cost assessments in order to better understand and quantify emissions from and cost impact to the anticipated affected sources for the measures. It may be determined at that time that the “TBD” measure is not feasible or cost-effective to adopt and implement, or if reductions can be achieved, those reductions would be submitted into the SIP. Thus, “TBD” measures are included in the Plan as needed for contingency or if there are any shortfalls in committed emission reductions” (p. IV-A-18).

The District needs to identify specifically which measures in the AQMP it intends to be “contingency measures.” Referring to “TBD” measures does not provide sufficient identification because the measure language is not consistent with the measure being a contingency measure. The contingency measures should only be for the *applicable* NAAQS, and not for the revoked NAAQS attainment timeframes.

Further, EPA’s March 6, 2015, rulemaking allows extreme nonattainment areas for ozone to develop and adopt contingency measures meeting the requirements of 182(e)(5) (black box) to satisfy the requirements for both attainment contingency measures in CAA sections 172(c)(9) and 182(c)(9). These enforceable commitments must obligate the state to submit the required contingency measures to the EPA no later

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than three years before any applicable implementation date, in accordance with CAA section 182(e)(5). (See Federal Register, Vol. 80, No. 44, 12264 Friday, March 6, 2015.) Therefore, it is premature to submit contingency measures for 2032. As for reasonable further progress (RFP) contingency measures, these are only needed to provide the incremental shortage in emission reductions and last one year.

EPA is also continuing its long term policy that allows promulgated federal measures to be used as contingency measures as long as they provide emission reductions in the relevant years in excess of those needed for attainment or RFP. The 2016 AQMP needs to be revised to reflect these allowances that EPA has made for extreme nonattainment areas.

#### **6. State and Federal Control Measures and Incentive Funding Strategy**

The Draft AQMP includes additional control measures to reduce emissions from sources that are primarily under State and Federal jurisdiction, including on-road and off-road mobile sources. As stated, these reductions are needed to achieve the remaining emission reductions necessary for the Basin's attainment. The Draft AQMP identifies 107 tons of NOx reductions in 2023 and 97 tons of NOx reductions in 2031 to help the District meet attainment. Almost all of these reductions, however, are associated with the measures calling for "further deployment of cleaner technologies," which involve accelerating the development, demonstration, and deployment of cleaner engine technologies, in whole or in part through the use of incentive programs. Achieving these substantial emission reductions "is predicated on securing the amount of funding needed" to further deploy these cleaner technologies, according to the Draft AQMP.

The AQMP estimates an approximate range of \$4 to \$11 billion in funding over a 7 to 15 year period to achieve the projected NOx emissions reductions from mobile sources (p. 4-59). "The total funding needed ranges from \$13 to \$16 billion to achieve the NOx emission reductions associated with the State Mobile Source Strategy" (p. 4-62). "A total of \$1.1 to \$1.6 billion of stationary source incentive funding programs are proposed with projected cost-effectiveness levels in the same range as the mobile source incentives" (p. 4-66). The AQMP further states:

"The amount of incentive funding needed is estimated to be approximately \$11 – 14 billion in total funding over a seven to fifteen year period. Currently, the SCAQMD receives around \$56 million per year in incentives funding to accelerate turnover of on- and off-road vehicles and equipment under SB1107, a portion of the state's Tire Fee, and AB923. AB 923 will sunset in 2024. In addition, the District has received close to \$550 million in Proposition 1B funding. The last round of Proposition 1B will be ending in

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the next couple of years. The District has also received funding under the DERA program on a competitive basis. However, the amount of funding needed to achieve the NOx emission reductions associated with the "Further Deployment" measures proposed in the State Mobile Source Strategy and the 2016 AQMP will require on the order of \$1 billion per year if funding is available beginning in 2017" (pp. ES-8 to 9). As such, the short-fall is significant.

Assuming \$16 billion is a reasonable estimate – and the accuracy of that estimate is open to question – should the District fail to secure this funding, it may be forced to adopt the "contingency" measures specified in the Draft AQMP, of which MOB-01 may be one. The Ports are concerned the District may not secure the necessary funding, which would likely necessitate the hasty adoption of such contingency measures without a comprehensive analysis of the impacts, or possible alternatives, and without robust public input.

In addition, the Draft AQMP acknowledges that achieving the emissions reductions from the 2016 AQMP incentive-based control measures for both mobile and stationary sources will require approximately \$11 – \$14 Billion in total funding. Given this significant funding level needed to attain the ozone NAAQS over the next seven to fifteen years, the Draft AQMP refers to "an action plan [that] will be developed as part of the AQMP public adoption process" to identify the necessary actions to secure new sources of funding to implement the AQMP (p. 4-66). However, the Draft AQMP provided insufficient details on what would be contained in such an Incentive Funding Action Plan.

Furthermore, at the District's Mobile Source Committee meeting of July 22, 2016, the AQMD staff presentation indicated that a draft of the Incentive Funding Action Plan is expected as part of 2016 AQMP adoption. However, District staff has informed the Ports that an Incentive Funding Plan will not be available until *after* the AQMP has been adopted. This is not acceptable. Without a review of the Incentive Funding Action Plan concurrent with the Draft AQMP, it is not known whether the Plan is viable (i.e., activities to secure additional funding or actions are not realized), and the risk of contingency measures being triggered cannot be evaluated.

For this reason, the Ports urge the District to fully analyze the Incentive Funding Action Plan, and all contingency measures now, and to release that analysis *prior* to the close of public comment so that the public can evaluate the adequacy of the District's strategy and comment on that strategy.

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## **7. Socioeconomic Impact Analysis**

The Draft 2016 AQMP indicates that there will be no analysis of contingency measures in the socioeconomic study. Also, it appears that several measures that do not have emissions reduction targets or other information will not be included in the socioeconomic analysis. This means there will be no comprehensive review of the impacts associated with implementation of all measures or the repercussions of the potential adoption of the "facility-based mobile source measures" discussed in the MOB-01 section above.

The Ports request a full socioeconomic analysis of all control measures, and that the socioeconomic analysis be completed and an adequate opportunity for public comment be provided *prior to* action on the Draft 2016 AQMP.

Furthermore, it appears that the socioeconomic study will only analyze the impacts associated with approximately \$16 billion in government subsidies, not including the match funding that will be required from private operators. The Ports are concerned that this amount is substantially underestimated and ignores the private capital that will be necessary to purchase thousands of pieces of costly near-zero and zero emission equipment to be deployed at the ports and throughout the region.

Finally, the description of the anticipated socioeconomic study assumes that there will be no tax increases to fund these incentives; however, the Draft AQMP contradicts this assumption as it clearly states AQMD's intent to seek local and state ballot measures, which would include taxpayer funding (p. 4-68).

The socioeconomic analysis must include an analysis of the impacts on the private sector from having to invest in significant new capital costs associated with cleaner equipment, and it must include an analysis of the impact on taxpayers as a result of higher taxes.

## **8. Specific Technical Comments on the 2016 Draft AQMP**

### **a. Appendix IV-A, Table IV-A-2 SCAQMD Proposed Mobile Source 8-Hour Ozone Measures, p. IV-A-4**

The title of MOB-01 is inconsistent with the description of the control measure provided starting on page IV-A-109, which lists "CO" as a target pollutant. The control measure summary for MOB-01 (pp. IV-A-109-115) indicates that the goal of the measure is to seek emission reductions of NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>2.5</sub>. Please

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clarify if the measure is also intended to address emissions of CO, otherwise CO should be removed from Table IV-A-2 and updated accordingly.

In addition, for MOB-01, the emission reductions in tons per day (tpd) for 2023/2031 are identified as "TBD" with a corresponding footnote "b", which states "Submitted into the SIP as part of reporting or in baseline inventories for future AQMP/SIP Revisions." We request that the District provide further clarification on how the "Rate of Progress" will be calculated and compared to ensure that the emissions reductions achieved by the proposed control measure are surplus emissions.

**b. Appendix IV-A, Emission Reductions at Commercial Marine Ports [All Pollutants], p. IV-A-109**

The Ports each prepare annual air emissions inventories of port-related sources, and in July 2015, transmitted the San Pedro Bay Ports 2012 air emissions inventory, as well as forecasted port-related emissions for each year through 2031 for inclusion on the 2016 AQMP based on discussions with District and CARB staff.<sup>4,5</sup> It is not clear whether the emissions of NOx, SOx, and PM2.5 listed in the Control Measure Summary Table (p. IV-A-109) reflect the Port's actual emissions, as they do not correspond with those transmitted to the District and CARB.

It is the Ports' understanding that the emissions from port-related sources in the 2016 AQMP would reflect the actual emissions reported by the Ports. These discrepancies should be addressed.

To provide for a meaningful and comprehensive review, the Ports request that the District identify the port-related sources (i.e., ocean-going vessels, harbor craft, locomotives, cargo-handling equipment, and heavy-duty trucks) of emissions that make up the total emissions in the Control Measure Summary (p. IV-A-109). It is

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<sup>4</sup> Email Communication, Subject: San Pedro Bay Ports 2012 Emissions Inventory. July 21, 2015. Allyson Teramoto (Port of Long Beach) to Henry Hogo, Joe Casmassi, Randall Pasek (AQMD); Nicole Dolney, Sylvia Vanderspek, Gabe Ruiz (CARB).

<sup>5</sup> Email Communication, Subject: 2016 AQMP Emissions Forecasting Dial +1 (312) 757-3121 Access Code: 299-388-957. August 9, 2016. Archana Agrawal (Starcrest Consulting Group, LLC) to Henry Hogo, Randall Pasek (AQMD); Nicole Dolney, Sylvia Vanderspek, Russel Furey, Vernon Hughes, Gabe Ruiz (CARB).

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also important to identify the assumptions used to estimate future emissions in 2022, 2023, and 2031. For instance, it is important to understand the assumed International Maritime Organization (IMO) tier level of engines installed on ocean-going vessels calling at the Ports, as well as the fleet makeup of all other port-related source categories, including heavy-duty trucks, cargo-handling equipment, locomotives, and harbor craft. It is also important to identify the source-specific "growth" factors that were used to estimate future year emissions.

The **table** on the next page shows a comparison of the emissions provided in the Draft 2016 AQMP and the Ports' actual 2012 emissions and forecasted emissions for 2023 and 2031. As shown, there are several inconsistencies in the emissions inventories prepared by the Ports and the inventory used for the AQMP.

Annual Average	2012	2022	2023	2031
NOx (MOB-01 Draft 2016 AQMP)	39.37	TBD	42.39	35
NOx (2012 San Pedro Bay Ports Actual Emissions)	41.95	47.80	46.35	42.03
PM2.5 (MOB-01 Draft 2016 AQMP)	1.06	TBD	0.81	0.93
PM2.5 (2012 San Pedro Bay Ports Actual Emissions)	1.03	0.83	0.84	0.93
SOx (MOB-01 Draft 2016 AQMP)	4.04	TBD	1.23	1.47
SOx (2012 San Pedro Bay Ports Actual Emissions)	3.90	0.81	0.82	0.91

As previously mentioned, we request that the control costs associated with MOB-01 (and all other control measures) be quantified and included in the 2016 AQMP.

**c. Appendix IV-A, Emission Reductions at Commercial Marine Ports [All Pollutants], CARB In-Use Fleet Rules. p. IV-A-112**

It is stated in this paragraph that "The majority of marine vessel emissions are created by main propulsion engines, but auxiliary engines emissions are important, in part because they occur at dock in closer proximity to persons in and around the port" (p. IV-A-112). This statement is misleading in that the contribution of auxiliary engine emissions (excluding boiler emissions) to overall ocean-going vessel emissions (including transit, maneuvering, and hoteling at-berth) is often times nearly equivalent to or higher than main propulsion engines, which are only operational during transit and maneuvering.

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**d. Appendix IV-A, Format of Control Measures, Emission Reductions. p. IV-A-19**

This section states that: "During the rule development, the most current inventory will be used. However, for tracking rate-of-progress for the SIP emission reduction commitment, the approved AQMP inventory will be used. More specifically, emission reductions due to mandatory or voluntary, but enforceable actions shall be credited toward SIP obligations" (p. IV-A-19).

We request that any differences between the "most current inventory" used for rule development and the "approved AQMP inventory" be clearly described and addressed prior to any mandatory or voluntary emissions being credited toward SIP obligations.

**e. Appendix IV-B, Tier 4 Vessel Standards. p. IV-B-50**

Under this proposed action, CARB intends to work with the EPA, U.S. Coast Guard, and international partners to urge the International Maritime Organization (IMO) to adopt a Tier 4 NOx standard for new ocean-going vessels and efficiency requirements for existing vessels (p. IV-B-50).

The Ports support the advocacy for more stringent IMO standards and efficiency targets for ships. Currently, newly built ships are required to meet IMO Tier 3 standards for NOx. The Ports have developed an IMO Tier distribution forecast based on the existing world fleet, estimated future vessel calls at the Ports, and Tier 3 order information provided by the engine manufactures. The Ports' Tier distribution forecast indicates strongly that there will be no significant (less than 5%, best case scenario) Tier 3 penetration of the ship calls by 2023. Further, the forecast indicates that the existing world fleet (Tier 0-2) could service the Ports through the mid to late 2030s to 2040s.

Recognizing that Tier 3 fleet penetration will be significantly slower than CARB is estimating and coupled with the fact that there have been no discussions at IMO Marine Environmental Protection Committee related to a Tier 4 NOx engine standard, the Ports believe that it is highly inappropriate to assume aspirational reductions related to Tier 4 fleet penetration until the standard is at least drafted if not promulgated. Taking reductions for standards that are neither in discussion nor in development is not appropriate for SIP planning purposes. Therefore, the Ports request that the estimated emissions reductions associated with Tier 3 fleet penetration this measure be reconsidered for the proposed SIP commitment and that all reductions associated with Tier 4 be removed.

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Furthermore, it is stated that: "The new standards would be allowed to enter the fleet using natural turnover and would not be accelerated by additional rules or incentives" (p. IV-B-51). While the Ports are in favor of CARB advocating for IMO Tier 4 NOx standards and efficiency targets for ships, we believe that effort should be placed on encouraging the cleanest ships to deploy to our ports now. There are currently fewer than 50 ships worldwide on order that will have IMO Tier 3 capabilities and it is unknown where they will be they deployed. We do not foresee a sizeable number of Tier 3 ships servicing our ports in the near term. As more of these ships become available for deployment, the Ports recommend the development of statewide strategies, such as incentive funding programs to attract these clean new ships to our Ports.

**f. Appendix II, Chapter 2, PM10 Temporal Variation. p. II-2-57**

The Ports are concerned that the narrative in this section misrepresents what is actually occurring at the Ports. In particular, we feel the following statement is misleading:

*Moreover, higher port activity due to peak cargo traffic which typically occurs in the fall of each year coupled with the lower mixing height in the fall may also contribute to the higher PM10 concentrations during this time of year.*

Actually, higher port activity generally occurs in the middle to late summer, however the shape of the peak has become less pronounced. And furthermore, historical data received at the Ports' Air Monitoring Stations indicates that PM10 concentrations near the Ports are no higher in the fall than any other time of the year. Since these findings do not support the assumption in the statement above, the Ports request that the statement above be removed from the document.

**Responses to Comment Letter from Ports of Long Beach and Los Angeles**  
**(Comment Letter 96)**

**Response to Comment 96-1:**

See responses to the August 19, 2016 comments under Responses to Comment Letter 50. Comments may be made up to the date of SCAQMD Governing Board adoption consideration of the 2016 AQMP, which is currently scheduled for February 2017. Similarly, the SCAQMD has released the Socioeconomic Report and the Draft Financial Incentives Funding Action Plan in December 2016. The 2016 AQMP will be considered by the SCAQMD Governing Board in February 2017, which gives over 60 days for public review and comments.

**Response to Comment 96-2:**

The proposal in AQMP Measure MOB-01 is to identify actions that will help meet the emission reductions associated with the State SIP Strategy “Further Deployment of Cleaner Technologies” measures for on-road heavy-duty vehicles, off-road equipment, and federal/international sources. If voluntary actions are identified and the actions meet U.S. EPA’s criteria for crediting into the SIP, then the reductions will be recognized as part of the future Rate-of-Progress reporting and future AQMP revisions. To the extent that these actions are proposed to be included in the SIP, then a commitment must be made that the reductions be realized. If there is a shortfall, the emission reductions must be made up. As such, there is no upfront requirement placed on the Ports to meet an emission reduction target. Staff is proposing that a working group be formed to vet the process and details of how such a process can be implemented.

Staff commends the Ports in their efforts to reduce criteria pollutant emissions and the success that has occurred through their collaborative approach. It is for this reason that the SCAQMD staff believes that a collaborative approach working with the Ports, industry, and the public can potentially result in additional emission reductions in the near-term.

**Response to Comment 96-3:**

As noted in Response to Comment 96-2, MOB-01 is proposing a collaborative approach which will be established through a public process and not a direct rulemaking effort. However, if this approach does not lead to progress in identifying actions, staff may consider other actions the SCAQMD along with CARB may need to take to achieve the emission reductions associated with the “Further Deployment” measures. Staff will continue to work with the Ports and the public to solicit input on potential actions should the collaborative process do not result in meaningful progress. The benchmark for progress will be developed as part of the public process.

This comment alleges that the revised draft AQMP proposes new rule-making beyond the District’s existing jurisdiction. This is not correct. Although the revised draft AQMP calls for “aggressive new regulations,” it does not propose exceeding the District’s legal jurisdiction.

The comment also argues that the “District’s boundaries do not include the ocean area adjacent to the South Coast Air Basin.” SCAQMD’s territorial boundaries include areas out to 3 nautical miles from the coast, pursuant to the Submerged Lands Act. 43 U.S.C. §1312. Moreover, in some circumstances, state regulation may extend beyond these territorial boundaries. *Pacific Merchant Shipping Association v. Goldstene*, 639 F. 3d 1154. These issues can be further addressed if necessary during development of the control measure.

Finally, the comment asserts SCAQMD may not require the Ports to violate their tidelands trust obligations but does not explain how reducing air pollution would violate tidelands trust obligations.

**Response to Comment 96-4:**

This comment raises several issues concerning the SCAQMD's indirect source authority. Although the SCAQMD agrees that it may not require permits for indirect sources, the 2016 AQMP does not propose any such permit system. SCAQMD does have authority to regulate indirect sources in ways other than requiring permits. Health & Saf. Code §§40440(a), 40716.

The comment alleges that “the Ports and the activities conducted there are not ‘indirect sources’ within the meaning of the Clean Air Act.” SCAQMD respectfully disagrees. The Clean Air Act defines an “indirect source” as “a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of air pollution.” 42 U.S.C. §7410(a) (5)(C). The Ports fit within this definition. Moreover, the Ports are functionally similar to airports, which are indisputably indirect sources. Under U.S. EPA's former regulation, an indirect source was defined to include sources including, but not limited to, airports. “Indirect Source Controls: An Intersection of Air Quality Management and Land Use Regulation” *Loyola of Los Angeles Law Review*, 6-1-91, p. 1133.

The comment suggests that indirect source regulation is a circumvention of provisions in the Clean Air Act limiting state and local ability to regulate mobile sources. The federal Court of Appeals squarely rejected this argument. *National Ass'n. of Home Builders v. San Joaquin Valley Unified APCD*, 627 F. 3d 730 (9th Cir. 2009).

**Response to Comment 96-5:**

The comment claims that control measures in the revised draft AQMP would violate the dormant commerce clause. The analysis under the commerce clause would depend on the specific facts of the control measure as it is implemented. It should be noted, however, that the federal Court of Appeals rejected a claim that the State Air Resources Board rule requires oceangoing vessels to use lower sulfur fuel even though the rule was estimated to cost over \$360 million annually. *Pacific Merchant Shipping Ass'n. v. Goldstene*, 639 F. 3d 1154 (9<sup>th</sup> Cir. 2011).

**Response to Comment 96-6:**

This comment asserts that requirements that may be imposed on the Ports under the AQMP could be “unfunded State mandates” under Cal. Const. Art. XIII B sed. 6 (c). This claim must be raised in a proceeding before the Commission on State Mandates. *Redevelopment Agency v. Commission on State Mandates* 45 Cal. App. 4<sup>th</sup> 1188 (1996). If successful, it would require that the State pay the costs of a local government in complying with any identified new state mandates. However, this provision does not apply to obligations that are not unique to local government, or are not a state mandate, or to obligations that are actually federal mandates, or to any program where the local government has the authority to levy fees, charges, or assessments sufficient to pay for the program. Cal. Gov't. Code §17556(d). SCAQMD believes it is unlikely that such a claim would succeed.

**Response to Comment 96-7:**

The Ports argue that it is premature to address the 2008 8-hour ozone standard in the 2016 AQMP because U.S. EPA has not yet decided if it will revoke the standard. U.S. EPA has proposed two alternative

approaches for revoking the 2008 ozone NAAQS. Under the first approach, the 2008 ozone NAAQS would be revoked at essentially the same time for all areas of the U.S. and a set of protective anti-backsliding requirements would be promulgated for nonattainment areas. 81 Fed. Reg. 81,276, 81,286. *see also* 42 U.S.C. § 7502(e); *South Coast Air Qual. Mgmt. Dist. v. EPA*, 472 F.3d 882, 889 (D.C. Cir. 2006). The potentially applicable anti-backsliding requirements the District would be identical to the anti-backsliding requirements that are applicable to the 1-hour NAAQS and the 1997 8-hour NAAQS: (1) Reasonably Available Control Technology; (2) Vehicle Inspection/Maintenance programs; (3) major source applicability cutoffs for purpose of RACT; (4) Reasonable Further Progress/Rate of Progress reductions; (5) Clean Fuels fleet program; (6) clean fuels for boilers; (7) transportation control measures during heavy traffic hours; (8) enhanced ambient monitoring; (9) transportation controls; (10) vehicle miles traveled provisions; (11) NOx requirements; (12) attainment demonstrations; (13) nonattainment contingency measures for failure to attain the NAAQS or make RFP towards attainment; (14) nonattainment new source review major source threshold and offset ratios; (15) penalty fee program requirements for “severe” and “extreme” areas; (16) Reasonably Available Control Measures (17); and contingency measures associated with areas utilizing CAA § 182(e)(5). 81 Fed. Reg. 81,276, 81,288; *see also* 40 C.F.R. § 51.1100. Given the requirements that would still apply even if EPA did revoke the 2008 8-hour ozone standard under the first proposed approach, it is not premature to address that standard in the 2016 AQMP.

Under U.S. EPA’s second proposed approach, the 2008 ozone NAAQS would continue to apply in any area designated nonattainment for the 2008 ozone NAAQS until that area is redesignated to attainment. 81 Fed. Reg. 81,276, 81,286. Because the standard would continue to apply to the District and would not be revoked until the District is redesignated to attainment, it is likewise not premature under this second scenario to address the 2008 8-hour ozone standard in the 2016 AQMP.

The Ports also argue that the 2016 AQMP does not need to include new control measures to meet the 2006 24-hour PM2.5 standard because the Plan shows that it will be met by the 2019 attainment year without any additional measures. Contrary to the Ports’ assertion, the Plan does not include any additional measures to meet the 2006 24-hour PM2.5 standard. Additional measures specifically addressing PM2.5 that are being proposed are included in the Plan to further ensure attainment of the *annual* PM2.5 standard.

Finally, the Ports argue that the District has prematurely chosen to provide for the “alternative” NOx/VOC reductions instead of the reasonable further progress demonstration under 42 U.S.C. § 7511a(c)(2) without conducting an economic analysis of these options. The Ports argue that this economic analysis should be conducted and public input sought before the draft 2016 AQMP addresses the 1997 8-hour Ozone NAAQS and 1979 1-hour Ozone NAAQS. The NOx and VOC reductions the District is seeking to achieve are not premature. In the previous 2007 SIP for the 8-hour ozone standard, a substantial portion of the NOx emissions reductions relied on this “black box.” A primary goal of the 2016 AQMP is to eliminate reliance on the “black box” to the extent feasible. The NOx and VOC reductions needed to meet the 1997 8-hour ozone standard are defined in this Plan because the technologies needed for attainment are identifiable and the CAA deadlines are fast approaching. Moreover, the Clean Air Act requires attainment of primary standards to be achieved as “expeditiously as practicable.” Clean Air Act § 172(a)(2)(A). In addition, the Ports’ suggestion that the District has chosen not to comply with the reasonable further progress requirement is wrong. The reasonable further progress demonstration is included in Appendix VI-C. Finally, the District did conduct an economic analysis of the Plan’s ozone strategy, which was included in the socioeconomic report for the AQMP. This analysis analyzed the cost effectiveness of the various measures, evaluated the funding element for applicable incentive measures,

and contained an overall socioeconomic analysis for the Plan. All of these were released to the public for comment, with the earliest socioeconomic analysis released in June 2016. This economic analysis was conducted in conjunction with the Plan; the District disagrees that this analysis should have been done before the Plan was drafted.

**Response to Comment 96-8:**

The Ports contend that the District has released the 2016 AQMP in a piecemeal and incomplete fashion. The Ports further contend that it is procedurally and legally inappropriate for the District to conduct CEQA review before the details of the AQMP have been completed. The CEQA process, if working properly, requires that a project is open for public discussion and allows for agency modification during the process. *Concerned Citizens of Costa Mesa, Inc. v. 32<sup>nd</sup> District Agricultural Association* (1986) 42 Cal. 3d 929, 936. The CEQA process “is not designed to freeze the ultimate proposal for a proposed project in the precise mold of the initial project[; indeed, n]ew and unforeseen insights may emerge during the investigation and evoke a revision of the original proposal.” *Kings County Farm Bureau v. City of Hanford* (5<sup>th</sup> Dist. 1990) 221 Cal. App. 3d 692, 738.

Details of all of the proposed project’s control measures (in Appendix IV-A, IV-B, and IV-C) were available online and in discussion at the AQMP Advisory Group meetings for a meaningful review starting in the spring of 2016. Although the specifics of the implementation of each control measure were further defined throughout the process, the known information is used to form the basis of the analysis of environmental impacts. Potential associated impacts were analyzed based on known information or supported assumptions to determine foreseeable effects. Furthermore, it should be noted that the CEQA analysis for the 2016 AQMP is not project-level, but rather program level. Each of the projects, including rule development borne out of the control measures, will undergo project level CEQA analysis in the future. See *Town of Atherton v. California High Speed Rail Authority* (2014) (holding that site-specific analysis must be examined in detail in a project-level EIR and that requiring such analysis at the program level would undermine the purpose of tiering and create a burdensome level of detail in the larger-scale program EIR).

In addition, the Draft 2016 AQMP was released to the public on June 30, 2016 and the ongoing changes to the Draft Plan were incorporated in both the Draft Program EIR released for public review on September 16, 2016, and the Revised Draft AQMP released to the public on October 7, 2016. No major changes to the project description, including the suite of control measures evaluated in the Draft PEIR, were made to constitute the need to reevaluate and recirculate the PEIR. No modifications to the Plan changed the conclusions, created new impacts or made worse the impacts already evaluated in the Draft PEIR. In addition, modifications that have been made to 2016 AQMP, since the Draft PEIR on the 2016 AQMP was made available for public review would not constitute significant new information within the meaning of the CEQA Guidelines. All key comments on the Draft and Revised AQMP and modifications to the Plan were disclosed to the public during the comment period of the PEIR.

**Response to Comment 96-9:**

This comment summarizes requests made in the Ports’ Comment Letters 50 and 96. For responses relative to the need for and authority for measure MOB-01, see Responses to Comments 96-4, 96-11, 96-13, 96-23, and 96-29. For the issue of exclusion from measure EGM-01, see Response to Comment 96-32. For discussion of MOB-14, see Responses to Comments 96-39 and 96-40. For the issue of socioeconomic analysis of MOB-01 and other facility-based measures, see Responses to Comments 50-20 through 50-24.

For a discussion of the incentive funding plan, see Responses to Comments 50-18 and 50-19. For responses regarding the emissions inventory, see Responses to Comments 50-27 through 50-30.

As noted in Response to Comment 96-2, the SCAQMD staff looks forward to working with the Ports, affected industry, and the public in implementing MOB-01 in a collaborative manner. Staff looks forward to the Ports participation on the working group.

**Response to Comment 96-10:**

With regard to the geographic boundaries of the SCAQMD, see Response to Comment 96-3. This comment further assumes that measures in the AQMP such as MOB-01 would seek to directly enforce CAAP programs such as the Vessel Speed Reduction Program. However, the scope and content of the measure will be determined during the working group process. Although U.S. EPA and the Coast Guard are to enforce MARPOL Annex VI, that treaty does not preclude additional measures which are lawful under international law. When the US ratified Annex VI, it did so on the understanding that it did not prevent nations from adopting more stringent emissions standards for fuel oil requirements as a condition of entry into ports, and the statute giving enforcement authority expressly provides that it does not affect any other existing authority. 33 U.S.C. §1911.

**Response to Comment 96-11:**

Regarding the SCAQMD's ability to regulate the Ports as indirect sources, see Response to Comment 96-4. The SCAQMD is not attempting to define a geographical area as an indirect source, but rather believes that each port is a public entity operating as an indirect source, exercising authority as a landlord over all port activities, and generating large profits for its operations. (E.g., POLA revenues over expense of \$212 million in 2015). Staff disagrees that the measures are not necessary, since they will assist in meeting the goals of CARB's Further Deployment measures. The Ninth Circuit has rejected the argument that indirect source rules impermissibly attempt to regulate mobile sources. *National Ass'n of Home Builders*, 627 F.3d 730 (9<sup>th</sup> Cir. 2009).

**Response to Comment 96-12:**

This comment argues that SCAQMD may not adopt an indirect source measure applicable to a port because such measures can only apply to new or modified sources. The Clean Air Act section cited describes what is precluded from being required in a SIP—ISR programs for new and modified sources. It does not purport to limit the scope of permissible indirect source rules. Health and Safety Code §40716 giving indirect source authority is not limited to new sources, and §40440(a) refers to both new sources and sources where there are high levels of localized concentrations of pollutants (which would presumably be existing sources). As the Ports letter cites, state law recognizes that indirect source rules may apply to existing sources. Health and Safety Code §40717.5(a)(1).

**Response to Comment 96-13:**

Although the SCAQMD monitors typically showing the highest PM2.5 level are located farther inland, emissions of NOx and SOx from the Port sources are precursors to PM2.5 (and ozone) formed in the atmosphere farther east, and must be controlled to ensure attainment of the NAAQS.

**Response to Comment 96-14:**

See Response to Comment 96-12.

**Response to Comment 96-15:**

See Responses to Comments 96-4 and 96-11.

**Response to Comment 96-16:**

See Responses to Comments 96-4 and 96-11. Staff disagrees that the Ports have no control over the operations of their tenants, as they have demonstrated through implementing programs such as the Clean Truck Program.

**Response to Comment 96-17:**

See Response to Comment 96-11 regarding regulation of indirect sources not being preempted mobile source regulation, and Response to Comment 96-11 regarding the need for the measure.

**Response to Comment 96-18:**

See Response to Comment 96-4 regarding indirect source authority.

**Response to Comment 96-19:**

SCAQMD will comply with Health and Safety Code §40717.5 when and if it adopts an indirect source rule. The statute applies when the agency adopts or amends a rule, not when it adopts an AQMP.

**Response to Comment 96-20:**

With respect to describing the Ports as Implementing Agencies, it was not intended to exclude the other entities whose efforts would be part of implementation.

**Response to Comment 96-21:**

See Response to Comment 96-5. It should be noted that nothing in the measure MOB-01 would regulate commerce in another state.

**Response to Comment 96-22:**

See Response to Comment 96-6.

**Response to Comment 96-23:**

MOB-01 is designed to help implement the State SIP Strategy “Further Deployment” measures, which seek emission reductions beyond the existing state, federal, and international regulations cited. Also, see Response to Comment 96-2.

**Response to Comment 96-24:**

The case cited, Bayview Hunters Point, 366 F 3d 692 (9<sup>th</sup> Cir. 2004), stated that the measures cited in that case did not actually commit to a specific ridership goal. It did not preclude a state or local agency from

adopting enforceable mechanisms to achieve specific emissions reductions, which would be the intent of MOB-01. SCAG's RTP/SCS is already required to be part of the AQMP, as stated in Health and Safety Code §40460(b).

**Response to Comment 96-25:**

The SCAQMD has not identified the facility-based measures as part of its RACT/RACM demonstration. It should be noted that nothing in the requirements for RACT or RACM precludes a state or local agency from adopting measures that go beyond RACT or RACM—indeed in the case of the serious area plan for PM<sub>2.5</sub>, the SCAQMD must implement BACT/BACM. More importantly, the technological and economic feasibility of any provisions of the enforceable mechanism to implement MOB-01 will be part of the working group process.

**Response to Comment 96-26:**

The reference to PR 4001 is in regards to implementation of the 2012 AQMP. PR 4001 has been placed on hold pending the adoption of the 2016 AQMP. As noted in proposed measure MOB-01, SCAQMD staff is proposing that the 2007 AQMP Measure MOB-03 and 2012 AQMP Measure IND-01 be replaced with proposed measure MOB-01 upon adoption by the SCAQMD Governing Board and subsequent submittal to CARB and U.S. EPA for approval. If the approvals occur, PR 4001 as currently proposed will be taken off the rule forecast calendar. However, depending on the progress in identifying actions as part of the implementation of MOB-01, there may still be a need for a rule proposal as discussed in the proposed measure. Also, see Response to Comment 50-8.

**Response to Comment 96-27:**

As the Ports have demonstrated through their measures implementing the existing CAAP, including the Clean Trucks Program, measures to reduce the adverse health effects of Port related operations due to air pollution are completely consistent with the Ports obligations under the tidelands trust doctrine. Staff does not believe a court would hold that the trust doctrine requires the Ports to prefer the interests of polluting industry over the health of nearby and downwind residents.

**Response to Comment 96-28:**

This comment alleges that it would violate the Tidelands Trust for the ports to implement measures to implement an “entirely local program to reduce PM<sub>2.5</sub>, NO<sub>x</sub> and SO<sub>x</sub> emissions” since the trust is for the benefit of the entire State. First, the benefits are not “entirely local” since the whole South Coast Air Basin and downwind areas such as Coachella Valley and Ventura County will benefit from port-related emission reductions. Second, virtually all activities the Ports engage in by their nature benefit local interests more than the interests of persons in far-away parts of the state, such as improving the docks, leasing property to terminal operators, etc. Finally, if this theory were true then the entire CAAP and Clean Truck Program would have been illegal. This comment also says that only the City can decide how to “prudently manage trust assets and revenues with a nexus and proportionality to the Tidelands Trust interest.” Again, this amounts to an assertion that the Tidelands Trust requires the City to prefer the interests of polluting industry at the expense of the health of residents of the entire air basin and beyond. No authority is cited for this proposition.

**Response to Comment 96-29:**

The SCAQMD does not agree that the facility-based measures are not necessary for attainment. They are not relied on for the attainment demonstration because they are intended to assist in implementing the CARB's Further Deployment measures. All the emission reductions associated with the Further Deployment measures are assigned to those measures. But without the SCAQMD's proposed facility-based measures, those reductions may not be realized. Thus, the facility-based measures are indeed necessary. This comment argues that the facility-based measures cannot be approved by U.S. EPA because they are insufficiently specific and thus not enforceable. However, courts have enforced measures to attain specific goals even though the mechanisms are "unspecified." *CBE v. Deukmejian*, 731 F. Supp. 1448 (N.D.Cal. 1990).

**Response to Comment 96-30:**

The strategies to reduce air toxics contained in the AQMP will not be submitted into the SIP if they do not reduce criteria pollutants. The toxics section of the AQMP was included to provide a more comprehensive picture of the agency's plans to improve public health and reduce the impacts of air pollution. With regard to incentive measures, staff will work with U.S. EPA to ensure that the measures are approvable under applicable U.S. EPA guidance, or to the extent not approvable for up-front SIP credit, staff will submit the emission reductions attained into the SIP after the measures are implemented.

**Response to Comment 96-31:**

Staff appreciates the recognition of the need to adopt all feasible measures, and please see Response to Comment 86-2 regarding more details on the evaluation of all feasible measures. It is noted in the Draft Final 2016 AQMP Appendix IV-A that to the extent that the ports may be affected by proposed measure MOB-01, EGM-01 would not apply to the ports (Page IV-A-121).

**Response to Comment 96-32:**

Please see Responses to Comments 96-4, 96-11, and 96-31.

**Response to Comment 96-33:**

Regarding indirect source regulation and its applicability to the ports, see Responses to Comments 96-4 and 96-11. The SCAQMD has specific authority to adopt indirect source control measures even though CARB and U.S. EPA may not require them. Health and Safety Code §§40716; 40440.

**Response to Comment 96-34:**

Regarding the fact that indirect source measures are not the same as preempted mobile source emission standards, see Response to Comment 96-11.

**Response to Comment 96-35:**

Regarding the SCAQMD's authority to implement indirect source rules, see Response to Comment 96-4.

**Response to Comment 96-36:**

Staff agrees that neither U.S. EPA nor CARB may require the SCAQMD to include indirect source measures in the SIP. However, that does not mean they are beyond the SCAQMD's authority. SCAQMD is specifically

granted indirect source authority by Health & Safety Code §§40716 and 40440. Staff does not propose a permit system for indirect sources. For applicability to the Ports, see Response to Comment 96-4.

**Response to Comment 96-37:**

Indirect source measures are not preempted emission standards for mobile sources. See Response to Comment 96-11.

**Response to Comment 96-38:**

Staff agrees that it is important to prioritize and secure the necessary incentive funding to implement the AQMP and hopes the Ports will be actively involved in these efforts.

Staff recognize the commenters' concern regarding the need to avoid disqualifying projects from certain existing incentive programs by making those projects mandatory. Staff will work closely with the agencies responsible for implementing such programs to make sure that does not occur. In the past, some incentive programs have allowed funding to be provided for early implementation of measures that would ultimately become required.

**Response to Comment 96-39:**

See Response to Comment 96-38. Staff does not anticipate holding the Ports responsible for attaining emission reductions from incentive measures where the incentive funding on which the measure is based is not secured.

The comment misunderstands measure MOB-14, which does not propose a facility cap, but rather a mechanism to obtain emission reductions from mobile sources that may be used to assist in meeting obligations under a facility-based measure.

**Response to Comment 96-40:**

The comment appears to be confusing San Joaquin Valley Rule 9610, which provides a mechanism for obtaining credit for emission reductions from incentive programs, with San Joaquin Valley Rule 9510, which requires emission reductions from new indirect sources, and allows the payment of a mitigation fee in lieu of obtaining the required emission reductions. Finally, although SCAQMD staff would like to support allowing emission reductions from mobile sources to offset emissions increases at stationary sources, based on over two decades of working with U.S. EPA on this issue staff believes this would be unrealistic at this time.

**Response to Comment 96-41:**

This comment repeats in summary form a number of arguments laid out in more detail in the earlier comments and responded to earlier in this letter. In addition, none of the proposed measures would dictate what land uses the port may allow or specify zoning requirements.

**Response to Comment 96-42:**

The reference to "contingency" in the description of the facility-based measures was not intended to mean these measures serve as the specific "contingency measures" required by the Clean Air Act. As the

commenter suggests, the SCAQMD and CARB are relying on excess reductions from already-adopted measures to serve as RFP contingency measures for the ozone plan. The U.S. EPA's March 2015 ozone implementation rule cited by the commenters does say that the 182(e)(5) contingency measures, which are to be submitted three years before they are needed, are the only ozone contingency measures for attainment in extreme areas. However, it did not eliminate the need for ozone contingency measures for reasonable further progress.

**Response to Comment 96-43:**

Please see Response to Comment 96-7 and 80 Fed. Reg. 12,264 for a discussion of the applicability of transportation conformity to the 1997 NAAQS once that NAAQS is revoked.

**Response to Comment 96-44:**

The Draft Socioeconomic Report was released on November 19, 2016, with an additional public review and comment period of 30 days that ended on December 19, 2016. Preliminary Draft Socioeconomic Report was released on August 31, 2016 with a comment period of 60 days. The preliminary draft covered the estimates for costs and benefits of the plan and were released earlier to maximize the review time for public and stakeholders.

As for the claim that the Revised Draft AQMP and the Socioeconomic Report are not complete, the complete documents were released in December 2016 for public review. There were minor revisions to the October 2016 version. Staff believes that there is sufficient time to comment on the revisions prior to the SCAQMD Governing Board's consideration of the 2016 AQMP in February 2017.

**Response to Comment 96-45:**

The Draft Socioeconomic Report quantifies costs for control measures with quantified emission reductions. The costs and emission reductions were analyzed for contingency measures BCM-01 (Further Emission Reductions from Commercial Cooking) and BCM-04 (Manure Management Strategies). As stated in Chapter 4 of the Draft Final 2016 AQMP and reiterated in Appendix 2-A of the Draft Socioeconomic Report, the "facility-based" SCAQMD mobile source measures—MOB-01, MOB-02, and MOB-03—are being proposed to facilitate local implementation of the State's State Implementation Plan (SIP) Strategy "Further Deployment of Cleaner Technologies" measures. The SCAQMD measures propose a process to also identify voluntary actions that could potentially result in additional NOx emission reductions beyond the State's emission reduction commitments. Since these actions are not specifically identified at this time and will be voluntary in nature, staff does not presume that the affected industries and businesses would voluntarily incur any costs in addition to what has been quantified for CARB's "Further Deployment" measures.

**Response to Comment 96-46:**

Chapter 6 of the Draft Socioeconomic Report, which analyzes the Draft 2016 AQMP's impact on environmental justice communities, was released to the public on September 23, 2016. The chapter was re-released on November 19, 2016 as part of the complete Draft Socioeconomic Report and reflects stakeholder inputs.

**Response to Comment 96-47:**

The Draft Socioeconomic Report analyzes macroeconomic impacts associated with the total incremental cost of implementing the Draft 2016 AQMP. The total incremental cost includes matching funds required from affected businesses and consumers to purchase and maintain near-zero and zero emission equipment as well as different levels of government incentive funding. Please see Chapter 2 of the Draft Socioeconomic Report for more details on incremental costs.

