

BOARD MEETING DATE: March 4, 2011

AGENDA NO. 39

**PROPOSAL:** Adopt Revisions to PM2.5 and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

**SYNOPSIS:** On November 22, 2010, U.S. EPA published its notice of proposed partial approval and partial disapproval of the 2007 Air Quality Management Plan (AQMP) PM2.5 Plan primarily because the attainment demonstration relies heavily on emissions reductions from several State rules that have not been finalized or submitted to U.S. EPA for approval. The proposed revision to the PM2.5 and ozone SIP addresses the critical issues of the proposed disapproval. It updates the implementation status of the AQMP control measures to meet the 2015 PM2.5 attainment and retains the AQMD's proposal for contingency measures and also references and relies on CARB's proposed contingency measures. In addition, the SIP revision will re-initiate its request that U.S. EPA voluntarily accept reduction responsibility for 10 TPD NO<sub>x</sub> emissions in 2014 but will propose that AQMD and CARB jointly provide a "fair share" backstop emissions reduction proposal, if necessary.

**COMMITTEE:** Not Applicable

**RECOMMENDED ACTIONS:**

1. Adopt the attached resolution:
  - a. Certifying the Addendum to the 2007 AQMP Final Program Environmental Impact Report
  - b. Adopting the Revisions to the PM2.5 and Ozone SIP for the South Coast Air Basin and Coachella Valley
2. Direct staff to forward the revisions to the PM2.5 and Ozone SIP for the South Coast Air Basin and Coachella Valley to CARB for approval and submission to U.S. EPA as part of the 2007 SIP.

Barry R. Wallerstein, D.Env.  
Executive Officer

## **Background**

On November 22, 2010 U.S. EPA issued a notice of proposed partial approval and partial disapproval of the 2007 South Coast SIP for the 1997 Fine Particulate Matter Standards and the corresponding 2007 State Strategy. U.S. EPA proposed to approve the plan's inventory and regional modeling analyses; however it proposed to disapprove the attainment demonstration because it relies too extensively on commitments to emissions reductions in lieu of fully adopted, submitted, and SIP approved rules. The notice also cited deficiencies in the SIP's contingency measures specifying the need for measures that are either fully adopted or otherwise ready for quick implementation and a trigger mechanism that achieves emissions reduction equivalent to one year of Reasonable Further Progress (RFP). In addition, U.S. EPA affirmed that it would not accept the Plan's assignment of 10 tons per day (TPD) NO<sub>x</sub> emissions reductions to U.S. EPA as a contributing factor to its decision.

## **Proposal**

AQMD is proposing to submit the attached revision to the PM<sub>2.5</sub> and ozone SIP to update the implementation status of the AQMD control measures to meet the 2015 PM<sub>2.5</sub> attainment, revisions to the control measure adoption schedule and modifications to the emissions reduction commitment to reflect changes made to the inventory resulting from CARB's December 2010 revisions to the on-road truck and off road equipment rules. The SIP revision retains the AQMD's proposal for contingency measures and also references and relies on CARB's proposed contingency measures that rely on reductions achieved through adopted rules that go beyond the RFP requirement. In addition, the SIP revision re-initiates its request that U.S. EPA voluntarily accept reduction responsibility for 10 TPD NO<sub>x</sub> emissions in 2014. Should U.S. EPA continue to not voluntarily accept reduction responsibility for federal sources in the 2007 SIP, AQMD and CARB will jointly provide a "fair share" backstop emissions reductions proposal. AQMD is committing to provide 1.0 TPD NO<sub>x</sub> emissions reductions in the event that the backstop proposal becomes necessary. AQMD has filed comments with U.S. EPA arguing that U.S. EPA's insistence on a "10 percent" limit for reductions that rely on enforceable commitment, rather than fully approved rules, is improper. We do, however, expect CARB to propose a SIP revision at its April meeting to address U.S. EPA's concerns.