**Response to Comment 96-48:**

The Draft Financial Incentives Action Plan for the 2016 AQMP, released in December 2016, provides a set of proposed actions that will be taken by the SCAQMD along with public and private sector stakeholders and the public at large to secure additional financial incentive funding. This includes estimates of potential revenues from each source. Taxpayer funding from local and State ballot measures represents a potential funding source outlined in the Plan. To be conservative about the prospect of securing additional public revenue from new sources, the Draft Socioeconomic Report has analyzed a worst-case scenario under which all incentive funding is assumed to be financed from existing State revenues with no health benefits included. This worst-case scenario is expected to have minimal impact on projected job growth in the region.

**Response to Comment 96-49:**

Please see Responses to Comments 96-47 and 96-48.

**Response to Comment 96-50:**

See Response to Comments 96-44 on the release date of the Draft Socioeconomic Report and corresponding appendices. Please see Response to Comment 96-45 and Chapter 2 of the Draft Socioeconomic Report for more information on the calculation of compliance costs. Please see Chapter 3 of the Draft Socioeconomic Report for more information on public health benefit estimation and Chapter 4 for how these benefits were used to measure job impacts. Please see Appendix 4-C for the regional competitiveness impacts of the 2016 AQMP. It should be noted that competitiveness of the Ports themselves has not been analyzed as the Remi model is not designed to predict potential impacts on individual businesses or facilities.

**Response to Comment 96-51:**

Please see Responses to Comments 96-44 and 96-45.

**Response to Comment 96-52:**

Please see Response to Comment 96-8.

**Response to Comment 96-54:**

As noted in the Response to Comment 96-2, potential emissions reduction associated with specific actions identified through a public process would be recognized in future rate-of-progress reporting and emissions inventories developed for future AQMP/SIP revisions. The State is required under federal law to report “rate-of-progress” towards achieving air quality standards through a periodic demonstration showing the actual emission reductions achieved. Typically, emission reductions as a result of implementation of adopted rules and incentives programs such as the Carl Moyer Program are accounted

in the Rate-of-Progress report. Proposed Measure MOB-01 does not have any “upfront” emission reduction commitment since specific actions have not yet been identified and the proposed measure is intended to help with the State SIP Strategy “Further Deployment” measures. As actual emission reductions occur through the identified actions, the reductions will be accounted as part of the rate-of-progress reporting.

**Response to Comment 96-55:**

Staff appreciates the comment regarding double counting of emission reductions and will ensure that emission reductions from incentives programs are appropriately associated with their funding source. At this time, only emission reductions from incentives programs that the SCAQMD and CARB implement are explicitly recognized in the base year and future year baseline emission inventories through proposed measure MOB-14. Emission reductions due to actions that occurred at the ports through funding programs such as the U.S. EPA Diesel Emissions Reduction Act (DERA) or voluntary actions such as the vessel speed reductions are recognized in the AQMP base year and future year emission inventories through actual reported activities from the Ports.

**Response to Comment 96-56:**

The emissions reported in the control measure summary have been revised to reflect the totals reported numbers provided in the commenter’s letter (page 31) for 2012, 2022, 2023, and 2031. The port-related source emissions are from the five emission source categories that the ports use to report their annual emissions. SCAQMD staff has been working with CARB staff to update the overall ocean-going vessel emissions to reflect the information reported by the ports. The revised emissions from CARB will be reflected in the Final AQMP.

**Response to Comment 96-57:**

As implementation of MOB-01 moves forward, the most current emissions inventories will be used in developing potential emission reductions from the identified actions. For SIP accounting and reporting purposes, the percent change in emissions will be based on actual emissions reported by the ports and the historic base year (2012) will be used to calculate rate-of-progress.

**Response to Comment 96-58:**

During the public process to identify specific actions to implement MOB-01, staff will clarify what the emission reduction goals will be based on the State SIP Strategy “Further Deployment” measures and propose a process for calculating emission reductions.

**Response to Comment 96-59:**

Staff appreciates the efforts the ports are making to incentivize deployment of the cleanest ocean-going vessels entering the ports. The future year estimates of the number of Tier 3 vessels provided by the ports are being considered by CARB in its update to the ocean-going vessel emissions inventory. While it is important to reflect the most accurate emissions inventory, it is also important to propose the development of cleaner emission standards and reflect the potential emission reductions associated with implementation of such standards. Any emission reductions associated with such standards are commitments that CARB has made. If no Tier 4 standards are established by IMO, CARB has committed to achieving the associated emission reductions nevertheless.

**Responses to the second attachment to this letter can be found in Responses to Comments 50-8 through 50-32.**

**Comment Letter from Del Amo Action Committee (Comment Letter 97)**

Three Foundational Principals for Governing Effective Environmental Regulatory Organizations

1. The cultural and effectiveness of any organization begins with leadership at the top.
2. New Technologies have driven clean air, clean water and solid waste management.  
New Emerging Technologies provide the key to further sustainability progress.
3. Laws, rules and regulations are not effective without oversight and enforcement.

From Florence Gharibian: [Florencegharibian@yahoo.com](mailto:Florencegharibian@yahoo.com)

November 7, 2016

Chair of the Del Amo Action Committee, participant in the Los Angeles Environmental Justice Network, Department of Toxic Substances Control (DTSC), Branch Chief, LA Enforcement Program (Retired).

The new acting SCAQMD Executive Officer, Wayne Natri offered his proposed Mission Statement and draft Goals and Objectives at a recent Board meeting:

Mission Statement

*"All residents have a right to live and work in an environment of clean air and we are committed to undertaking all necessary steps to protect public health from air pollution with sensitivity to the impacts of our actions on the community, public agencies and businesses."*

It is correct and appropriate for all LA's citizens to be concerned about clean air in the Los Angeles Basin. It is correct and appropriate for all of us to be concerned about Climate Change because we are all living on a small planet where climate change has the potential to create deserts and floods and de-population of large areas of this planet.

I submitted comments in August 2016. My comments addressed several topics. Please also consider the comments in this correspondence.

1. Placing a priority on facilities that pose an eminent and substantial danger to public health.
2. SCAQMD as the primary regulatory agency enforcing air regulations at Stationary Sources.
3. The importance of an effective enforcement program in ensuring regulatory compliance.
4. Proposal for a program to encourage new clean air technologies.
5. The importance of accurate petroleum refinery air monitoring.
6. SCAQMD role in achieving more sustainable management of solid waste.

My first priority in August 2016 remains my first priority, facilities conducting activities that pose an eminent and substantial danger to public health. I provided information on two facilities in the Harbor Gateway area, Exxon Mobil Torrance and Jones Chemical. In conducting the research for the comments I am submitting today I reviewed a report prepared on September 9, 2016. It was included in an announcement cancelling a December 2016 meeting

97-1

regarding the Exxon Mobil refinery. The report is entitled, Alkylation Technology Study. The purpose of the study was to review and evaluate commercially available options for replacing HF (presumably Hydrofluoric Acid) Alkylation at the Exxon Mobile Refinery and other refineries in the Los Angeles area. Alternatives and costs of modification were discussed in the report.

Please provide information on the decision the SCAQMD has made on the steps the District will take to eliminate the serious public health risks posed by the Hydrofluoric Acid tanks at the Exxon Mobile Refinery.

In conducting research on the Jones Chemical facility also in the Harbor Gateway I found notations of the submittal of a AQMD permit application for Jones Chemical apparently providing information prepared by Jones Chemical on totally enclosing their dangerous chlorine activities. What is the status of this permit? The company is located in a residential area, adjacent to a Boys and Girls club and neighboring a food processing and distribution facility. The property where Jones Chemical is located is seriously contaminated with numerous dangerous industrial chemicals.

It would be tremendously helpful to know that the AQMD is addressing these urgent and potentially life threatening situations.

The SCAQMD needs to fine tune the ability to recognize and respond to situations and facilities that pose an Imminent and Substantial endangerment.

The draft Plan includes a commitment to prioritize existing conditions that “*represent an imminent and substantial endangerment to public health or environment.*” 110(a)(2)(G)]. The SCAQMD has knowledge of existing conditions at businesses in the basin that represent an imminent and substantial endangerment to public health and the environment. Those conditions must be prioritized and the risks eliminated.

Citizen complaints can be a source of information regarding companies that are violating the law. Often those complaints come from employees of a company doing unsafe and dangerous things. The ability to respond to high priority citizen complaints is critical. This involves having the right people take the complaints. Those people must have an ability to recognize a high priority complaint and contact the right AQMD inspectors to respond to the complaint.

#### Budgeting and Fundraising

Over the past several months I have attended the AQMD Board meetings and Advisory Committee meetings. At the September and October 2016 SCAQMD Advisory Committee meetings staff presented information on possible funding sources for incentives described in the draft AQMP. Two charts were discussed. The first provided information on funding currently available. The second provided possible sources for additional funding. As

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97-3

acknowledged by staff, there is a significant shortfall. The possible sources for additional funding are uncertain. Staff recommended the formation of a modified advisory committee bringing together individuals with fund raising experience. Several Advisory Committee members commented on the difficulty SCAQMD may have in obtaining the additional funding. Staff acknowledged that the expanded funding base would likely not be in place for about two years.

The acquisition and disbursement of large sums of incentives funding would require employing accountants and individuals with financial management and fund raising expertise. If hiring of additional employees with this experience and knowledge is not possible then redirection of current staff would be required. Building the incentives program could result in significantly diverting talented engineering and technical staff away from mainstream air quality work in order to procure, track and disburse funding. In addition, it is fair to assume that the skills associated with raising funds, bookkeeping and appropriate disbursement of the funds are not the talents and skills normally associated with environmental engineers and technicians.

Diverting employees from their normal responsibilities associated with the mainstream work of the Air District in order to having staffing to run an estimated one billion dollar incentives program is not acceptable.

In addition it is necessary to place a high priority on determining how current funding and staffing will be aligned with the goals and objectives of the AQMP. The proposed new funding would come from several funding sources. The acquisition of this funding will require setting clear priorities on the programs that are the highest priority. Will encouraging and developing solar projects be a high priority? Or will funding for upgrades to stationary sources be the priority? The prioritization of funding currently available and clear priorities for future funding is essential. What priorities for the funding will be determined and what will the process be for setting those priorities. Will this information be clearly available to the public?

#### Priority for Communities with Unfair Environmental Pollution Burdens

I participate in several forums where programs that might be planned to improve conditions in Environmental Justice communities. The LA County Supervisors placed a priority on improving conditions in EJ communities and asked the LA County Planning Department to play a leadership role in the new program. Several Cal/EPA agencies and departments are placing a priority on doing more in EJ communities. Frankly specific projects and work to be done in the communities is somewhat lacking.

Perhaps a land use program could be developed for envisioning new land uses in these communities. The Del Amo Action Committee is working with the LA County Planning Department. We have suggested the use of an interactive program that would enable people living in EJ communities to envision their communities the way they wish they were.

97-3  
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97-4

The module would include zoning information, permitting information on companies in the area location of schools and residential areas and busy roadways and freeways. It would include the ability to envision parks, roadway landscaping and noise barriers. It would include planting of trees to aid in air pollution reduction. It would include closing areas where shopping is located and creating pedestrian walkways and bike paths in those areas.

97-4  
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Another addition to these communities could be trees. The trees to be one method of reducing air pollution. I recommend a book, *The Man who Planted Trees, A Story of Lost Groves, the Science of Trees and a Plan to Save the Planet*. It would be terrific if the District had a consultant that understood the benefit of trees to our environment and could help the District to begin to improve EJ communities by encouraging the planting of the right trees in the right places.

Pollution of every precious resource we have on this small planet matters.

Recently NASA released a report reflecting the shrinking groundwater resources across our planet. Groundwater in the Los Angeles area is precious and must be protected. The world's largest underground aquifers – a source of fresh water for hundreds of millions of people – are being depleted at alarming rates, according to [new NASA satellite data](#) that provides the most detailed picture yet of vital water reserves hidden under the Earth's surface. Recently I watched a PBS Program, *The Dust Bowl* by Ken Burns. The conditions causing the Dust Bowl are described as the worst ecological disaster in US history. Soil scientists and experts on crop rotation, funding enabling farmers to keep going and development of new ways to irrigate crops brought an end to the Dust Bowl. The Ogallala Aquifer that provides the most significant source of irrigation in the middle third of the country is disappearing. The conflict, can more sustainable farming methods be developed that will enable saving the aquifer?

97-5

Will the time come when the dust returns? This is not difficult to imagine in a drought ridden Southern California. We've all seen news coverage of dust storms coming through Phoenix.

I offer a small and haunting clip from John Steinbeck's novel *The Grapes of Wrath*:

*When the folks first left and the evening of the first day came, the hunting cats slouched in from the fields and mewed on the porch. And when no one came out, the cats crept through the open doors and walked mewing through the empty rooms. And then they went back to the fields and were wild cats from then on, hunting gophers and field mice and sleeping in ditches in the daytime. When the night came, the bats that had stopped at the doors for fear of light swooped into the houses and sailed about through the empty rooms and in a little while they stayed in the dark room corners during the day, folding their wings high and hung their head down among the rafters, and the smell of their droppings were in the empty houses. In the empty nights the doors banged and the ragged curtains fluttered in the broken windows.*

New consumer products, new cars, zero emission vehicles are all things we hope for as a component of saving our environment. It is important to consider the whole life cycle of consumer products. What energy is needed to produce a product, what pollution is created in producing the product? When the product is no longer useful how will it be disposed? Replacing old more polluting vehicles with new vehicles that do not pollute the air is valuable of course. But I would suggest consideration of where those old cars will go. I've been to auto shredding facilities. I've seen the pollution they create; both to the soil and the air. The consideration of how the older vehicles will be handled when they are no longer in use is an important element of the program.

97-5  
Con't

New Technologies Pave a Path to the Future.

I took the following paragraph from the revised AQMP.

Control measure ideas were developed from a number of sources, including the AQMP Advisory Group, AQMP Control Strategy Symposium, Reasonably Available Control Technology (RACT)/Reasonable Available Control Measures (RACTM) Analysis, Best Available Control Technology (BACT)/Best Available Control Measures (BACM) analysis (see Appendix VI), SCAQMD staff and public input, and previous Plan proposals. As part of the 2016 AQMP control measure development, SCAQMD staff conducted an AQMP Control Strategy Symposium in June 2015 to solicit new control concepts and innovative ideas from industry experts, professional consultants, government specialists, environmental and community representatives, and other stakeholders. Suggestions from staff and stakeholder recommendations assisted in identifying additional potential control measures and assessing control measure feasibility. For each control measure, the amount of emission reductions and the cost-effectiveness is considered in the selection of the measures.

The Control Strategy Symposium held in June 2015 should be repeated an expanded. Perhaps through this process the AQMD can convene experts and encourage more work on new air pollution control technologies. Perhaps the Symposium could include information on new technologies being employed in other countries. Is it possible that ambient air filtering systems could be employed in near freeway communities? Could consumers utilize better, more effective air filtering in their homes?

97-6

In my August comments I mentioned opening the Black Box, conceivably not the right term to use to describe an environmental organization capable of considering new, future technologies as potentially useful in meeting air quality goals.

A small amount of the incentive funding could go to the creation of a New Environmental Technologies Office perhaps in conjunction with Cal/EPA. The office would have an advisory committee with members from the academic community and industrial community. Proposals for new technologies would be encouraged. The proposals would then be evaluated by technical experts in the appropriate field.

The New Technologies Group could have an advisory committee with the knowledge and ability to bring new technologies forward. This committee could be made up of members of the academic and research communities. Please seriously consider my proposal.

The SCAQMD is responsible for enforcing laws and regulations.

The SCAQMD must have an enforcement program capable of monitoring compliance and taking enforcement at all stationary sources in the District. Stationary source compliance with permits, laws and regulations is essential to meeting Air Quality Objectives. A strong enforcement program is critical in assuring stationary source compliance is achieved. Estimates of air quality improvement are based on permitted stationary sources in compliance with their permits, laws and regulations. Companies operating in serious non-compliance pollute the environment and hinder progress toward cleaner air. All of Cal/EPA's Boards and Departments are developing Supplemental Environmental Project (SEP) guidelines to be used in penalty determinations. The SCAQMD should develop SEP guidelines.

Wayne Nastri's goals document calls for the inspection of all Major or RECLAIM sources at least annually and inspections of chrome plating facilities quarterly. 20,000 site visits for compliance evaluations and inspections of 3,300 portable equipment units; In addition 1,800 asbestos demolition or renovation activities. He suggests the continuation of an evaluation program for select industries.

97-7

I suggest another inspection priority; the 9 petroleum refineries posting a WARNING notice in the Los Angeles Times this week. The notice warns the public that the companies have Chemicals known to the State of California to cause, cancer, birth defects and other reproductive harm. The notice was published by BP America, Exxon Mobil Corporation, Chevron, Shell Oil, Tesoro, Phillips 66, AERA Energy, VENOCO, LLC and Valero. The inspections should be done even if it does place these companies at a competitive disadvantage.

As a person supervising hazardous waste facility inspectors I find the numbers Wayne Nastri offered in his goals document potentially unrealistic. Are the numbers of inspections in line with the work the AQMD inspectors have completed annually? I noticed the word "strong" was added to the revised AQMP in the discussion of regulation of stationary sources. I like that word. Several other positive changes were outlined in the revised plan.

Changes in the Revised Plan

I support the following changes in the AQMP: I copied the relevant sections:

CMB-03 – EMISSION REDUCTIONS FROM NON-REFINERY FLARES: Flare NOx emissions are regulated through NSR and BACT, but there are currently no source-specific rules regulating NOx emissions from existing flares at non-refinery sources, such as organic liquid loading stations, tank farms, and oil and gas production, landfills and wastewater treatment facilities. This control measure proposes that, consistent with the all feasible control measures, all non-refinery flares meet current BACT for NOx emissions and thermal oxidation of VOCs. The preferred method of control would involve capturing the gas that would typically be flared and converting it into an energy source (e.g., transportation fuel, fuel cells, facility power generation). If gas recovery is not cost-effective or feasible, the installation of newer flares utilizing clean enclosed burner systems implementing BACT will be considered.

97-8

**FUG-01 – IMPROVED LEAK DETECTION AND REPAIR:** This control measure seeks to reduce emissions from a variety of VOC emission sources including, but not limited to, oil and gas production facilities, petroleum refining and chemical products processing, storage and transfer facilities, marine terminals, and other sources, where VOC emissions occur from fugitive leaks in piping components, wastewater system components, and process and storage equipment leaks. Most of these facilities are required under SCAQMD and federal rules to maintain a leak detection and repair (LDAR) program that involves individual screening of all of their piping components and periodic inspection programs of equipment to control and minimize VOC emissions. This measure would utilize advanced remote sensing techniques (Smart LDAR), such as Fourier transform infrared spectroscopy (FTIR), Ultraviolet Differential Optical Absorption Spectroscopy (UV-DOAS), Solar Occultation Flux (SOF), and infrared cameras, that can identify, quantify, and locate VOC leaks in real time allowing for faster repair in a manner that is less time consuming and labor intensive than traditional LDAR.

97-9

This control measure would pursue two goals. The first is to upgrade a series of SCAQMD's inspection/maintenance rules (Rules 462, 1142, 1148.1, 463, 1178, 1173, and 1176) to require, at a minimum, a self-inspection program, or utilization of an optical gas imaging-assisted LDAR program where feasible. The second is to explore the use of new technologies to detect and verify VOC fugitive emissions in order to supplement existing programs, [explore opportunities where Smart LDAR might substitute for existing LDAR programs](#), and achieve additional emission reductions. [Both goals will be pursued in a public process allowing interested stakeholders to participate in pilot projects and the rule development process.](#)

**FLX-01 – IMPROVED EDUCATION AND PUBLIC OUTREACH:** This proposed control measure seeks to provide education, outreach, and incentives for consumers and businesses to contribute to clean air efforts. Examples include consumer choices such as the use of energy efficient products, new lighting technology, "super-compliant" coatings, tree planting, and the use of lighter colored roofing and paving materials, which reduce energy usage by lowering the ambient temperature. In addition, this proposed measure intends to increase the effectiveness of energy conservation programs through public education and awareness as to the environmental and economic benefits of conservation. Educational and incentive tools to be used include social comparison applications (comparing your personal environmental impacts with other individuals), social media, and public/private partnerships.

This control measure is a voluntary program that provides education and outreach to consumers, business owners, and residences regarding the benefits of making clean air choices in purchases, conducting efficiency upgrades, installing clean energy sources, and approaches to conservation. These efforts will be complemented with currently available incentive programs and developing additional incentive programs. Lastly, the SCAQMD staff may develop an EIP to offer technical and financial assistance to help implement efficiency measures and other low emission technologies.

97-10

I've had a lot of experience with public education and outreach. The most difficult goal to achieve is two way conversations between people who are willing to listen and share. Sometimes education is a form of one way communication. A government official who believes that a community member may have something to tell them they need to hear can be a unique government official. Education can be a two way street.

The South Coast Air Quality Management District is one of the first organizations created to respond to the need to reduce air pollution and take steps to healthy air to the citizens of the Los Angeles area. The District continues to make significant progress in cleaning up the air we all breathe. The task is not an easy one. One of the struggles the District faces is maintaining the balance between improving air quality through reduction of air pollutions from stationary sources and responding to the need to have a viable economy. I attended a Board meeting in early September where speaker after speaker shared their own experiences with illnesses associated with air pollution. Their testimony was heart breaking. I remember one young man who left his sick father and small child to travel across Los Angeles on mass transit to testify at the Board meeting. I also attended a meeting in March 2016 when the Board dismissed Barry Wallerstein. An earlier agenda item brought industry representatives out in force. It is imperative for the District to conduct their business with integrity and openness; to respond to all, always in a fair and unbiased way.

97-11

The South Coast Air Quality Management District has always and will continue to have a pivotal role in improving air quality in Los Angeles and surrounding areas. An Air Quality Plan should be a foundational document for the continuing and future work of the South Coast Air Quality Management District. This document must not reflect unacceptable compromise with industries that do not want to do enough to end the pollution they create.

Oh by the way – Cool roofs, cool man really groovy. (smile)

Thank you for considering my comments and the tremendous work underway at the SCAQMD.

*Sincerely,*

*Florence Gharibian*

*Jeremiah 5 22*

*I placed the sand as the bound for the sea.*

*A perpetual barrier it cannot pass.*

*Though the waves toss they cannot prevail.*

*Though they roar they cannot pass over it.*

**Responses to Comment Letter from Del Amo Action Committee**  
**(Comment Letter 97)**

**Response to Comment 97-1:**

Staff appreciates the interest in the development of the 2016 AQMP and concern for clean air in our region. The 2016 AQMP is an integrated plan designed to demonstrate attainment of the federal ambient air quality standards for our region. While emissions from all mobile and stationary sources are evaluated in the overall emissions inventory, specific issues at two facilities highlighted in the comment letter would not be specifically addressed under this Plan. Air polluting facilities are issued permits and are required to comply with the conditions of the permits. If not, there is enforcement action to ensure compliance. The emission inventory in the Plan assumes facilities are in compliance and emitting at their permitted level. Enforcement on facilities, particularly ones posing imminent and substantial danger to public health is a high priority for the SCAQMD, but not an action addressed specifically in a Plan designed to meet regional air quality targets. However, increased excessive flaring at some facilities in recent years have spurred new technologies and processes as alternatives to traditional gas handling. Thus, the 2016 AQMP is proposing a control measure CMB-03 to address non-refinery flaring. In addition, nine new toxic risk rules are being proposed in the 2016 AQMP. The SCAQMD's December 2016 Rule Forecast Report (Board Agenda #19) includes measures for consideration during 2017 dealing with both flaring and hydrofluoric acid at refineries (June and December 2017, respectively).

**Response to Comment 97-2:**

Staff agrees that citizen complaints are key to a successful enforcement program. Please see Response to Comment 65-2 regarding the established complaint and enforcement process.

**Response to Comment 97-3:**

Please see Response to Comment 26-3 regarding the Financial Incentive Funding Action Plan. In addition, a collaborative working group will be established to discuss and decide how to secure the funding. The individual incentive programs will also formulate working group to decide distribution priorities, qualifications, enforcement, etc.

**Response to Comment 97-4:**

The SCAQMD does not have authority concerning zoning or land use, but the distribution of incentives in environmental justice communities areas could help improve those communities. Please see Response to Comment 84-6 regarding prioritizing incentives distribution in disadvantaged communities.

Staff does utilize trees as an avenue to reduce pollution but trees are also a source of biogenic VOC emissions. While they can reduce PM concentrations to a small extent and reduce temperatures in urban settings, they have to be chosen carefully in order to minimize contributions to VOC emissions

**Response to Comment 97-5:**

Staff is very aware of the effects of the drought on air quality which has hampered the region's ability to meet attainment of the 24-hour and annual PM<sub>2.5</sub> standards. The Plan is proposing to include the consideration of life-cycle analysis when evaluating the cost-effectiveness and feasibility of new technology in various applications. Energy demand and waste disposal are evaluated as part the

environmental impact analysis both for the Plan and in the future when rules and programs are further developed and defined.

**Response to Comment 97-6:**

SCAQMD periodically conducts new technology forums as suggested by the commenter. In addition, SCAQMD operates a Technology Advancement Division that conducts studies on emerging technologies, implements contracts to evaluate the operation of new cleaner technologies in various applications, as well as travels globally to international conferences to learn about and spread new ideas and technologies for clean air. This Division has two advisory groups, the Clean Funds Advisory Group and the Technology Advancement Advisory Group. Meetings of these advisory groups are open to the public and public comment is taken.

**Response to Comment 97-7:**

As our permitting and compliance divisions continue to improve existing programs positive outcomes will result in air quality benefits. Staff appreciates the new ideas.

SEP guidelines are not part of the AQMP but these suggestions will be referred to the Legal Division.

**Response to Comment 97-8:**

Staff appreciates the support.

**Response to Comment 97-9:**

Staff appreciates your support of FUG-01.

**Response to Comment 97-10:**

Staff agrees and comment noted. The SCAQMD has a Public Affairs office that provides outreach and conducts periodic regional meetings to update and educate the public in a variety of air quality-related topics.

**Response to Comment 97-11:**

Staff appreciates the heartfelt comments and we encourage continued participation and involvement in the process.

**Comment Letter from Public Solar Power Coalition (Comment Letter 98)**

**DRAFT 2016 AIR QUALITY MANAGEMENT PLAN**



2016 AQMP Comment Form

Please enter your contact information, comments and/or upload comment files below. The information collected may be used to provide further information about public workshops and hearings, and other events related to the 2016 AQMP. Responses to comment will be compiled and included in the final Plan package.

**\*Fields Required to Submit a Comment**

**Form Information**

<b>Date Created</b> 11/07/2016	<b>Time Created</b> 9:35 PM	<b>AQMP Year</b> 2016
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**Commentor Contact Information**

<b>Commentor's Name *</b> HARVEY EDER	<b>Organization *</b> PUBLIC SOLAR POWER COALITION	<b>City</b> SANTA MONICA	<b>State</b> CA	<b>Zip Code</b> 90403
<b>If not representing a specific organization, please enter "No Affiliation".</b>				

**Comments (Unlimited Size)**

this system is not working on 11.7.16 i wrote signed and tried to send comments but was rejected it wouldnt send.....

here's trying again, part 3 would have been 2 because of the last one lost etc. more to come its immediate total solar conversion now Also incorporated by reference my our submittal to Carb Scoping Plan Sacramento CARBs scoping Plan for 2016 my our comments of today 11.7.16 Solarly, Harvey Eder PSPC

98-1

**Upload Additional Comment and Supporting Files ( 30 Mb Maximum per file)**

AQMP Comments Files

Note: Supported upload files include all versions of Microsoft Office, jpeg, tiff, PDF, mp3, mp4, and text files.

**Commentor Signature \***

For More Information Contact: Angela Kim (akim@aqmd.gov) (909) 396-2590

**From:** Harvey Eder <harveyederpspc@yahoo.com>  
**Sent:** Wednesday, November 16, 2016 12:00 AM  
**To:** harveyederpspc@yahoo.com  
**Cc:** harveyederpspc@yahoo.com  
**Subject:** comments for all documents ref.ceqa ,aqmp 2016 and socio economics.Solar Now

From Harvey Eder Ex. Dir. for self and PSPC Public Solar Power Coalition Nov. 15, 2016

More time is needed to work on commenting on the above

incorporated by reference is the entire record in 2013 SC116941 EDER et.a and the a[[eelate case as well and everything said on the record etc

solar includes wind and water, This pro[osal includes floating solar and wind since some of this is con

Combined solar power pv and thermal with large tanks heat engine w.o combustion water tanks can be used after a big earthquake with seasonal storage in the ground as well as stratas in aquifers and earth due to confidential business infformation.

the hox emissions will come down by 43 and 55 per cent by 23 and 31 respectfully this includes district heating and cooling systems these can all be done the new infrastructure program trump has thaked about water and sewerz etc, solar thermal is 2 to 3 times more efficent, also this and all submittalsare in ther dealings with the comision and the Segs solar energy generation about 400mw capacity

the 8 may 18 this yr are in the record there will be 10 million solar zev were in the here and above all is incirperateeeeeeeeeeeeeeeeeeeeeed

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there has been a series of articles on this on the record s10s 100000 deaths per yr to the mbte of the thousands od deaths

in deceptoively called renewabke natlural gas Al baeq working on BACT the hand scode says the district nust work ion BACT ASBAET BACRT deadky gas iv=boit 19 yrs ago

there will be 20 million zev with lithum and other batteries that via tesla l batttrord thast were 500 dollars per kw capacoty kwh are now 400 dokkars per kwh that will soon be 300 dokkars a kwh and are estimated to go 50 percent by 2019 or 100 to150 dollars oe [er kwh

and IEA and IREn have info on solarnargy and district solar heating and cooling sustems. so

98-2

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT



# Draft Program Environmental Impact Report

## 2016 AIR QUALITY MANAGEMENT PLAN

*Exhibit 2: the use  
will be on the  
page*



SEPTEMBER 2016

ON WAY TO  
WIND

RE POWER  
PALM SPRING  
NEW WIND  
TURBINES  
PG. 11/17/16

CERA  
INCLUDES  
S/S STAFF

PRE-FEED  
TRUMP  
COMMENTS  
IN THURSDAY  
PROCEEDINGS

BACK SCENE

SUN -  
REVERSE/SANBOR  
DUNNO CITY

DOE - SUNSULT - PV/CEP  
FINANCIAL HISTORY  
4008  
MAY 15, 2016

COMMENTS BY HANXY EGG  
FOR SELF AND AS EN. DIR  
FOR RSPC PUBLIC SCAM  
POWER CALIFORNIA  
NOV. 18, 2016

FOR CERA DOE, DEATH PLAN REPORT  
& SEC/EEEN DOCUMENTS

FOR ALL SUBMITTALS EXHIBITS  
& ALL COMMENTS IN ALL PROCEEDINGS  
GTC

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OR MEMORANDUM PAGES - BO DOWN

## 6.0 INTRODUCTION

This Program EIR provides a discussion of alternatives to the proposed project as required by CEQA. Pursuant to the CEQA guidelines, alternatives should include realistic measures to attain the basic objectives of the proposed project but would avoid or substantially lessen any of the significant effects of the project, and provide means for evaluating the comparative merits of each alternative (CEQA, Guidelines, §15126.6(a)). In addition, though the range of alternatives must be sufficient to permit a reasoned choice, they need not include every conceivable project alternative (CEQA Guidelines §15126.6(a)). The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation. An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines, §15126.6(f)(3)).

## 6.1 METHODOLOGY FOR DEVELOPING PROJECT ALTERNATIVES

The alternatives typically included in CEQA documents for proposed SCAQMD rules, regulations, or plans are developed by breaking down the project into distinct components (e.g., emission limits, compliance dates, applicability, exemptions, pollutant control strategies, etc.) and varying the specifics of one or more of the components. Different compliance approaches that generally achieve the objectives of the project may also be considered as project alternatives.

The 2016 AQMP identifies control measures and strategies to demonstrate that the region will: (1) attain the revoked 1997 8-hour ozone standard (80 ppb) by 2023; (2) attain the 2008 8-hour ozone standard (75 ppb) by 2032; (3) attain the 2012 annual PM<sub>2.5</sub> standard (12 ug/m<sup>3</sup>) by 2025; (4) attain the 2006 24-hour PM<sub>2.5</sub> standard (35 ug/m<sup>3</sup>) by 2019; and (5) attain the revoked 1979 1-hour ozone standard (120 ppb) by 2022. The 2016 AQMP also discusses the recently adopted new federal 8-hour ozone standard (70 ppb), as well as incorporates toxics, climate change, energy, transportation, goods movement, infrastructure and other planning efforts that affect future air quality.

The proposed attainment strategy focuses on reduction of ozone precursors (NO<sub>x</sub> and VOC), direct PM<sub>2.5</sub>, and PM<sub>2.5</sub> precursors (NO<sub>x</sub>). NO<sub>x</sub> emissions lead to the formation of both ozone and PM<sub>2.5</sub>. Therefore, the most significant air quality challenge faced by the SCAQMD is to reduce NO<sub>x</sub> emissions sufficiently to meet the upcoming ozone and PM<sub>2.5</sub> federal standard deadlines. The 2016 AQMP analyses indicate that an additional 43 percent NO<sub>x</sub> emission reduction is needed by 2023 and 55 percent is needed by 2031 to attain the 8-hour ozone standard. The majority of NO<sub>x</sub> emission reductions are expected to come from mobile sources.

The possible alternatives to the proposed 2016 AQMP are limited by the nature of the project. For example, the SCAQMD is required to prepare a PM<sub>2.5</sub> and ozone AQMP that demonstrates attainment of the federal ambient air quality standards by applicable dates. The magnitude of emission reductions needed for the attainment of these NAAQS requires an aggressive mobile source control strategy supplemented with focused, strategic stationary source control measures and close collaboration with federal, state, and regional governments, local agencies, businesses, and the public.



The concept of taking no further action (and thereby leaving the existing setting intact) by adopting a No Project Alternative does not readily apply to an update of an already adopted and legally mandated plan such as the AQMP. Adopting a no project alternative for an update to the AQMP does not imply that no further action will be taken (i.e., halting implementation of the existing AQMP). The federal and state Clean Air Acts require the SCAQMD to revise and implement the AQMP in order to attain all applicable ozone and PM2.5 state and national ambient air quality standards. A no further action No Project Alternative in the case of the AQMP is not a legally viable alternative. Consequently, the No Project Alternative presented in this Program EIR is the continued implementation of the 2012 AQMP. Continued implementation of the 2012 AQMP without additional reduction measures would not be a feasible alternative because the SCAQMD is required to submit to U.S. EPA an ozone and PM2.5 AQMP that demonstrates attainment of the applicable ozone and PM2.5 NAAQS by the applicable dates, as explained above. However, continued implementation of the 2012 AQMP as the No Project Alternative (see Section 6.3.1 below) is consistent with CEQA guidelines §15126.6(e)(2) (italics added):

“The ‘no project’ analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services...”

It should be noted that, except for air quality, there would be no further incremental impacts on the existing environment if no further action is taken. Although there are existing rules that may have future compliance dates, potential adverse impacts from these rules have already been evaluated in the Final Program EIR for the 2012 AQMP and subsequent rule-specific CEQA documents. Air quality would continue to improve to a certain extent, but it is unlikely that all state or federal ozone standards would be achieved as required by the federal and California CAAs.

6.2.2 FULL SOLAR CONVERSION ONLY

Under this alternative, all electricity would be generated by solar power. Public comments provided on the 2016 AQMP and NOP/IS (Appendix B) have requested that the alternative of complete solar power be evaluated.

Under this alternative, electricity would be generated by the construction and operation of additional solar generating systems. Some of these would be expected to be on existing housing, structures, and buildings. However, the amount of electricity that would need to be generated would require new large solar installations, which have generally been placed in the desert areas of California (CEC, 2016g), due to the large demand for land that is required. In 2015, solar thermal facilities generated a total of 14,953 gigawatt-hours or about 7.64 percent of the state's total electricity production (CEC, 2016g). Therefore, the state would need a significant increase in the construction and operation of additional solar generating systems.

While the solar technology has made great advances in recent years, there are still a number of existing concerns regarding the reliability and transmission of solar power. Large solar installations have been located in the desert portions of the state. As such, transmission lines that connect solar installations to the more populated portions of the state are not currently available.

Handwritten notes on the left margin: "A2- TOP CO. APX. SOLAR CONVERSION ELECTRIC CPU. VE. EIT. H2. H+AC. HOURS. SPARE. PROCEED."

Handwritten notes at the top right: "CONSIDER - WITH PM 2.5 UNDER 0.2? OFF ULTRA FINE? R1 ON/OFF - W5/PAC"

Handwritten note: "FROM ELECTRIC VEHICLE & FLEETS CUT 15% VOLUME"

Handwritten note: "PLUS STORAGE WITH DRAINAGE OR BURNING IN HELL PIPES SOON FROM FOREST FIRES - NEW"

Handwritten note: "WHAT'S MORE IMPORTANT TRANSPLANTING DESERT TERRITORY FROM FOREST FIRES - NOW"

Handwritten note: "MORNING BY STATE - 114% - EUROPE TRAVEL FOR ATTAIN CYCLE"

Handwritten note: "VS. PER AIR 40-50% OF STATE"

Handwritten note: "+ FUTURE: 2020 2023 2026 - 4.02"

2016 AQMP Draft Program EIR

Handwritten note: "SITING 2-GLORIFIC FOR H20A TEMP"

Handwritten note: "6-3 APR 15, 000,000 MWH PASTORATOR ~ 2-3,000 MW SOLAR CAP LAND 2000 ON ROAD BTC"

Handwritten note: "September 2016 CENTRAL CALIF. SOLAR PLANT + 1,000 MW + 1,000 MW IN FIRST MARCH IN NORTHERN"

ESTIMATE TO SAME LESS THAN MFC/BVT BLIND - THE EMPEROR HAS NO CLOTHES  
 Chapter 6 - Alternatives  
 ELECTRIC VEHICLES OMITTED  
 TESLA MODEL 3 35k to 2017/17 FALSE 4044 EXP WITH SOLAR - NOT 150 PER KWH STORAGE  
 Further, electricity would only be generated when the sun was out. While this is common in California, there are times when it is cloudy, rainy or night time when electricity would not be produced. So some type of electricity storage system may be required. The technology for large battery backup systems has not yet been developed which would mean that there would still be a requirement for natural gas-generated electricity. Therefore, full solar conversion is not feasible at this time.  
 LITHIUM-ION BATTERY COST & DOWN FROM \$500 RESERVING KWH ABOUT 80/85% BY 2030 JACOBS  
 TO 400 TODAY OR LESS 350/600 & DOWN BY 20% BY 2030 JACOBS  
 A full solar alternative would result in a number of additional potentially significant environmental impacts than the current proposed AQMP strategy. This alternative would require the conversion of large portion of presumably desert habitat to industrial facilities, resulting in potentially significant impacts to aesthetics (impacts to visual character and glare), biological impacts (destruction of native habitats for rare and endangered species such as the desert tortoise), cultural impacts, land use impacts (conversion of native habitat to industrial land uses), additional air, noise, and traffic impacts associated with construction activities, and other similar impacts.  
 WITHOUT DISTRICT TROPHERIC OZONE IS BURNING US A FIRE PRODUCER PER HEAT/EUR OF SOIL  
 CAN'T REACH GORIC W/O JTSO PATENT  
 Finally, converting to full solar is an ambitious goal that has future possibilities. A full solar alternative to the 2016 AQMP would not result in sufficient emission reductions to assure attainment of the federal or state ozone standards. As discussed in Chapter 4.1.5, the carrying capacities (the maximum allowable NOx emissions to meet ozone standards) are estimated to be 150 tons/day NOx in 2023, and 100 tons/day NOx in 2031. NOx reductions of approximately 43 percent and 55 percent from the baseline levels are needed in 2023 and 2031, respectively. Elimination of natural gas-fired electricity power plants would not result in sufficient emission reductions to comply with ozone standards. Therefore, a full solar alternative would not achieve the primary objective of the proposed project to demonstrate attainment of the federal or state standards for ozone. For this reason, the alternative is considered to be infeasible at this time.  
 SOLAR TRAVEL BUS & TRAIN & SOLAR SEASONAL STORAGE & DISTRICT HEATING & COOLING  
 6.2.3 HEAVY VOC REDUCTION STRATEGY  
 NO NO THINGS  
 LAURE PLAN IS ENOUGH BACT IS TECH FORCING  
 3.4% CA - 204PC - 2036 IF 2012 CA SUPPLEMENT CT  
 The Heavy VOC Reductions Alternative scenario would aim to implement more VOC emission reductions to achieve ozone attainment, as opposed to the current 2016 AQMP strategy which focuses on NOx emission reductions. NOx levels would be held at or nearly constant and attainment would be dependent upon the reduction of VOC emissions, primarily in the areas of cleaner mobile sources, consumer products and lower VOC solvents. The VOC heavy approach is technically more uncertain, because it would require technology breakthrough in formulations of solvents or consumer products, which are not currently available. One result of the strategy may be the development of potentially new toxic formulations; however, replacement of solvents with low VOC formulations tends to be less toxic than conventional solvents.  
 Table 6.2-1 shows the limited feasible VOC control measures that have been identified as part of the 2016 AQMP. The VOC emission reductions currently total about 7-10 tons per day. Under this alternative, significant additional VOC emissions reductions would be required. Sufficient feasible VOC emission reductions are not available to demonstrate compliance with the ozone ambient air quality standards because there is a limited number of VOC sources and limited number of feasible VOC emission reductions. As a matter of fact, the ozone isopleths<sup>1</sup> for the two  
 1 April 2016 AQMP Advisory Group Meeting #9 - <http://www.aqmd.gov/docs/default-source/Agendas/aqmp/advisory9-item2.pdf> (Slides 7-8)  
 NEGATIVES / BASED ON IGNORANCE  
 IS STORAGE / OMISSION INFORMATION -  
 2016 AQMP Draft Program EIR 6-4 September 2016  
 ILLOGICAL CURRENTLY USING AQS IPCC + 2013 # BACT SOL EPA GPP & CPA  
 OMITTED GAG - STATE LAW & FOR EPA CPA EC.  
 SCA SUNSHOT

Public Solar Power Coalition – Harvey Eder

The commentator provided printed copies of the following series of published papers. Since these papers are copyrighted materials (e.g. published papers or books), these copyrighted materials are not reprinted here, and instead, we are providing a list of the papers received, and links to websites where such materials may be available for viewing and download.

- [Power to the People](#) (William Bradley, December 2001)
- [Home Investment Partnerships Program](#) (U.S. Department of Urban Housing and Development, 2016)
- [The California Energy Crisis](#), (Los Angeles Times, February 2001)
- [Taken for a Ride](#) (New Day Films, 1996)
- [General Motors Streetcar Conspiracy](#) (Wikipedia)
- [Incorporating Emerging and Voluntary Measures in a State Implementation Plan \(SIP\)](#) (U.S. Environmental Protection Agency, September 2004)
- [Guidance on State Implementation Plan \(SIP\) Credits for Emissions Reductions from Electric-Sector Energy Efficiency and Renewable Energy Measures](#) (U.S. EPA, August 2004)
- [Control Techniques for Nitrogen Oxides Emissions from Stationary Sources – Second Edition](#) (U.S. EPA, January 1978 - Cover to page 25 was provided)

**Responses to Comment Letter from Public Solar Power Coalition**  
**(Comment Letter 98)**

**Response to Comment 98-1:**

Overall the 2016 AQMP is a blueprint for achieving the air quality standards in the Basin. The draft 2016 AQMP includes Chapter 10 – Climate and Energy. This chapter includes a summary of the cause and effects of climate change, the changing energy sector, in-Basin emissions, and projections for the future. These topics directly affect the Basin's air quality and the 2016 AQMP control strategy. Ms. Klein's book describes drastic action must be taken to combat climate change with our social and economic systems. Chapter 10 does describe the cause of climate change with "the rapid expansion of fossil fuel-based energy, the emission of synthetic gases, and the depletion of our natural carbon sinks that have drastically increased the level of GHGs in the earth's atmosphere and depleted stratospheric ozone. This results in changing global weather patterns, such as more extreme storms, higher average temperatures, and more prolonged periods of drought."

*Commenter provided:* Klein, Naomi. This Changes Everything: Capitalism vs. The Climate (<https://thischangeseverything.org/book>).

*Book summary:* "Climate change, Klein argues, is a civilizational wake-up call, a powerful message delivered in the language of fires, floods, storms, and droughts. Confronting it is no longer about changing the light bulbs. It is about changing the world—before the world changes so drastically that no one is safe. Either we leap—or we sink."

*Disclaimer:* Since this book is copyrighted materials (e.g., published papers or books), these copyrighted materials are not reprinted here, and instead, we are providing the title of the book received, and link(s) to a website(s) where the book may be available for viewing and possible download. If anyone from the public would like to read the book provided, please contact the SCAQMD AQMP staff in the Planning Division at [aqmp@aqmd.com](mailto:aqmp@aqmd.com), your local library or bookstore.

**Response to Comment 98-2:**

Staff appreciates the comments and involvement in the 2016 AQMP review process. In addition to the cause and effect of climate change, Chapter 10 also includes a discussion on renewable generation technologies along with storage to address intermittency and periods of over-generation. Please refer to the Chapter 10 section titled "Increased Grid Flexibility through Energy Storage Technologies" for additional information. In addition to the chapter 10 discussion, CMB-01 is a proposed incentive measure which includes battery storage and fuel cells are examples of zero and near-zero technology available that may be viable solutions for NOx reductions. In certain applications, technology assessments may need to be completed to ensure these technologies are a viable solution. Please also refer to Response to Comment 78-6 for batter storage in extreme emergency conditions.

**Comment Letter from Construction Industry Air Quality Coalition (Comment Letter 99)**



November 2, 2016

**CONSTRUCTION INDUSTRY  
AIR QUALITY COALITION**

Coalition Members

Mr. Wayne Natri  
Acting Executive Officer  
South Coast Air Quality Management District  
21865 Copley Dr.  
Diamond Bar, CA 91765



Dear Mr. Natri:



Associated General Contractors  
America-San Diego Chapter, Inc.



Building Industry Association  
of Southern California



California Construction Trucking  
Association



Engineering  
Contractors Association



United Contractors



Southern California  
Contractors Association

In review of the Revised Draft 2016 AQMP, specifically item CMB-01, we have concerns as they relate to proposed additional emergency engine controls and mandates directed through this AQMP that could jeopardize the reliability of such emergency systems. Additionally we have concerns with the accuracy of data presented and the assumptions behind those numbers.

**BACKGROUND**

General uses of statements like "Zero emission technology *will be required*, whenever and wherever feasible and cost effective, otherwise near-zero technology *will be required*." (App. IV, top of page IV-A-45), or "Based on this analysis, staff expects a number of diesel ICEs can be replaced with zero or near-zero technology, *but at a minimum Tier 4 standards*." (App- IV, Page IV-A-51) cannot be introduced in the AQMP in reference to emergency engines. These statements imply broad-based mandates for these technologies without properly understanding the limitations of these technologies both in available power and reliability when used in emergency applications required to satisfy building codes for life safety and redundant back-up systems. Zero emission, near zero emission, and Tier 4 standards technologies are also more complicated, and are far more expensive to purchase, install, design into buildings, and maintain than the emergency diesel and gas engines allowed by both EPA and CARB in their NSPS and ATCM regulations respectively.

We also have significant concerns with the accuracy of data presented and the assumptions and extrapolations behind those numbers presented in Tables 1 and 2. We believe that the data is flawed, especially with any reference to emergency engines due to their restricted hours of operation. One only has to look at the 11.5 tons per day (TPD) identified in Table 2 for 3,860 engines permitted post-2010 and compare it to 9,068 older ICEs permitted 2010 and earlier with 11.0 TPD. How can the older engines contribute nearly 1/3 less per engine than the newer engines? This is even more perplexing when you consider the NOx controls on prime power and prime use engines are now controlled to extremely low NOx emissions levels by Rule 1110.2. Preliminary data from our independent sources indicates the contribution from all diesel emergency engines is less than 1.0 TPD. With the overall basin NOx baseline at 530 TPD stated in the Executive Summary, this makes the diesel emergency engines merely a fraction of a percent of the whole, and thus mandates of more expensive systems could not be justified.

99-1

99-2

2149 East Garvey Ave. North, Suite A-11, West Covina, CA 91791  
Tel: 626 858 4611 Fax: 626 858 4610 e-mail: [ciaqc@uia.net](mailto:ciaqc@uia.net) [www.ciaqc.com](http://www.ciaqc.com)  
Major Funding Provided by the Construction Industry Advancement Fund and the Fund for Construction Industry Advancement

At the AQMP meeting on Thursday one of our CIAQC members and a consultant, who is well versed on emergency engine emissions, met with Aaron Katzenstein, who I understand is the lead/key staff person working on this measure. Feedback from that meeting supports our belief the data is overstated, and indicates staff requires a much better understanding of the limitations of these technologies, the yet-to-be-proven reliability of these systems, and the costs of such systems.

99-2  
Con't

**OUR ASK**

In order for CIAQC to effectively evaluate the October draft AQMP concerns and **data we respectfully request that we be allowed to review your detailed calculations and assumptions behind the numbers in Table 1 and Table 2.** With your plan to finalize this document for a February 3 Governing Board hearing, **we ask for this information by November 4** to allow us enough time for our independent evaluation and subsequent discussions with staff. We also **ask that staff be directed to remove words that would indicate a mandate of these technologies, and replace such wording only with "incentives"**. CIAQC is not opposed to companies wishing to experiment with new technologies under incentive programs, but we are not in favor of implied mandates within the AQMP that would improperly direct staff to conclude these technologies as BACT for emergency systems.

99-3

Thank you for your consideration of our concerns. We are available to meet with your staff to discuss these issues.

Sincerely,



Michael Lewis  
Executive Vice President  
CIAQC

Cc: Bob Shepherd  
Karl Lany  
John Dunlap

**Responses to Comment Letter from Construction Industry Air Quality Coalition**  
**(Comment Letter 99)**

**Response to Comment 99-1:**

Please see Response to Comment 73-4 regarding technology assessments. Staff acknowledged in CMB-01 that there are applications that might not be suitable for zero and near-zero technology, these limitations will be further explored as regulatory and incentive measures are developed. At a minimum, consideration would be placed on replacement or repowering existing engines that meet Tier 4 standards if they are commercially available.

**Response to Comment 99-2:**

Please see Response to Comment 73-2 regarding emissions inventory.

**Response to Comment 99-3:**

Please see Response to Comment 73-2 regarding emissions inventory. Staff reassessed the emission factors used to estimate the baseline inventory and included changes in CMB-01, Table 1 – “Permitted NOx Combustion Sources” and Table 2 – “Breakdown of Permitted ICEs.” The emissions for the identified NOx combustion source categories in Table 1 are based on emissions reported in the Annual Emissions Reporting (AER) database and the Permitting database. For each NOx combustion source category, staff summed the emissions reported from AER and divided the sum by the number of applications reported in AER to calculate the average tons per year (tpy) for each equipment. This average tpy for each equipment was then multiplied by the number of applications in the Permitting database. The number of units are derived from the Permitting database. The previous emissions for Stationary ICEs were reassessed by breaking up the source category for emergency and non-emergency engines. The Draft Final reflects the updated calculation and estimates the overall ICES to be 5.5 tons per day (tpd).

For Table 2, staff used the permitting database to determine the year of the equipment. The year the application was completed (including administrative changes) was assigned as the default for the equipment year. Previously categorized newer ICEs (in the October Revised Draft), revealed that 60 percent of the new (greater than 2010) permits represented new pieces of equipment and 40 percent primarily represented old ICEs with administrative changes to the permit. Therefore, the emissions inventory was reassessed to determine the number of pieces of equipment before 2010 and the respective emissions associated with them. The ICEs were then broken down into non-diesel versus diesel, and further with Tier I or II for diesel engines.

**Comment Letter from Automobile Club of Southern California (Comment Letter 100)**



Automobile Club of Southern California

AAA.com

November 29, 2016

Mr. Wayne Nastri  
Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765  
[wnastri@aqmd.gov](mailto:wnastri@aqmd.gov)

**Re: Draft 2016 Air Quality Management Plan and Incentive Funding Action Plan**

Dear Mr. Nastri:

The Automobile Club of Southern California is pleased to submit the following comments on the Draft 2016 Air Quality Management Plan (AQMP) and its accompanying Incentive Funding Action Plan. The Auto Club is submitting these comments because we are concerned that the South Coast Air Quality Management District (SCAQMD) is considering and may seek authority to increase light-duty vehicle registration fees in order to fund programs and subsidies designed to reduce emissions primarily from heavy-duty and off-road commercial vehicles and mobile off-road equipment.

100-1

Private passenger vehicles, including both light-duty automobiles and light-duty trucks, contributed about 17% of total nitrogen oxide (NOx) emissions from mobile sources in 2012, the baseline year for the AQMP. Reducing NOx emissions is a primary focus of the AQMP. Over the past few decades, there have been substantial reductions in light-duty vehicle emissions, including NOx. These reductions have been achieved because numerous vehicle and fuel requirements have been put in place over this time period, with costs borne by drivers when they purchase, fuel, and maintain their vehicles. And, the emissions reductions have been achieved despite a substantial increase in the total number of vehicles and total miles those vehicles are driven. This success has been one of the key ways air quality has been markedly improved in the South Coast Air Basin.

100-2

Heavy-duty and off-road commercial vehicles and mobile off-road equipment have yet to achieve similar emission reductions and now account for 83% of mobile source NOx emissions, even though there are far fewer of them than private passenger vehicles. Clearly, more needs to be done to reduce emissions from heavy-duty and off-road mobile sources. But it is inherently unfair and inappropriate to increase registration fees on the cleanest, light-duty vehicles, and the consumers who own and use them, to pay to clean-up the dirtiest mobile sources in the Basin.

100-3

**Administrative Offices:** P.O. Box 25001, Santa Ana, CA 92799-5001 **Headquarters:** 2601 S. Figueroa, Los Angeles, CA 90007-3294

Auto Club Enterprises provides service to more than 14 million members



We're always with you.®

The Auto Club, with 6.8 million members, has a long history of supporting and participating in fair and effective strategies to reduce motor vehicle emissions and improve air quality. Auto Club efforts over the years have included the following:

- Researching and providing consumer information about alternative-fuel and other green vehicles.
- Supporting fuel conservation and air quality programs, including carpooling and public transit.
- Supporting more ambitious fuel economy standards for auto manufacturers.
- Researching and providing information about proper vehicle maintenance.

100-4

The Auto Club also partners with state and regional organizations to provide, and better use, funding for transportation projects and programs to improve mobility, safety, and the environment. We are a founding member of Mobility 21, Southern California's transportation funding advocacy coalition. We helped develop and supported numerous county transportation sales tax measures and measures to protect transportation funds. And we currently serve on the state's Road Charge Committee, exploring practical pathways to implement mileage-based user fees to pay for transportation improvements. The mobility and emissions benefits of these efforts are important parts of achieving air quality goals in the Basin.

The share of NOx emissions from private passenger vehicles continues to decline. The AQMP's Appendix III "Summer Planning Emissions" detail tables indicate that the proportion of mobile source NOx emissions from light-duty vehicles is projected to decline from 17% to 7% over the next 15 years, even with expected increases in population, registered vehicles, and total miles travelled. Like in the past, these declines will come from continuing improvements in light-duty vehicle technology and efficiency. But, despite these relatively low and declining percentages, the SCAQMD is considering increasing light-duty vehicle registration fees by as much as \$30 to pay to clean-up heavy-duty vehicles and off-road equipment.

100-5

California motorists already pay to help clean-up heavy-duty vehicles and equipment. Most vehicle owners in the Basin currently pay as much as \$30 in extra registration fees to the state for a variety of emissions-related programs, a portion of which goes to the SCAQMD. While some of this revenue is used for light-duty clean-vehicle rebates and early vehicle retirement programs, most is used to pay for incentive programs to subsidize on-road heavy-duty vehicles and off-road mobile equipment. The SCAQMD should not exacerbate this situation by imposing additional fees on light-duty vehicles to pay to clean-up heavy-duty vehicles and mobile equipment. The owners and operators of such vehicles and equipment should bear the burden of cleaning them up.

100-6

The Auto Club appreciates the difficult task the SCAQMD has in preparing an updated AQMP that meets federal and state air quality requirements. Moving forward, we hope to be a partner in advancing initiatives identified in the plan that will bring the Basin into conformity. Toward that end, we would like to offer our service and expertise on the Incentive-Based Funding Plan Stakeholder Group. We look forward to helping the SCAQMD develop and approve a plan that can achieve air quality goals in a fair and equitable manner.

Thank you for this opportunity to provide the Auto Club's comments on the 2016 AQMP. Please call me at (714) 885-2325 or email me [kim.marianne@aaa-calif.com](mailto:kim.marianne@aaa-calif.com) if you have any questions.

Respectfully,



Marianne Kim  
Senior Public Policy Analyst

**Responses to Comment Letter from Automobile Club of Southern California (AAA)**  
**(Comment Letter 100)**

**Response to Comment 100-1:**

Staff appreciates the concerns expressed regarding increased registration fees. The Draft 2016 AQMP provides an analysis of the level of incentive funding that may be needed to help accelerate the turnover of older vehicles and equipment to meet federal air quality standards by their applicable dates. The SCAQMD staff is preparing a draft Incentives Funding Action Plan to discuss potential funding opportunities that the region could consider to generate sufficient incentive funds. The purpose of the Action Plan is to generate discussion that affected stakeholders and the public can develop consensus to support. Potential increase in auto registration fees is one potential funding opportunity among several areas including cargo container fees. Staff understands the need to fully vet any proposed fee increase and develop such programs in a manner such that the economic impacts are minimized. As such, a working group is proposed to be created to discuss various potential opportunities to explore. Staff welcomes AASC participation on the working group.

**Response to Comment 100-2:**

Staff agrees that the NOx emissions from light-duty passenger cars and light-duty trucks have decreased over time and continues to decrease due to CARB Advanced Clean Car Regulation. However, additional NOx reductions will be needed from light-duty vehicles for the region to attain the ozone air quality standards by 2023 and 2031. The State SIP Strategy calls for additional NOx reductions from this sector with an estimated additional 7 tons/day of NOx reductions by 2023. The NOx reductions are beyond the requirements of the current regulations. Incentive programs to encourage the voluntary purchase of new advanced technology vehicles is an important element of the State SIP Strategy. However, the levels of incentive funding must be secured through new funding opportunities.

**Response to Comment 100-3:**

Staff agrees that on-road heavy-duty vehicles are larger contributors to the region's air quality problem. As provided in Response to Comment 100-1, the SCAQMD is looking at every potential opportunity for incentive funding. It is anticipated that sources of incentive funding will come from a variety of programs to be identified and pursued through a public process.

**Response to Comment 100-4:**

Staff appreciates the efforts that AAA have provided in helping the region meet air quality standards. Staff looks forward to working with AAA in these efforts.

**Response to Comment 100-5:**

For the purposes of engendering frank public discussion, staff conducted an analysis of the level of funding that will be needed to help meet the emission reductions needed for attainment. As such, the "\$30" number was used for discussion purposes. Any level of potential must be fully vetted at all levels of government and the public.

**Response to Comment 100-6:**

As mentioned earlier, staff appreciates the concerns expressed and looks forward to AAA's participation on the working group.

**Comment Letter from Orange County Sanitation District (Comment Letter 101)**

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*Orange County Sanitation District*

10844 Ellis Avenue, Fountain Valley, CA 92708  
714.962.2411 • www.ocsd.com

December 6, 2016

Mr. Wayne Nastri, Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765

**Subject: Comments on the Draft 2016 Air Quality Management Plan**

Dear Mr. Nastri,

The Orange County Sanitation District (OCSD) appreciates the opportunity to provide comments on the Draft 2016 Air Quality Management Plan specifically on the draft stationary source control measures contained in Appendix IV-A.

OCSD is the third largest wastewater treatment agency west of the Mississippi River and safely collects, treats and recycles the wastewater generated by 2.6 million people in central and northwest Orange County. We are especially proud of our partnership with the Orange County Water District to provide a high quality treated wastewater to the Groundwater Replenishment System which is the world's largest wastewater reclamation project, ultimately allowing OCSD to reclaim nearly 100% of its influent wastewater.

As we share the same mission of protecting public health and environment as the South Coast Air Quality Management District (SCAQMD), we are well aware of the challenges faced by SCAQMD in bringing the South Coast Air Basin into compliance with federal and state standards. Nonetheless, as a public agency we continually seek efficient ways to meet these challenges to ensure that the public's money is wisely spent.

OCSD is an active member of the Southern California Alliance of Publicly Owned Treatment Works (SCAP) and is a signatory to each of the three comment letters on the Draft AQMP submitted by SCAP to date. We support the comments that were presented in the SCAP letters and will not repeat the same comments in this letter other than

101-1

*Our Mission: To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.*



to urge SCAQMD to work with CARB and EPA to do their “fair share” of reducing emission sources under their control by 50%.

101-1  
Cont

While we plan on participating in the development of the rules based on the proposed control measures and submit more detailed comments during that time, we herein present our comments on the draft stationary source control measures contained in Appendix IV-A that are relevant to OCSD:

**CMB-01 Transition to Zero and Near-Zero Emission Technologies for Stationary Sources:**

This draft control measure seeks to reduce NOx and VOCs emissions from traditional combustion sources such as internal combustion engines by replacement with zero and near-zero emission technologies.

Although this control measure seems to target “higher-emitting” equipment, we are still concerned with the statement in the **Regulations** section (IV-A-48) that this control measure could create new regulations or change existing regulations, including Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines.

101-2

As SCAQMD may be aware, OCSD has recently completed a \$30 million retrofit of eight digester gas fueled internal combustion engines by installing Selective Catalytic Reduction and Catalytic Oxidizers systems along with a digester gas cleaning system. The newly retrofitted engines have been in operation since August 2016 in full compliance with the Rule 1110.2. We were also the only wastewater treatment agency that conducted a timely and successful project to demonstrate that the new Rule 1110.2 limits are technologically achievable at the expense of over \$3 million in 2010. In order to ensure an equitable return on these investments, we request that biogas engines, such as ours, not be included in this control measure.

The **Zero and Near-Zero Emission Technologies** section (IV-A-46) discusses the need to replace older higher-emitting equipment with newer zero and near-zero emitting equipment such as fuel cells. This section briefly mentions that “a tri-generation (heat, power, and hydrogen) [technology] is being demonstrated at Orange County Sanitation District showing that the gas cleanup system is capable of removing contaminants such as siloxanes, sulfur, and hydrocarbons while also providing transportation fuels.”



We would like to clarify that this demonstration project, which was a collaborative effort with the National Fuel Cell Research Center at the University of California Irvine and other public and private entities, concluded in May 2014. It was the first tri-generation system in the world to use the digester gas in a fuel cell.

The demonstration tri-generation unit consisted of a 3-stage digester gas cleaning system in order to meet the stringent input fuel requirement and a 300 KW fuel cell unit and operated on digester gas with the natural gas as a backup. The power produced was exported to the plant power grid and the hydrogen supplied the on-site hydrogen vehicle fueling station. Please note that we did not capture and use the waste heat. Despite initial operational issues related to exporting the power to the existing plant power grid and other mechanical problems, the project met its overall energy efficiency target and also demonstrated improved treatment of digester gas for use in fuel cells.

101-2  
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It is important for SCAQMD staff to understand that our project, however, was not intended to assess the cost-effectiveness of the gas cleaning system, but only to determine whether the technology was effective. During the entire three-year project, only about 21 million standard cubic feet (MM scf) of digester gas was used, which is a tiny fraction compared to our daily average production of 4 MM scf of digester gas between the two treatment plants. Based upon our experience, we believe that there is insufficient data to determine whether this technology is cost-effective or reliable for biogas applications.

With regard to the discussions on emergency diesel engines and proposed replacement with low NOx emitting equipment such as fuel cells, we are concerned that essential public services such as wastewater treatment plants are not specifically mentioned as applications requiring “capabilities for long-term power and fuel storage or delivery under extreme emergency conditions.” The emergency diesel engines at OCSD’s two treatment plants and the remote pumping stations serve a critical role in maintaining operation of key wastewater treatment processes and preventing sewage spills during long-term power disruptions. In our 2015 Annual Emissions Report, the total NOx emissions from the engines located at the two treatment plants was less than 0.007 tons per day. Replacing these engines with new low NOx emitting equipment such as fuel cells, battery storage, and alternative fuels will result in a negligible reduction in emissions while jeopardizing the operational reliability of essential public service. We request that the

101-3



draft control measure be revised to exclude diesel emergency engines, such as those used by the wastewater sector.

101-3  
Con't

**CMB-03 Emission Reductions from Non-Refinery Flares:**

This control measure would create a new, source specific rule for non-refinery flares such as those operating at wastewater treatment plants.

As mentioned above, we have invested over \$30 million to retrofit our digester gas fueled engines to meet the Rule 1110.2 emission limits, so we are highly motivated to maximize the use of this renewable fuel in our engines rather than wasting this resource by flaring.

In our 2015 Annual Emissions Report, we reported that 1 MM scf of digester gas was flared which resulted in less than 0.001 ton/day of NOx emissions. In comparison, almost 1,300 MM scf of digester gas was used in our engines. As demonstrated by the usage data, our flares are only used to facilitate maintenance or manage biogas during breakdowns of our engines, which may become more frequent due to the complexity of the control systems needed to achieve the new Rule 1110.2 limits.

101-4

As a provider of an essential public service, we must be able to continually treat sewage and manage biogas and replacing flares, which are an insignificant source of NOx emissions, with low emitting equipment such as fuel cells would negatively impact the reliability of a critical emergency backup device. Therefore, we request that the wastewater sector be excluded from this control measure.

**BCM-05 Ammonia Emission Reductions from NOx Controls:**

This control measure seeks to reduce ammonia emissions from NOx control systems such as the Selective Catalytic Reduction systems that we recently installed on our digester gas engines.

While we appreciate staff's verbal clarification during April 26, 2016 SCAP/SCAQMD meeting that this proposed control measure is only intended for large-scale projects and will not impact the NOx control systems that SCAP member agencies have recently installed or are in the process of installing for compliance with Rule 1110.2 such as those at OCSD, we again respectfully request that this clarification be memorialized in the AQMP.

101-5



We appreciate the opportunity to comment on the proposed Draft AQMP. If you have any questions or require further information, please contact Terry Ahn of my staff at 714-593-7082.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Coss".

Ron Coss  
Laboratory, Monitoring and Compliance Manager

TA:RC:bg

cc: Dr. Philip Fine, SCAQMD

**Responses to Comment Letter from Orange County Sanitation District (OCSD)**  
**(Comment Letter 101)**

**Response to Comment 101-1:**

Staff appreciates the comments on the Draft and Revised Plan as submitted by SCAP as well as their active participation as a member of the 2016 AQMP Advisory Group. With regard to fair share, the SCAQMD, CARB and U.S. EPA recognize the need for emission reductions from local, state and federal sources. As such, a fair share of reductions needs to take place. As reiterated previously, the percent NOx emission reductions needed to meet the 8-hour ozone standards by 2023 and 2031 at 45 and 55 percent, respectively, would be a guide to fair share apportionment although not a definitive endpoint. Stationary sources are already “well controlled.” However, staff recognizes opportunities to transition to feasible cleaner technologies with commercially available, cost-effective equipment. In addition, incentives could assist in accelerating deployment of advanced technologies in some cases faster than a regulatory approach. It is important to recognize the responsibility of the SCAQMD to ensure attainment of the standards in a timely manner and the District’s authority over the stationary sources that could assist in meeting those required deadlines.

**Response to Comment 101-2:**

Staff notes the commenter’s information on the recently completed project and the demonstration tri-generation unit. Staff included the tri-generation project in CMB-01, as an example of technology that exists, not as a demonstration of cost-effectiveness. The purpose of the incentive program is to create opportunities and make it more cost-effective to replace equipment, transition to zero or near-zero technologies, encourage earlier change-out of higher-emitting equipment, and drive technology development and cost reductions. A working group will be formed to further discuss the challenges for specific sectors regarding biogas.

**Response to Comment 101-3:**

Please see Responses to Comments 54-3, 54-4, and 78-7 regarding wastewater treatment and biogas usage and Response to Comment 73-4 regarding technology assessments and ICEs.

**Response to Comment 101-4:**

Please see Responses to Comments 54-3, 54-4, and 78-7 regarding wastewater treatment and biogas.

**Response to Comment 101-5:**

Large scale projects typically have more emissions that can make improvements or add-on controls more cost-effective. However, small scale projects do not always lead to small emissions and there may be opportunities whereby small scale projects can cost effectively apply controls to further reduce emissions. Thus, the applicability of this control measure cannot exclude specific facilities or small scale projects at this point in time. Until such time where a rulemaking is conducted, a more extensive analysis of potential applicable sources will be identified and analyzed as to which types of sources could feasibly and cost effectively reduce emissions associated with a particular facility or size of project.

## **SECTION 4**

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### **COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT FINAL 2016 AQMP**

### Comment Letter Number

AGENCY / COMPANY	DATE	Comment Letter Number	Page Number
Los Angeles County Business Federation (BizFed)	1/4/2017	102	866
Southern California Leadership Council (SCLC)	1/4/2017	103	875
Automobile Club of Southern California (AAA)	1/9/2017	104	882
Western States Petroleum Association (WSPA)	1/4/2017	105	887
California Interfaith Power & Light	1/6/2017	106	892
Public Solar Power Coalition (Harvey Eder)	1/4/2017– 1/24/2017	107	896
Truck and Engine Manufacturers Association (EMA)	1/24/2017	108	913
The Undersigned Organizations, including: Alliance of Automobile Manufacturers, American Trucking Associations (ATA), California Business Properties Association, California Class I Railroads, California Small Business Alliance (CSBA), Construction Industry Air Quality Association (CIAQA), FuturePorts, International Warehouse Logistics Association (IWLA), Los Angeles Area Chamber Of Commerce, Los Angeles County Business Federation (BizFed), Maersk Line, NAIOP Inland Empire, NAIOP SoCal, Pacific Merchant Shipping Association (PMSA), San Gabriel Valley Economic Partnership, and Truck & Engine Manufacturers Association (EMA)	1/23/2017	109	953
National Fuel Cell Research Center (NFCRC)	1/18/2017	110	960
Santa Clarita Valley Economic Development Corporation (SCVEDC)	1/25/2017	111	968



**2. The Draft Socioeconomic Report does not present a complete assessment of the AQMP's costs to the regional economy. The socioeconomic analysis and the incentive funding plan should be revised.**

The Draft Socioeconomic Report states that implementation of the Revised Draft AQMP would result in nearly \$16 billion of incremental costs.<sup>ii</sup> But that does not include costs for the proposed light-duty vehicle measures which are a key part of the strategy. The actual cost (using staff's figures) would appear to be closer to \$40 billion.<sup>iii</sup>

The light-duty control measure ("Further Deployment for Cleaner Technologies, On-Road Light Duty") is proposed to reduce emissions through early penetration of the zero and near-zero vehicle technologies established under the ZEV regulation. CARB and AQMD Staff have estimated that approximately 500,000 to 600,000 of the oldest passenger cars and trucks would need to be turned over to model year vehicles meeting the currently applicable LEV III emission standard or advanced hybrid or zero-emission technology by 2023 (i.e., within 6 years).<sup>iv</sup>

The scale of this measure would completely alter the transportation sector, yet the Draft Socioeconomic Report has chosen to selectively exclude these costs. It also excludes any of the infrastructure costs (e.g., fuels supply chain costs, electricity infrastructure costs) that such a transformation would involve.

The Preliminary Draft version of the report presented a cost estimate for the measures that totaled \$22 billion, of which \$11.5 billion would require incentives.<sup>v</sup> Staff's has stated that these are co-benefits because they are CARB measures but according to CARB, these light-duty measures and associated costs are directly related to the AQMP:

*"This proposed measure is designed to achieve further emission reductions for South Coast attainment in 2023 and 2031 through a suite of additional actions, including early penetration of zero and near-zero technologies, and emission benefits associated with increased transportation efficiencies, as well as the potential for autonomous vehicles and advanced transportation systems. The emission reductions will be achieved through a combination of actions to be undertaken by both ARB and the South Coast. These actions reflect an initial assessment of a pathway, recognizing that as funding is allocated and advanced technologies further develop, the balance amongst approaches will necessarily adjust."*<sup>vi</sup>

The AQMD's socioeconomic analysis needs to be revised to include the full assessment of the AQMP's costs including the light-duty vehicle measures. And the Draft Incentive Funding Plan should address from where an additional \$11.5 billion of incentives for light-duty would come.

**3. We remain very concerned that proposed CMB-05 has been inadequately considered.**

As noted by industry stakeholders representing most of the employers covered by the RECLAIM program, we are deeply concerned about CMB-05. In control measure CMB-05, staff has proposed a reduction target of 5 tpd from the NOx RECLAIM program by 2031. The presented reason for this measure is to address "issues that arose during recent NOx RECLAIM amendments."<sup>vii</sup> However, all of those presented issues were already addressed by the December 2015 and October 2016 amendments to the program. In the Final Draft AQMP, staff now suggests that the program could be sunset, but have provided no evidence that a program sunset could yield SIP-creditable reductions. The 275 facilities in the program have many thousands of permitted equipment, and a reversion to command-and-control regulation would not be without innumerable complications.

102-2

102-3

Given the substantial NO<sub>x</sub> emission reductions already achieved by the RECLAIM program (i.e., over 70% since 1994), and the very large pending reductions (i.e., another 45%) demanded under the latest amendments (i.e., December 2015 and October 2016 amendments), we are very concerned that proposed CMB-05 cost burdens could damage the regional economy. We strongly recommend this measure be subjected to further Working Group analysis to address the complicated legal and economic issues of a proposed program sunset before making any such commitments. Given the speculation concerning what technology may be ten years from now, we again recommend any emission reduction target for CMB-05 should be presented as a range (e.g., 3-5 tpd).

102-3  
Con't

**4. The proposed measures denominated as MOB-1 through MOB-4 and MOB-8 would harm goods movement and the industries related thereto, and should be entirely reconsidered.**

Our organizations continue to oppose the proposed control measures denominated as MOB-1 through 4 and MOB-8. Efficient and economical goods movement is essential to the region's overall economy, especially given that our region is home to the busiest and most important ports in the nation. Emissions related to goods movement should be addressed without undue local disruption through both fleet change incentives and reasonably paced technological changes, such as the affordable, appropriately progressive adoption of fuel and engine-type changes, which can most sensibly be achieved through standards for new vehicles. To the extent that the above-referenced MOB measures impose emissions caps on goods movement facilities and place economic limitations on the dynamic goods movement system, they should be rejected.

102-4

**5. The District should reconsider and recast all measures that are proposed without quantified air quality benefits.**

The Draft AQMP discusses various measures for which no air quality benefits are quantified, referred to as "to-be-determined" or "TBD" measures. A broad reading of the Draft AQMP suggests that the AQMD's implementation should be able to meet the federally imposed air quality standards even if all such TBD measures were to be forgone. Accordingly, our organizations urge the District to either forgo all such TBD measures in the AQMP, or incorporate only those for which both the costs and benefits of the measures can be identified and vetted publicly before they are included. Importantly, no meaningful socio-economic analyses can possibly be performed if there are no quantified air quality benefits from the measures at issue. Therefore, to the extent that the merits of such measures cannot be reasonably proven in the current AQMP process, such measures should be identified only as possible areas of future study and consideration.

102-5

**6. The Draft Socioeconomic Report presents costs for the stationary source measures which are significantly lower than prior Staff analysis without adequate foundation.**

The Amortized Annual Average costs (2017-2031) for all AQMD Stationary Source Measures has dropped significantly, from \$402.6 million<sup>1</sup> to \$254.6 million<sup>2</sup>. This is a reduction of \$148 million per year (i.e., 37%). Although this would seem to be welcome news, there is inadequate explanation of the change. AQMD Staff provided the following explanation of this reduction for NO<sub>x</sub> reduction control measures at the AQMP Advisory Group meeting:<sup>3</sup>

102-6

- "More NO<sub>x</sub> emission reductions for CMB-01 & CMB-02 in 2031.

<sup>1</sup> AQMD, Draft Socioeconomic Report, Table 2-1, August 2016.  
<sup>2</sup> AQMD, Draft Socioeconomic Report, Table 2-1, November 2016  
<sup>3</sup> AQMP Advisory Group meeting, December 14, 2016.

- Different portfolios of technologies and equipment
- Incremental Cost in Lieu of Total Cost (CMB-02, CMB-04, ECC-03)”

However, the only added NOx emission reductions<sup>4</sup> were in CMB-01, and the Amortized Annual Average costs actually increased, from \$34.8 million (August SE Report) to \$89.8 million (November SE Report). This is an increase of \$55 million per year.

CMB-02 NOx emission reductions did not change from the August Report to the November Report<sup>5</sup>. Yet the Amortized Annual Average costs decreased, from \$99.0 million (August Socioeconomic Report) to \$51.6 million (November Socioeconomic Report). This is a decrease of \$47.4 million per year.

Likewise, for CMB-04<sup>6</sup> and ECC-03<sup>7</sup> there was no change in NOx emission reductions, and yet substantial reductions in Amortized Annual Average costs, of 74% and 63% respectively.

We are only left with the explanations of “Different portfolios of technologies and equipment,” and “Incremental Cost in Lieu of Total Cost.” However, without further details, the significant changes in control measure costs are concerning. Changes in the costs of Control Measures must be adequately explained as part of the public process.

**7. The economic analysis for the Advanced Clean Cars 2 Measure is based on assumptions without precedent. The analysis should be revised to reflect a more supportable basis.**

The AQMD’s claim of negative costs (i.e. economic savings) for the Advanced Clean Cars 2 measure concept depends in large part upon an assumption that costs for ZEV or PHEV will rapidly decline. But there is no historical precedent for this critical assumption and, in fact, CARB’s Mobile Source Strategy economic analysis says:<sup>8</sup>

“During implementation of the Advanced Clean Cars 2 measure concept, the incremental price of a ZEV or PHEV is expected to rapidly decline, but may remain higher than a conventional vehicle for a few years after 2025. However, when considering the cost savings from the offset of gasoline consumption in a conventional vehicle, and the lower average operating cost of plug-in electric vehicles operating on electricity, the period when operating cost savings compensate for higher purchase costs may be short and may also be dependent on other factors. Although ARB is evaluating current advanced vehicle incremental costs as part of the Mid-term Review (MTR), previous cost estimates are used for this analysis until the MTR staff analysis is complete.” (Page A-8)

If this assumption is not borne out, the costs of the state SIP and this AQMP would be significantly greater than have been presented. We recommend that until CARB’s Mid-term Review is completed and there has been time for public analysis and comment, AQMD should not be relying upon such an unprecedented assumption.

**8. As we look towards the Governing Board’s February consideration of the AQMP, we await AQMD Staff’s release of completed analyses for stakeholder review and comment.**

As previously noted by members of the AQMP Advisory Group, the staff has released the AQMP products in a manner which has made stakeholder review and comment extremely challenging. As one example, the comment period on the Draft Socioeconomic Report just ended on 19 December, but that document was based on the Revised Draft version of the AQMP (released 7 October) which has since been superseded by the Final Draft AQMP (released 5 December). Thus, stakeholders have not even seen a socioeconomic

<sup>4</sup> AQMD, See strike thru version of November Socioeconomic Report, page IV-A-23

<sup>5</sup> See strike thru version of November Socioeconomic Report, page IV-A-47

<sup>6</sup> See strike thru version of November Socioeconomic Report, page IV-A-64

<sup>7</sup> See strike thru version of November Socioeconomic Report, page IV-A-73

<sup>8</sup> CARB, Mobile Source Strategy, Appendix A: Economic Analysis, May 17, 2016.

102-6  
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102-7

102-8

analysis of the latest AQMP control strategy, and the socioeconomic report does not reflect the Incentive Funding Plan (released 16 December) which proposes to impose billions of new taxes and fees onto the economy.

Another important example is the pending revisions to the proposed State SIP Strategy by the California Air Resources Board (CARB) staff. Most of this AQMP's emission reductions are associated with mobile sources covered by State SIP Strategy. CARB staff was expected to release that revision in late December, with public comments to be made in January. That CARB strategy isn't scheduled for Board consideration until March 2017.

Due to the non-sequential release of these analyses and the inconsistent technical bases, stakeholders have simply not had the opportunity to fully review this complex policy proposal. Thus, we reserve the right to continue providing additional comments and to work with Staff toward the completion of the AQMP analyses to support the Governing Board's consideration at the February Governing Board meeting.

In closing, the business community represented by BizFed believes these issues present significant risks and challenges which have not been fully addressed in the AQMP products. We remain committed to working with AQMD staff and Governing Board members to ensure the plan fulfills its legal requirements while also protecting and promoting job creation and economic success for Southern California.

Sincerely,



Mike Lewis  
BizFed Chair  
CIAQC



David Fleming  
BizFed Founding Chair



Tracy Hernandez  
BizFed Founding CEO  
IMPOWER, Inc.

102-8  
Con't

<sup>i</sup> AQMD, Draft Socioeconomic Report, page ES-3.

<sup>ii</sup> AQMD, Draft Socioeconomic Report, page ES-6.

<sup>iii</sup> AQMD, Preliminary Draft Socioeconomic Report, page 23.

<sup>iv</sup> AQMD, Final Draft AQMP, Table 4-5 and Appendix IV-B, Table 3.

<sup>v</sup> AQMD Preliminary Draft Socioeconomic Report, Table 2-1, Present Worth Value of Total Incremented Cost.

<sup>vi</sup> CARB, Mobile Source Strategy, May 2016, See description of "Further Deployment of Cleaner Technologies: On-Road Light-Duty Vehicles" found on page 74.

<sup>vii</sup> AQMD, Final Draft 2016 AQMP, Appendix IV-A, p. IV-A-69.

**Responses to Comment Letter from Los Angeles County Business Federation**  
**(Comment Letter 102)**

**Response to Comment 102-1:**

Staff appreciates comments on the Revised Draft 2016 AQMP and continued participation in the AQMP development process.

In Chapter 4 of the Draft Final Socioeconomic Report, staff evaluated the job impacts of two alternative scenarios with respect to funding of the incentive programs proposed in the Draft Final 2016 AQMP. The scenarios were chosen for economic impact evaluation not because they would be the most likely, but because they would represent extreme cases which provide the upper and lower bounds of the analysis of projected job impacts.

On one end of the spectrum, staff considered the case where all incentives would be funded by directly reallocating funds from existing state programs within the four-county region to be used for the proposed incentive programs. This scenario is expected to have the largest negative job impact because state government functions and operations exhibit some of the largest employment multipliers according to the REMI model of the regional economy. The large employment multiplier results from the fact that the government sector itself and the sectors to which a large portion of government spending goes to (e.g., construction or healthcare and social assistance) are relatively labor intensive. Therefore, a budget reduction of the existing public programs and services tends to have a greater negative regional job impact than do other fiscal mechanisms, such as levying new taxes on regional residents or introducing new fees for business operations.

In a scenario where incentives are instead financed by new taxes, the resulting decrease in household spending would not be concentrated in labor intensive industries. In addition, a proportion of that spending decrease would impact not only businesses inside the four-county region but also businesses located outside the region (i.e., greater leakage), thereby causing some of the potential negative job impacts from spending decreases to occur outside of this region. Similarly, increases in business operation costs through the introduction of new operation-related fees would affect a variety of industry sectors, but they are less likely to be as labor-intensive as those affected by a state budget reallocation. Moreover, certain fee structures, such as cargo handling fees on containers, would largely affect businesses located outside the region and may or may not indirectly affect their upstream suppliers within the region.

On the other end of the spectrum, staff considered the case where all the incentive programs would be funded from sources outside the region and would therefore have a negligible impact on individuals and businesses within region. This case would then represent the lowest impact funding scenario, an example of which is the scenario where the proposed incentive programs would be fully funded by existing federal revenue sources.

The Draft Financial Incentives Funding Action Plan for the Draft Final 2016 AQMP provides information on all potential funding opportunities. However, a systematic assessment of these opportunities through the public process is necessary to determine the most likely scenarios. It is therefore premature to examine the socioeconomic impacts of the most likely scenarios. Staff will conduct economic impact evaluations as the most likely scenarios are identified through the public working group process.