## **Public Process**

As required by federal law, a 30-day notice is required before holding a hearing to adopt revisions to PM<sub>2.5</sub> and Ozone SIP for South Coast Air Basin and Coachella Valley. A Notice of Public Hearing providing the key elements of the proposed update to the SIP was released on January 26, 2011.

## **CEQA and Socioeconomic Impacts**

SCAQMD staff has evaluated the proposed revision to the PM<sub>2.5</sub> and Ozone SIP and has concluded that only minor technical changes or additions to the 2007 AQMP Final

Program Environmental Impact Report (PEIR) are necessary and none of the conditions in CEQA Guidelines §15162 apply. Therefore, an Addendum to the 2007 AQMP Final PEIR that analyzes the proposed timing and level of emission reduction commitments as a result of the proposed revision is the appropriate CEQA document.

Socioeconomic impacts for all control measures were already analyzed as part of the 2007 AQMP and the proposed amendments are not expected to change the outcome of the previous analysis.

### **AQMP and Legal Mandates**

The proposed revision to the PM2.5 and Ozone SIP for the South Coast Air Basin and Coachella Valley will not impact adversely the 2007 SIP attainment demonstration or the overall SIP reduction commitment.

### **Resource Impacts**

The proposed revision to the PM2.5 and Ozone SIP for the South Coast Air Basin and Coachella Valley will require no additional staff resources and funding.

### **Attachments**

- A Resolution
- B Revisions to the 2007 PM2.5 and Ozone SIP for South Coast Air Basin and Coachella Valley
- C Addendum to the 2007 AQMP Final Program Environmental Impact Report
- D 2007 AQMP Final Program Environmental Impact Report<sup>1</sup>
- E Comments Received<sup>2</sup>

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<sup>1</sup> Due to the bulk of these materials, the 2007 AQMP Program Environmental Impact Report is available online at [http://www.aqmd.gov/ceqa/documents/2007/aqmd/finalEA/07aqmp/aqmp\\_fpeir.html](http://www.aqmd.gov/ceqa/documents/2007/aqmd/finalEA/07aqmp/aqmp_fpeir.html) for anyone wishing to view this material.

<sup>2</sup> Response to these comments will be available prior to the Governing Board Meeting.

**ATTACHMENT A  
RESOLUTION NO. 11-**

**A Resolution of the South Coast Air Quality Management District Governing Board (AQMD) certifying the Addendum to Final Program Environmental Impact Report (PEIR) for the 2007 Air Quality Management Plan (AQMP) for a revision to the Final 2007 AQMP, to be referred to after adoption as the Revision to the Final 2007 AQMP.**

**A Resolution of the Governing Board of the AQMD adopting the Revision to the Final 2007 AQMP.**

**WHEREAS**, the U.S. EPA promulgated 8-hour ozone and PM2.5 standards in 1997, followed up by implementation rules which set forth the classification and planning requirements for State Implementation Plans (SIP); and

**WHEREAS**, the federal Clean Air Act requires SIPs for regions not in attainment with the 8-hour ozone and fine particulate standards be submitted no later than 3-years after the standards became effective, whereby, SIPs for the South Coast Air Basin and Coachella Valley must have been submitted for 8-hour ozone and PM2.5 by June 15, 2007 and April 5, 2008, respectively; and

**WHEREAS**, the South Coast Air Quality Management District has jurisdiction over the South Coast Air Basin and the desert portion of Riverside County known as the Coachella Valley; and

**WHEREAS**, the South Coast Air Quality Management District is committed to comply with the requirements of the federal Clean Air Act; and

**WHEREAS**, the AQMD Governing Board finds and determines that the Revision to the Final 2007 AQMP, is considered a "project" pursuant to the California Environmental Quality Act (CEQA); and

**WHEREAS**, AQMD staff has reviewed the Revision to the Final 2007 AQMP and has concluded that the proposed project would result in no significant adverse environmental impacts; and

**WHEREAS**, AQMD staff has concluded that none of the modifications to the 2007 AQMP alter any of the conclusions reached in the Final PEIR for the 2007 AQMP and only minor technical changes or additions to the Final PEIR for the 2007 AQMP are necessary and none of the conditions in CEQA Guidelines §15162 apply so, an Addendum to the 2007 AQMP Final PEIR is the appropriate CEQA document (CEQA Guidelines §15164); and

**WHEREAS**, an Addendum to a previously certified EIR need not be circulated for public review and comment (CEQA Guidelines §15164(c), but is attached herein to the Final PEIR for the 2007 AQMP; and

**WHEREAS**, the Governing Board shall consider the Addendum with the Final PEIR for the 2007 AQMP prior to making a decision on the proposed project; and

**WHEREAS**, it is necessary that the adequacy of the Addendum to the Final PEIR for the 2007 AQMP be determined by the AQMD Governing Board prior to its certification; and

**WHEREAS**, the Governing Board prior to voting on the Proposed Revision to the Final 2007 AQMP, has reviewed and considered the Addendum with the Final PEIR for the 2007 AQMP; and

**WHEREAS**, the South Coast Air Quality Management District Governing Board, adopted the 2007 AQMP dated June 1, 2007 consisting of the document entitled 2007 AQMP as amended by the final changes set forth by the South Coast Air Quality Management District Governing Board and the associated documents listed in Attachment 1 to the Resolution from June 2007, the Final Socioeconomic Report for the 2007 AQMP; the Final Program EIR for the 2007 AQMP, and the Statements of Findings and Overriding Considerations and Mitigation Monitoring Plan; and

**WHEREAS**, the Resolution, the 2007 AQMP as amended by the final changes (including all documents listed in Attachment 1 to the Resolution from June 2007), the emissions budgets as incorporated in the 2007 AQMP, and the Final Program Environmental Impact Report on the 2007 AQMP was forwarded to and adopted by CARB, and the Board Resolution requested that the 2007 AQMP be forwarded to the U.S. EPA for approval as part of the State Implementation Plan which CARB subsequently did; and

**WHEREAS**, on November 22, 2010, U.S. EPA published its notice of proposed partial approval and partial disapproval of the 2007 Air Quality Management Plan (AQMP) PM<sub>2.5</sub> Plan primarily because the attainment demonstration relies too heavily (i.e. greater than 10 percent) on emissions reductions from several State rules that have not been finalized or submitted to U.S. EPA for approval; and

**WHEREAS**, the 2011 revision to the 2007 PM2.5 and ozone SIP addresses the key elements of the proposed disapproval; and

**WHEREAS**, the 2011 revision to the 2007 PM2.5 and ozone SIP updates the implementation status of the AQMP control measures to meet the 2015 PM2.5 attainment; and

**WHEREAS**, the 2011 revision to the 2007 PM2.5 and ozone SIP retains the AQMD's proposal for contingency measures and also references and relies on CARB's proposed contingency measures; and

**WHEREAS**, the 2011 revision to the 2007 PM2.5 and ozone SIP re-initiates the request that U.S. EPA voluntarily accept reduction responsibility for 10 TPD NOx emissions in 2014 but will propose that AQMD and CARB jointly provide a "fair share" backstop emissions reduction proposal and includes the AQMD's commitment to obtain an additional 1 TPD NOx, if necessary; and

**WHEREAS**, the 2007 AQMP, as revised by the 2011 revision, includes every feasible measure and an expeditious adoption schedule; and

**WHEREAS**, significant emission reductions must be achieved from sources under state and federal jurisdiction for the South Coast Air Basin to attain the federal air quality standards; and

**WHEREAS**, said emission reduction programs have effectively improved air quality in the South Coast Air Basin for particulate matter less than 2.5 microns in diameter (PM2.5) and for 8-hr ozone; and

**NOW, THEREFORE, BE IT RESOLVED**, that the South Coast Air Quality Management District Governing Board hereby certifies that the Addendum to the Final Program Environmental Impact Report for the 2007 AQMP has been completed in compliance with the requirements of CEQA and finds that the Addendum to the Final Program Environmental Impact Report for the 2007 AQMP, is adequate and thereby approves it.