**Response to Comment 102-2:**

As stated in the preface of Chapter 2 in the November 19, 2016 version of the Draft Socioeconomic Report, the proposed mobile source measure “Further Deployment for Cleaner Technologies: On-Road Light-Duty Vehicles” is primarily designed to reduce greenhouse gas emissions and therefore it is recognized as providing the co-benefit of NOx and VOC reductions that are expected to be implemented even if the Draft Final 2016 AQMP is not adopted. Their costs are therefore not a result of the Draft Final AQMP and are not included in the socioeconomic assessment of the Draft Final 2016 AQMP.

Moreover, according to CARB’s economic impact analysis of the state’s mobile source strategy, there would be minimal direct costs on program participants from 2017, and at minimum, to 2023. This is because a large portion of the capital costs related to purchasing cleaner vehicles were assumed to be financed by incentive programs during the same period. Incremental costs of capital spending are expected only from 2023 to 2031, when incentives were conservatively assumed to be unavailable in CARB’s economic modeling (pages A-9 to A-10; the analysis is available at [https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc\\_appA.pdf](https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc_appA.pdf)).

However, it should be noted that, first, the purchase of cleaner light-duty vehicles will be voluntary and program participants are not expected to make the purchase unless it is economically advantageous to do so. Second, the additional cost estimated by CARB and subsequently analyzed in the Preliminary Draft Socioeconomic Report did not take into account cost-savings, including fuel and operating and maintenance savings for the entire period of 2017 to 2031. As a result, even if the net incremental costs of this measure would have been included in the analysis, they are expected to be significantly lower than the preliminary cost estimate and may result in overall net cost-savings. Whether this “Further Deployment” measure for on-road light-duty vehicles would result in net costs or cost-savings, those cost impacts are expected to occur even if the Draft Final 2016 AQMP is not adopted and therefore they are not a result of implementing the Draft Final 2016 AQMP.

**Response to Comment 102-3:**

Staff acknowledges the success of the RECLAIM program and its resultant emission reductions since its inception. Under the State law, the SCAQMD is required to conduct periodic BARCT assessments as pollution control technologies advance over time. Under the proposed control measure, the BARCT re-assessment would occur for the future and beyond the recent 2015 amendments to the program. Potential technologies that were identified in the December 2015 amendments would have further matured and based on past amendments, the control measure’s emission reduction target of 5 tpd from the NOx RECLAIM program by 2031 is reasonable. This control measure also proposes a serious consideration for an orderly sunseting of the RECLAIM program in order to create more regulatory certainty, reduce compliance burdens for facilities, and achieve more SIP-creditable emission reductions.

The Draft Final control measure CMB-05 states that a RECLAIM working group will be convened in the spring of 2017 to assess various aspects of the program, including a potential orderly transition to a command and control regulatory structure and possible overlays of command and control with cap and trade for some facilities. Socioeconomic analysis will be performed at the time of rule development. Also, see Response to Comment 26-13 regarding a range of potential emission reductions.

**Response to Comment 102-4:**

The SCAQMD staff acknowledges the concerns that Measures MOB-01 through MOB-04 and MOB-08 may cause a competitive disadvantage to the industry. It is the primary intent of the measures to work

collaboratively with affected stakeholders and the public to identify actions that will not be disruptive to the industry. MOB-01 through MOB-04 are proposed to help meet the State SIP Strategy “Further Deployment of Cleaner Technologies” measures emission reductions. The measures seek to work collaboratively with affected stakeholders and the public to identify actions that could help achieve the State SIP Strategy emission reductions. A working group will be created to help implement the measures.

MOB-08 discusses an approach to identify actions that can be quantified and SIP creditable. The measures include language to develop enforceable mechanisms such as a Surplus Off-Road Opt-In for NO<sub>x</sub> (SOON)-like rule for on-road trucks or expansion of existing fleet rules to private fleets if voluntary actions are not sufficient. Expansion of the fleet rules to private fleets would require U.S. EPA to grant a waiver under the Clean Air Act.

While staff appreciates the comment regarding new fuel and engine emissions standards, new engine emissions standards apply to new purchases of vehicles, but does not in themselves accelerate the turnover of older vehicles. As such, there is a need to identify actions whether they be voluntary or regulatory in nature, to help accelerate this turnover.

Also, see Response to Comment 23-5.

**Response to Comment 102-5:**

As noted in the Revised Draft 2016 AQMP, the “TBD” (to be determined) measures require further technical and feasibility evaluations and the attainment demonstration is not dependent on these measures. However, they are included in the AQMP as part of a comprehensive plan with all feasible measures in case there is a possible need for additional measures due to a shortfall in reductions. As emission reductions are realized and to the extent that the reductions can be SIP creditable, the reductions will be taken as part of future rate-of-progress reporting or as part of future AQMP revisions. Socioeconomic analyses will be performed when these measures can be further evaluated with technicality and feasibility assessments, along with quantified emission reductions.

For the SCAQMD TBD mobile source measures, emission reductions are accounted for under the CARB SIP Strategy so emission reductions are not listed to avoid overlap. These emission reductions will take place locally and will be determined when the programs, such as facility-based measures, are implemented.

**Response to Comment 102-6:**

Please refer to Appendix 2-A Pages A-7 to A-13 of the Draft Final Socioeconomic Report for the selection of different portfolios of technologies and equipment, and the assumptions used for those revisions. Previously, for ECC-03, CMB-02, and CMB-04, the cost estimates included the total cost of equipment and installation, whereas the revised cost estimates now reflect the incremental cost. Incremental cost was calculated as the difference between purchasing and operating a lower-emitting unit and a conventional unit and, when applicable, this difference was augmented by a factor to account for potentially accelerated equipment turnover.

**Response to Comment 102-7:**

Regarding the Advanced Clean Cars (ACC) mobile measure proposed by CARB, the economic analysis did not—as incorrectly claimed by the Commenter—assume that costs for ZEV or PHEV would rapidly decline over time; instead, fixed vehicle costs were conservatively assumed in the analysis. (For more cost

information and assumptions, please refer to page 2-A-34 of Appendix to the November 2016 version of the Draft Socioeconomic Report, available at [http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/draft/DraftSocioRpt\\_111816.pdf](http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/draft/DraftSocioRpt_111816.pdf), and page A-44 of the May 2016 version of Appendix A (Economic Impact Analysis) of the Mobile Source Strategy, available at <https://www.arb.ca.gov/planning/sip/2016sip/2016mobsr appA.pdf>.)

As the proposed ACC measure is expected to begin implementation in 2026, the expected lifetime of the clean vehicles that would come online as a result of this measure would very likely extend well beyond the attainment year 2031. SCAQMD staff's analysis accounted for cost and cost-savings during the entire equipment life, even if the end of equipment life is beyond 2031. By doing so, the overall cost of the proposed ACC measure was estimated at an amortized average annual savings of \$90.8 million. The estimated cost-savings is not a result of any assumption regarding projected vehicle costs, but rather as a result of reduced operation, maintenance and fuel costs (electricity and hydrogen versus gasoline).

The analysis was based on the best available data of the expected vehicle cost and costs of operation and maintenance including fuel cost at the time of cost development. The cost assumptions are the standard assumption used by ARB, and they have been used in the State Implementation Plan, Mobile Source Strategy, and the Scoping Plan. The Mid-term Review document referenced in the comment letter has not yet been released and CARB staff does not expect a major update on cost assumptions.

**Response to Comment 102-8:**

The Preliminary Draft Socioeconomic Report was released on August 31, 2016 with a comment period of 60 days. The preliminary draft covered the estimates for costs and benefits of the Draft AQMP and were released earlier to maximize the review time for the public and stakeholders. The Draft Socioeconomic Report was released on November 19, 2016, with an additional public review and comment period of 30 days that ended on December 19, 2016.

As for the claim that the Revised Draft AQMP and the Socioeconomic Report are not complete, the complete Draft Final AQMP documents were released in December 2016 for public review. There were minor revisions to the October 2016 version, for which socioeconomic analyses have been updated. The Draft Final Socioeconomic Report does reflect the Draft Final AQMP. Staff believes that there is sufficient time to comment on the revisions prior to the SCAQMD Governing Board's consideration of the 2016 AQMP in February 2017.

The Financial Incentive Funding Action Plan provides information on all potential funding opportunities. However, a systematic assessment of these opportunities through the public process is necessary to determine the most likely scenarios. It is therefore premature to examine the socioeconomic impacts of a specific scenario. Staff will conduct further economic impact evaluations as the most likely scenarios emerge through the public working group process.

While there were overlapping releases of the AQMP and supporting documents to maximize transparency and time for review, the draft final analyses are consistent.

**Comment Letter from Southern California Leadership Council (SCLC)**  
**(Comment Letter 103)**



**SOUTHERN CALIFORNIA  
LEADERSHIP COUNCIL**

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Managing Director

January 4, 2017

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 92765

**Re: Comments Concerning the South Coast Air Quality Management  
District's Final 2016 Draft Air Quality Management Plan.**

Dear Dr. Fine,

On behalf of the Southern California Leadership Council ("SCLC") and the undersigned group of partner organizations, we thank you for the opportunity to review and comment on the final draft of the 2016 Air Quality Management Plan (the "Draft AQMP"). Our group is comprised of leading Southern California business and industry organizations.

Each of our organizations appreciates the assistance provided by, and the hard work of, the staff of the South Coast Air Quality Management District (the "District") in the many months leading up to the final Draft AQMP. As we restate and amplify the issues set forth below, we look forward to additional helpful discussions with the District's staff.

Our organizations are particularly focused on assuring that the District will continue the region's historic progress toward safer air quality, while avoiding any and all unnecessary negative economic and societal impacts. In particular, we share the District's aim for air quality that is cleaner yet; but we do so in light of the ongoing need to assure that there will be full employment and sufficient housing for the District's growing population. With that in mind, we recognize the District's attempts to provide economic analyses, including an evaluation of the AQMP's impact on jobs and job creation. We regret the fact, however, that the District's analysis to date remains incomplete and is dismissive of many of the legitimate concerns that have been brought forward to date. Our groups will continue to work with the District and other stakeholders to assure that sound science and strong economic analyses are met with equally sound regulatory policies as we pursue our shared aims.

103-1

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Given this backdrop, we respectfully submit the following comments for your consideration:

**I. The final Draft AQMP includes incentive-based emissions reduction programs that are incomplete and without a clearly defined funding source. d.**

In our comments that were lodged in response to previous drafts of the AQMP, SCLC and like-minded organizations applauded the District staff's then-proposed reliance on the use of financial incentives to accelerate the penetration of, for example, zero-emission and near-zero emission technologies, and to further reduce emissions from other mobile and stationary control measures. Indeed, our organizations generally favor incentive based programs over the far less flexible and more imposing command and control regulations.

Our earlier comments focused on the ongoing uncertainty about means by which the District may secure such funding for incentive-based programs. Specifically, we emphasized that the chosen means of generating revenue to support incentive programs should be fairly imposed on a broad base of the affected society, consistent with the broadly-shared societal benefits of the District's efforts to further improve air quality. For example, we have particularly emphasized that the new development and redevelopment that will take place within the District's jurisdiction should not be disproportionately targeted and burdened as sources of revenue for incentives programs.

We remain disappointed that (i) the final version of the Draft AQMP reflects a lack of information concerning the sources of funding for the promised incentive based programs, and (ii) the Draft AQMP still suggests that the District may impose unduly burdensome and excessive exactions on the activities that are most vital to our economy – vital industries and commerce, community development and redevelopment. We continue to urge the District to recognize that incentive-based approaches show the greatest promise as the means to foster and accelerate the acceptance of beneficial fleet and fuel changes in the mobile source context across the District and region.

Our organizations believe that steady changes in mobile sources, achieved over the lengths of time will avoid undue economic dislocation and the stranding of investments, constitute the best path by which to achieve further air quality improvements. Presently, it remains unclear whether the District intends to more radically accelerate fleet and fuel change by imposing crushing exactions on unduly narrow segments of the economy. To the extent that such a potential remains, we respectfully wish to see that potential negated. The District's use of incentive-based approaches in the mobile source context will be wise in the end only if it is tempered with both realistic timelines for change and evolving consumer acceptance, as well as fair, moderate and broad-based funding mechanisms for such programs.

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103-1  
Cont

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**II. The District must recognize the primacy of local governmental control over land use decisions, and must avoid imposing any indirect source controls that could stultify development and redevelopment and thus harm the region's economy.**

The Draft AQMP continues to reflect a vague, "to be determined" measure labeled as EGM-01, which holds forth the prospect of an indirect source regulation affecting land use. The stated purpose of this measure is to mitigate and reduce emissions from new development and redevelopment projects. Although the eventual definition of EGM-01 remains uncertain, the District's responses to earlier comments continue to imply the potential for the imposition of new fees on development and redevelopment throughout the District, perhaps in ways similar to Rule 9510 adopted by the San Joaquin Valley Air Pollution Control District.

Our organizations remain extremely concerned about any prospects of such new impositions on new development and redevelopment in the region. Our concerns fall within three categories. First, we are opposed to new fees impacting development and redevelopment which may conflict with or be imposed in addition to the already highly excessive costs and exactions imposed by the California Environmental Quality Act, or may add still more to the procedural burdens currently associated with land use approvals.

Second, as noted above, we oppose all proposed solutions that would impose disproportionate burdens on new development and redevelopment in comparison to the impositions on all citizens shared more broadly and concurrently with one another. We would view disproportionate burdens on new development and redevelopment as economically unreasonable, as well as potentially being unconstitutional (i.e., a so-called "regulatory taking").

Third, our organizations continue to champion the primacy of local governments' decision-making powers concerning questions of land use and development – consistent with democratic principles and the fact that development invariably unfolds in response to popular demand that arises organically and generally in reaction to countless influences and growing populations. We are increasingly concerned, therefore, that unduly constrictive projections about overall transportation demand and aggregate vehicle miles traveled will eventually collide with existing local governments' prerogatives concerning land use approvals. This potential collision of imperatives deserves much more public scrutiny, debate and enlightened understanding than the District and the various agencies with which it interacts (CARB, EPA and SCAG) have provided to date.

Because EMG-01 is undefined as set forth in the Draft AQMP, and because it hints at the prospect of a new land use approval regime, our organizations look forward to participating in further discussions with the District to make sure that the District's clean air goals do not unduly impeded sensible, locally-based land use prerogatives. Especially, the District must avoid both (i) undermining the prerogatives that local governments continue to enjoy under the SB 375 regime, and (ii) imposing heavy exactions that would have the same effect. In addition, the District will

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need to be strictly mindful of the limitations of its enabling statutes if and whenever it were ever to bring forward any proposal affecting local land use prerogatives.

103-2  
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**III. The proposed measures denominated as MOB-1 through MOB-4 and MOB-8 would harm goods movement and the industries related thereto, and should be entirely reconsidered.**

Our organizations continue to oppose the proposed control measures denominated as MOB-1 through 4 and MOB-8. Efficient and economical goods movement is essential to the region's overall economy, especially given that our region is home to the busiest and most important ports in the nation. Emissions related to goods movement should be addressed gradually and without undue local disruption through both fleet change incentives and reasonably paced technological changes, such as the affordable, appropriately gradual adoption of fuel and engine-type changes, which can most sensibly be achieved through standards for new vehicles. To the extent that the above-referenced MOB measures might be read to invite arbitrary caps on goods movement facilities and limitations on diffuse and dynamic goods movement activities, we continue to urge their rejection.

103-3

**IV. The District should reconsider and recast all measures that are proposed without quantified air quality benefits.**

The final Draft AQMP continues to discuss various measures for which no air quality benefits are quantified, referred to as "to-be-determined" or "TBD" measures. A broad reading of the final Draft AQMP suggests that the AQMD's implementation should be able to meet the federally imposed air quality standards even if all such TBD measures were to be forgone. Accordingly, our organizations urge the District to either forgo all such TBD measures in the AQMP, or incorporate only those for which both the costs and benefits of the measures can be identified and vetted publicly before they are included. Importantly, meaningful socio-economic analyses becomes impossible if and to the extent that TBD measures infiltrate the AQMP. Therefore, to the extent that the merits of such measures cannot be reasonably defined, demonstrated and quantified in the current AQMP process, such measures should be identified only as possible areas of future study and consideration.

103-4

**V. Our organizations urge the District to forgo CMB-05, which as proposed, would make further adjustments to the RECLAIM program outside of the recently completed, arduous process for updating the program.**

The final Draft AQMP continues to suggest that the District may consider the eventual abandonment of the RECLAIM program. We oppose any such abandonment. We also note that the Draft AQMP includes a measure (CMB-05) that proposes to make a downward adjustment in permissible NOx emissions under the RECLAIM program applicable to stationary sources.

103-5

Less than a year ago, the RECLAIM program was updated through a process that was, as is typical, robustly attended by all constituencies, and at which large volumes of detailed evidence were provided. The recent program updates reflect a remarkable degree of voluntary concessions,

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stakeholder engagement and broad-based agreement. In light of this, we believe that the AQMP process is not the proper vehicle through which to make any lurching changes or existential threats to the RECLAIM program, given that the District, its committees and Board, and all constituents are necessarily now focused on a much broader range of issues. Accordingly, we continue to urge the District to remove CMB-05 as a measure, and rely instead on the discrete, robust process for future adjustments to the RECLAIM program.

103-5  
Cont

**VI. The District needs to take a more robust posture against overly burdensome and unachievable federal and state air quality mandates.**

Our organizations recognize that the District is legally responsible for taking action to meet goals and stay within parameters mandated by state and federal law, particularly by the U.S. Environmental Protection Agency and the California Air Resources Board. Indeed, the District has long been tasked with trying to achieve increasingly stringent federal standards that are imposed disparately on our highly populous and economically important South Coast region.

But the fact that the District is subject to paramount state and federal law does not relieve the District from its thus far unmet obligation to advocate firmly and successfully for reasonable moderation from these higher levels of government. The District must recognize and respond to the fact that the interests of the citizens who reside in the District are threatened by impossible-to-meet and crushing mandates from these state and federal regulatory institutions.

SCLC and its partner organizations continue to urge the District to take a more clear-headed and circumspect stance vis-à-vis the increasingly difficult state and federal targets and mandates that the District is being asked to meet. Many of the most recent federally imposed criteria air pollution standards are based on scientific (health) justifications that are arguable at best and do not take into account the tremendous strides in air quality that have already been achieved by the District. Moreover, air quality standards and timelines are imposed and expected to be met without any regard for non-anthropogenic, natural background loads and the practical realities of our air basin's unique topography and vast economy. Respectfully, the District should identify, investigate and tackle such issues with an eye toward the unique challenges that we face in the region as a growing population and vitally important economy, and effectively challenge the promulgating agencies.

103-6

Our South Coast region has already seen tremendous improvements in air quality in recent decades, but not without very serious economic costs. Achieving still cleaner air quality is reasonably possible only through careful, measured, sensible steps undertaken with great care concerning the economic consequences. Our region's economy will be crippled if the District dutifully implements aggressive and uncritical state and federal mandates, knowing that they will force rapid and extensive transformation on industries that are unable to accommodate such change. When warranted, the District must be willing to push back persuasively against unrealistic state and federal mandates, and work to identify and secure more reasonable and achievable pathways and timelines for reaching the targets that are established.

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**VII. Conclusion**

Once again, we wish to applaud the District and its staff for their efforts concerning the AQMP. We hope that the final AQMP will reflect the District's respect for and appreciation of the concerns we have articulated in this letter. We thank you for your consideration of these comments, and for your ongoing work with us and all stakeholders.

Respectfully submitted,



Richard Lambros  
Managing Director



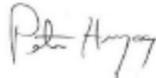
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Peter Herzog  
Assistant Director of Legislative Affairs



Rob Evans  
Executive Director



Bryan Starr  
Sr. Vice President, Government Affairs



Clayton Miller

Clayton Miller  
Executive Vice President



**Responses to Comment Letter from Southern California Leadership Council (SCLC)**  
**(Comment Letter 103)**

**Response to Comment 103-1:**

The Draft Financial Incentives Funding Action plan was prepared as a companion document to the 2016 AQMP (<http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/draftfinancialincentivefunddec2016.pdf?sfvrsn=6>), which maps out the possible opportunities to ensure the proposals will secure funding. Such funding is being sought at federal, state and local levels. The list of potential funding opportunities is listed in Table ES-1 of the Funding Action Plan. The list of opportunities is not meant to be exhaustive, but sufficiently extensive to provide discussion on potential next steps to realize such funding. Some of the potential funding opportunities are quantified based on actual data and an assumed monetary level to generate the revenues shown in the table. These assumptions do not presume that if such opportunities are pursued that the revenue levels will be achieved after vetting through a public process, but rather serve as examples of the revenue levels that could be realized with the assumed level of implementation.

There are seven guiding principles proposed in the Draft Funding Action Plan that address the concerns regarding economic impact on the funding source and the recognition that existing funding should not be diverted to help meet the emission reductions in the 2016 AQMP.

Also, see Response to Comment 57-3.

**Response to Comment 103-2:**

SCAQMD staff appreciates the concerns expressed regarding land use, CEQA, relationship with SB 375, and equity. Your concerns will be discussed as part of the public process in implementing EGM-01. Also, see Response to Comment 93-3.

**Response to Comment 103-3:**

See Response to Comment 93-4 with regards to the proposed facility-based and fleet rule measures.

**Response to Comment 103-4:**

See Response to Comment 93-5 with regards to “TBD” measures.

**Response to Comment 103-5:**

See Responses to Comments 75-1 and 93-6 with regards to the RECLAIM control measure.

**Response to Comment 103-6:**

See Response to Comment 57-8 regarding challenging the promulgating agency as to the stringency of air quality standards and mandates.

**Comment Letter from Automobile Club of Southern California (AAA)**  
**(Comment Letter 104)**



Automobile Club of Southern California

AAA.com

January 9, 2017

Mr. Wayne Nastri  
Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765  
[wnastri@aqmd.gov](mailto:wnastri@aqmd.gov)

Re: Draft Financial Incentives Funding Action Plan

Dear Mr. Nastri:

The Automobile Club of Southern California respectfully submits the following comments on the Draft Incentive Funding Action Plan released December 16, 2016. These comments are a follow-up to our November 29, 2016 letter, attached, on the Air Quality Management Plan (AQMP). We are writing now with specific concerns about the Draft Action Plan's funding options, which include imposing new or increased taxes or fees on passenger vehicles to pay for emissions reduction programs primarily for heavy-duty and off-road commercial vehicles and equipment.

104-1

Private passenger vehicle owners and operators already pay a disproportionate share of revenues for air quality programs compared to their contribution of NOx. The proposed plan would exacerbate the situation. A significant portion of SCAQMD ongoing revenues currently come from taxes and fees on passenger vehicles paid at the time of vehicle purchase and annual registration (See Tables III-1). Despite this, up to six out of the 17 potential increased funding sources identified in the Draft Action Plan involve additional taxes or fees on passenger vehicle owners (Table IV-1). In fact, just one option, increasing light-duty motor vehicle registration fees, could generate up to 24 percent of the \$1 billion annual new revenues proposed for AQMP programs.

*The Draft Action Plan's proposal to use motor vehicle fuel tax revenues is unrealistic and likely unconstitutional.* Despite relatively high motorist taxes, fees, and other charges, roads in California are in poor condition and in need of additional resources. The Governor and legislative leaders are poised to increase gas and other motorist taxes and fees to pay for road repairs and other transportation efforts. Increasing them still further to provide more money for the AQMD is a political non-starter. In addition, Article XIX of the State Constitution limits the uses of motorist taxes and fees, including the gas tax. Eligible uses include "research, planning, construction, improvement, maintenance, and operation of public streets and highways." Off-road equipment and vehicles (e.g., leaf blowers, back-up generators, off-road construction equipment, ATV motor

104-2

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bikes, etc.) that do not operate on “public streets and highways” would be entirely prohibited from receiving gas taxes paid by motorists.

104-2  
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*The Auto Club supports effective efforts to reduce both criteria pollutant and greenhouse gas emissions, but motorists, with the cleanest vehicles, should not be required to pay for emissions from heavy-duty on- and off-road vehicles and equipment, the dirtiest vehicles.* Owners and operators of such equipment should pay to clean them up, just as private passenger vehicle owners and operators have paid, and continue to pay, to substantially reduce emissions from light-duty vehicles. The Draft Action Plan should accurately and completely inventory the numerous taxes, fees, costs, and other charges that motorists now pay to reduce both criteria pollutant and greenhouse gas emissions, relative to other mobile sources, including on- and off-road heavy-duty vehicles and equipment.

104-3

*The technical merits, feasibility, and effectiveness of the Draft Action Plan have not been fully vetted and analyzed by subject experts. Therefore, it is premature to adopt the plan as a mechanism to implement the AQMP.* Approving the Draft Action Plan, as presented, at the same time as the proposed AQMP is essentially “putting the cart before the horse.” The Draft Action Plan needs more input from subject area experts regarding its economic, legal, and political viability before it moves forward.

104-4

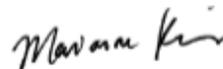
*The Auto Club has a long history of supporting and participating in fair and effective strategies, including appropriate taxes and fees, to reduce motor vehicle emissions and improve air quality. But there must be a clear nexus between the payer and the problem that is being addressed or the beneficiaries of the use of funds paid.* We first endorsed a 2-cent per gallon gas measure in 1923 and numerous fair, effective, and appropriate motorist taxes and fees since. But we oppose increasing or adding new motorist fees or taxes to support emission reduction programs primarily for commercial vehicles and equipment, thereby “shifting the burden” away from the primary polluters.

104-5

Moving forward, we hope to be part of the public-private partnership in advancing initiatives identified in the plan that will bring the Basin into conformity (See Page V-6) using fair and equitable funding options. Toward that end, we would like to offer our service and expertise on the Financial Incentives Funding Working Group. We look forward to helping the SCAQMD develop and approve a plan that can achieve air quality goals in a fair and equitable manner.

Thank you for this opportunity to provide the Auto Club’s comments on the 2016 AQMP. Please call me at (714) 885-2325 or email me [kim.marianne@aaa-calif.com](mailto:kim.marianne@aaa-calif.com) if you have any questions.

Respectfully,



Marianne Kim  
Senior Public Policy Analyst



Automobile Club of Southern California

AAA.com

November 29, 2016

Mr. Wayne Nastri  
Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765  
[wnastri@aqmd.gov](mailto:wnastri@aqmd.gov)

Re: Draft 2016 Air Quality Management Plan and Incentive Funding Action Plan

Dear Mr. Nastri:

The Automobile Club of Southern California is pleased to submit the following comments on the Draft 2016 Air Quality Management Plan (AQMP) and its accompanying Incentive Funding Action Plan. The Auto Club is submitting these comments because we are concerned that the South Coast Air Quality Management District (SCAQMD) is considering and may seek authority to increase light-duty vehicle registration fees in order to fund programs and subsidies designed to reduce emissions primarily from heavy-duty and off-road commercial vehicles and mobile off-road equipment.

Private passenger vehicles, including both light-duty automobiles and light-duty trucks, contributed about 17% of total nitrogen oxide (NOx) emissions from mobile sources in 2012, the baseline year for the AQMP. Reducing NOx emissions is a primary focus of the AQMP. Over the past few decades, there have been substantial reductions in light-duty vehicle emissions, including NOx. These reductions have been achieved because numerous vehicle and fuel requirements have been put in place over this time period, with costs borne by drivers when they purchase, fuel, and maintain their vehicles. And, the emissions reductions have been achieved despite a substantial increase in the total number of vehicles and total miles those vehicles are driven. This success has been one of the key ways air quality has been markedly improved in the South Coast Air Basin.

Heavy-duty and off-road commercial vehicles and mobile off-road equipment have yet to achieve similar emission reductions and now account for 83% of mobile source NOx emissions, even though there are far fewer of them than private passenger vehicles. Clearly, more needs to be done to reduce emissions from heavy-duty and off-road mobile sources. But it is inherently unfair and inappropriate to increase registration fees on the cleanest, light-duty vehicles, and the consumers who own and use them, to pay to clean-up the dirtiest mobile sources in the Basin.

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The Auto Club, with 6.8 million members, has a long history of supporting and participating in fair and effective strategies to reduce motor vehicle emissions and improve air quality. Auto Club efforts over the years have included the following:

- Researching and providing consumer information about alternative-fuel and other green vehicles.
- Supporting fuel conservation and air quality programs, including carpooling and public transit.
- Supporting more ambitious fuel economy standards for auto manufacturers.
- Researching and providing information about proper vehicle maintenance.

The Auto Club also partners with state and regional organizations to provide, and better use, funding for transportation projects and programs to improve mobility, safety, and the environment. We are a founding member of Mobility 21, Southern California's transportation funding advocacy coalition. We helped develop and supported numerous county transportation sales tax measures and measures to protect transportation funds. And we currently serve on the state's Road Charge Committee, exploring practical pathways to implement mileage-based user fees to pay for transportation improvements. The mobility and emissions benefits of these efforts are important parts of achieving air quality goals in the Basin.

The share of NOx emissions from private passenger vehicles continues to decline. The AQMP's Appendix III "Summer Planning Emissions" detail tables indicate that the proportion of mobile source NOx emissions from light-duty vehicles is projected to decline from 17% to 7% over the next 15 years, even with expected increases in population, registered vehicles, and total miles travelled. Like in the past, these declines will come from continuing improvements in light-duty vehicle technology and efficiency. But, despite these relatively low and declining percentages, the SCAQMD is considering increasing light-duty vehicle registration fees by as much as \$30 to pay to clean-up heavy-duty vehicles and off-road equipment.

California motorists already pay to help clean-up heavy-duty vehicles and equipment. Most vehicle owners in the Basin currently pay as much as \$30 in extra registration fees to the state for a variety of emissions-related programs, a portion of which goes to the SCAQMD. While some of this revenue is used for light-duty clean-vehicle rebates and early vehicle retirement programs, most is used to pay for incentive programs to subsidize on-road heavy-duty vehicles and off-road mobile equipment. The SCAQMD should not exacerbate this situation by imposing additional fees on light-duty vehicles to pay to clean-up heavy-duty vehicles and mobile equipment. The owners and operators of such vehicles and equipment should bear the burden of cleaning them up.

The Auto Club appreciates the difficult task the SCAQMD has in preparing an updated AQMP that meets federal and state air quality requirements. Moving forward, we hope to be a partner in advancing initiatives identified in the plan that will bring the Basin into conformity. Toward that end, we would like to offer our service and expertise on the Incentive-Based Funding Plan Stakeholder Group. We look forward to helping the SCAQMD develop and approve a plan that can achieve air quality goals in a fair and equitable manner.

Thank you for this opportunity to provide the Auto Club's comments on the 2016 AQMP. Please call me at (714) 885-2325 or email me [kim.marianne@aaa-calif.com](mailto:kim.marianne@aaa-calif.com) if you have any questions.

Respectfully,



Marianne Kim  
Senior Public Policy Analyst

**Responses to Comment Letter from Automobile Club of Southern California (AAA)**  
**(Comment Letter 104)**

**Response to Comment 104-1:**

SCAQMD staff understands the concerns raised. The Draft Funding Action Plan was prepared with the understanding that any proposed funding opportunity that is pursued would go through a public process. The concerns raised will be part of the discussions as part of this process. Also, see Response to Comment 100-6.

**Response to Comment 104-2:**

SCAQMD staff appreciates the comments made regarding motor vehicle fuel tax. The potential sources of revenues to fund incentives programs discussed in the Draft Funding Action Plan were meant to engender discussion. As such, the Plan does not summarize issues related to the challenges and authority to creating new funding sources. Staff will be discussing the challenges, authority, and limitations including the concerns raised on each of the potential opportunities as part of the public process after the adoption of the 2016 AQMP. Staff can consider suggestions such as additional fees for heavy-duty vehicles.

**Response to Comment 104-3:**

As part of the public process, SCAQMD staff plans to discuss in further detail each of the potential opportunities including a discussion on the existing surcharges imposed for each sector.

**Response to Comment 104-4:**

As discussed above, the potential funding opportunities are presented for public discussion purposes. SCAQMD staff is not recommending moving forward with any specific proposal at this time. The Draft Funding Action Plan proposes a set of activities and a schedule for the activities. SCAQMD staff will be seeking the SCAQMD Governing Board's approval to proceed with the activities necessary to secure new funding, but will not be seeking direction to pursue specific potential opportunities prior to the stakeholder process.

**Response to Comment 104-5:**

SCAQMD staff believes that the potential opportunities discussed in the Draft Funding Action Plan cover the major mobile source categories. We look forward to the Automobile Club's participation on the Working Group. During the discussions on funding opportunities as part of the public process, there will be discussions on the nexus between the funding source and the beneficiaries of the funds.

**Responses to the November 29, 2016 Attachment to this comment letter are found in Responses to Comment Letter 100.**

**Comment Letter from Western States Petroleum Association (WSPA)**  
**(Comment Letter 105)**



**Western States Petroleum Association**  
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Patty Senecal  
Director, Southern California Region

January 4, 2017

Via email: [PFine@aqmd.gov](mailto:PFine@aqmd.gov)

Dr. Philip Fine  
Deputy Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

**Re: Comments on the Final Draft Air Quality Management Plan (AQMP)**

Dear Dr. Fine:

Western States Petroleum Association (WSPA) is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California, Arizona, Nevada, Oregon and Washington. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA member companies operate petroleum refineries and other facilities in the South Coast Air Basin and thus have a major stake in the Air Quality Management Plan (AQMP) being prepared by the South Coast Air Quality Management District (SCAQMD or District), and any rule developments that might stem from the final AQMP as adopted by the District's Governing Board.

WSPA submitted comments on the Revised Draft version of the AQMP on 4 November 2016 which comments are incorporated herein by reference (see attached copy). WSPA also supports the comments made by BizFed on January 4, 2017 concerning the Final Draft AQMP.

Additionally, WSPA has the following comments concerning the Final Draft AQMP.

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 Page 2

1. The Final Draft AQMP continues to propose a number of control measures for which there are no quantified emissions benefits and no costs presented. Given the Final Draft AQMP's clear demonstration that these measures are not needed for either the ozone or PM<sub>2.5</sub> attainment demonstrations, they should be removed from the control strategy.

The Final Draft AQMP continues to include a number of proposed control measures which are demonstrated in the plan as unnecessary for reaching the region's "carrying capacity."<sup>1</sup> These additional measures are presented with no quantified emissions benefits and are often vaguely described as to what the proposed measures would even require. Such extraneous measures include:

Number	Title	Emission Reductions (tpd) (2023/2031)
MCS-01	Improved Breakdown Procedures and Process Re-Design [All Pollutants]	N/A
MCS-02	Application of All Feasible Measures [All Pollutants]	TBD
FLX-02	Stationary Source VOC Incentives [VOC]	TBD
BCM-02	Emission Reductions from Cooling Towers [PM]	TBD
BCM-03	Further Emission Reductions from Paved Road Dust Sources [PM]	TBD
BCM-05	Ammonia Emission Reductions from NOx Controls [NH3]	TBD
BCM-06	Emission Reductions from Abrasive Blasting Operations [PM]	TBD
BCM-07	Emission Reductions from Stone Grinding, Cutting and Polishing Operations [PM]	TBD
BCM-08	Further Emission Reductions from Agricultural, Prescribed and Training Burning [PM]	TBD
BCM-09	Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves [PM]	TBD
EGM-01	Emission Reductions from New Development and Redevelopment Projects [All Pollutants]	TBD
MOB-01	Emission Reductions at Commercial Marine Ports [NOx, SOx, PM]	TBD
MOB-02	Emission Reductions at Rail Yards and Intermodal Facilities [NOx, PM]	TBD
MOB-03	Emission Reductions at Warehouse Distribution Centers [All Pollutants]	TBD
MOB-04	Emission Reductions at Commercial Airports [All Pollutants]	TBD
MOB-05	Accelerated Penetration of Partial Zero-Emission and Zero-Emission Vehicles [VOC, NOx, CO]	TBD

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<sup>1</sup> AQMD, Final Draft AQMP, Chapter 4

Dr. Philip Fine  
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 Page 3

MOB-06	Accelerated Retirement of Older Light-Duty and Medium-Duty Vehicles [VOC, NO <sub>x</sub> , CO]	TBD
MOB-07	Accelerated Penetration of Partial Zero-Emission and Zero-Emission Light-Heavy- and Medium-Heavy-Duty Vehicles [NO <sub>x</sub> , PM]	TBD
MOB-08	Accelerated Retirement of Older On-Road Heavy-Duty Vehicles [NO <sub>x</sub> , PM]	TBD
MOB-09	On-Road Mobile Source Emission Reduction Credit Generation Program [NO <sub>x</sub> , PM]	TBD
MOB-12	Further Emission Reductions from Passenger Locomotives [NO <sub>x</sub> , PM]	TBD
MOB-13	Off-Road Mobile Source Emission Reduction Credit Generation Program [NO <sub>x</sub> , SO <sub>x</sub> , PM]	TBD

105-1  
 Con't

Given the clear demonstration that these measures are not needed for ozone or PM<sub>2.5</sub> attainment, they should be removed from the control strategy.

1. The costs presented for proposed control measure CMB-05 (RECLAIM) in the Final Draft AQMP continue to be significantly understated. This understatement compromises the Governing Board's ability to make informed policy decisions. The proposed measure should be changed to reflect a range of potential emission reductions (e.g., 3-5 TPD NO<sub>x</sub>), and the document should be revised to reflect the projected cost information which was previously supplied to AQMD Staff by industry as the result of a confidential cost survey conducted by a third party contractor under contract to WSPA.

105-2

The Final Draft AQMP continues to report costs and cost effectiveness for proposed measure CMB-05 which we believe are understated. The figures are supposedly based on information in the Staff Report for the December 2015 amendments to Regulation XX. However, as previously noted by WSPA in several other comment letters, the District has been provided information that demonstrates that the projected cost for refinery sector emission reductions, beyond those required under the December 2015 amendments would be significantly higher than AQMD Staff estimates. Please see WSPA's comment letter (dated 19 December 2016) on the Draft Socioeconomic Report.

Proposed measure CMB-05 should be changed to reflect a range of potential emission reductions (e.g., 3-5 TPD NO<sub>x</sub>), and the cost effectiveness and socioeconomic analyses should be revised to reflect the far more realistic cost information previously supplied to AQMD Staff.

2. The proposed Low-Emission Diesel Fuel Requirement measure is poorly defined and inadequately analyzed.

105-3

Under the Low-Emission Diesel Fuel Requirement measure, the portion of the heavy-duty fleet that chooses to continue operating on internal combustion engines, instead of adopting the expectedly more cost-effective zero and near-zero emission technologies, is anticipated to incur additional costs due to the proposed requirement to utilize low-emission diesel fuel.

WSPA continues to have several key questions regarding Low-Emissions Diesel (LED).

Dr. Philip Fine  
January 4, 2017  
Page 4

- While the Report limits its analysis of this measure to off-road equipment, the discussion suggests this LED requirement could apply to all diesel sales (i.e., on-road and off-road). Please explain/confirm the following:
- Whether this measure is actually limited to off-road equipment?
- What is the disposition of conventional gas to liquids (GTL) fuels and other like fuels in this strategy?
- Has AQMD or the Air Resources Board considered the negative fuel efficiency impacts associated with high percentage blends of renewable diesel?
- Why add the carbon intensity component to the low emission diesel when the LCFS standard and Cap & Trade program already does this?

105-3  
Con't

By CARB's own projections, later model year trucks equipped with NO<sub>x</sub> traps and PM filters would constitute more than 90% of the off-road equipment fleet by 2023. In addition, there is another measure in the Mobile Source Strategy that drives the engine manufacturers to even lower exhaust emission targets. With those two key elements, it is not clear what the benefits of requiring this potentially costly fuel would be.

- CARB and AQMD should provide a forecast of market share for legacy on-road diesel vehicles in 2025 as well as the projected off-road fleet. Such analysis should separate the impact of vehicle technology from the potential emissions impacts of low emission diesel fuel.
- Such analysis should explain the incremental benefit of the low emission diesel fuel over new technology vehicles.

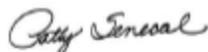
Creating a new LED fuel standard for off-road equipment would force a separate distribution requirement on the industry which would carry with it significant new costs which have not been analyzed.

WSPA appreciates the opportunity to submit these comments. Lastly, we remain concerned about the late and non-sequential release of important AQMP products. This includes a December 2016 revision to the State SIP Strategy which has not yet been made fully available to stakeholders, and a Draft Socioeconomic Report which does not correspond to the Final Draft AQMP. Given these circumstances, stakeholder review and comment on this AQMP has been made extremely challenging. WSPA may be left with no alternative but to submit additional comments during this process as the District and CARB release additional revisions to the AQMP documents. We understand all submissions will be given due consideration by the District staff and the Governing Board.

105-4

If you have any questions, please contact me at (310) 808-2144 or at [psenecal@wspa.org](mailto:psenecal@wspa.org).

Sincerely,



cc: Wayne Natri, Executive Officer, SCAQMD  
cc: Catherine Reheis-Boyd, President, WSPA

**Responses to Comment Letter from Western States Petroleum Association**  
**(Comment Letter 105)**

**Response to Comment 105-1:**

Please see Response to Comment 7-5 regarding the proposed “TBD” measures and Response to Comment 38-5 regarding mobile source measures.

Also, see Responses to Comments 88-9 and 93-5.

**Response to Comment 105-2:**

See Response to Comment 72-13 regarding costs and cost-effectiveness for the proposed measure CMB-05. Also, see Response to Comment 26-13 regarding a range of potential emission reductions.

**Response to Comment 105-3:**

The Low-Emissions Diesel (LED) measure is a proposal in the State SIP Strategy and discussed in Appendix IV-B of the Draft Final 2016 AQMP. At this time, LED-type fuels such as renewable diesel fuel show some NOx emission reduction benefits when used in vehicles and off-road equipment that do not have selective catalytic reduction (SCR) after-treatment. The use of LED fuels is not limited to off-road equipment. At this time, SCAQMD staff believes that this may be a more cost-effective strategy for off-road equipment since many of these equipment do not have SCR after-treatment. Additional tailpipe emissions and fuel economy measurements will be conducted to confirm the level of NOx emission benefits. If there are additional benefits for older on-road diesel trucks, staff would encourage the use of such fuels. Staff believes that with the additional greenhouse gas benefits of certain low-emissions diesel fuels, that producing one fuel product meeting any future LED fuel standard for off-road and on-road vehicles may be more cost-effective, but welcomes a discussion regarding the costs associated with producing such fuels.

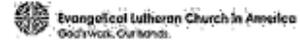
Also, see Response to Comment 27-9 in the Socioeconomic Report.

Your comments will be forward to CARB for their consideration.

**Response to Comment 105-4:**

See Responses to Comments 102-8 and 30-3 with regards to schedule and release of the AQMP and supporting documents.

**Comment Letter from California Interfaith Power & Light**  
**(Comment Letter 106)**



January 6, 2017

Dr. William Burke, Chairman  
South Coast Air Quality Management District Governing Board  
21865 Copley Drive  
Diamond Bar, California 91865

Dear Dr. Burke,

We, a coalition of religious community organizations, representing hundreds of thousands in the faith community in the South Coast region, are writing to you in regards to the proposed revision of the SCAQMD's Air Quality Management Plan. Our diverse faith traditions share a commitment to the common good, teach and advocate care for neighbor and Creation. We believe all people should have healthy air to breathe and that the strong should look out for the vulnerable. Our sisters and brothers with respiratory illnesses, our community elders, and children all suffer the most as a result of the poor air quality in our district. We hope you will take these four comments into consideration as you finalize your Air Quality Management Plan.

106-1

First, in the Air Quality Management Plan (AQMP) Draft Plan, analysis and solutions pertaining to Environmental Justice need to be outlined in greater detail. We were grateful to see this language: "*The SCAQMD will prioritize distribution of incentive funding in environmental justice (EJ) areas and seek opportunities to expand funding to benefit the most disadvantaged communities.*" However, this is not specific enough. Most anyone can agree with the spirit of the language but the AQMD needs to outline what types of projects will be funded. Projects that increase clean energy creation and jobs, expand energy efficiency in low-income households, and protect public health are what our communities need most. Due to expected decreases in funding for these types of projects from the federal government, local governments and regulatory agencies must strengthen efforts to clean up the air and invest in the green economy.

Second, the language surrounding the Regional Clean Air Incentives Market (RECLAIM) is very vague. This program, successful in its early years, has fallen very short goals in the last seven years. This program must be transitioned to direct control approach, using already-existing technologies. The December, 2015 Board decision to adopt less stringent nitrogen oxide levels, despite AQMD staff recommendations, is in direct opposition to RECLAIM's original aims of

106-2

strong pollution reduction. We encourage language in the AQMP that will commit the AQMD to sunset RECLAIM by 2022.

106-2  
Con't

Third, the AQMP plan still has no clear assurances that the indirect pollution related to warehouses and other large facilities will be reduced. The District needs to commit to direct regulation of warehouses and other indirect sources of emissions, both for local communities as well as warehouse workers.

106-3

Fourth, the Air Quality Management Plan relies heavily on funds raised through incentives for projects to reduce air pollution. To date, there is no fundraising plan, and as stated earlier, there is great concern that the incoming federal administration will make fundraising difficult. We encourage clearer language in terms of where funds will come from for important pollution reductions needed in our basin. We are concerned that funds may inadvertently end up being passed on to the public, especially those who are already most vulnerable to pollution and poverty issues.

106-4

We appreciate the gains made by the SCAQMD in the last several decades in cleaning up our air. We also recognize that we have some of the most heavily polluted air in the country and low-income communities of color suffer disproportionately from its effects. We encourage the strongest policies possible within the updated version of the AQMP so that all persons in our region may breathe easier.

Thank you for your attention in this matter.

Sincerely,

California Interfaith Power & Light, Susan Stephenson, Executive Director

Orange County Interfaith Coalition for the Environment, Sherri Davison, President

UU Ministry for the Earth, Rev. Earl W. Koteen, Environmental Justice Minister

Southwest California Synod ELCA (Lutheran) Green Faith Team, Rev. Peg Schultz-Akerson, Rev. Scott Bartlett, Rev. Marsh Harris, Leah Chang, Jane Affonso

**Responses to Comment Letter from California Interfaith Power & Light**  
**(Comment Letter 106)**

**Response to Comment 106-1:**

SCAQMD staff appreciates the comments regarding public health protection for all residents in the region. The Draft Final 2016 AQMP is an overarching planning document that provides a blueprint for the region to attain federal air quality standards. Specific activities such as the types of projects to be funded will be discussed as incentive funding is realized. The primary focus of the incentive funds is to accelerate the turnover of older, dirtier vehicles and equipment (stationary and off-road equipment). Historically, the SCAQMD focuses on vehicle and equipment replacement with an emphasis that the projects occur in environmental justice communities or, if the projects are mobile source related, that the sources operate in environmental justice communities. Many of the mobile source funding programs have guidelines that require a certain portion of the funding directly benefit residents living in environmental justice and disadvantaged communities. Typically, funding to projects in environmental justice communities has exceeded these minimum guidelines. The SCAQMD has funded projects to provide solar power to residents and residential electric vehicle (EV) chargers, both of which were primarily located in environmental justice communities. The SCAQMD will continue to seek funding for these types of projects and prioritize funding to environmental justice communities as appropriate.

**Response to Comment 106-2:**

As stated in the draft final control measure CMB-05, a NO<sub>x</sub> RECLAIM re-assessment working group will be convened in the spring of 2017 to examine various aspects of the RECLAIM program and consider options for an orderly transition into command and control. Participants of the working group will include RECLAIM facilities and the timing of a transition to command and control will be a key focus of the assessment.

The RTC reduction schedule for the 2015 amendments will end after 2022. If the RECLAIM program is transitioned into a command and control regulatory structure, additional time may be required to ensure that all source category equipment complies with command and control regulations. The 2017 AQMP calls for full implementation by 2031. Control measure CMB-05 commits to a five ton per day reduction of NO<sub>x</sub>, which must be achieved whether or not the program is market-based or a command and control regulatory structure.

**Response to Comment 106-3:**

The mobile source emissions associated with sources such as warehouses and other large facilities are proposed to be reduced through the State SIP Strategy (Appendix IV-B of the 2016 AQMP). The SCAQMD has been identified as an implementing agency along with state and federal agencies. To achieve the emission reductions identified in the State SIP Strategy, the California Air Resources Board (CARB) indicated that there will be four general approaches: incentive funding in the near-term, rule development as advanced technologies are commercialized, quantifying the emission reduction benefits of operational efficiencies, and quantifying potential emission reduction benefits from intelligent transportation systems and connected vehicles. The SCAQMD staff is proposing to help meet the emission reductions through a public process of identifying actions that can be taken at warehouses and other large facilities such as marine ports, railyards, and airports. If actions are identified and have potential emission reductions, the emission reductions would need to be “enforceable” in order for the reductions to be included in the SIP. Any emission reductions that are identified will need to be enforceable through a formal rule or regulation

or other enforceable mechanisms that have gone through a public process and will be approvable by the U.S. EPA.

**Response to Comment 106-4:**

A Draft Financial Incentives Funding Action Plan was released on December 16, 2016 that identifies potential opportunities for additional incentives funding. The Draft Action Plan can be found on the SCAQMD website at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/draftfinancialincentivefunddec2016.pdf>. The Draft Funding Action Plan proposes a set of guiding principles and activities to pursue new funding. The proposed guiding principles include a consideration of the economic impact on the funding source. Staff will be seeking the SCAQMD Governing Board's approval to pursue additional funding. The potential funding opportunities will be discussed as part of the public process, including economic impacts.

**Comment Letter from Public Solar Power Coalition (Harvey Eder)**  
**(Comment Letter 107)**

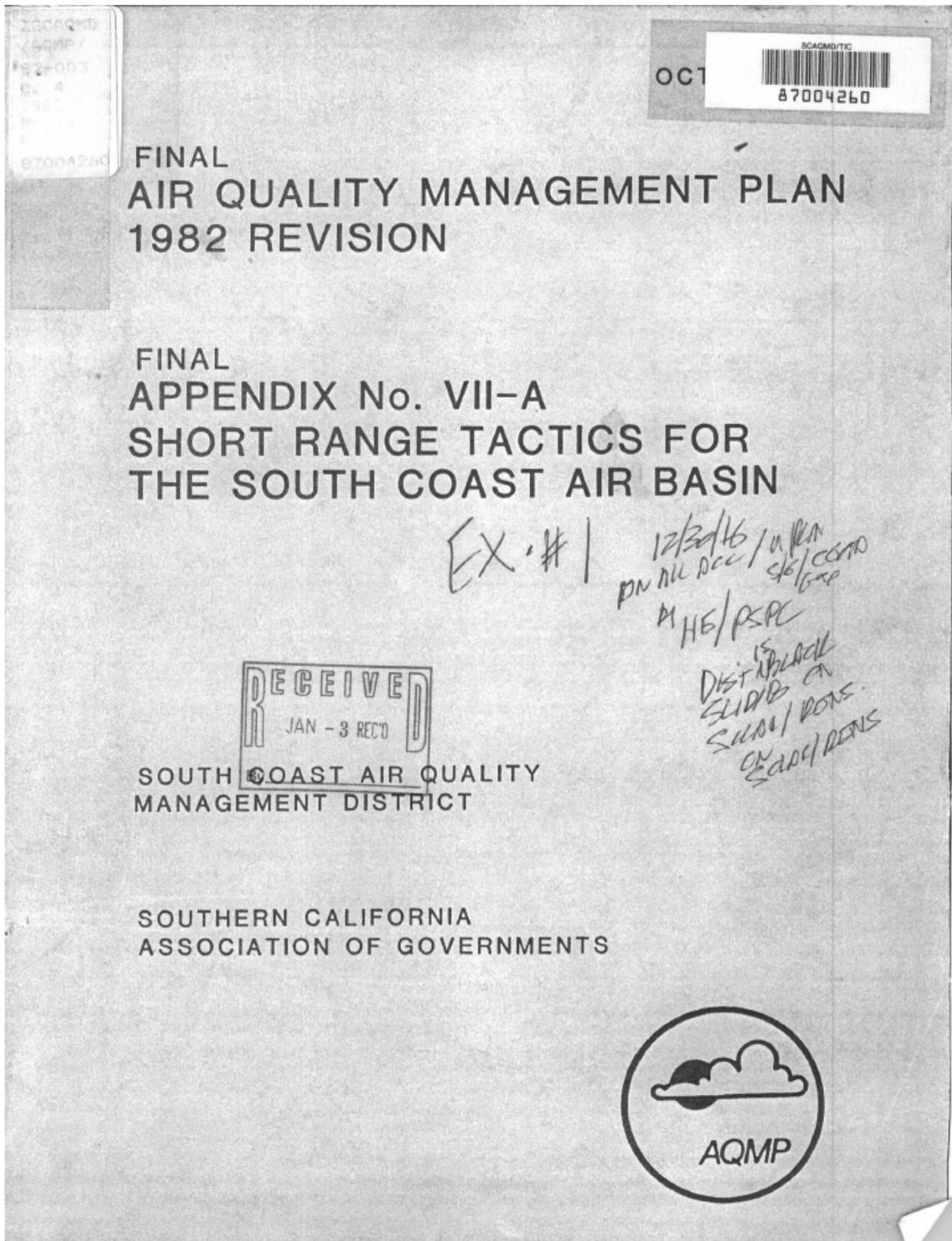
The commenter provided printed copies of the following publications as comments to the 2016 AQMP. Since these materials listed are copyrighted materials (e.g., published papers or books), these copyrighted materials are not reprinted here, and instead, we are providing the title of the document received, and link(s) to a website(s) where the book may be available for viewing and possible download. If anyone from the public would like to read the provided, please contact the SCAQMD AQMP staff in the Planning Division at [aqmp@aqmd.com](mailto:aqmp@aqmd.com).

- **Exhibit 1:** “1982 Air Quality Management Plan Appendix VII-A: Short Range Tactics for the South Coast Air Basin.” South Coast Air Quality Management District, Southern California Association of Governments. October 1982. **(Attachment 1)**
- **Exhibit 2:** “1979 Air Quality Management Plan Appendix IX: Status Report on ARB Model Rules for Reasonably Available Control Measures.” South Coast Air Quality Management District, Southern California Association of Governments. January 1979. **(Attachment 2)**
- **Exhibit 3:** “1991 Air Quality Management Plan Appendix IV-B: Stationary Source Control Measures Area Sources.” South Coast Air Quality Management District. July 1991. **(Attachment 3)**
- **Exhibit 4:** “[Sunshot Success – Five Years in what has the Government-led Solar Initiative Accomplished?](#)” Solar Industry Magazine, Volume 9, Number 6. July 2016.
- **Exhibit 5:** “[Center for Disease Control and Prevention \(CDC\) Announces 4<sup>th</sup> Superbug Case in US Patient.](#)” CNN website article. September 9, 2016.
- **Exhibit 6:** “[Drug-Resistant Superbugs Are a ‘Fundamental Threat’, WHO Says.](#)” NBC website article. September 21, 2016
- **Exhibit 7:** “[Deadly Superbugs from hospitals get stronger in the sewers and could end up in the Pacific Ocean.](#)” Los Angeles Times website article. March 7, 2016.
- **Exhibit 8:** “[A ‘slow catastrophe’ unfolds as the golden age of antibiotics comes to an end.](#)” Los Angeles Times website article. July 11, 2016.
- **Exhibit 9:** “[Editorial - What we don’t know about superbugs could kill us.](#)” Los Angeles Times website article. October 12, 2016.
- **Exhibit 10:** “[No one knows how many patients are dying from superbug infections in California hospitals.](#)” Los Angeles Time website article. December 5, 2016.

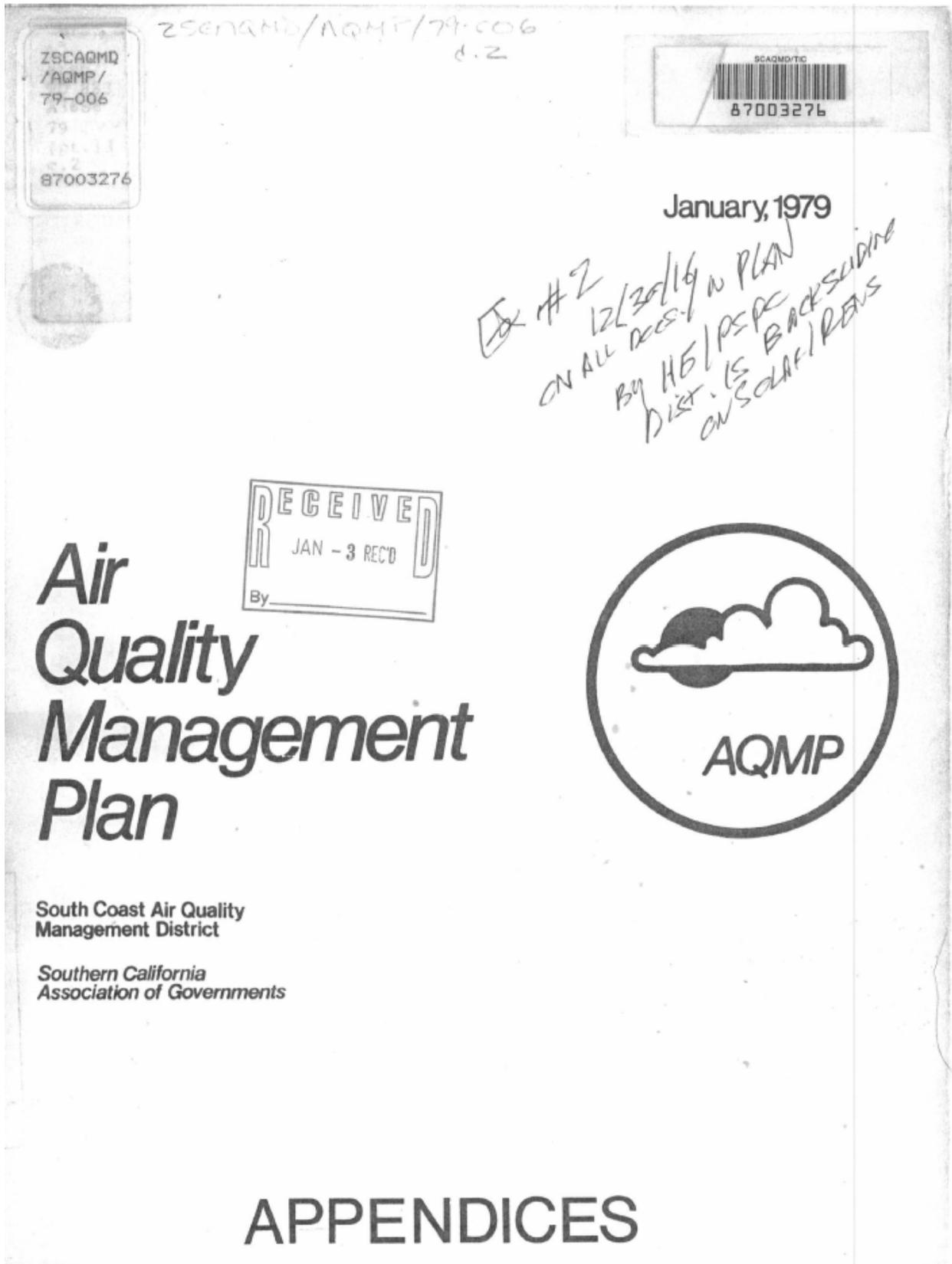
- **Exhibit 11:** [“Utility-Scale Solar 2015: An empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States.”](#) Lawrence Berkeley National Laboratory. August 2016.
- **Exhibit 12:** [“Tracking the Sun IX – The Installed Price of Residential and Non-Residential Photovoltaic Systems in the United States.”](#) Lawrence Berkeley National Laboratory, U.S. Department of Energy. August 2016.
- **Exhibit 13:** [“Legislative Developments in Solar Energy during 1980.”](#) UCLA Journal of Environmental Law & Policy. 1981.
- **Exhibit 14:** [“Ranking List of European Large Scale Solar Heating Plants.”](#) Solar District Heating website page. September 8, 2016.
- **Exhibit 15:** [“Q2/Q3 2016 Solar industry Update.”](#) Sun Shot U.S Department of Energy. October 11, 2016.
- **Exhibit 16:** [“A Study of United States Hydroelectric Plant Ownership.”](#) Idaho National Laboratory. June 2006.
- **Exhibit 17:** [“Energy Storage Requirement for Achieving 50% Solar Photovoltaic Energy Penetration in California.”](#) National Renewable Energy Laboratory. August 2016.
- **Exhibit 18:** [“Status and Trends in the U.S. Voluntary Green Power Market \(2015 Data\).”](#) National Renewable Energy Laboratory. October 2016.
- **Exhibit 19A:** [“Inland Choice Power Community Choice Aggregation Business Plan.”](#) EES Consulting, Inc. December 8, 2016.
- **Exhibit 19B:** [“How much Energy Storage Would Be Needed for California to Reach 50 Percent Solar?”](#) Green Tech Media. January 5, 2017.
- **Exhibit 20A:** [“Shared Solar: Current Landscape, Market Potential, and the Impact of Federal Securities Regulation.”](#) National Renewable Energy Laboratory. April 2015.
- **Exhibit 20B:** [“16 Democrat AGs Begin inquisition Against ‘Climate Change Disbelievers.’”](#) Daily Signal. April 04, 2016.
- **Exhibit 21:** [“County of Los Angeles – CCE Business Plan.”](#) County of Los Angeles Internal Services Department. July 28, 2016.
- **Exhibit 22:** [“SCE’s Community Renewables Program.”](#) Southern California Edison. February 25, 2016.
- **Exhibit 23:** [“Public - private partnership.”](#) Wikipedia. January 1, 2017.

- **Exhibit 24: (Attachment 4)**
- **Exhibit 25:** [“Changing of the Guard.”](#) Solar Industry Magazine, Volume 9, Number 12. January 2017.
- **Exhibit 26:** [“PG& E facing maximum sentence.”](#) Los Angeles Times. January 23, 2017.
- **Exhibit 27:** “Control Strategies and Technologies for Particular Matter under 2.5 Microns (PM2.5) and Ultra Fine Particulate Emissions from Natural Gas-Fired Turbine Power Plants.” South Coast Air Quality Management District. April 2014. **(Attachment 5)**
- **Exhibit 28:** [“Article 13. Review and Evaluation of EIRs and Negative Declarations.”](#) The California environmental Quality Act. January 21, 2017.
- **Exhibit 29:** [“Article 7. EIR Process.”](#) The California Environmental Quality Act. January 21, 2017.
- **Exhibit 30:** [“Fourth District Exposed on CEQA’s Responses To Comments Tiles – And Abuses of the Process- As well as Other Issues in upholding Supplemental EIR F for Expanded Orange County Jail Facility.”](#) CEQA Developments. January 21, 2017.

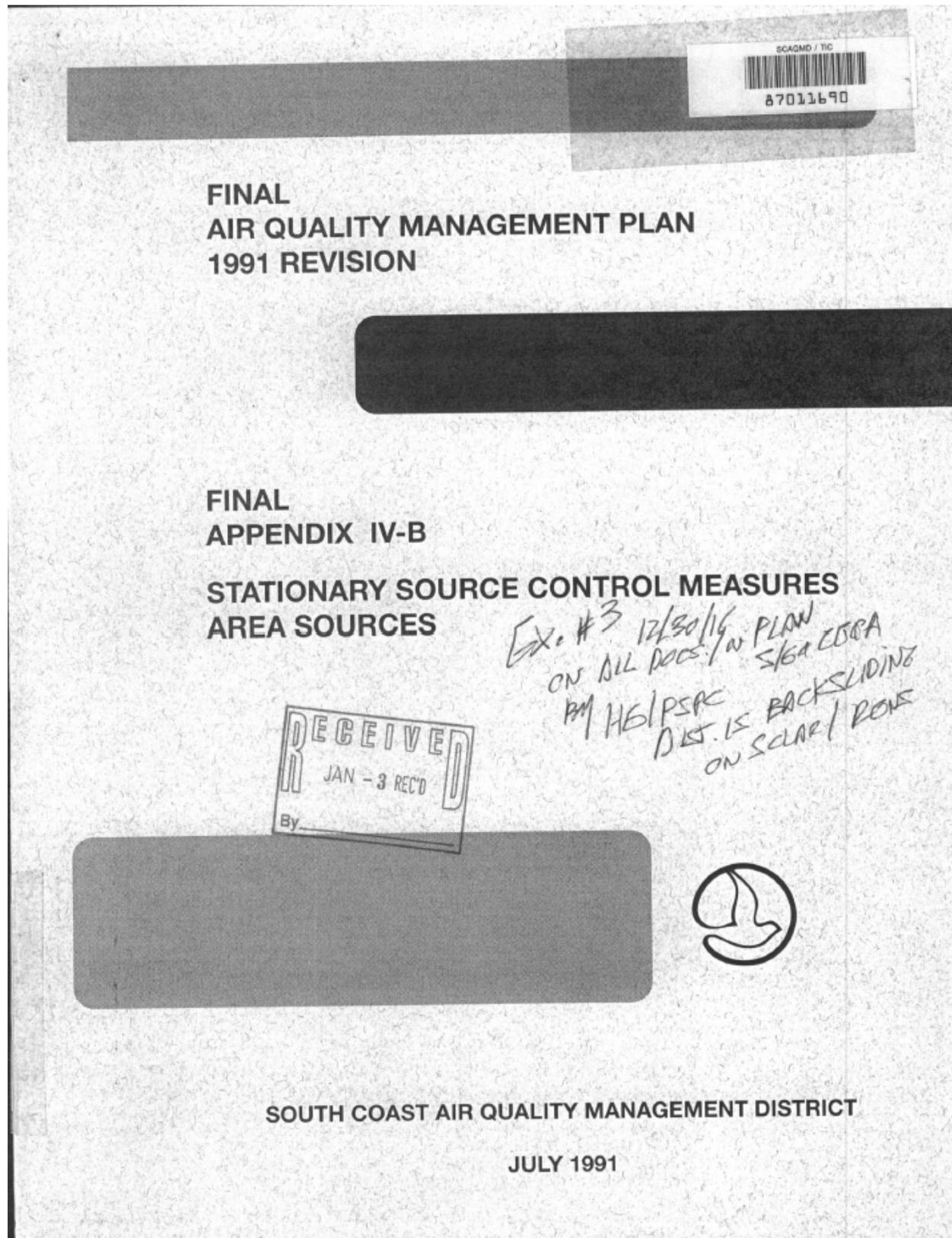
Attachment 1 to Comment Letter 107:



Attachment 2 to Comment Letter 107:



Attachment 3 to Comment Letter 107:



Attachment 4 to Comment Letter 107:

1273 WILSHIRE AVE #104  
 Santa Monica CA 90405  
 1/19/17  
 3B  
 2887

1) B/CN-EN ITSC

2) IMP. STA. CCE/CCA  
 Lacy A) New site at home  
 same org. part.  
 B) Rce/Same part  
 ins. Unit

(RECLAIM -  
 SCAR etc  
 from Ed ROS, completion  
 ONR Funding - ECLARK  
 LOCALITY OF UCB -  
 SCAR (SCOS PLANT  
 CONCENTRATORS -)

3) City etc. (Dist)  
 Plans - include SCAR  
 Conversion Element  
 ITSC/AEE

4) Community SCAR  
 SUPPLY SCAR  
 Ccaps/sec PSCP  
 NOTES

5) FUTURE SOURCE  
 (WATER) - BATTERY  
 THERMAL - LEAF  
 CSP - TEF Annual

SCLAR NEW  
 R/HADY  
 C/OP/B/G  
 P/SR  
 DCA  
 PUBLIC SCAR PLAN

6) SCAR SOURCE  
 SCAR/PLANT/CAS. EXA. 2A  
 WATER/SCAR/ECC  
 TEF - TEF AS ST. COMMENTS  
 IRENA ON 2016 REPORT  
 INCREASED ENERGY IN HOARDY

6) DISTRICT SCAR  
 Dist Heating Center  
 w/ WAP/GRAP, STORAGE,  
 PUBLIC SCAR  
 PARTICIPATION

PSURPS - SIMIN  
 Community LED  
 SYSTEM -

7) PUBLIC POWER  
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 OF SCAR  
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 2017, 2018, 2019, 2020  
 2021 2022 - ACES  
 + M.

APPLICABLE  
 Cost  
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8) Various - Root  
 Low Maintenance  
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137

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 (CRANCO CITY)  
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b) - ~~THE~~ CRO. BREAKDOWN  
 OF DIST - STATE  
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 PLANS - RULES

12) STATE CCA  
 Funding Accord  
 - SCIC - Agree  
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13) - Cover REFS  
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 - OPEN SPACES -

14) - New WASTE  
 NO - RATE PAYS  
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 for two day - hotter  
 than described

15) - Temperature  
 - LADNP - (New) <sup>Station</sup>  
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 2 in  
 Puracan bi -

1/19/17

16) ~ 200B MARRM - TRANSPORTATION - on 3/40 up. rem to LB [SEM] PUBLIC PRIVATE PARTNERSHIP -

17) - Ricketts Capital P/E Equity Mexico to Pull sub to KALOMAN PRODUCTION? CALUMBIN 30AM. MARK & C. P.B.S. - OILGAREF

18) STB BROW PULL. BOX 154 to 30AM

MARK ~ 900B 1800B ~ LT + 27T

PLUS - FROTTAGE

DEATH COST TO SCAR 7.24 x 9 - 18k + 1.8k = 19.8k

19) 200B 1598 300B 300B 300B 100B

20) SAN BERNARDINE SM + 50-100 + PERM

Nov - 20 - [PERM]

SB - Dec? - PERM - [PERM] CAR

5x 100B M - [VE COMBINATION] via DASH A -

DATA FROM PM 7.5 [COMBINATION] 5x 100B 154

22k PREMISE DEATH 20B 200B UP

18M DEC 2.2 15 - 100M [HOOK 200]

PM 28 BENZENE TOXICANT

NC-53002 (14) 5/5 WHOLES. 908 NC NEW PAV. [DEATH] [EDIT]

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300000 150000 150000 150000 150000

PER 4% - 15-50 52k An 18M PERM 3300 15 3300 15 1000

13

<p>21) <del>BOBBS</del> <del>Bad M... / V... / ...</del>          Lower <sup>a)</sup> <del>...</del>          &amp; <del>...</del>          - Res - <del>...</del> <sup>Disc...</sup>          All Tom L...          So S.P. <del>...</del> / <del>...</del>  <del>...</del> / <del>...</del> <sup>SSM</sup>  <del>...</del> / <del>...</del> - <del>...</del> - <del>...</del>          Rev - HEV - <del>...</del>          M/...          of Co. <del>...</del>          V...          of <del>...</del></p>	<p>96 6 <del>...</del>          NP...          ROBERT MARGOLIS          (702) 4882229</p> <p>25) AB BROZ          All Ding Coe PM 25 <del>...</del>          a L...          All... of PM...          were less than          PM 3 - <del>...</del>          PM 3 filter -          Tummy =          This PM. To Ding Coe          M... RS <del>...</del> in          PM. PROMOTIVE <del>...</del> @ 9m</p>
<p>22) - SC. / <del>...</del>          S...          S... / <del>...</del></p>	<p>26) - SCAR <del>...</del>          a SCAR 108 <del>...</del>          to use of          ANM...</p>
<p>23) - <del>...</del>          + mi <del>...</del>          a 30 <del>...</del>          mi  <del>...</del> x 154 = 754  <del>...</del> → 304 = 1,500          + 57 9.8 <del>...</del> a 1.5T  <del>...</del> I can          see.</p>	<p>27) - <del>...</del>          POTENTIAL <del>...</del>          RICE <del>...</del>          MS = <del>...</del>          I...          COE <del>...</del></p>
<p>24) FORM...          is as 754?</p>	<p><del>...</del></p>

1/19/17 12 pm

<p>28) a) STATE LAW ASSES LAST YR. TO SUPPORT SEVERAL SCOUTS INCOME WITH RETIREMENT PROGRAM FUND - "DeLeon Kamin"</p>	<p>b) Per. Reim New Tool - (is case off) BARET - in 1/2016 CPD - Reg. Dist. FCO files TO AMUSE</p>
<p>29) PIERS - "SOCS" STATE PUP. EMPLOYED RETIREMENT SYSTEM - 73% PER YEARLY COM OF 6-7% plus -</p>	<p>33) CTG/ACT ON BAZON PA W EXP. 12/16 DIST * CARE + CAPCOB - SCOP/ AS DIST NOT possible OPA - DIST - PUR BAZON RE/REP/ ON CTG/ACT</p>
<p>30) - NCBOTHE INTERVIEW / <del>BATES</del></p>	<p>- SIP DIST STIM OPA DC. DIST NT RAN WHAT CTG/ACT WAS</p>
<p>31) - Rep. 3 - BAZON PA W NEW ENERGY FINDS (2016 Jan 14) CLEAN ENERGY DISTRICT Fossil Fuel Price <del>CRASH</del> = A TRAC RECON 32% GLENN ALBERTS IN 2015 RECON FROM FAN WWW. BNET.COM</p>	<p>34) - GET PDS/CGE/ SCOP SUMMER PROGRAM SCOP OCEAN STORAGE PLUS - SCOP THERMAL STORAGE Ref - DIST WATER SCOPING THERMAL STORAGE</p>
<p>32) - KLEIN -</p>	<p>(141)</p>

<p><b>EVALUATE</b></p>	<p>1/19/17</p>
<p>35)</p>	<p>1500 2270829</p>
<p>JACOBS STUDY 2014 - CWS CA, 80-859 S/R R4-2030 GUMPT 2015 PLAN</p>	<p>750238</p>
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	<p>- Book modify on</p>
	<p>6009 - BALANCE - LIG.</p>
	<p>SM - 45 XM ± 20M 200 320</p>
	<p>CONF # 220137</p>
	<p>52 PM</p>
<p>36)</p>	<p>CONF # 220143</p>
<p>MS/B STITZ / REV FCUV - MTC JPO MPCU - MTC</p>	
<p>V. ED LOM V. BY 2023</p>	<p>37) LITH TRAIL</p>
<p>20M RITE KMI 17-? DIST? ROTHMAN</p>	<p>37) SCAR NOW DEAL</p>
<p>2/20/14 BY 2030 on Level of SCAR</p>	<p>38) LEFT TRUMP INTERVIEW</p>
<p>PAP - PARTNER a STATE MAPPING cu: 59 POT 19</p>	<p>39) SCAR CP HOC u 5500 ST.</p>
<p>VS Pru Kramer 206 NORSE EON -</p>	<p>42) LAW MEMO + U WVA Jill KUNNET - Cat 91. / REV - 57K + STED</p>
<p>Goaway - NEGATIVE INTEREST PAGES -</p>	<p>42) CONF - BY 4/2/13 + PUPPA MAY - US TRAIL - 1/15/15 2030 MVA</p>
	<p>(42)</p>



11/9/17

TALKED WITH  
JAS PH LESTER ON  
MAY 17

w/PAUL  
BIN

CHRISTINA

WALTER NESTER -  
\*3131

MARCO  
SKANS  
ISARD

\* DR. BURKE #

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11/19/17 3:20pm	HE/1/2017
<p>47) I can not identify Scum / PV-00 on Woodlands - Caps Go to SERRA Vehicles BCU + FCEV Trench (Pipes - etc) M. INLAND Empire Co. Bio Res - etc → STERILISE</p>	<p>50) Does resistant Anti. flow Med is the N. pipe → Dispassion → BCFR Construction + AFK Construction - Does Resist Anti R - etc + used, or Down 10k + Pa. as in the District E2 - Ruckamp - Pen. Dist MORS Like MORS - this was supposed to help → spread pollution water IN Lower / N. FENS</p>
<p>48) WE WMA CODE ASR LEAD ON ESGC STANDARD Growth Council</p>	<p>Rice - MORTAL TO AD Femur with organic to RIM Control MORS etc</p>
<p>49) BUS OFF OF PLANNING &amp; RESEARCH → Br. EFG, Energy &amp; Research / A plan Schwartz - w/ U.C. / STW Finn / USC - Porphyro LEAD ON</p>	<p>→ 70% of ANTI B For HUMANS APO DISCO FOR ANIMALS CATTLE ETC</p>
<p>Review w/ camp</p>	<p>Mobil Success</p>
<p>1) Lead Co 2) \$ Price SW / MIN CROWD EVA</p>	<p>145</p>

Attachment 5 to Comment Letter 107:

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

**CONTROL STRATEGIES AND TECHNOLOGIES FOR PARTICULATE MATTER UNDER 2.5 MICRONS (PM<sub>2.5</sub>) AND ULTRA FINE PARTICULATE EMISSIONS FROM NATURAL GAS-FIRED TURBINE POWER PLANTS**

**FINAL REPORT**

Prepared for:

**South Coast Air Quality Management District**  
Diamond Bar, California

Prepared by:

**Fossil Energy Research Corporation**  
Laguna Hills, California  
**DELTA Air Quality Services**  
Orange, California  
**University of California, Riverside**  
Riverside, California  
**University of California, Irvine**  
Irvine, California

*EXH # 27  
1/24/17  
SUBMITTED  
2016 AQMP & 15 CCAA  
CEQA Docs 10/16  
BY HARVEY EDER  
ERSC & PSR  
PUBLIC SCARC  
POWER CAUTION*

April 2014



Fossil Energy Research Corp.  
23342-C South Pointe Drive, Laguna Hills, California  
92653 Telephone: (949) 859-4466 Fax: (949) 859-7916

**Response to Comment Letter from Public Solar Power Coalition (Harvey Eder)**  
**(Comment Letter 107)**

Several of the submitted publications include references to solar renewable energy. Solar panels are becoming more efficient, well established, and prices are declining rapidly making them cost-effective. However, there are still a number of concerns regarding the reliability, transmission, demand spikes, and intermittency associated with renewable generation. Due to these issues, technologies that provide ancillary services and grid support, such as energy storage and improved demand side management need to be further developed and integrated into the grid. Without incorporating these technologies as higher levels of renewables are incorporated, the stability of the electrical grid can be compromised and emissions could increase as peaking generating units are increasingly used.

Overall, the submitted publications do not clearly identify any specific issue that is relevant to the SCAQMD's proposed action on the 2016 AQMP. To the extent the commenter intended to encourage additional evaluation of potential solar power installations that may reduce pollution in the South Coast area, SCAQMD encourages the commenter to participate in the regulatory processes carried out by the SCAQMD, CARB, and other State/local agencies involved in the development of air quality management plans in the South Coast. SCAQMD finds no basis in these comments to change its proposed action on the Plan. Staff will continue to promote and encourage the use of solar energy systems and technology in applications where it can be shown to be cost-effective and result in emission reductions, such as being proposed in the 2016 AQMP under control measures ECC-03, CMB-01 and CMB-02. These efforts include incorporating renewable resources towards powering alternative transportation technologies.

**Comment Letter from Truck and Engine Manufacturers Association (EMA)**  
**(Comment Letter 108)**

**STATE OF CALIFORNIA**  
**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

SCAQMD's 2016 Air	)	Public Hearing Date:
Quality Management Plan;	)	February 3, 2017
Final Draft	)	

**COMMENTS OF**  
**THE TRUCK AND ENGINE MANUFACTURERS ASSOCIATION**

January 24, 2017

Jed R. Mandel  
Timothy A. French  
Truck and Engine Manufacturers Association  
333 West Wacker Drive, Suite 810  
Chicago, Illinois 60606

STATE OF CALIFORNIA  
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SCAQMD's 2016 Air	)	Public Hearing Date:
Quality Management Plan;	)	February 3, 2017
Final Draft	)	

COMMENTS OF  
THE TRUCK AND ENGINE MANUFACTURERS ASSOCIATION

Introduction

The Truck and Engine Manufacturers Association (“EMA”) hereby submits its comments on the Final Draft 2016 Air Quality Management Plan (the “Final Draft AQMP”) that the South Coast Air Quality Management District (“SCAQMD” or the “District”) released for public review on December 9, 2016.

EMA is the not-for-profit trade association that represents the world’s leading manufacturers of internal combustion engines, and the vehicles and equipment that those engines power, other than passenger cars. Heavy-duty on-highway (“HDOH”) engines and vehicles are included among the broad array of products that EMA’s members design and manufacture. Since one of the core regulatory strategies at the heart of the Final Draft AQMP is the adoption of new low-NO<sub>x</sub> emission standards for HDOH engines and vehicles (*see* AQMP, Table 4-5) – indeed, the SCAQMD previously petitioned the U.S. EPA to initiate a rulemaking to adopt such standards – EMA’s members have a direct and very significant interest in ensuring that the Final Draft AQMP is based on accurate, well-reasoned and validated emissions inventory assumptions and modeling. As discussed below, that is not the case.

108-1

EMA submitted detailed comments on the previous version of the Draft AQMP on August 19, 2016. Unfortunately, the Final Draft AQMP still contains most, if not all, of the deficiencies that EMA noted with respect to the previous Draft AQMP. Accordingly, in these comments, EMA will reiterate several of its previously-submitted concerns and objections.

EMA is fully prepared to lend its (and its consultants’) expertise and analysis to resolve the issues discussed in these comments and to assist in completing the necessary attainment model validation work in a timely manner. In that regard, EMA remains committed to genuine collaboration to improve the predictive capabilities of the underlying ozone modeling efforts, and we are prepared to facilitate and expedite the recommended dynamic evaluations of the Districts’ air quality modeling, as detailed below.

The Final Draft AQMP, as it relates to HDOH engines and vehicles, is still premised on significant over-estimations of future ozone levels in the South Coast Air Basin (“SoCAB”). The SCAQMD and the California Air Resources Board (“CARB”) have derived those over-estimations from their use and application of the Community Multi-Scale Air Quality (“CMAQ”) model, which, as applied in this context, has consistently over-predicted future ozone levels in the SoCAB for many years, including as recently as 2012 when CARB and the SCAQMD developed their last SIP submissions. In light of those consistent over-predictions of ozone, the SCAQMD’s assertion (including in its rulemaking petition to EPA) that ozone attainment requires an additional 90% reduction in NO<sub>x</sub> emissions from HDOH engines and vehicles – over and above the rigorous NO<sub>x</sub>-control regulations that are already in place – is not proven out by the relevant data. While some future HDOH emission requirements may be warranted and reasonable, the model-based premises for adopting a 90% lower NO<sub>x</sub> standard in 2019 are not accurate.

CARB’s EMFAC model – the tool for estimating future levels of individual precursor emissions, and in particular NO<sub>x</sub> – also is still over-estimating the magnitude of future-year emission inventories, and is utilizing emission inputs and related data that are significantly out-of-date. That, too, is a significant error that needs to be remedied before the District proceeds to implement any specific menu of SIP strategies, especially strategies that it estimates will cost in excess of \$30 billion, including approximately \$14 billion in incentive funding.

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EMA recognizes that the District is facing firm SIP deadlines that will not accommodate the completion at this juncture of all the necessary data-analyses and modeling improvements that EMA is recommending. Nevertheless, it is vitally important that the District Board commit, in the text of any resolution relating to the Final Draft SIP, to undertake and complete those necessary analyses and modeling improvements as soon as possible, and most certainly in advance of the adoption of any specific SIP control measures, as well as in advance of the next round of AQMP/SIP updates.

In that regard, it is particularly important that the District Board commit to undertake in a timely and comprehensive manner the “dynamic evaluation” that U.S. EPA recommends as a way to assess the predictive capability of a model-based ozone attainment demonstration. (*See* EPA’s “Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze,” December 3, 2014 (the “EPA Modeling Guidance”) at pp. 62-63, 92-93.) In its Modeling Guidance, EPA recommends four different approaches for evaluating air quality models: operational evaluations, diagnostic evaluations, dynamic evaluations, and probabilistic evaluations. Out of those four evaluation methods, *dynamic evaluations* are particularly important. The Modeling Guidance states, “dynamic evaluation is always recommended,” because it is the only evaluation method that compares model-predicted historical trends with observed trends, and so is the only evaluation method for assessing model performance in a way that can assess the model’s predictive capabilities – specifically, “in a way closely related to how models are used to support [predict] an attainment demonstration.” (*Id.*) As EPA further explains in its Modeling Guidance, a dynamic evaluation “is a direct assessment of what is most important in an attainment demonstration: does the model accurately predict changes in air quality as a result of changes in emissions?” (*Id.*)

While the Final Draft AQMP claims that the AQMP “covers all four types of model performance evaluation that the EPA guidance (2014) recommends,” (*see* AQMP, p.V-5-9), that is simply not correct. SCAQMD Staff has not presented the results of any actual dynamic evaluation of the current model-based results compared against observed historical trends, nor has SCAQMD Staff even undertaken such a dynamic retrospective analysis “comparing model-predicted historical trends with observed trends.” (*Id.* at 92.) That significant omission needs to be rectified through an explicit commitment and direction from the District Board.