**BE IT FURTHER RESOLVED**, that because no significant adverse environmental impacts were identified as a result of implementing the Revisions to the 2007 PM2.5 and Ozone SIP, Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan are not required.

**BE IT FURTHER RESOLVED**, that the South Coast Air Quality Management District Governing Board hereby approves the 2011 Revisions to the 2007 PM2.5 and Ozone SIP.

**BE IT FURTHER RESOLVED**, that the Executive Office is hereby directed to forward a copy of this Resolution, modified the 2011 Revision to the 2007 PM2.5 and Ozone SIP to CARB and to request that they be forwarded to the U.S. EPA for approval as part of the State Implementation Plan, and that U.S. EPA approve the 2007 PM2.5 and Ozone SIP as so modified.

Dated: \_\_\_\_\_

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Clerk of the District Board

**ATTACHMENT B**

**Revisions to 2007 PM<sub>2.5</sub> and Ozone State  
Implementation Plan for South Coast Air  
Basin and Coachella Valley**

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**March 2011**



## **Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley**

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### **Executive Summary**

This State Implementation Plan (SIP) revision updates the implementation status of the AQMD control measures to meet the 2015 PM<sub>2.5</sub> attainment, and includes revisions to the control measure adoption schedule and modifications to the emissions reduction commitment to reflect changes made to the inventory resulting from CARB's December 2010 revisions to the on-road truck and off road equipment rules. The SIP revision provided addresses key elements in U.S. Environmental Protection Agency's (U.S. EPA) proposed partial approval and partial disapproval of the 2007 PM<sub>2.5</sub> SIP for the South Coast Air Basin (Basin). The SIP revision retains the AQMD's proposal for contingency measures and also references and relies on CARB's proposed contingency measures that rely on reductions achieved through adopted rules that go beyond the RFP requirement. In addition, the SIP revision re-initiates its request that U.S. EPA voluntarily accept reduction responsibility for 10 TPD NO<sub>x</sub> emissions in 2014 for federal sources in the 2007 SIP, but provides a commitment to obtain a "fair share" additional 1 TPD NO<sub>x</sub> reductions in 2014 should U.S. EPA reject this request. Staff expects CARB to commit to its "fair share" of 9 TPD NO<sub>x</sub> reductions if necessary. AQMD is committing to provide 1.0 TPD NO<sub>x</sub> emissions reductions in the event that the backstop proposal becomes necessary.

### **Background**

On November 22, 2010 U.S. EPA issued a notice of proposed partial approval and partial disapproval of the 2007 South Coast State Implementation Plan (SIP) for the 1997 Fine Particulate Matter Standards and the corresponding 2007 State Strategy. U.S. EPA proposed to approve the plan's inventory and regional modeling analyses; however it proposed to disapprove the attainment demonstration because it relies too extensively on commitments to emissions reductions in lieu of fully adopted and submitted rules. While the District has adopted enforceable rules that achieve more than 90 percent of its SIP emissions reductions commitment, the State Strategy and the recent actions to modify the on- and off-road emissions from heavy duty vehicles have not achieved the same percentage or been submitted to U.S. EPA as part of the SIP commitment. The notice also cited deficiencies in the SIP's contingency measures specifying the need for measures that are either fully adopted or otherwise ready for quick implementation and a trigger mechanism that achieves emissions reduction equivalent to one year of RFP. In addition, U.S. EPA affirmed that it would not accept the Plan's assignment of 10 tons per day (TPD) NO<sub>x</sub> emissions reductions to EPA as a contributing factor to its decision.

## **Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley**

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### **2007 AQMP and State Strategy Commitments**

The 2007 Air Quality Management Plan was adopted by the SCAQMD Governing Board at its June 22, 2007 meeting and forwarded to CARB for inclusion in the SIP. The California Air Resources Board adopted the SIP, and the State Strategy for emissions reductions to meet the 2015 PM<sub>2.5</sub> standard at its September 27, 2007 meeting. The two components of the SIP were submitted to U.S. EPA on November 16, 2007 for approval. As part of its share, the 2007 AQMP committed the District to reduce 18.8 TPD NO<sub>x</sub>, 10 TPD VOC, 2.9 TPD SO<sub>x</sub> and 2.9 TPD PM<sub>2.5</sub> by 2014 of the needed emissions reductions to demonstrate attainment.