More specifically, the SCAQMD Board should direct the SCAQMD Staff to undertake a comprehensive dynamic evaluation of its air quality modeling — with a full assessment of the model’s ability to match historical trends — and to demonstrate whether such a dynamic evaluation actually validates the model’s predictive capability. The stakes are too high for the SCAQMD to proceed to adopt SIP control measures based on model-driven results that have not undergone a comprehensive dynamic evaluation. Without that type of evaluation – which, as EPA states, “is always recommended” – the actual predictive capabilities of the District’s modeling results will remain untested and unvalidated, and the basis for the AQMP and its many proposed control measures will remain open to challenge.

This is not just an academic or hypothetical concern. Leading technical experts from Ramboll Environ (“Ramboll”) have undertaken a dynamic evaluation of the District’s air quality modeling – the EPA-recommended evaluation that District Staff did not do. The results from that dynamic evaluation have been presented to District Staff and are very telling. The results confirm, as noted above, that the District’s air quality modeling still consistently under-predicts the rate of ozone reduction in the SoCAB and so still over-estimates the need for future additional NO<sub>x</sub> reductions. While District Staff have attempted to rebut the Ramboll analyses and critique (*see* District’s Responses to Comment Letters #52 and #58, pp. 358-370, 496-499), that rebuttal misstates what Ramboll has done. This issue is discussed in further detail below, and Ramboll’s response to Staff’s attempted rebuttal is attached hereto as Exhibit A. The point is that the significant modeling issues that EMA and Ramboll have raised previously, and the clear need for Staff to undertake a comprehensive dynamic evaluation of their modeled attainment demonstration, still remain and need to be addressed.

In addition, the Board also should take steps to ensure that the Final AQMP accurately reflects U.S. EPA’s recent response to the District’s petition requesting that EPA adopt, in the 2017 timeframe, an FTP-based HDOH low-NO<sub>x</sub> standard of 0.02 g/bhp-hr. As EPA has now confirmed, the District cannot and should not presume that the Agency will adopt the petitioned-for low-NO<sub>x</sub> standard premised on existing test procedures. The Final AQMP should be revised to reflect that reality, and should not hinge its ozone attainment demonstration on such a standard, since, without a federal low-NO<sub>x</sub> engine standard (as the District has conceded) a California-only low-NO<sub>x</sub> HDOH engine standard is not viable as a cost-effective control measure, as it would impact only a small fraction of the HDOH inventory.

The following detailed comments on the Final Draft AQMP focus on six main points. As noted, several of these points are carry-overs from EMA’s earlier comments, since District Staff did not address the issues raised in EMA’s prior comments.

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**1. The District Board Should Direct Staff To Conduct A Comprehensive Dynamic Validation Of The Predictive Capability Of The Modeling Used To Estimate Future Ozone Design Values (DVs) And Carrying Capacities**

Review of the District's current and past AQMP attainment modeling efforts indicates that the model-derived results consistently under-estimate projected ozone reductions and over-estimate needed emission reductions. (*See* EMA's Prior Comments (August 19, 2016); *see also* Exhibit A.) In particular, the Final Draft AQMP continues the trend of under-estimating future ozone reductions and, thus, over-estimating ozone design values in the applicable future attainment years (2023 and 2031). This necessarily yields incorrect conclusions regarding the extent to which multi-billion dollar controls and incentives are required to reach attainment in the SoCAB.

Accordingly, before proceeding to implement any specific control measures, and in advance of the next SIP update, the SCAQMD Board should direct Staff to undertake the necessary retrospective dynamic evaluation to validate the operative predicted ozone reduction rates by comparing modeled backcasts against measured historic ozone design values ("DVs") and trends. The discrepancies between modeled and measured levels of ozone and NO<sub>x</sub> in the SoCAB are too significant at this juncture to serve as an adequate basis for the implementation of multi-billion dollar public policy choices based on the current modeling.

As noted, above, EMA recognizes that the District needs to proceed to adopt an AQMP. Nonetheless, in that process, it is important that the Board explicitly direct Staff to undertake comprehensive analyses of the current modeled attainment demonstration utilizing the validation methods and analyses that U.S. EPA recommends, including "dynamic evaluations" that assess and take into account the past performance of air quality modeling efforts. If such retrospective evaluations show, as expected, that the 2016 AQMP models under-predict ozone trends going back in time 10 to 15 years (backcasts), the model-based forecasts can and should be adjusted accordingly. Accordingly, the District Board, in any resolutions relating to the pending AQMP, should specifically direct Staff to undertake those analyses before the Board adopts any particular SIP control measure, and in advance of the next round of SIP updates. The potential under-estimates in ozone reduction rates (which appear to be on the order of 2 times or more) could result in billions of dollars being spent unnecessarily. Thus, EMA recommends that prioritized dynamic evaluations and other validation studies be initiated as soon as possible to assess the actual predictive capability of the modeling results at issue.

108-2

In that regard, EMA appreciates the meeting of the Scientific, Technical and Modeling Peer Review Advisory Group ("STMPRAG") that District Staff convened on October 26, 2016. During that meeting, experts from Ramboll and District Staff discussed the need to assess and validate the relevant CMAQ-based results, and Staff attempted to rebut the findings of the Ramboll work. (*See also* District's Response to Comments, pp. 358-370, 469-499.) However, as noted, that attempted rebuttal missed the point and did not dispel the clear need for a full dynamic evaluation of the District's ozone NAAQS attainment modeling.

In particular, District Staff has tried to rebut Ramboll's observations regarding the inaccurate performance of its attainment modeling by, in essence, making two main arguments: (i) ozone formation is a non-linear response to multiple precursor inputs, so linear extrapolations or

projections of future ozone levels are “overly simplified;” and (ii) the Ramboll analysis should have utilized 5-year weighted design values. Those arguments misstate what Ramboll did and are incorrect.

As detailed below, Ramboll’s dynamic evaluation work involves comparing observed *historical* levels of ozone design values against model-based assessments of those *historical* design values. Linear projections into the future are not involved. Thus, Staff’s first argument is not relevant. With respect to Staff’s second argument, that is simply wrong; Ramboll’s dynamic evaluations *do* include and incorporate 5-year design values.

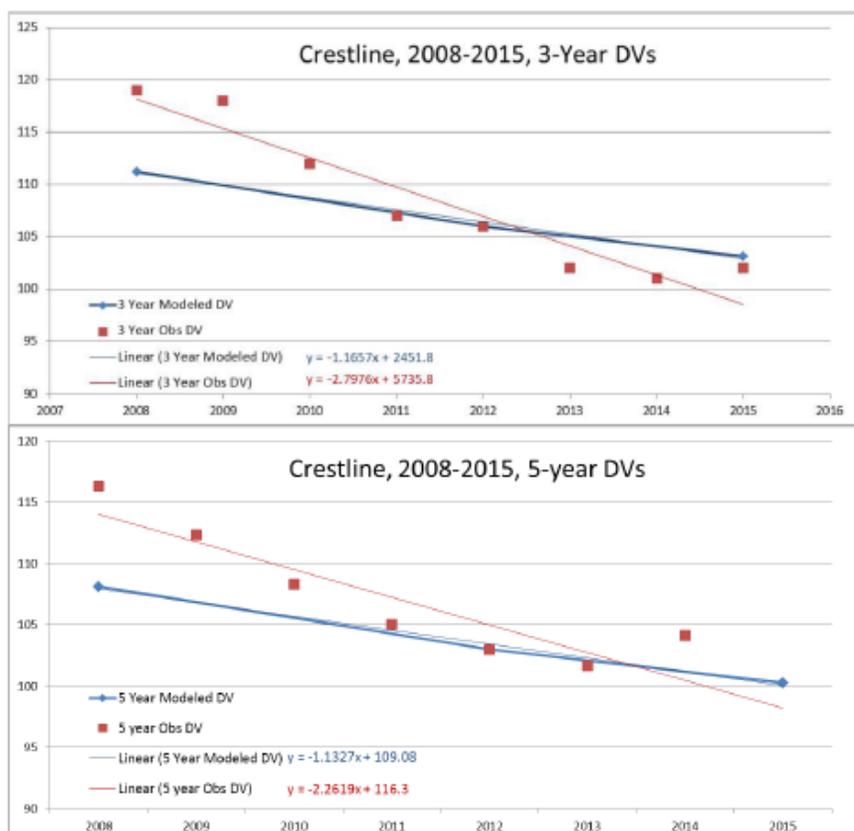
As explained more fully in Exhibit A, Ramboll’s dynamic evaluation involved CMAQ simulations using historical emissions over approximately 25 years (1990-2015) in order to compare observed and modeled ozone trends over time. The analysis was performed first using the 2012 AQMP CMAQ 2008 modeling database, and then using the 2016 AQMP CMAQ 2012 modeling database. Although the observed rate of ozone reduction is somewhat lower using the 2016 observed ozone end-point, it does not change the basic conclusions regarding the fact that the modeled ozone trends are not coming down as fast as the observed trends. (*See* Figure 1) (below).

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During the STMPRAG meeting (and in their Response to Comments), SCAQMD Staff also argued that the Ramboll dynamic evaluation should have used the 5-year ozone design value (5-yr DV) instead of the 3-year ozone design value (3- yr DV). However, the ozone National Ambient Air Quality Standard (NAAQS) is based on the ozone design value that is defined as the *three-year average* of the fourth highest maximum daily average 8-hour (MDA8) ozone concentrations (i.e., the 3-yr DV). That definition is mandated in the code of federal regulations (40 CFR Part 50) and ultimately determines whether the SoCAB attains the NAAQS or not. Nonetheless, EPA’s modeling guidance does recommend deriving ozone projections using the 5-yr DVs (average of three years of official 3-yr DVs) in order to moderate the effects of year-to-year variations in ozone concentrations. In light of that, and contrary to Staff’s rebuttal, Ramboll *did* perform the dynamic evaluation of the 2012 and 2016 AQMP CMAQ databases using both the 3-yr DVs and 5-yr DVs. Significantly, the conclusion that the modeled rate underestimates the observed rate of ozone reduction over time still holds whether the 3-year or 5-year ozone DV is used.

Figure 1 (below) presents Ramboll’s dynamic model evaluation comparing observed ozone trends at Crestline, which generally corresponds to the Basin-wide maximum ozone design value, with the 2016 AQMP CMAQ 2012 modeling database for the period of 2008 to 2014/2015. Even when including the unusually high observed ozone level from 2016, the rate of the modeled ozone reduction trend using the 2016 AQMP CMAQ 2012 is still at least a factor of 2 lower than the observed trend.

**Figure 1.** Observed and modeled ozone Design Value (DV) trends at Crestline using the 3-yr DV (top) and 5-yr DV (bottom), and the draft 2016 AQMP CMAQ 2012 modeling platform using observed trends through 2016 ozone season data.



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**Table 1.** Comparison of observed and modeled ozone Design Value (DV) trends (ppb/year) for 2008-2014/2015 using the draft 2016 AQMP CMAQ 2012 modeling database.

Ozone DV	Observed	Modeled	Ratio (Obs/Mod)
3-Yr DV	2.80	1.17	2.40
5-Yr DV	2.26	1.13	2.00

As should be clear, Ramboll’s dynamic evaluation presentation never extrapolated or otherwise projected the ozone DVs at issue into the future. Rather, it compared *historical* observed ozone trends with modeled changes in ozone over different *historical* periods dating as far back as 1990 (2012 AQMP) or 1995 (2016 AQMP) to current (2014/2015) values. The comparison of the historical observed and modeled ozone trends clearly shows that the modeled rate of ozone reduction over time is significantly lower than the observed trend. Thus, Ramboll’s dynamic evaluation compares the observed ozone rate of ozone reduction over time with modeled values

using linear regression equations within the 1990-2015 time periods, with no extrapolation, and also includes the observed 2016 ozone data in the dynamic evaluation.

The results of that dynamic evaluation, not extrapolation, are significant. At the Crestline DV site (*see* Figure 1 above), the observed rate of ozone reductions is almost twice as high as the modeled rate, and the basin-wide rate of 5-yr DV reductions is over 50% faster than the modeled rate. This holds even when using the unusually high 2016 ozone season as the ending year anchor-point in the observed ozone trend.

From the foregoing, it remains clear that the CMAQ models used in developing the AQMPs underestimate the rate of observed ozone reduction over time. That is, the “predictive capability” of CMAQ, as it is applied to the difficult topography and meteorological conditions of the South Coast Air Basin, does not match the rate of ozone reduction that has been observed. While SCAQMD Staff have raised various arguments in their response to comments and in their presentation at the October 26, 2016 STMPRAG meeting, none of those arguments dispels the fundamental fact that the CMAQ-based attainment model that forms the basis for the AQMP underestimates the observed rate of ozone reductions over time by at least a factor of 2.

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There may be identifiable reasons for this significant consistent underestimation of ozone reduction. The initial indications from comparisons of the 2012 emissions inventories used in the CMAQ modeling with the actual measured ambient-concentration VOC/NO<sub>x</sub> ratios are that the precursor inventory ratios are underestimated, suggesting that current 2012 emission inventories may understate VOC emissions, overstate NO<sub>x</sub> emissions, or some combination of the two.

In sum, the dynamic validation work that EPA (and EMA) recommends is not simply an academic exercise. There are real model-performance issues that need to be addressed and resolved, especially since the costs of erroneous model-based projections in this context are extremely high. In fact, the SCAQMD is anticipating that its Final Draft AQMP will have an implementation price tag in excess of \$30 billion. Those enormous costs raise very serious questions about the unintended adverse consequences of inaccurate air quality modeling and emission inventory estimates. Consequently, the Board should specifically direct Staff to undertake the model-validation work that EPA, EMA and Ramboll recommend.

**2. The Current And Recent AQMPs Significantly Underestimate Ozone DV Rates of Reduction When Compared Against Measured SoCAB Ozone DVs**

As noted previously and as discussed in Exhibit A, the CMAQ modeling tool, as applied in this context, is yielding significantly different results compared to the trends in actual observed and measured ozone concentrations. Consequently, since the District Staff cannot point to any new validation efforts demonstrating that the “updated modeling platform” is significantly better at predicting future trends or rates of ozone reductions/increases over time, there is no basis for assuming that the past over-estimates of future ozone levels will not continue. District Staff argues that it has assessed the accuracy (uncertainty) of the models against the “base year” (2012). However, that type of “base year” validation – which really only amounts to a re-anchoring of the model to more recently updated inventory numbers – does not assess the accuracy or predictive capability of the model with respect to actual forecasts or backcasts. It is that type of “dynamic”

108-3

validation work that is required, but has not been done.

Page 5-4 of the Final Draft AQMP is very telling in this regard. There, presumably in response to EMA's previous comments, the District seeks to delete its prior statement that: "*The trend of Basin ozone design values is presented in Fig 5-1. The 8-hour design values have averaged a reduction of approximately 2.3 ppb per year over the 14-year period...*" In place of that factual assertion, Staff now proposes to state more generically in the Final Draft that: "Both the 8-hour and 1-hour ozone design values have decreased over the 14-year period." The District's edit to include less specific language seems to be at odds with the full and fair disclosure that underlies the notice and comment process.

The referenced "14 year period" covers the years from 2001 through 2014. While the District tries now to downplay the average rate of ozone DV reductions over that time period, the District also fails to acknowledge that the previous 2007 and 2012 AQMPs, as well as the current Draft AQMP, continue to predict rates of ozone design value ("DV") reductions that are much lower than those actually measured (see charts below). A review of the three most recent AQMPs shows that the model-predicted ozone DV reduction rates have been as follows:

2007 AQMP: 1.38 ppb per year (years 2002 to 2023)  
2012 AQMP: 0.60 ppb per year (years 2008 to 2023)  
2016 AQMP: 0.73 ppb per year (years 2012 to 2023)

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In a separate analysis that is different from Ramboll's dynamic evaluation, we have evaluated the accuracy of the above CMAQ-derived ozone DV trend predictions. In this separate additional analysis, we have used the following data, assumptions and methods:

- The 2007 AQMP contains predicted ozone DV changes from 2002 to 2023
- The 2012 AQMP contains predicted ozone DV changes from 2008 to 2023
- The 2016 Draft AQMP contains predicted ozone DV changes from 2012 to 2023
- Actual measurements of ozone changes (reductions) between 2002 and 2015 are readily available from CARB and District databases
- Prior analysis by Ramboll using 2012 AQMP CMAQ-ready files, has shown that ozone predictions between 2001 and 2023 are fairly linear (i.e., the slope of reductions between 2001-2014 is almost the same as the slope between 2014 and 2023 for all the SoCAB monitoring sites). It is thus likely that the AQMPs' predictions of ozone changes between 2002, 2008, or 2012 to 2023 also are fairly linear
- AQMP ozone reductions can be calculated between the base year and 2023, and, for this analysis, the reduction rate is assumed to be the same between the base year and 2015 (linearity)

- Using this approach, we can compare ozone DV reduction rates (ppb/year) between the various AQMP’s predictions and those actually measured at the critical monitoring sites in the SoCAB for the relevant years used in each AQMP
  - For example, the blue bar depicting the 2016 Draft AQMP’s estimated ozone reductions for Crestline (0.60 ppb/yr) (see chart below) is calculated as follows: subtracting the 2023 Baseline DV (Table 5-2) from the 2012 5-yr (baseline) Weighted DV (Table 5-1), and then dividing by 11 years (2023-2012). This resulting 0.60 ppb/yr reduction rate is assumed to be the same between 2012-2015 and 2015-2023.
- The actual measured DVs between either 2002, 2008, or 2012 and 2015 are estimated using the slope of a linear regression calculation applied to each ozone data set
- It is recognized that the 2012-2015 period does not offer enough years to obtain a very robust estimate of ozone DV reductions (ppb/yr). Nevertheless, the comparisons can be made for illustrative purposes, keeping this caveat in mind

108-3  
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Using the approach described above, the following charts compare ozone DV reductions (ppb/year) between the various AQMP predictions and the actual corollary measurements obtained at the key air quality monitoring sites in the SoCAB:



The foregoing data clearly indicate that the Final Draft AQMP is still predicting very slow reduction rates in ozone DVs similar to the previous AQMPs. In the case of Crestline, for example, the current modeling predicts a reduction rate of just 0.73 ppb/year. However, a review of CMAQ-predictions versus measured ozone DVs over the last decade, as depicted above, does not support the model predictions. As previously noted, the measured reductions are nearly 2 times greater. Moreover, there is no evidence presented in the Final Draft AQMP to increase the level of confidence in the more recent predictions. To the contrary, it remains likely that the reduction rates predicted for the various monitoring sites in the SoCAB are still under-predicting reality to a significant extent.

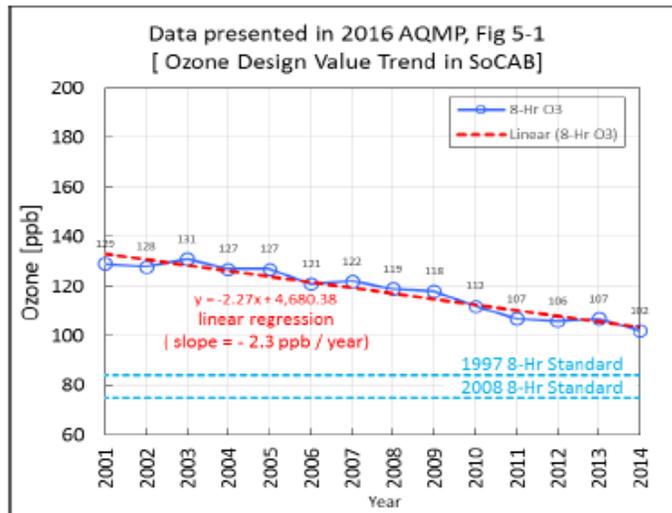
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**3. If The AQMP Under-Estimates Future Ozone DV Reduction Rates, The SoCAB Is Closer To Ozone Attainment In 2023 And 2031**

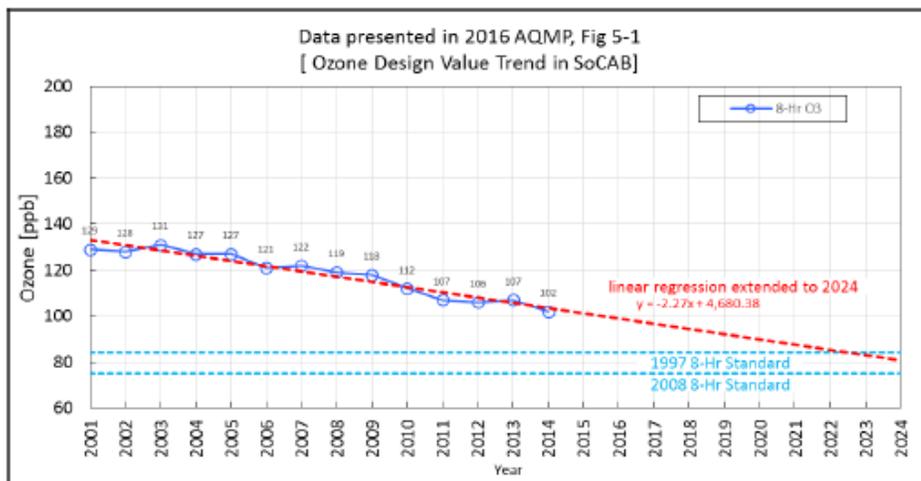
Despite Staff's recent editing, the fact remains that the measured 8-hour ozone design value in the SoCAB has been declining at a rate of 2.3 ppb per year over the 14-year period from 2001 to 2014. At that same rate, the ozone level at Crestline (which was 101 ppb in 2014) would be 80 ppb in 2023 and 62 ppb in 2031. That rate of decline would result in an ozone level that would be well below the targeted attainment level in 2031 (of 75 ppb) and in attainment with the applicable NAAQS in 2023 (i.e., a DV less than 85 ppb), without any additional control measures. While expecting a constant linear 2.3 ppb/year reduction between 2012 and 2023 may not be reasonable, a rate of 0.73 is arguably even more unlikely based on the analyzed data to date.

Figure 5-1 from the Final Draft AQMP (p. 5-4) shows the ozone DV trend, and compares it against the 1997 8-hr standard (84 ppb when accounting for allowable rounding). Figure 5-1 is reproduced below. For clarity, we have added labels to each data point. We have also included a linear regression through the data (which yields the estimated 14-year ozone-reduction slope of -2.3 ppb/year). It is interesting to note that the DV during those 14 years was set by Crestline each year, except in 2013. In that year, Crestline's DV was 102 ppb while Redlands' DV was 107 ppb. The ozone DV rate of reduction for Crestline during that time period was -2.42 ppb/year.

108-4



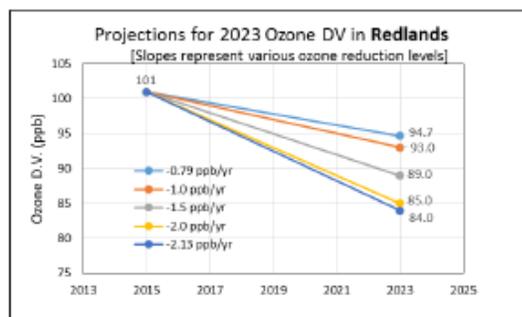
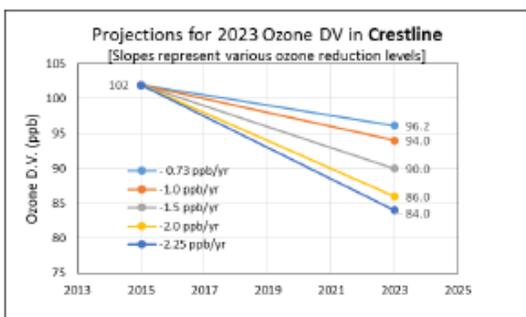
For additional insight, the same data shown are below, extended to 2024, the year when attainment with the 1997 8-hr ozone standard of 84 ppb must be demonstrated. When the established trend is extended to 2024, again simply for illustrative purposes (not for dynamic evaluation purposes), the DV appears to meet the 1997 8-hr standard on time.



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While we have heard from CARB and SCAQMD Staff that the measured ozone DV trends are expected to change (slow down) in the future, that trends are already changing at some monitoring stations given recent extreme meteorological conditions, and that linear projections are too simplistic, the conclusion still remains that CMAQ-modeled results, as derived for prior AQMPs and the Final Draft, have significantly under-predicted the pace of ozone DV reductions. In that regard, the 2012 AQMP discussed an expected slowing of the ozone DV reduction rates beyond 2008, but those slower-paced reductions were not confirmed by the subsequently measured data. Moreover, the 2012 AQMP did include emissions inventory updates to account for the 2008-2010 recession, so the recession cannot serve as a potential rationale for the significant discrepancies between AQMP-estimated and actual (measured) ozone DV reductions.

There are other ways to explore this same fundamental concern. For example, the chart below illustrates the estimated ozone DV levels for Crestline and Redlands in 2023. Since the actual ozone DVs for 2015 are already known (102 and 101 ppb, respectively, pursuant to CARB's published records), one can predict the 2023 ozone DVs assuming various reduction rates. The Crestline chart shows that the Final Draft AQMP-predicted rate of 0.73 ppb/yr results in a 2023 ozone DV of 96.2 ppb (12 ppb above attainment). However, if the 0.73 ppb/yr is under-estimated, and, if for instance, the real reduction rates between 2015 and 2023 are more on the order of 1.5 ppb/yr, the 2023 ozone DV would be 90 ppb (just roughly 6 ppb out of attainment). Furthermore, if the actual reduction rate between 2015 and 2023 ends up being closer to 2.25 ppb/yr, Crestline would be in full attainment with the 84 ppb standard. Similar conclusions can be drawn for Redlands or any other monitoring station in the SoCAB. These seemingly small differences in 2023 ozone levels can have a profound effect on the necessary extent and cost of attainment-strategy emission reductions. While these projections all have inherent limitations and imprecision (and over-simplification), they all caution against implementing a \$30 billion-plus AQMP (including approximately \$14 billion in incentive funding) before all of the significant modeling uncertainties at issue are resolved.



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#### 4. The AQMP Needs To Include A Quantitative Uncertainty Analysis Of Baseline And Future-Year Emission Estimates

A section of Chapter 3 of the Final Draft AQMP, entitled “Uncertainties in the Emissions Inventory” (p. 3-9), stresses the importance of an accurate inventory and describes general improvements to emissions models. However, the District fails to include any quantitative uncertainty estimates for the baseline or future-year emissions estimates. Similarly, the District does not discuss or attempt to quantify the uncertainties associated with the methods and datasets used to prepare the emissions estimates for air quality modeling (e.g., spatial and temporal allocation, and chemical speciation).

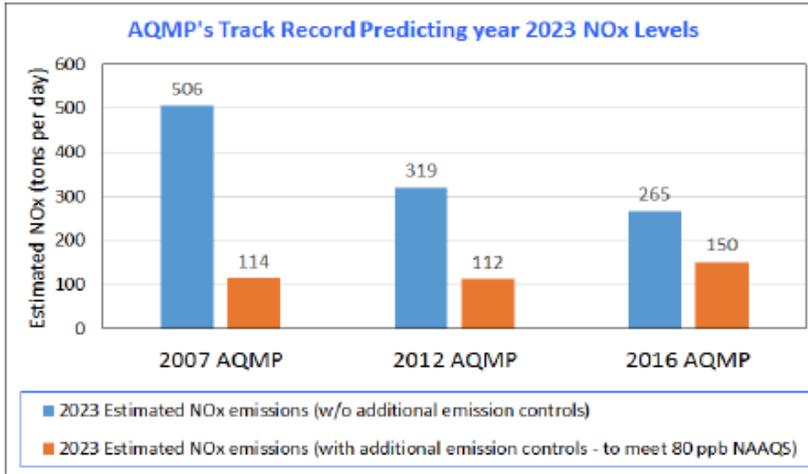
108-5

Of particular interest are the uncertainties associated with the on-road mobile source emissions estimates that are generated from EMFAC2014. Mobile source NO<sub>x</sub> emissions estimates are an area of active research, and several recent studies have found that photochemical grid modeling results show better agreement with ambient monitoring data when NO<sub>x</sub> emissions are decreased by 50% or more. (See Anderson et al., 2014; Kota et al., 2014; Canty et al., 2015; Jacob et al., 2015.)<sup>1</sup> Generally, those studies attribute the NO<sub>x</sub> overestimates to the mobile source sector. For example, Anderson et al. (2014) suggest that emission control systems deteriorate more slowly than is assumed in EPA’s MOVES. In its prior comments, EMA has highlighted similar concerns relating to the over-stated zero-mile emission rate, and the over-estimated tampering, malfunction and malmaintenance (“TM&M”) rates incorporated into EMFAC2014.

<sup>1</sup> Canty, et al., “Ozone and NO<sub>x</sub> Chemistry in Eastern US: Evaluation of CMAQ/CB05 with Satellite (OMI) Data,” *Atmos. Chem. Phys.*, 15: 10965-10982 (2015); Anderson, et al., “Measured and Modeled CO and NO<sub>y</sub> in DISCOVER-AQ: Evaluation of Emissions and Chemistry Over the Eastern U.S.,” *Atmos. Environ.*, 96:78-87 (2014); Kota, et al., “Evaluation of On-Road Vehicle CO and NO<sub>x</sub> National Emission Inventories Using an Urban-Scale Source-Oriented Air Quality Model,” *Atmos. Environ.*, 85:99-108; Zhou, et al., “Reconciling NO<sub>x</sub> Emissions Reductions and Ozone Trends in the U.S., 2002-2006,” *Atmos. Environ.*, 70:236-244 (2013); and Jacob, et al., “Factors Controlling PM and Ozone Over the Southeast US as Emissions Decrease: Insights From the NASA SEAC<sup>4</sup>RS Campaign,” EPRI Envision Conference (2015).

While page 3-9 of the Draft AQMP states: “forecasts are made with the best information available; nevertheless, there is uncertainty in emissions projections,” this section on uncertainties does not describe or quantify the specific uncertainties related to the District’s emissions forecasts. That omission is especially concerning given the dramatic differences in future-year emission projections among the various versions of the AQMP. For example, as shown on the chart below, for the same future-year of 2023, the 2007, 2012, and 2016 AQMPs project baseline NO<sub>x</sub> emissions of 506 tpd (2007), 319 tpd (2012), and 265 tpd (2016) – results that vary by nearly 50%. Because those NO<sub>x</sub> emissions projections play a critical role in the accuracy of modeled future-year ozone projections, additional understanding of the significant differences in forecasted NO<sub>x</sub> emissions is required before finalizing the Draft AQMP.<sup>2</sup>

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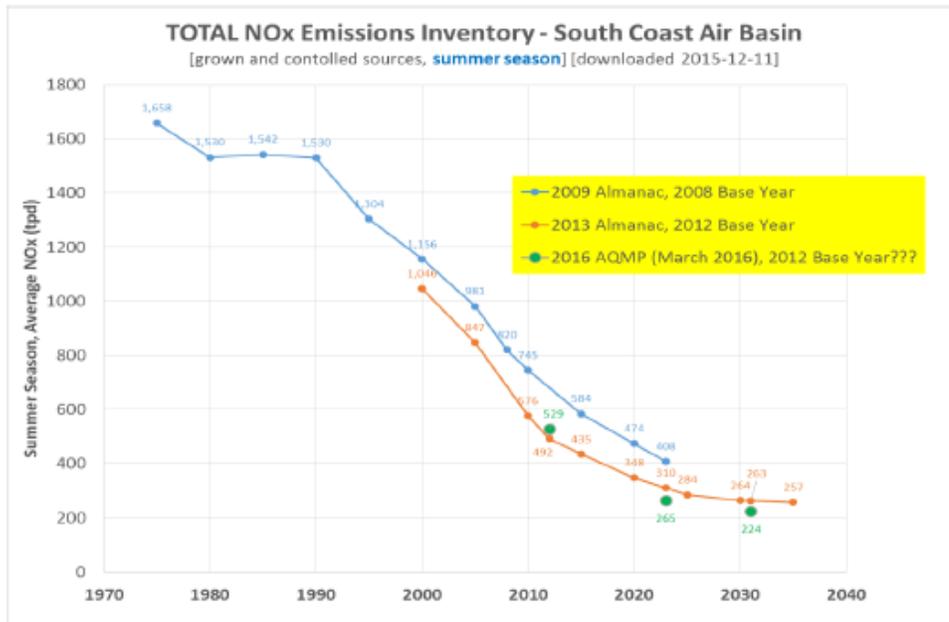
<sup>2</sup> Even accounting for the various emission control regulations adopted between the 2007 AQMP and the 2016 Draft AQMP, the baseline NO<sub>x</sub> emission projections would still vary by more than 100 tpd (more than 35%). EMA’s concerns regarding the out-of-date assumptions underlying CARB’s HDOH NO<sub>x</sub> emission inventories were explained in detail in EMA’s prior comments, submitted on August 19, 2016. They are incorporated by reference here.

**5. The Impact Of The 2008-10 Recession Was Already Accounted For In The 2012 AQMP, And Should Not Be Considered An Improvement To The 2016 AQMP Modeling**

At page 5-8 of the Final Draft AQMP, the District states: "... Lower 2023 baseline VOC and NO<sub>x</sub> emissions in the 2016 AQMP relative to the 2012 AQMP reflect the impact of ... the recession occurring between 2008 and 2010." That is not a fair statement.

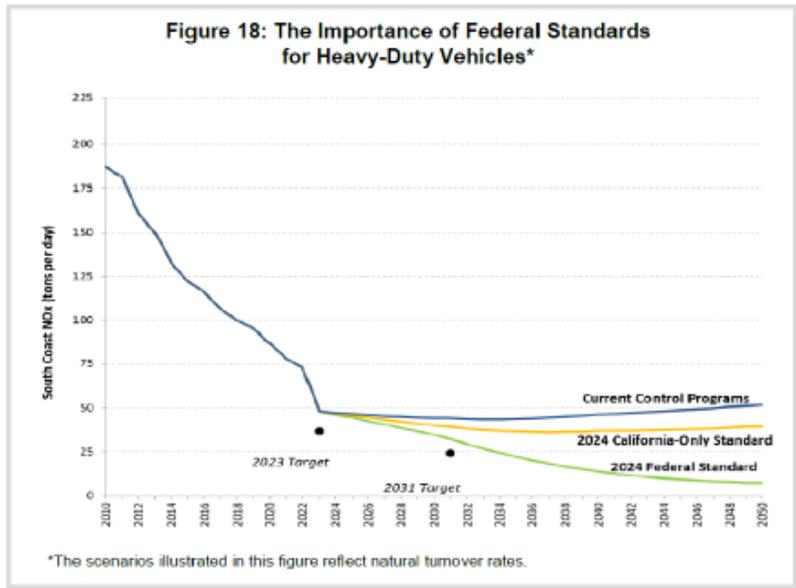
Review of the 2012 AQMP reveals that the emissions inventory used for that analysis was based on the 2013 CARB Almanac. Significantly, that set of inventory numbers already appears to have accounted for the 2008-2010 recession. The figure below shows a comparison of NO<sub>x</sub> inventory values from the 2009 and 2013 Almanacs, along with the most recent NO<sub>x</sub> values used in the Draft AQMP. It is clear that the 2013 Almanac NO<sub>x</sub> emissions (which were used for the 2012 AQMP) show an "additional reduction" of NO<sub>x</sub> between the 2008 and 2010 time frame. The NO<sub>x</sub> slopes of the 2009 and 2013 Almanac values are clearly different during the recession period. Additionally, the NO<sub>x</sub> values used in the Draft AQMP (shown in green) seem to line up quite closely to those of the previous inventory. From this, it seems unjustified to attribute a significant portion of the NO<sub>x</sub> inventory changes in the 2016 AQMP model to the 2008-2010 recession.

108-6



**6. The District Board Should Note That The Proposed HDOH “Low-NO<sub>x</sub> Engine Standard” Should Be Viewed Simply As A Placeholder SIP Control Measure**

A key component of the Final Draft Plan is the adoption of a new nationwide 90%-lower FTP-based NO<sub>x</sub> standard for HDOH engines and vehicles, set at 0.02 g/bhp-hr (*i.e.*, 90% lower than the current FTP-based standard of 0.20 g/bhp-hr). The District estimates that a nationwide low-NO<sub>x</sub> standard would yield NO<sub>x</sub> reductions in the SoCAB of 7 tons per day (tpd) in 2031, which would be additive to a California-only low-NO<sub>x</sub> standard that would yield 5 tpd in NO<sub>x</sub> reductions as of 2031. (*See* Final Draft AQMP, p. 4-35.) This is depicted in Figure 18 of CARB’s Mobile Source Strategy Document, as follows:



108-7

As the District notes in its AQMP, “in order to achieve the maximum emission reductions from this proposed [low-NO<sub>x</sub> HDOH engine] measure, a federal standard is necessary.” (Final Draft AQMP, p. IV-B-32, 33.) The District goes on to state:

Federal action is necessary to implement this [0.02 g/bhp-hr] emission standard, since emission reductions would come mostly from Class 4-6 vehicles (as most Class 7 and 8 vehicles operating in California were originally purchased outside the State) from a California-only ARB regulation. Due to the preponderance of interstate trucking’s contribution to emissions in California, timely federal action to implement a national low-NO<sub>x</sub> engine standard is critical to provide the emission reductions needed for attainment. The State SIP Strategy thus calls for U.S. EPA to develop a national low-NO<sub>x</sub> standard .... [A] California-only low-NO<sub>x</sub> standard would only impact a fraction of the heavy-duty activity and emissions in California. (*Id.* at IV-B-33.)

On December 20, 2016, EPA responded to the District's specific petition requesting that EPA adopt, in 2017, a nationwide 90%-lower NO<sub>x</sub> standard for HDOH engines and vehicles. In that response, the Agency made it clear that, as an initial matter, "it will take on the order of 24 months to complete the technical work and prepare a notice of proposed rulemaking for a new on-highway heavy-duty NO<sub>x</sub> program." (EPA Memorandum in Response to Petition, p.16.) EPA then went on to state as follows:

A more rapid timeframe would limit the inquiry to standards based on current regulatory test procedures and test cycles. EPA believes a more robust assessment and regulatory development process will lead to more real-world emission reductions .... EPA also believes that in order to achieve cost-effective real-world reductions, we must look beyond simply reducing the HDOH NO<sub>x</sub> standard over the test procedures and test cycles that we currently require. Therefore, it should not be presumed that EPA would eventually propose a NO<sub>x</sub> standard of 0.02 g/bhp-hr .... EPA believes it is premature to commit to a particular level or form of a future low-NO<sub>x</sub> standard for heavy-duty engines or vehicles, especially in advance of developing the robust technical record necessary to propose and promulgate such standards. (Id. at 16-17.) (Emphasis added.)

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Cont

EPA's response to the District's petition makes it absolutely clear that "it should not be presumed" that EPA will eventually propose an FTP-based 0.02 g/bhp-hr NO<sub>x</sub> standard for HDOH engines. Rather, it is far more likely that EPA will develop an alternative regulatory NO<sub>x</sub>-control program that targets real-world HDOH emission reductions in a manner that "looks beyond simply reducing the NO<sub>x</sub> standard over the [current] test procedures and test cycles."

The SCAQMD Board needs to ensure that the Final Draft AQMP is revised to reflect this reality. More specifically, the AQMP should be revised to reflect the fact that a federal nationwide 0.02 g/bhp-hr HDOH NO<sub>x</sub> standard cannot be presumed, and that, as a result, the SIP control measures that call for the adoption of that specific low-NO<sub>x</sub> standard should simply be viewed as placeholder measures pending the more robust data-driven regulatory development process that EPA envisions, and that will play out over the next 24 months. Adopting an AQMP without those necessary caveats would be inherently misleading.

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EXHIBIT A



December 13, 2016

**DRAFT MEMORANDUM**

To: Sang-Mi Lee and Phillip Fine, South Coast Air Quality Management District (SCAQMD)

From: Ralph Morris and Prakash Karamchandani, Ramboll Environ US Corporation (RE)  
Steve Reid and Hilary Hafner, Sonoma Technology, Inc. (STI)

Subject: Response to SCAQMD's Presentation on RE-STI Dynamic Evaluation and Ambient/Emissions Data Analyses

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Thank you for allowing us to present some of the dynamic model performance evaluation results at the October 26, 2016 STMPRAG meeting, and for taking the time to analyze our results and data, and to formulate your presentation at the meeting. As you know, dynamic model performance evaluation is one of the four types of model performance evaluation approaches (Operational, Diagnostic, Dynamic and Probabilistic) that EPA recommends in the Agency's current (EPA, 2007<sup>1</sup>) and proposed draft (EPA, 2014<sup>2</sup>) modeling guidance for ozone and PM<sub>2.5</sub> State Implementation Plan (SIP) modeling. In our dynamic evaluation, we used the 2012 AQMP CMAQ 2008 and draft 2016 AQMP CMAQ 2012 modeling databases, and modeled historical emission periods to compare the modeled and observed ozone trends in the South Coast Air Basin (SoCAB). In our STMPRAG meeting presentation we also discussed a comparison of observed ambient concentrations of ozone precursor data (NO<sub>x</sub>, VOC and CO) and their ratios with 2012 emissions inventory data used in the draft 2016 AQMP. Our technical analysis was conducted by staff at Ramboll Environ (RE) and Sonoma Technology Inc. (STI) under contract with the Truck and Engine Manufacturers Association (EMA).

Below we clarify our results and respond to your STMPRAG meeting presentation and comments. These responses are intended to help you better understand our analyses and their implications, which could potentially lead to improved modeling tools that can be used in your modeling refinement process to make more accurate and reliable future year ozone projections in future AQMPs. Our responses below are based on comments from the STMPRAG meeting, our presentation (Item 3a), and the SCAQMD's presentation (Item 3b) from the October 26, 2016 STMPRAG meeting. The presentations can be found at the following links:

[http://www.aqmd.gov/docs/default-source/Agendas/STMPR-Advisory-Group/Oct2016/3a\\_reema.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/Agendas/STMPR-Advisory-Group/Oct2016/3a_reema.pdf?sfvrsn=4)

<sup>1</sup> <https://www3.epa.gov/ttn/scram/guidance/guide/final-03-pm-rh-guidance.pdf>

<sup>2</sup> [https://www3.epa.gov/ttn/scram/guidance/guide/Draft\\_O3-PM-RH\\_Modeling\\_Guidance-2014.pdf](https://www3.epa.gov/ttn/scram/guidance/guide/Draft_O3-PM-RH_Modeling_Guidance-2014.pdf)  
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V +1 415.899.0700 F +1 415.899.0707  
[www.ramboll-environ.com](http://www.ramboll-environ.com)

[http://www.aqmd.gov/docs/default-source/Agendas/STMPR-Advisory-Group/Oct2016/3b\\_emaresponse.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/Agendas/STMPR-Advisory-Group/Oct2016/3b_emaresponse.pdf?sfvrsn=4)

## DYNAMIC EVALUATION PRESENTATION COMMENTS

### STMPRAG Comments on Dynamic Evaluation Presentation

During the RE presentation at the STMPRAG meeting on our dynamic model performance evaluation and ambient/emissions inventory analyses, the SCAQMD and others at the meeting had several comments that we discuss below.

#### Uncertainties in Historical Emissions and Boundary Condition Inputs

Our dynamic evaluation involved CMAQ simulations using historical emissions over approximately 25 years (1990-2015) in order to compare observed vs. modeled ozone trends over time. This analysis was performed first using the 2012 AQMP CMAQ 2008 modeling database, and then using the draft 2016 AQMP CMAQ 2012 modeling database when it was released in August 2016. The spatial and temporal distribution of the emissions for the historical CMAQ simulations using the CMAQ 2008 (2012 AQMP) or CMAQ 2012 (2016 AQMP) modeling databases were held constant and scaled according to the basin-wide changes in emissions with VOC speciation adjustments. Comments during the STMPRAG meeting noted that this approach fails to account for the changes in spatial distribution over time (e.g., urban growth) as well as the effects of new sources (e.g., freeways) or retired sources. The limitation of this assumption is recognized and introduces uncertainty in the analysis, especially the farther the historical year is from the base year (i.e., 2008 for 2012 AQMP or 2012 for 2016 AQMP CMAQ databases). To address this issue, we emphasize the observed/modeled ozone trends for more recent years (e.g., 2008-2015) in our dynamic evaluation more than the farther back historical years (e.g., 1990 and 1995). Generating model-ready historical emissions using first principles (e.g., historical fleet distribution networks) were not feasible since some of the underlying data are unavailable and the ARB/SCAQMD use custom emissions modeling software that is not used by others or readily available to the public. If the ARB/SCAQMD could provide more refined model-ready historical emission inventory inputs using their custom emissions modeling software, we would be happy to include it in our historical ozone modeling to reduce the uncertainties in this assumption.

A second source of uncertainty raised in comments during the STMPRAG meeting was that boundary conditions (BCs) for the 4 km Southern California domain were held constant at 2008 (2012 AQMP) or 2012 (2016 AQMP) levels in the historical simulations. Comments noted that ozone has been coming down in California and this effect may overstate the ozone from BCs for the historical year simulations, especially for the northern BC. However, the amount of ozone coming in from Asia has increased during this period so ozone coming through the western BC may be understated in the historical simulations. Thus, how the BCs should be adjusted is unclear. Again, focusing on the comparisons between more recent observed and modeled ozone trends (e.g., 2008-2015) will minimize the impact of this uncertainty on the dynamic evaluation results. If ARB/SCAQMD could provide historical BC inputs for the 2012 base

meteorological year and 4 km SoCAB domain used in the 2016 AQMP (e.g., BCs for the 2008, 2005, 2000 and/or 1995 emission years) using historical MOZART GCM and CMAQ 12 km California domain simulations, we could include them in the historical CMAQ simulations for the SoCAB to reduce the effects of this uncertainty on the dynamic evaluation.

#### 2016 Ozone Season Results

The SCAQMD commented that ozone concentrations in 2016 were higher than previous years, and including them in the observed ozone trends results in more favorable comparisons of the observed and modeled ozone trends. We recognize that the observed ozone was unusually higher in 2016. At the STMPRAG meeting, SCAQMD staff attributed the 2016 high observed ozone concentrations in part to anomalous meteorological conditions that were in the top 0.5% of ozone formation potential conditions based on analysis of observations going back 70 years (1946-2016). We did not include 2016 observations in our ozone trend presentation since much of the analysis was conducted before the end of the 2016 ozone season so the data did not exist. Furthermore, the 2016 ozone observations have not yet been validated so are not available on EPA's website. However, as shown below, we have re-analyzed our dynamic performance evaluation using the un-validated 2016 ozone observations. Although the observed rate of ozone reduction is reduced using the 2016 observed ozone end point, it does not change the basic conclusions regarding the fact that the modeled ozone trends are not coming down as fast as observed (See Figure 1).

#### Use of 3-Year vs 5-Year Ozone Design Values

During the STMPRAG meeting, the SCAQMD commented that the RE dynamic evaluation should have used the 5-year ozone Design Value (5-yr DV) instead of the 3-year ozone Design Value (3-yr DV). The ozone National Ambient Air Quality Standard (NAAQS) is based on the ozone Design Value that is defined as the three-year average of the fourth highest maximum daily average 8-hour (MDA8) ozone concentrations (i.e., the 3-yr DV). This definition is mandated by law in the code of federal regulations (40 CFR Part 50) and determines whether the SoCAB attains the NAAQS or not. However, EPA's current (EPA, 2007) and proposed draft (EPA, 2014) modeling guidance recommends making ozone projections using the 5-yr DVs (average of three years of official 3-yr DVs) in order to somewhat moderate the effects of year-to-year variations in ozone concentrations. Although we performed the dynamic evaluation of the 2012 and draft 2016 AQMP CMAQ databases using both the 3-yr DVs and 5-yr DVs, due to time limitations for the STMPRAG meeting presentation we just presented the more regulatory relevant 3-yr DV ozone trend results. As discussed below, the conclusion that the model underestimates the observed rate of ozone reduction over time holds whether the 3-year or 5-year ozone DV is used.

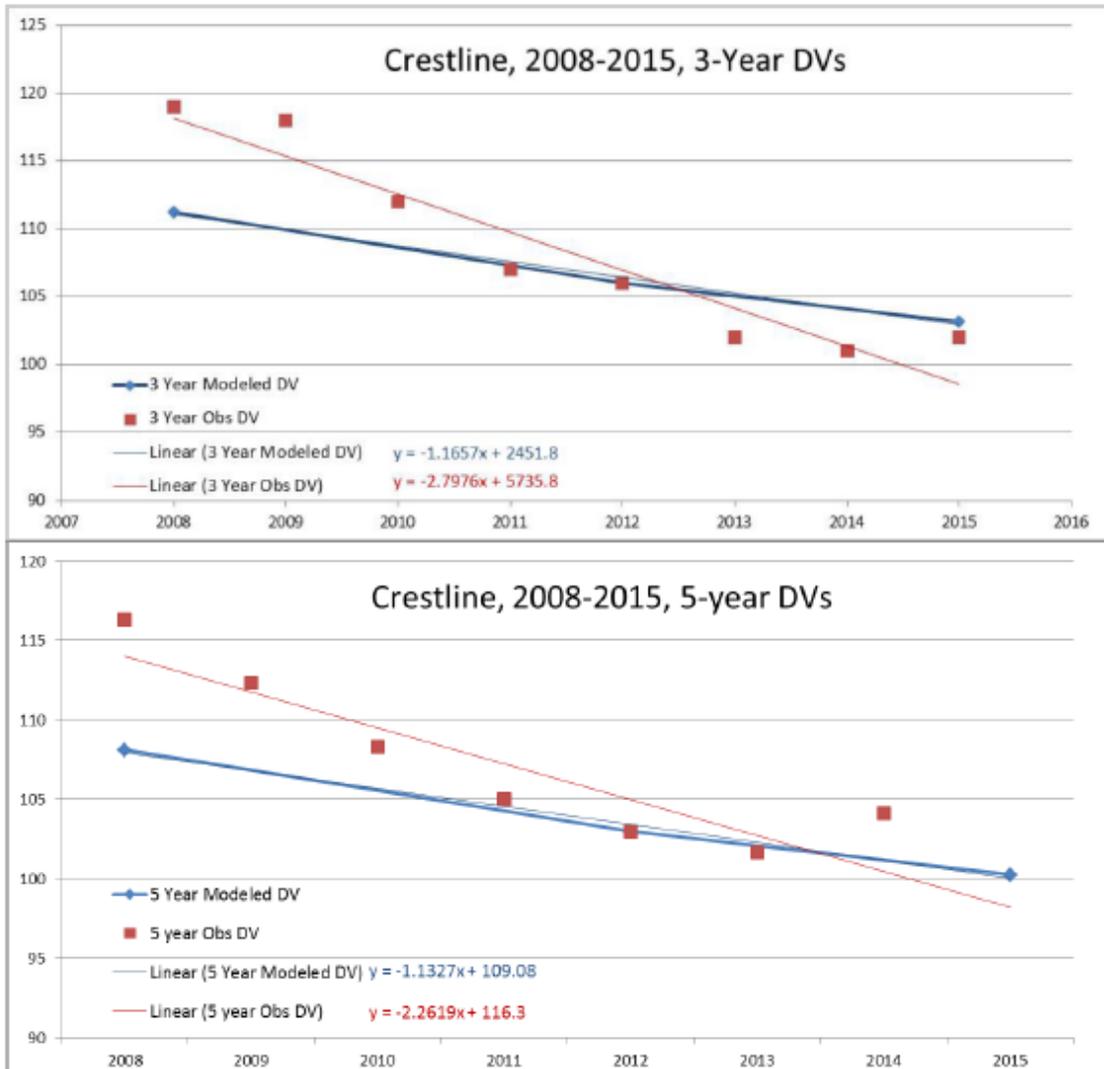
Figure 1 presents our dynamic model evaluation comparing observed ozone trends at Crestline, which corresponds to the Basin-wide ozone maximum most of the time, with the draft 2016 AQMP CMAQ 2012 modeling database for the period of 2008 to 2014/2015. This dynamic evaluation addresses SCAQMD's comments by:

- Showing the observed and modeled ozone trends using both the 3-yr DV (Figure 1, top) and 5-yr DV (Figure 1, bottom).
- Including observed ozone data from 2016 in the trends analysis (i.e., observed ozone trends end using 2015 3-year DV (2014-2016) or 2014 5-year DV (2012-2016)).
- Limiting the trends analysis between 2008 and 2014/2015 when the uncertainties associated with using 2012 spatial distribution of emissions and BCs is minimized.

The SCAQMD is correct, when including the higher observed ozone data from 2016, the observed and modeled ozone trends are closer together as shown in Table 1 below. However, even when including the unusually high observed ozone from 2016, the modeled ozone trend reduction using the 2016 AQMP CMAQ 2012 is still at least a factor of 2 or more less steep than the observed trend. Figure 1 also shows how the trends were calculated using regression equations through the available ozone data between 2008 and 2015. Note that for the 5-yr DV trends, the observed data only go through 2014, since that is the last year the observed ozone data are available for calculating the 5-yr DV (i.e., 2012-2016), whereas for the 3-yr DV the trends go through 2015 (2015 3-yr DV based on 2014-2016 data).

Table 1. Comparison of observed and modeled ozone Design Value (DV) trends (ppb/year) using for 2008-2014/2015 using the draft 2016 AQMP CMAQ 2012 modeling database.

• Ozone DV	• Observ	• Modele	• Ratio
• 3-Yr DV	• 2.	• 1.1	• 2
• 5-Yr DV	• 2.	• 1.1	• 2



**Figure 1. Observed and modeled ozone Design Value (DV) trends at Crestline using the 3-yr DV (top) and 5-yr DV (bottom) and the draft 2016 AQMP CMAQ 2012 modeling platform using observed trends through 2016 ozone season data.**

### SCAQMD Presentation of Comments on the RE-STI Dynamic Evaluation

The SCAQMD presentation on the RE-STI dynamic model performance evaluation at the STMPRAG meeting commented on several issues. Our response to each of these issues is discussed below. The sections headings using *Italic Underline* correspond to slide titles or statements from the SCAQMD's STMPRAG presentation.

#### *Design Values Can Not be Linearly Extrapolated (SCAQMD Slides No. 2 and 3)*

Slides number 2 and 3 from the SCAQMD STMPRAG meeting presentation are reproduced in Figure 2 below. These slides imply that our dynamic evaluation extrapolated the ozone DVs. However, our dynamic evaluation presentation never extrapolated the ozone DVs. Rather it compared historical observed ozone trends with modeled changes in ozone over different historical periods dating as far back as 1990 (2012 AQMP) or 1995 (2016 AQMP) to current (2014/2015). The comparison of the historical observed and modeled ozone trends clearly shows that the modeled rate of ozone reduction over time is significantly lower than observed. Our dynamic evaluation compares the observed ozone rate of ozone reduction over time with modeled values using linear regression equations within the 1990-2015 time periods, with no extrapolation. In the discussion below, we have included the observed 2016 ozone data in the dynamic evaluation that was not available at the time of our previous analysis.

*Emissions are Non-Linear:* The SCAQMD slides also state that the change in emissions over time is nonlinear. We recognize that and it was accounted for in the dynamic evaluation by adjusting the emissions to historical levels using the nonlinear changes in emissions between the base year (2008 for 2012 AQMP and 2012 for 2016 AQMP) and historical year.

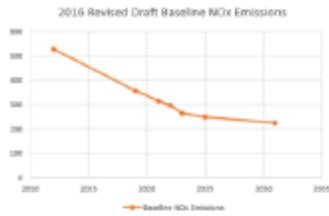
*Ozone Response to Emission Reductions is Non-Linear Due to Complex Chemistry:* The SCAQMD slides also indicate that the ozone response to emission changes is non-linear. This is also accounted for in the dynamic evaluation by using the SAPRC photochemical mechanism in the CMAQ model that includes complex non-linear photochemistry that accounts for the nonlinearities in ozone formation.

As noted above, we do calculate the observed and modeled trend in ozone reductions using a linear regression equation. In fact, the linear regression equation matches the observed and modeled ozone trends very well (see Figure 1). There is year-to-year variability in the observed ozone concentrations due to meteorological variations (especially apparent in the unusual 2016 observed data), but in general the linear regressions do a good job in replicating the observed and modeled ozone trends over longer periods of time (e.g., 5+ years).

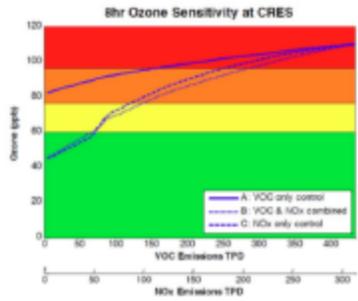
Thus, all issues raised in the SCAQMD slides were addressed in our dynamic evaluation.

## Design Values Can Not be Linearly Extrapolated

Emissions are Non-Linear



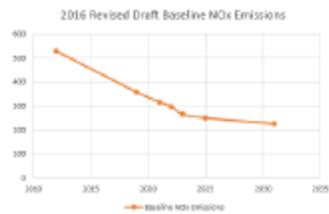
Ozone Response to Emission Reductions is Non-Linear Due to Complex Chemistry



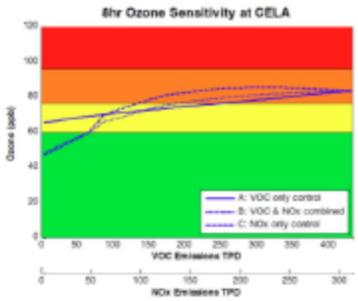
VOC Control Worksheet (2013 AQMP model data)

## Design Values Can Not be Linearly Extrapolated

Emissions are Non-Linear



Ozone Response to Emission Reductions is Non-Linear Due to Complex Chemistry



VOC Control Worksheet (2013 AQMP model data)

Figure 2. Slides No. 2 (top) and 3 (bottom) from SCAQMD's presentation Item 3b from the October 26, 2016 STMPRAG meeting (Source: SCAQMD, 2016).

Time Window that Slopes are Calculated Matters (SCAQMD Slides No. 4 and 5)

Figure 3 reproduces SCAQMD slides number 4 and 5 from the SCAQMD’s STMPRAG meeting presentation that make the point that the time window chosen for analyzing observed and modeled ozone trends can make a difference. We agree, which is why we analyzed ozone trends over several different time windows and tried to examine trends over sufficiently long periods so that they are meaningful and not unduly influenced by year-to-year variations in ozone due to meteorological variations. For example, the observed rate of ozone reductions between 1990 and 2000 was greater than in more recent years. In order for the ozone trends to have meaning, they need to be calculated over a sufficient amount of years so that year-to-year variability due to meteorology does not dominate the trends.

Figures 4a, 4b, and 4c display our dynamic evaluation for the draft 2016 AQMP CMAQ 2012 modeling database using the 5-yr DVs at Crestline for five different time windows ranging from 25 to 4 years in length, with the tabular summary of the observed and modeled ozone trends comparison given in Table 2. With the exception of the 2011-2015/2014 trend based on 4 data points with the end point being the 2014 5-yr DV (2012-2016) that is highly influenced by the unusually high 2016 ozone levels (Figure 4c), the rate of the observed ozone reduction is 1.3 to 2.8 times faster than modeled. The last time window, from 2011-2015/2014 not only is highly influenced by the unusual 2016 ozone levels, but does not provide enough time ( 4 years of 5-yr DV data) to establish a “trend” that can be used for robust comparisons.

**Table 2. Comparison of observed and modeled 5-yr DV ozone trends (ppb/year) for five time windows at Crestline using the draft 2016 AQMP CMAQ 2012 modeling database.**

Time Window	Observed Trend (ppb/year)	Modeled Trend (ppb/year)	Ratio Trend Obs/Mod
1995-2015/2014	2.94	2.30	1.28
2000-2015/2014	2.41	1.76	1.37
2005-2015/2014	2.59	0.92	2.82
2008-2015/2014	2.26	1.13	2.00
2011-2015/2014	0.40	0.91	0.44

The following paragraphs present our response to the three bullet points in SCAQMD’s presentation slide number 4 (Figure 3, top).

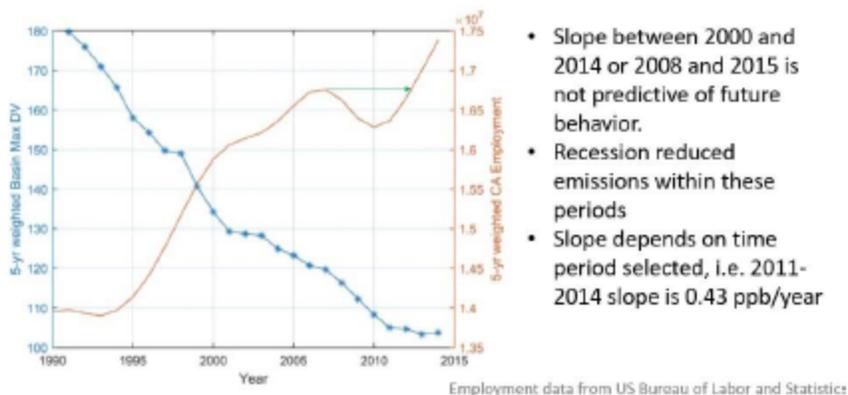
Slope between 2000 and 2014 or 2008 and 2015 is not predictive of future behavior (SCAQMD slide no 4): This is not our statement; what we are demonstrating is that previous “future predictions” in AQMPs systematically underestimated ambient “future” concentration reductions from emission reductions and that the AQMP modeling databases (2012 and 2016 AQMP) do not estimate as great a rate in ozone reductions as observed when performing modeling of historical years. Our conclusion would be that there is a high probability that the current 2016 AQMP modeling would be affected by the same systematic underestimation. The CMAQ 2023 ozone projections in the 2012 AQMP has greatly understated the observed rate of

ozone reduction, as well as the CMAQ model underestimating the rate of observed ozone reduction in historical years. The draft 2016 AQMP exhibits similar underestimation of observed rate of ozone reductions in historical years. Although it is difficult to predict the future, the draft 2016 CMAQ 2012 modeling database ozone reduction rate still appears to be less responsive to changes in emissions than observed.

*Recession reduced emissions within these periods (SCAQMD slide no. 4):* The Great Recession occurred between December 2007 and June 2009. The 2012 AQMP, which was developed after the end of the recession, spent considerable effort in accounting for the effects of the recession on NO<sub>x</sub> and VOC emissions, so they were accounted for in the modeling. The 2016 AQMP was developed well after (~5 years) the end of the recession, so its emissions also include the effect of the recession. Consequently, the effects of the recession are reflected in both the modeled and observed ozone trends in both of the 2012 and 2016 AQMPs.

*Slope depends on time period, i.e. 2011-2014 slope is 0.43 ppb/year (SCAQMD slide no. 4):* As noted in the SCAQMD presentation, the observed 5-yr DV ozone trend over 2011-2014 period is 0.4 ppb/year as stated in SCAQMD's slide number 4 (Figure 3, top) and shown in our analysis in Figure 4c and Table 2. However, 4 data points of 5-yr DVs is not a sufficiently long time to establish a trend, especially when using the 2016 year end point that SCAQMD noted at the STMPRAG meeting was in the top 0.5% of ozone formation conducive meteorological conditions over the last 70 years (1946-2016). As shown in the 1995-2015 20-year ozone time series plot at the top panel of Figure 4a, the observed ozone reduction trend has experienced numerous shoulders of lower reduction along with steeper slopes of faster ozone reductions when looking at short time periods. For example, the observed ozone reduction trend between 1997 and 1998 was 0.7 ppb/year followed by an ozone reduction rate of 8.3 ppb/year, neither of which represents a true ozone trend due to too short of a time period for analysis.

## Time Window that Slopes are Calculated Matters



## Time Window that Slopes are Calculated Matters

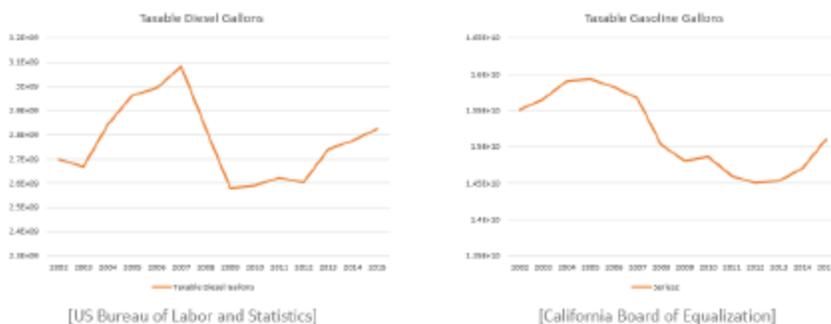


Figure 3. Slides No. 4 (top) and 5 (bottom) from SCAQMD’s presentation Item 3b from the October 26, 2016 STMPRAG meeting (Source: SCAQMD, 2016).

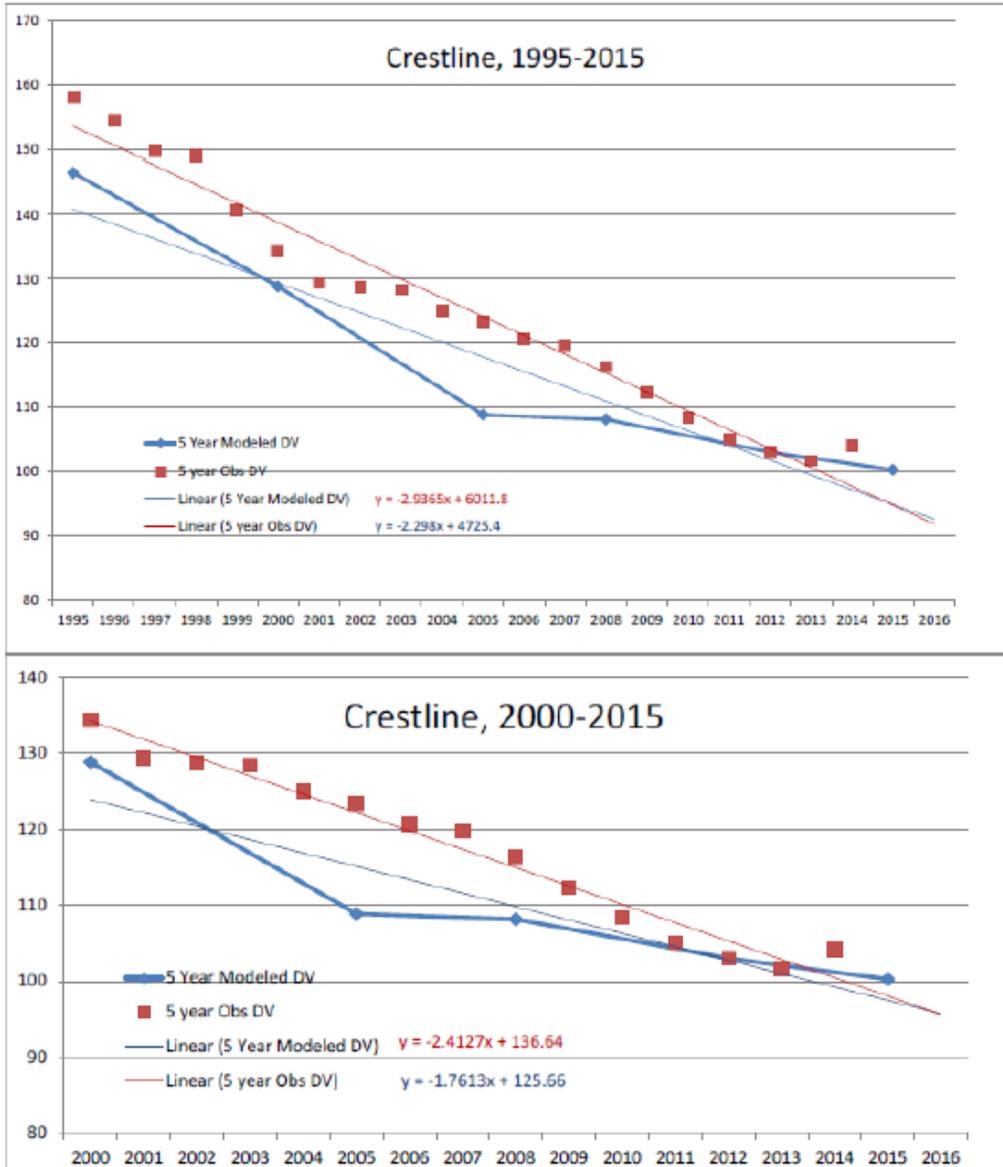


Figure 4a. Observed and modeled 5-yr DV ozone trends using the draft 2016 AQMP CMAQ 2012 modeling database at Crestline for 1995-2015 (top) and 2000-2015 (bottom).

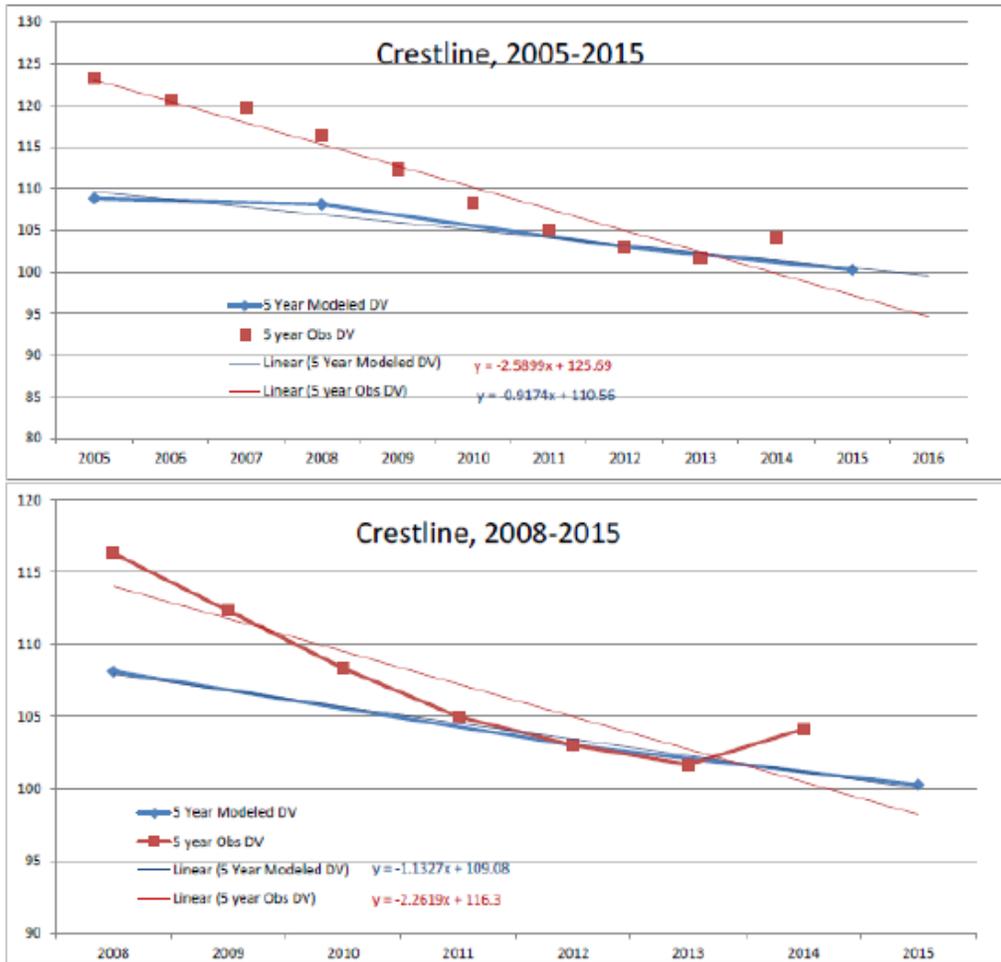


Figure 4b. Observed and modeled 5-yr DV ozone trends using the draft 2016 AQMP CMAQ 2012 modeling database at Crestline for 2005-2015 (top) and 2008-2015 (bottom).

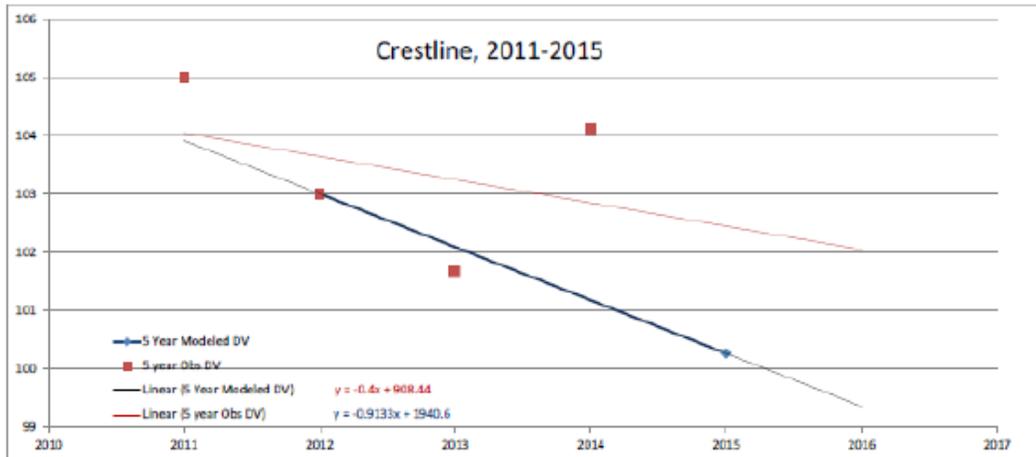


Figure 4c. Observed and modeled 5-yr DV ozone trends using the draft 2016 AQMP CMAQ 2012 modeling database at Crestline for 2011-2015.

### Future Year Ozone Projections using New Projection Methodology

In December 2014, EPA published draft modeling guidance that updated the future-year ozone projection procedures (i.e., the relative response factor or RRF approach) from the current 2007 modeling guidance. RRFs refer to the ratio of future year to current year modeled ozone concentrations that is used to scale the current year observed ozone 5-yr DV to project the future year ozone DV. One of the biggest differences between EPA's current ozone projection procedure (EPA, 2007) and the proposed draft procedure (EPA, 2014), which especially affects the SoCAB, is that many more modeled days were used in the RRFs under the old guidance, whereas just the top 10 modeled ozone days are used under the new guidance. As modeled ozone tends to be more responsive to changes in emissions under higher concentrations, the modeled ozone reductions are expected to be greater using the new guidance.

Slides numbered 6, 7 and 8 from the STMPRAG SCAQMD presentation show 2023 ozone projections using the current 2007 and draft 2014 ozone guidance, with slide number 6 reproduced in Figure 5 below showing the results for Crestline. As expected, using the 2012 AQMP CMAQ modeling results for 2008 and 2023, the projected 2023 ozone DV using the new guidance is lower than using the old guidance. This is consistent with our modeling results that are shown in Figure 6, which show the 2023 projected ozone DV using the 2012 AQMP modeling results to be 107.0 ppb using the old and 98.3 ppb using the new RRF guidance. That is, the rate of ozone reduction between 2008 and 2023 using the 2012 AQMP modeling results is 0.6 ppb/year using the old and 1.2 ppb/year using the new EPA guidance. However, that is still a modeled rate of ozone reduction (1.2 ppb/year) that is almost a factor of two lower than observed ozone reduction between 2008 and 2014 (2.3 ppb, see Table 2).

Thus, the new EPA guidance RRF ozone projection approach (EPA, 2014) does produce modeled ozone reductions over time that are greater than under the 2007 EPA guidance. Significantly, in all of our dynamic model performance evaluation using the 2012 AQMP and draft 2016 AQMP CMAQ modeling databases, we have always used the new EPA guidance RRF ozone projection approach using EPA's Modeled Attainment Test Software (MATS<sup>3</sup>). Thus, this issue raised by SCAQMD regarding differences between EPA's 2007 and 2014 modeling guidance has no effect on our dynamic evaluation.

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<sup>3</sup> <https://www.epa.gov/scram/photochemical-modeling-tools>

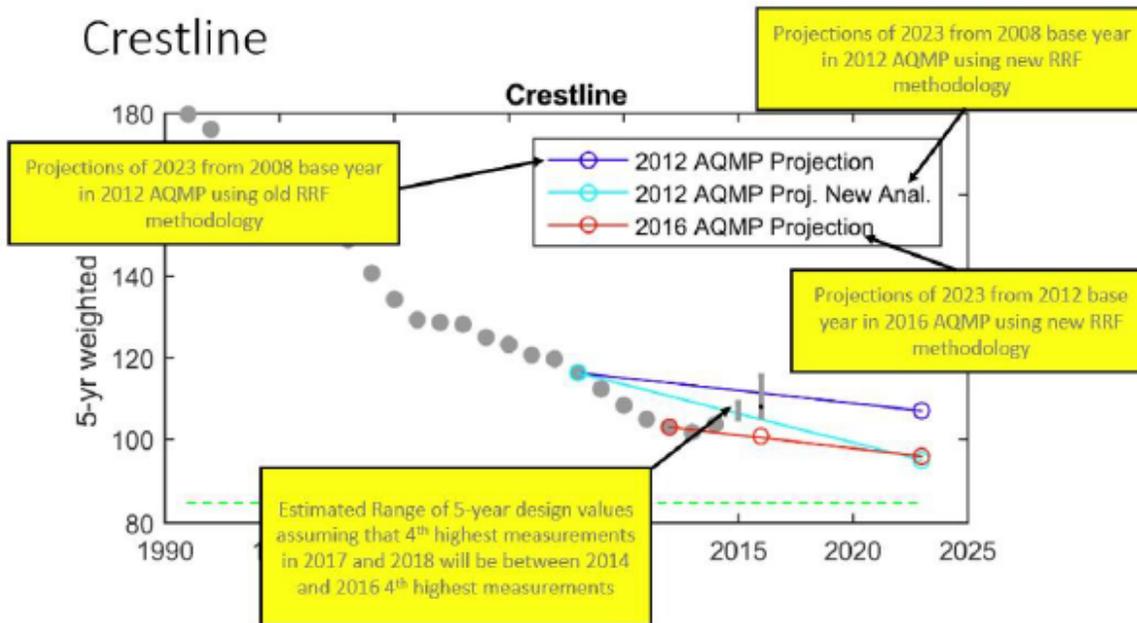


Figure 5. Slide NO. 6 from SCAQMD's presentation Item 3b from the October 26, 2016 STMPRAG meeting (Source: SCAQMD, 2016).

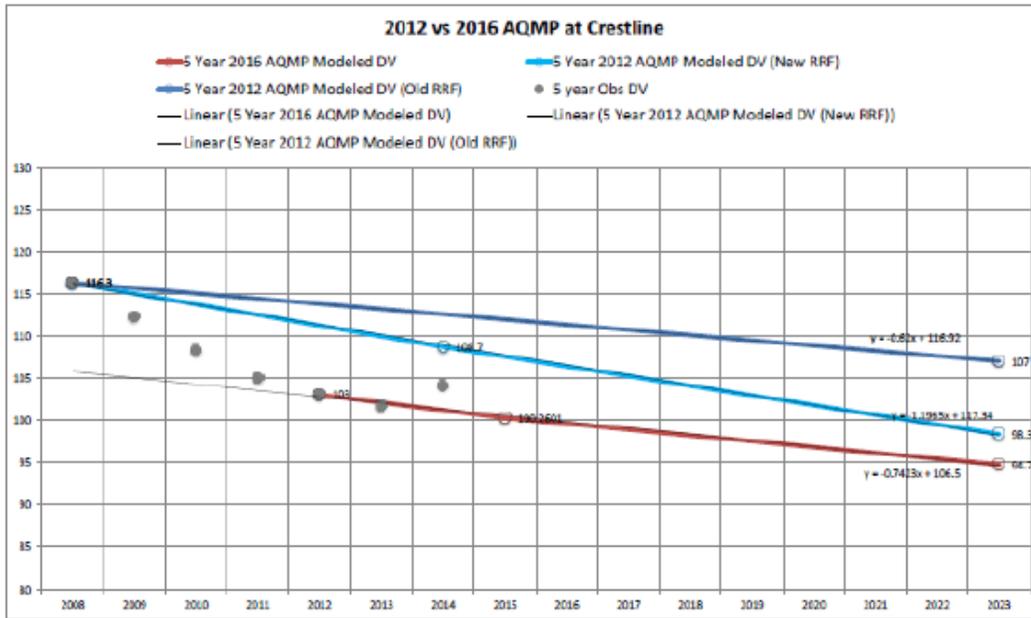


Figure 6. Comparison of 2008 to 2023 ozone projections from 2012 AQMP using old RRF approach (dark blue) vs. using new RRF approach (light blue) calculated by Ramboll Environ and 2016 ozone projections (red).

### **Predicted vs. Measured Ozone Reduction Rates**

The final slide from SCAQMD's presentation compares 5-yr DV ozone reduction rates at four sites plus the basin-wide maximum for: (1) the 2012 AQMP CMAQ 2008 model and the 2008-2014 time period; (2) the draft 2016 AQMP and CMAQ 2012 model and the 2008-2015 time period; (3) measured ozone for the 2008-2015 time period; and (4) measured ozone for the 2008-2016 time period. It appears that the SCAQMD's point in presenting this slide is that the measured ozone trend reduction rate over the 2008-2016 time period is more like the modeled values over the 2008-2015 time period. The problem with the SCAQMD analysis is that they are using observed ozone trends based on observed 2015 and 2016 5-yr DV ozone values that don't yet exist. The 2015 5-yr ozone DV is based on observed ozone concentrations from 2013-2017, which includes the year 2017 that has not yet occurred. Similarly, the 2016 5-yr DV uses observed ozone from 2014-2018 that includes two years (2017 and 2018) that have not yet occurred. Since ozone observations for 2017 and 2018 do not exist, we cannot reproduce the SCAQMD's analysis. Rather, it appears that the SCAQMD made an assumption that the 2017 and 2018 meteorological conditions and resultant ozone concentrations would be between the ozone levels in 2014 and 2016 to prepare figures to make the point that the observed ozone trend is getting closer to the modeled ozone trend. However, this type of assumption is not warranted given that the 2016 meteorology was in the top 0.5% of ozone formation potential conditions; it is essentially assuming that ozone formation conducive meteorological conditions occur in 2017 and 2018 that approach the unusual 2016 meteorological conditions would occur three years in a row.

Rather than relying on highly unlikely extrapolated values for ozone in 2017 and 2018, we will continue to base our discussions on actual recent year observed ozone values. Figure 8 compares the modeled and observed 5-yr DV ozone reduction rate at four sites plus the basin-wide maximum using ozone observations as far out as currently available (i.e., the 2014 5-yr DV based on 2012-2016 observations). At Crestline, the observed rate of ozone reductions is almost twice as high as the modeled rate, and the basin-wide rate of 5-yr DV reductions is over 50% faster than the modeled rate. This holds even when using the unusually high 2016 ozone season as the ending year anchor point in the observed ozone trend.

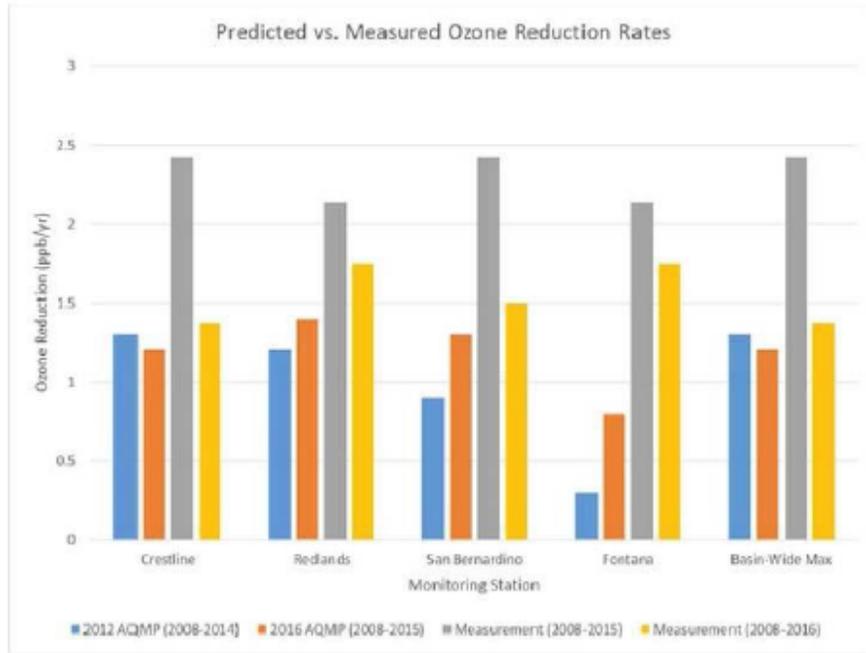


Figure 7. Slide No. 6 from SCAQMD’s presentation Item 3b from the October 26, 2016 STMPRAG meeting (Source: SCAQMD, 2016).

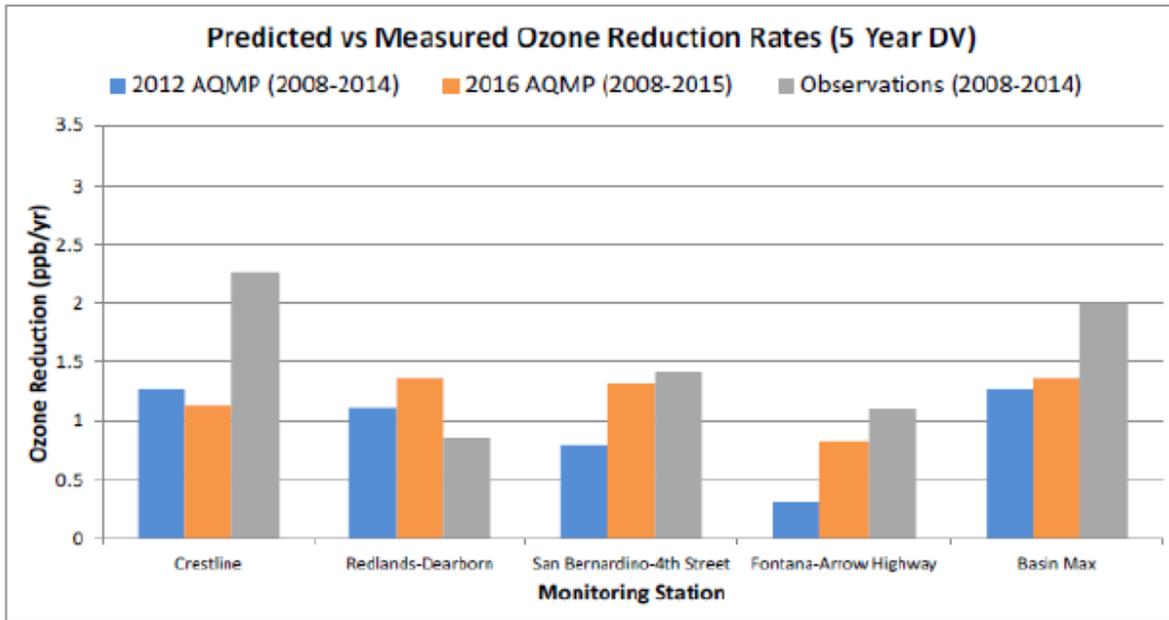


Figure 8. Comparison of modeled 2012 AQMP 2008-2014, modeled 2016 AQMP 2008-2015 and observed 2008-2014 5-yr DV ozone reduction trends.

### SCAQMD Comments on Ambient Data/Emissions Inventory Comparisons

During the STMPRAG meeting, the SCAQMD had two comments on the comparisons of the measured ambient VOC, NOx and CO concentration data and the emissions inventories, which we address below.

Should Compare Observed Ambient Concentrations with Modeled Concentrations not Emissions: The SCAQMD makes a good point and the analysis will be extended to include this comparison. We expect these results to be available in December 2016.

PAMS VOC Species Not Consistent with Emissions/Modeled VOC Species: The SCAQMD rightly points out that the VOC species measured by the PAMS network does not include all VOC species that are represented in the emissions inventory and modeling. We recognize this fact and factor it into our interpretation of the results. The ambient data/emissions inventory comparisons conducted for 2012 indicate that the measured VOC/NOx ratios using PAMS data are much higher than the emissions inventory-derived VOC/NOx ratios. However, if the VOC species not detectable by the PAMS network were excluded from the emissions data, the emissions-based VOC/NOx ratios would decrease, making comparisons with ambient-based ratios even less favorable (i.e., the emission inventory underestimation of the observed ambient VOC/NOx ratio would be even greater). So the disconnect between PAMS VOC species and modeled SAPRC-07 species does not weaken the conclusions of our analysis that the 2012 emission inventory VOC/NOx ratio understates the actual observed VOC/NOx ambient ratios in the SoCAB.

### SUMMARY

We again thank you for the opportunity to engage in this scientific discussion, and are hopeful for continued discussions going forward. The higher level overarching comment from all of this work is that the CMAQ models used in the past AQMPs underestimate the rate of observed ozone reduction over time. That is, the “predictive capability” of CMAQ, as it is applied to the difficult topography and meteorological conditions of the South Coast Air Basin, does not match the rate of ozone reduction that has been observed. SCAQMD raised several issues in their comments and presentation at the October 26, 2016 STMPRAG meeting, but none of them contradict the fundamental fact that the AQMP CMAQ model underestimates the observed rate of ozone reductions over time.

The initial indications from the comparison of 2012 emissions inventories used in the modeling with the measured ambient-concentration VOC/NOx ratios are that the ratios are underestimated, suggesting that current 2012 emission inventories may understate VOC emissions, overstate NOx emissions or some combination of the two. Further analysis of the ambient ratios compared against the CMAQ modeling results are underway and may refine these findings. We also are proceeding with sensitivity modeling to help identify some of the potential causes of CMAQ’s underestimation of the observed ozone reduction rate, which hopefully can lead to more accurate and reliable future year ozone predictions. We welcome the opportunity to work collaboratively on these issues, so that the “predictive capability” of CMAQ, as it is applied to the SoCAB, can be improved.

**Responses to Comment Letter from Truck and Engine Manufacturers Association**  
**(Comment Letter 108)**

**Response to Comment 108-1:**

SCAQMD is bounded to follow U.S. EPA's guidance to demonstrate attainment. EMA's technical consultant presented their dynamic evaluation results at the STMPR held on October 26<sup>th</sup>, 2016. Staff believes this approach contains serious flaws because it fails to account for the changes in ozone background concentration and improvement in ozone pollution in California, including Kern County which borders with the Basin. In essence, it is not scientifically correct to presume a linear response of ozone to emission reductions.

Please refer to Response to Comment Letter 58 regarding Dynamic evaluation and other details.

**Response to Comment 108-2:**

EMA's technical consultant, Ramboll, presented their dynamic evaluation at an STMPR meeting in October, 2016. Staff believes their approach contains serious technical flaws because critical spatial changes in emissions inventories were not incorporated and the use of static boundary conditions when back casting concentrations were also not incorporated. Both omissions will likely lead to underestimations in past concentrations. The emissions in China is in a rapid increasing trend, and its transport impact is a growing concern in California as well as many southwestern and mountain states. The ozone design values observed in Kern County decreased almost by 8 ppb during 2008–2015. While Ramboll confined their latest analysis in a relatively narrow time window (2008–2015) to avoid such transport impact, the 7-year time period still poses significant changes in the ozone transport into the Basin, therefore, the Ramboll's approach is inconclusive and misleading without providing a full account of the proper boundary values. In addition, the economic growth and accompanying demographics changed the spatial and temporal distribution of emissions significantly. Many regulatory programs and incentive funding projects such as Proposition 1B, Goods Movement Emissions Reduction Program focus on specific facilities, which reduces emissions from the area subject to the rule at a faster rate than other areas in the Basin.

Also, the consultant presented analysis based on 3-year design value, which staff was unable to reproduce. Later on December 13, 2016, Ramboll emailed responses, which are attached as Exhibit A in the comment letter. In that response, the 5-year design value was included. Still, the values are do not agree with U.S. EPA's official approved design values. In order to clarify the discrepancy, Ramboll will need to disclose the design values used in their analysis.

**Response to Comment 108-3:**

Please refer to the Responses to Comment Letters 52 and 58.

Again, ozone concentration is not expected to response linearly to emission reductions and the rate of change cannot be expected to stay constant over several decades.

**Response to Comment 108-4:**

The scientific community does not support the linear extrapolation of past ozone trend into future, as discussed clearly during the STMPR meeting held on October 26, 2016 at the SCAQMD.

**Response to Comment 108-5:**

Please refer to Response to Comment 58-6.

The changes in baseline emissions reflect the impact of rules and regulations implemented after the finalization of an AQMP, as well as changes in methodology. It should be noted that each AQMP proposes new control measures which result in additional emission reductions beyond the level estimated in the previous AQMP. This is one of main reasons to update emissions inventory periodically.

**Response to Comment 108-6:**

We have a reasonable doubt that the impact of the recession was not fully incorporated in the growth projection made by SCAG RTP 2012. Selected growth parameters used in transportation sectors indicated monotonic growth in years 2011–2012, while the gasoline and diesel consumption were decreased till 2012 and 2013 when they reached the minimum level.

**Response to Comment 108-7:**

Comments were noted.

**Detailed Responses to Exhibit A:**

Page 2: The failure to incorporate spatial changes in emissions inventories and the use of static boundary conditions when back casting concentrations are critical flaws that both will likely lead to underestimations in past concentrations. For example, the historical Kern County design values to qualify how the northern boundary concentrations have changed. Between 2008 and 2015, the Kern County design value decreased by ~8ppb, while the background ozone concentrations at the western boundary increased on the order of ~3ppb (estimates from OMI measurements). The response provided to this issue is that focusing on the comparison between more recent trends during the 2008–2015 period will minimize these uncertainties, however, staff believes the uncertainties arising from the failure to properly account for these changes are likely significant.

Page 6: It is not advisable to draw a linear line in the historical design values. Our slides on page 7 support the idea that design values cannot be linearly extrapolated. Those same reasons support the fact that design values do not necessarily follow a linear trend. In fact, all plots of design values from 2008 to 2014 do not show a linear trend. Moreover, it is incorrect to fit data to a line when 1) it does not appear linear as sign of the residuals are not randomly distributed along the curve and 2) the underlying functions, namely emissions and the ozone concentration response from those emissions, are not linear. Intuitively, in the base-case scenario, the decrease in marginal emission reductions with time along with the shape of the ozone isopleth in the upper right corner suggests that yearly reductions in future ozone concentration would decrease over time. This is clear when looking at the change in the observed and modeled slope as the time window is narrowed by removing earlier years (see Table 2 on page 8).

Page 6: The authors say that their dynamic evaluation never extrapolated the ozone design values. However on page 14 of this document, the authors extrapolate the observed linear ozone reduction between 2008 and 2014 so that they can compare it to the rate of ozone reduction between 2008 and 2023 from the U.S. EPA approved guidance.

“That is, the rate of ozone reduction between 2008 and 2023 using the 2012 AQMP modeling results is 0.6 ppb/year using the old and 1.2 ppb/year using the new EPA guidance. However, that is still a modeled rate of ozone reduction (1.2 ppb/year) that is almost a factor of two lower than observed ozone reduction between 2008 and 2014 (2.3 ppb, see Table 2).”

Page 17: The authors incorrectly suggest that we are assuming that the unusual meteorological conditions experienced in 2016 will reoccur in 2017 and 2018 for the development of Slide 6 in the SCAQMD presentation. We merely use a range of possible 2017 and 2018 4<sup>th</sup> highest values that are bounded by the lowest and highest 2014-2016 values. This analysis indicates that even if 2017 and 2018 4<sup>th</sup> highest values are on the low end, the model will underestimate 2016 5-year design values at Crestline. This illustrates that 2016 will continue to influence 5-year design values for the next few years (2016 only has a small influence on 2014 5-year design values, yet there is a sharp upswing. 2016 will influence 2015 design values by a factor of 2 and will influence 2016 design values by a factor of 3).

Page 19: Staff supports the suggestion that missing species from the PAMS database will only strengthen the indication that there are missing VOC sources or an overestimation of NO<sub>x</sub> sources in the model.

**Comment Letter from the Undersigned Organizations**  
**(Comment Letter 109)**



January 23, 2017

**Via First Class Mail and e-Mail**

Wayne Nastri (wnastri@aqmd.gov)  
Executive Officer  
South Coast Air Quality  
Management District  
21865 Copley Drive  
Diamond Bar, California 91765

**Re: Comments on the SCAQMD's Final**  
**Draft 2016 Air Quality Management Plan**

Dear Mr. Nastri:

The undersigned organizations are submitting the following comments relating to the Final Draft 2016 Air Quality Management Plan (the "Final Draft AQMP") that the South Coast Air Quality Management District ("SCAQMD" or "District") released for public review on December 9, 2016. As you will see from our specific comments, included as Attachment "A," the relevant data suggest that the District's air quality modeling – the modeling that underlies the Final Draft AQMP – consistently has been over-predicting future ozone levels in the last three AQMPs (2007, 2012, and 2016). In light of that, we are requesting that the District commit, in any Board resolution relating to the final Draft AQMP, to undertake a thorough validation of the capability of the District's air quality model to predict/forecast ozone levels (reductions) into the future.

109-1

In that regard, we understand that the last three AQMPs have attempted to evaluate the model's capability to predict ozone levels for the baseline year used in the AQMP. However, that is not sufficient to validate the air quality model's ability to predict ozone into *future* years. In fact, work performed independent of the District suggests that the AQMP models have been

Wayne Natri  
South Coast Air Quality Management District  
January 23, 2017  
Page 2

consistently over-predicting future ozone levels. We encourage the SCAQMD to perform its own model validation so that any needed corrections and revisions can be made before the District proceeds to implement significant and costly SIP control measures, including those set forth in the 2016 AQMP.

We fully recognize that the District is facing firm SIP deadlines that will not accommodate the completion at this juncture of all the necessary data-analyses and modeling improvements that we are recommending. Nevertheless, it is vitally important that the District Board commit, in the text of any resolution relating to the Final Draft SIP, to undertake and complete those necessary analyses and modeling improvements.

To that end, the SCAQMD Board should direct the SCAQMD Staff to undertake a comprehensive dynamic evaluation of its air quality modeling — with a full assessment of the model’s ability to match historical trends — and to demonstrate whether such a dynamic evaluation actually validates the model’s predictive capability. The stakes are too high for the SCAQMD to proceed to adopt SIP control measures based on model-driven results that have not undergone a comprehensive peer-reviewed dynamic evaluation.

The undersigned are fully prepared to lend their collective expertise and analysis to this effort, and stand ready to assist in completing the necessary model-validation work in a timely manner. In that regard, we understand that experts from Ramboll/Environ and Sonoma Technology, Inc. have offered to collaborate on this important work. We fully endorse that spirit of collaboration and will work to facilitate and expedite the recommended dynamic evaluations of the District’s air quality modeling.

109-1  
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Wayne Nastri  
South Coast Air Quality Management District  
January 23, 2017  
Page 3

In conclusion, the undersigned organizations appreciate the opportunity to submit comments on the Final Draft AQMP. In doing so, we are aware of the specific SIP-related deadlines facing the SCAQMD. Accordingly, while we understand that the Board needs to take action on the Final AQMP, we urge the Board to include language in the operative Board resolution that explicitly directs District Staff to conduct, in a timely manner, and before adopting any of the specific control measures set forth in the AQMP, a rigorous dynamic evaluation of the CMAQ-modeled attainment demonstration to fully assess the predictive capability of the model. Until the predictive capability of the modeling tools at issue are validated in a robust, scientific and peer-reviewed manner, the District runs the risk of implementing misinformed public policy choices.

109-1  
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Respectfully submitted,

<b>Alliance of Automobile Manufacturers</b>	<b>Los Angeles Area Chamber Of Commerce</b>
<b>American Trucking Associations</b>	<b>Los Angeles County Business Federation</b>
<b>California Business Properties Association</b>	<b>Maersk Line</b>
<b>California Class I Railroads</b>	<b>NAIOP Inland Empire</b>
<b>California Small Business Alliance</b>	<b>NAIOP SoCal</b>
<b>Construction Industry Air Quality Association</b>	<b>Pacific Merchant Shipping Association</b>
<b>FuturePorts</b>	<b>San Gabriel Valley Economic Partnership</b>
<b>International Warehouse Logistics Association</b>	<b>Truck &amp; Engine Manufacturers Association</b>

cc: SCAQMD Board Members (via e-mail)  
Jill Whynot (via e-mail)  
Phillip M. Fine (via e-mail)  
Henry Hogo (via e-mail)

Attachment "A"

Comments on the Final Draft 2016 AQMP

Submitted by:

Alliance of Automobile Manufacturers	Los Angeles Area Chamber Of Commerce
American Trucking Associations	Los Angeles County Business Federation
California Business Properties Association	Maersk Line
California Class I Railroads	NAIOP Inland Empire
California Small Business Alliance	NAIOP SoCal
Construction Industry Air Quality Association	Pacific Merchant Shipping Association
FuturePorts	San Gabriel Valley Economic Partnership
International Warehouse Logistics Association	Truck & Engine Manufacturers Association

The Final Draft AQMP is premised on significant over-estimations of future ozone levels in the South Coast Air Basin ("SoCAB"). The SCAQMD has derived those over-estimations from the application of the Community Multi-Scale Air Quality ("CMAQ") model, which has consistently over-predicted future ozone levels in the SoCAB for many years.

In light of that, it is particularly important that the District Board commit to undertake in a timely and comprehensive manner the "dynamic evaluation" that U.S. EPA recommends as a way to assess the predictive capability of a model-based ozone attainment demonstration. (*See* EPA's "Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze," December 3, 2014 (the "EPA Modeling Guidance") at pp. 62-63, 92-93.) In its Modeling Guidance, EPA states, "dynamic evaluation is always recommended," because it is the only evaluation method that compares model-predicted historical trends with observed trends, and is therefore one of the only evaluation methods for assessing model performance in a way that can assess the model's predictive capabilities – specifically, "in a way closely related to how models are used to support [predict] a future year attainment demonstration." (*Id.*) As EPA further explains in its Modeling Guidance, a dynamic evaluation "is a direct assessment of what is most important in an attainment demonstration: does the model accurately predict changes in air quality as a result of changes in emissions?" (*Id.*)

109-2

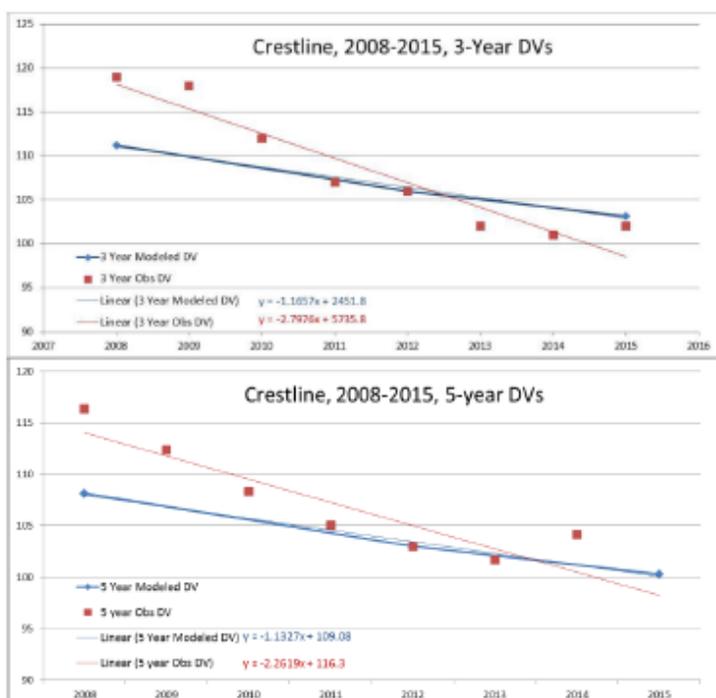
While the Final Draft AQMP claims that the AQMP "covers all four types of model performance evaluation that the EPA guidance (2014) recommends," (*see* AQMP, p.V-5-9), that assertion does not appear to be entirely correct. SCAQMD Staff has not presented the results of any actual dynamic evaluation of the current model-based results compared against observed historical trends, nor has SCAQMD Staff even undertaken such a dynamic retrospective analysis "comparing model-predicted historical trends with observed trends." (*Id.* at 92.) That significant omission needs to be rectified through an explicit commitment and direction from the District Board.

This is not just an academic or hypothetical concern. Leading technical experts from Ramboll Environ ("Ramboll"), have undertaken a dynamic evaluation of the District's air quality modeling – using the EPA-recommended method that District Staff did not do. The results from that dynamic evaluation have been presented to District Staff and are very telling. The results confirm that the District's air quality modeling still consistently under-predicts the rate of ozone reduction in the SoCAB, and so still over-estimates the amount of future additional NO<sub>x</sub> reductions needed for attainment of the ozone NAAQS.

[1]

As explained more fully in the comments being submitted by the Truck and Engine Manufactures Association (“EMA”), Ramboll’s dynamic evaluation involved CMAQ simulations using historical emissions over approximately 25 years (1990–2015) in order to compare observed and modeled ozone trends over time. Figure 1 (below) presents Ramboll’s dynamic model evaluation comparing observed ozone trends at Crestline, which generally corresponds to the historical Basin-wide maximum ozone design value, with the relevant modeling database for the period of 2008 to 2015. Even when factoring-in the unusually high observed ozone level from 2016, the rate of the modeled ozone reduction trend is still at least a factor of 2 lower than the observed trend. (*See* Table 1, below.)

**Figure 1.** Observed and modeled ozone Design Value (DV) trends at Crestline using the 3-yr DV (top) and 5-yr DV (bottom), and the draft 2016 AQMP CMAQ 2012 modeling platform using observed trends through 2016 ozone season data.



109-2  
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**Table 1.** Comparison of observed and modeled ozone Design Value (DV) trends (ppb/year) for 2008-2014/2015 using the draft 2016 AQMP CMAQ 2012 modeling database.

Ozone DV	Observed	Modeled	Ratio (Obs/Mod)
3-Yr DV	2.80	1.17	2.40
5-Yr DV	2.26	1.13	2.00

From the foregoing, it remains clear that the current CMAQ models used in developing the Final Draft AQMPs continue to underestimate the rate of observed ozone reduction over time. That is, the “predictive capability” of CMAQ, as it is applied to the difficult topography and

meteorological conditions of the South Coast Air Basin, does not match the rate of ozone reduction that has been observed.

Another way to look at this issue is to compare the CMAQ-predicted rates of ozone reduction (on a ppb/year basis) with the measured rates of ozone reduction in the SoCAB. Using that approach, the following charts compare ozone DV reductions (ppb/year) between the various AQMP predictions and the actual corollary measurements obtained at the key air quality monitoring sites in the SoCAB.



The foregoing data confirm that the Final Draft AQMP is still under-predicting the measured reduction rates in ozone DVs similar to the previous AQMPs. In the case of Crestline, for example, the current modeling predicts a reduction rate of just 0.73 ppb/year. However, the measured reductions are nearly two (2) times greater. Moreover, there is no evidence presented in the Final Draft AQMP to increase the level of confidence in the latest predictions. To the contrary, it remains likely that the reduction rates predicted for the various monitoring sites in the SoCAB are still under-predicting reality to a significant extent.

All the information presented here, as well as other more comprehensive studies performed by Ramboll, have been presented to SCAQMD and CARB staff, separately. In those instances, staff have presented arguments why the Ramboll dynamic evaluation was incomplete, or how newer AQMP models would improve on the model's past predictive deficiencies. Those attempted rebuttals, however, have not dispelled the facts, and are unpersuasive in any event. Accordingly, the Board should direct SCAQMD staff to perform their own dynamic evaluation and submit it for public comment. Alternatively, SCAQMD staff should be directed to work collaboratively with Ramboll and other experts to assess and modify Ramboll's already-completed dynamic evaluations, and to find solutions to improve the underlying modeling approaches used for ozone predictions in the South Coast Air Basin.

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**Responses to Comment Letter from the Undersigned Organizations**  
**(Comment Letter 109)**

**Response to Comment 109-1:**

Thank you for the comments received and participation in the development of the 2016 AQMP. Please refer to Responses to Comment Letters 52, 58 and 108.

While SCAQMD is open to suggestions from public members and encourage collaboration with stakeholders, the agency is legally bounded to follow U.S. EPA's approved guidance and methodology. The modeling approach presented in the 2016 AQMP is conducted by the state-of-the art modeling tools and complies with the latest U.S. EPA approved guidance and methodology. The emission reductions needed for attainment and benefits from attainment are greater than the uncertainties associated with modeling approach.

SCAQMD's modeling approach includes the U.S. EPA's alternative definition of 'dynamic evaluation.' The version of dynamic evaluation presented by EMA's technical consultant contains serious scientific flaws. Without addressing the changes in ozone background concentration and improvement in ozone design values in California, one cannot properly conclude ozone trend and model predictability.

**Response to Comment 109-2:**

Thank you for the comments received. Please refer to Responses to Comment Letters 52, 58 and 108.

**Comment Letter from National Fuel Cell Research Center (Comment Letter 110)**

**Final Draft of the 2016 Air Quality Management Plan  
Comments of the National Fuel Cell Research Center**

January 18, 2017

Submitted by:  
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Co-Chair, California Stationary Fuel Cell Collaborative  
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**I. Introduction**

The National Fuel Cell Research Center (NFCRC) at the University of California, Irvine (UCI) was established by the U.S. Department of Energy and the California Energy Commission to facilitate and accelerate the development and deployment of fuel cell systems, promote strategic alliances to address the market challenges associated with the installation and integration of fuel cell systems and renewable energy systems, and educate and develop resources for global fuel cell and self-generation stakeholders. The NFCRC is working with Bloom Energy; Doosan Fuel Cell America; FuelCell Energy; GE-Fuel Cells, LLC; and LG Fuel Cell Systems Inc. All these stakeholders support the outstanding Final Draft 2016 Air Quality Management Plan (AQMP) from the South Coast Air Quality Management District (SCAQMD) and offer additional recommendations for consideration in the ultimate AQMP that is adopted.

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**II. Comments on Final Draft AQMP**

**A. The NFCRC Supports Review of BACT Standards to Enable More Stringent Regulations of Criteria Air Pollutants**

The discussion of CMB-01 in Chapter 4 (page 4-14) outlines a strategy whereby *“new businesses can be required or incentivized to install and operate zero-emission equipment, control equipment, technology and processes beyond the current BACT requirements.”* The NFCRC recommends that (1) BARCT requirements be updated, as appropriate, to reflect the lowest achievable emissions given advances in technology, and (2) MCS-02, which outlines SCAQMD’s intent to review and update the BARCT requirements, be cited within CMB-01. As stated on page 4-19, *“BARCT continually evolves as new technology becomes available, feasible, and cost-effective.”* Review of these standards will allow changes to reflect and capture the ability of current technologies, including fuel cells, to both achieve low emissions of criteria air pollutants and contribute fully to the protection of the environment and public health.

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**B. The NFCRC Supports Incentivizing the Replacement of Diesel Back-up Generators and Encourages Adoption of Grid-Islanding Fuel Cells to Reduce the Population of Diesel Back-up Generators in the Near-Term**

The NFCRC supports the concept outlined in measure CMB-01 on page IV-A-32 to incentivize replacement of diesel back-up generators, in particular the inclusion of fuel cells as an example of technologies that are a suitable lower emissions replacement.

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The NFCRC also agrees with the statement on page IV-A-29 that *“incentivizing the replacement of higher-emitting equipment with lower-emitting technology ... could allow facilities to be more efficient and lessen grid dependence.”* In addition to incentivizing diesel

generator replacement, incentives should be directed towards encouraging grid-islanding projects. The always-on nature of fuel cells provides reliable power 24x7. This firm power generation can be configured to be grid-islanding, thereby reducing the need for diesel back-up generators and lessening a facility's grid dependence. For example, in the event of a grid outage, data centers can take advantage of fuel cell reliability to maintain operations and thereby reduce their reliance on diesel back-up generators and provide significant environmental and health benefits of avoided air pollutants.

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**C. Stationary Sources of Emissions at Ports Should be Addressed in the AQMP**

The ports of California face both challenges and opportunities in managing and meeting future energy and public health requirements. While the SCAQMD plan addresses mobile port emissions as part of the suite of mobile source strategies (MOB-01), stationary sources of port emissions should also be recognized as a significant opportunity for air quality improvement. Three types of proven fuel cell systems can facilitate meeting future energy requirements, contribute co-benefits to port energy and environmental goals,<sup>1,2</sup> and contribute to the goals of the environmental justice community. Power generation can be provided by solid oxide, molten carbonate, and phosphoric acid fuel cell systems, while combined cooling, heat, and power applications from the same systems can further enhance environmental and energy benefits, and reduce costs. A Tri-Generation system (stationary fuel cell based technology that produces on-site hydrogen, electricity, and high quality recoverable heat) can support both port operations and customer requirements. In contrast to other combustion-based self-generation technologies, fuel

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<sup>1</sup> *Requirements at the Port of Long Beach*. MacKinnon, M and Samuelsen, S. Advanced Power and Energy Program, University of California Irvine, April 31, 2016.

<sup>2</sup> *Assessment of Fuel Cell Technologies to Address Power Requirements at the Port of Long Beach*. MacKinnon, M and Samuelsen, S. Advanced Power and Energy Program, University of California Irvine, June 28, 2016. <http://polb.com/environment/energyisland.asp>

cells have the benefits of zero local pollutant emissions, very low GHG emissions, and virtually net zero water consumption.<sup>3</sup>

As an example, the Port of Long Beach (POLB) is a source of high levels of air pollution. The deployment of stationary fuel cell systems can provide a means of distributed self-generation for the POLB without the addition of emissions.<sup>4</sup> This key co-benefit is unique to fuel cells as combustion-driven self-generation methods such as gas turbines and reciprocating engines produce pollutant emissions which create air quality and permitting challenges. The use of fuel cells for stationary power provides a path for the POLB to secure its resilient energy-island future and thereby (1) reduce local criteria pollutant emissions, (2) enhance regional air quality, (3) improve health benefits to disadvantaged communities in the surrounding area, and (4) meet goals established under the San Pedro Bay Ports Clean Air Action Plan<sup>5</sup> and the Green Port Policy.<sup>6,7</sup>

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Stationary emission sources at ports could either be addressed in the AQMP through a new standalone control measure or specifically discussed in the current CMB-01: Transition to Zero and Near-Zero Emission Technologies for Stationary Sources.

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<sup>3</sup> *Id.*

<sup>4</sup> *Assessment of Fuel Cell Technologies to Address Power Requirements at the Port of Long Beach.* MacKinnon, M and Samuelsen, S. Advanced Power and Energy Program, University of California Irvine, June 28, 2016.

<http://polb.com/environment/energyisland.asp>

<sup>5</sup> <http://www.cleanairactionplan.org/>

<sup>6</sup> [http://www.polb.com/environment/green\\_port\\_policy.asp](http://www.polb.com/environment/green_port_policy.asp)

<sup>7</sup> *Assessment of Fuel Cell Technologies to Address Power Requirements at the Port of Long Beach.* MacKinnon, M and Samuelsen, S. Advanced Power and Energy Program, University of California Irvine, June 28, 2016.

<http://polb.com/environment/energyisland.asp>

**D. The Stated Efficiency Range of Fuel Cells in Appendix IV-A Should Be Updated from 45-50% to 45-60%.**

The NFCRC requests that the statement on Page IV-A-25 that currently reads:

*“Fuel cells are capable of producing power with very low pollutant emissions while producing electricity much more efficiently (between 45–50 percent efficiency) than single-cycle combustion-based engines and turbines (between 25–35 percent efficiency)”* 110-4

be updated to reflect the most recent technological improvements to read:

*“Fuel cells are capable of producing power with virtually zero pollutant emissions while producing electricity much more efficiently (between 45–60 percent efficiency) than single-cycle combustion-based engines and turbines (between 25–35 percent efficiency)”*

**E. Fuel Cell Systems Should be Broadly Referenced to Accommodate Existing and New Commercial Systems With Improved Emissions Reduction and Efficiency**

In the main document of the AQMP, the NFCRC requests that the phrases “fuel cell for combined heat and power” and “fuel cells for CHP” be replaced with the phrase “fuel cell systems.” The NFCRC recommends that these replacements be made on the following pages of the AQMP:

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- Page 4-8
- Page 4-14
- Page 4-19

Fuel cell systems operating on any fuel, in both combined heat and power and electric-only mode, (1) lower criteria pollutant emissions more than all other CHP systems,<sup>8,9,10</sup> and

<sup>8</sup> California Energy Commission, CEC-500-2011-042, Final Report, National Fuel Cell Research Center, August 2011, available on-line at: <http://www.energy.ca.gov/2011publications/CEC-500-2011-042/CEC-500-2011-042.pdf>

<sup>9</sup> Y Yi, VG McDonell, J Brouwer, M Fujiwara, M Adachi, Emissions sensors for high temperature fuel cell applications, IEEE Transactions – Sensors Conference, 2005.

(2) operate at higher electrical efficiency than all other CHP systems.<sup>9,10</sup> Fuel cells also have extremely high capacity factors (>98%) with greater potential for energy savings and emissions reductions.

Figure 2 in the 2015 SGIP Impact Evaluation Report<sup>11</sup> which is based on actual performance data, clearly shows that both CHP fuel cells and electric-only fuel cells reduce GHG emissions, and far exceed CHP combustion technologies such as internal combustion engines, and microturbines in these reductions.

While stationary fuel cells are a clean-energy alternative to combustion engines (e.g., gas turbines and reciprocating engines), stationary fuel cells can also be integrated with a heat engine to create a “hybrid” that (1) substitutes combustion with electrochemistry for the energy conversion, and (2) garners performance enhancing synergies through the integration of the two power generation systems. The product is an ultra-high efficiency hybrid power generator with virtually zero emission of criteria pollutants. As this hybrid technology evolves, commercial distributed generation applications will include all-electric installations, where a viable use for the heat is not available. Detailed analyses of these hybrid power plants show that they will likely eclipse combined cycle power plant technology as the preferred future central and distributed power plant technology by offering greater efficiency, dispatchability, and lower emissions.<sup>12,13</sup>

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<sup>10</sup> Y Yi, A Rao, J Brouwer, S Samuelsen, Ammonia as a Contaminant in the Performance of an Integrated SOFC Reformer System, ASME Paper FC2006-97037, June, 2006.

<sup>11</sup> Itron. 2013 SGIP Impact Evaluation Submitted to PG&E and the SGIP Working Group, April 2015. [http://www.cpuc.ca.gov/NR/rdonlyres/AC8308C0-7905-4ED8-933E-387991841F87/0/2013\\_SelfGen\\_Impact\\_Rpt\\_201504.pdf](http://www.cpuc.ca.gov/NR/rdonlyres/AC8308C0-7905-4ED8-933E-387991841F87/0/2013_SelfGen_Impact_Rpt_201504.pdf) Page 7-6

<sup>12</sup> Yi, Y., Rao, A.D., Brouwer, J., and Samuelsen, G.S., *Analysis and Optimization of a Solid Oxide Fuel Cell and Intercooled Gas Turbine (SOFC-ICGT) Hybrid Cycle*, *Journal of Power Sources*, Volume 132, pp. 77-85, 2004.

<sup>13</sup> McLarty, Dustin, Kuniba, Yusuke, Brouwer, Jack, and Scott Samuelsen, Experimental and theoretical evidence for control requirements in solid oxide fuel cell gas turbine hybrid systems, *Journal of Power Sources*, Volume 209, pp. 195–203, 2012.

### III. Conclusion

The NFCRC strongly supports the Final Draft 2016 AQMP, which appropriately proposes the inclusion of fuel cell systems that are available today to reduce emissions and criteria air pollutants. The ability of fuel cell systems to most efficiently produce electricity, heating, cooling and generate hydrogen is unique. Fuel cell systems are also well-suited as an integral part of a renewable grid that can exclusively manage the dynamics of an intermittent renewable grid through critical attributes such as load-following and 0-100% ramping ability in combination with firm, local capacity. The NFCRC appreciates the opportunity to further enhance the desired outcomes of the AQMP with the above described recommended changes.

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**Responses to Comment Letter from National Fuel Cell Research Center**  
**(Comment Letter 110)**

**Response to Comment 110-1:**

Identification of Best Available Retrofit Control Technology (BARCT) is ongoing, updated periodically and is updated beyond the context of the development of the Air Quality Management Plan (AQMP) as it is required by the Health and Safety Code as noted in §40406. CMB-01 prioritizes projects using zero and near-zero technologies that are most cost-effective and feasible. In addition, Best Available Control Technology (BACT) requirements are continually being updated with new technologies that have been achieved in practice, technologically feasible or contained in the State Implementation Plan. These BACT requirements are implemented through the New Source Review process.

**Response to Comment 110-2:**

Staff appreciates the support in CMB-01. Staff notes the information on grid-island fuel cells. A working group will be formed for CMB-01 to discuss specific details of zero and near-zero technology options. Staff encourages the commenter to participate in the working group.

**Response to Comment 110-3:**

SCAQMD staff appreciates the comments regarding the use of fuel cell technologies to reduce emissions at marine ports. As part of the working group discussions for Control Measure MOB-01, there will be a focus on reducing emissions on the five port-related mobile source categories. Staff will discuss the use of fuel cells during the working group discussion. The identified actions can potentially be greater use of fuel cell technologies at the ports to help realize overall emission reductions at the ports.

**Response to Comment 110-4:**

Staff notes the information provided. A working group will be formed to discuss the details of zero and near-zero technology efficiencies. The intent of CMB-01 is to prioritize and incentivize zero and near zero technology. Technology listed includes the minimum expected efficiency levels.

**Response to Comment 110-5:**

Staff appreciates the clarification on “fuel cell for combined heat and power (CHP)” and “fuel cell systems”; however, by its’ nature, CHP is a system. It is also known as cogeneration, is the production of electricity or power and thermal energy (heating/cooling) from a single source of energy. Staff appreciates the support and notes the information provided on fuel cell systems.

**Comment Letter from Santa Clarita Valley Economic Development Corporation (SCVEDC)**  
**(Comment Letter 111)**

**SANTA CLARITA VALLEY**  
ECONOMIC DEVELOPMENT CORPORATION



January 24, 2017

Michael Krause  
Program Supervisor  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, California 91765  
[mkrause@aqmd.gov](mailto:mkrause@aqmd.gov)

Re: 2016 Air Quality Management Plan

Dear Mr. Krause:

The Santa Clarita Valley Economic Development Corporation (SCVEDC) appreciates this opportunity to comment on the Final Draft 2016 Air Quality Management Plan (AQMP or Plan), as made available to the public in December 2016. SCVEDC is a unique private/public partnership representing the united effort of regional industry and government leaders to adopt an integrated approach to attracting, retaining, and expanding a diversity of businesses, especially those in key industry clusters.

At the outset, SCVEDC commends the South Coast Air Quality Management District (SCAQMD or District) for its ongoing and successful efforts to significantly reduce pollution in the South Coast Air Basin, including in the Santa Clarita Valley. While the community health risks and emissions have sharply and beneficially declined over the years, employment, population and GDP continue to grow. Indeed, the City of Santa Clarita, with a population of 214,000, is the third largest city within the County of Los Angeles, falling only behind the cities of Los Angeles and Long Beach. As such, we are here to express support for the continued optimization of economic growth and how emissions reductions are achieved.

As compared to the June 2016 Draft AQMP, we note that the Final Draft AQMP puts an increased emphasis on regulations. However, the facts show that, even if all stationary sources under the District's jurisdiction are regulated to achieve a zero-emissions level, the region will still not reach attainment. In other words, we cannot regulate our way to attainment — the District has already reached its regulatory limit.

SCVEDC supports non-regulatory approaches to emission reductions that are cost-effective, minimize operational disruptions, and do not drive business out of the region. Programs or control measures must allow for and should incentivize voluntary and collaborative approaches to achieving air quality goals. Further, the AQMP should not be punitive, especially as the region has made tremendous strides in lowering emissions from stationary and mobile sources; special care must be taken to ensure that programs or control measures do not penalize "early adopters" of technology.

SCVEDC relatedly believes there must be an enhanced analysis of the economic consequences of the AQMP to more fully capture the costs and more accurately assess the public health benefits associated with the AQMP as the Air District moves forward to further develop the control measures. The District should look at the long-

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term, cumulative impacts of its regulations on economic growth and on jobs. Similarly, a “look-back” audit process, whereby actual implementation costs are compared with District staff’s initial projections, may help provide a more refined assessment of relevant factors.

In closing, SCVEDC believes that, given the substantial air quality gains we have already seen and are projected to continue, additional emissions savings should not come at the expense of economic activity. We anticipate that the Santa Clarita Valley will continue to grow in a variety of ways to accommodate the Air Basin’s projected population and employment growth. We want to work with our local partners to ensure that such growth is accommodated responsibly, equitably and without economic disadvantage while also helping ensure good air quality.

We appreciate the District’s engagement with the business community during development of the AQMP. We are committed to working with the District to ensure the Plan facilitates continued improvements in regional air quality while also protecting and promoting job creation and economic success for Santa Clarita Valley and Southern California.

Sincerely,



Holly Schroeder  
President & CEO  
Santa Clarita Valley Economic Development Corporation

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**Response to Comment Letter from Santa Clarita Valley Economic Development Corporation (SCVEDC)**  
**(Comment Letter 111)**

**Response to Comment 111-1:**

Staff appreciates the support of the incentive programs that are intended to make it more cost-effective to replace equipment, transition to zero or near-zero technologies, encourage earlier change-out of higher-emitting equipment, and drive technology development and cost reductions. Per comments received, two incentive-only stationary source measures have been modified since the Draft Plan to include a future rulemaking when the technology has become more commercially available, achieved in practice in more applications and cost effective. In addition, rulemaking ensures emission reductions continue in the future when incentives might not be necessary and the emission reductions are permanent.

Staff will continue to conduct socioeconomic analysis on our future proposed programs and rules that will evaluate potential economic and job impact, and appreciates the participation of SCVEDC in the development of the 2016 AQMP.