### **Update of the 2007 AQMP Implementation Status**

The SCAQMD has fulfilled the overwhelming majority of its emissions reductions commitments specified in the 2007 SIP. Table-1 summarizes the progress achieved toward fulfilling SCAQMD's emissions reductions commitments to attain the 1997 PM<sub>2.5</sub> annual and federal 8-hour ozone standards by the required dates. Through January 31, 2011, the SCAQMD Governing Board has amended and adopted 13 rules achieving approximately 96 percent of the District's SIP commitment outlined in the 2007 AQMP. The majority of these rules have been submitted to U.S. EPA and approved as part of the SIP. Several recently adopted District rules have been submitted to CARB to be submitted to and subsequently be evaluated by U.S. EPA.

The 96 percent achievement rate of the District's SIP commitment outlined in the 2007 AQMP represents the balance of emissions reductions achieved by calculating the relative contributions of VOC, NO<sub>x</sub>, PM<sub>2.5</sub>, and SO<sub>x</sub> based on PM<sub>2.5</sub> formation potential. As summarized in CARB's staff report Proposed 2007 State Implementation Plan for the South Coast Air Basin – PM<sub>2.5</sub> Annual and 8-Hour Average Ozone National Ambient Air Quality Standards (Appendix C, Tables-2 and -3) the relative contribution of the PM<sub>2.5</sub> precursor emissions can be normalized to provide equivalent formation potential on a ton per day (TPD) basis. The common methodology chosen to express the formation potential is as equivalent NO<sub>x</sub> emissions reductions whereby 1-TPD VOC reduction is equivalent to 0.43 TPD NO<sub>x</sub>, 1-TPD directly emitted PM<sub>2.5</sub> is equivalent to 9.86 TPD NO<sub>x</sub>, and 1-TPD SO<sub>x</sub> is equivalent to 15.03 TPD NO<sub>x</sub>. By applying these factors to the 2007 AQMP PM<sub>2.5</sub> SIP the District committed to 87.43 TPD equivalent NO<sub>x</sub> reductions and through January, 2011 has achieved 83.89 TPD equivalent NO<sub>x</sub> reductions. If the balance were to be met by NO<sub>x</sub> alone, they are equivalent to 3.53 TPD of NO<sub>x</sub>. Similarly, they can be met by 0.36 TPD of PM<sub>2.5</sub> or 0.24 TPD of SO<sub>x</sub>, based

## **Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley**

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on each pollutant's effectiveness in PM<sub>2.5</sub> formation. The District will continue to pursue further reductions of each of these pollutants.

Tables 2 through Table 5 summarize the implementation status of each SCAQMD control measure with reductions attained vs. original SIP commitments. As stated in Chapter 4 of the 2007 AQMP (p. 4-2), substitution is allowed between measures to meet the overall SIP tonnage commitment. Table 2 through Table 5 note where such substitution occurs.

### **Revisions to Reduction Commitment**

In Table 3, the 2014 emissions reduction commitment for the SOON Program has been revised from 12 TPD NO<sub>x</sub> reduction to 4 TPD to reflect ARB's update of the off-road emissions inventory in December 2010. The revised off-road inventory due to better information on equipment population, load factor, and expected activity level has resulted in lower baseline emissions. In other words, some of the reductions expected from this measure have already occurred due to reductions in the baseline inventory. Although SCAQMD's funding commitment and percent control efficiency for the SOON program remain the same, the expected reductions due to this measure are lowered from 12 TPD to 4 TPD. This change does not result in higher emissions in the air. Should the economy recover to the levels projected in the 2007 SIP by 2014, the expected reductions can reach 8 TPD.

### **Revisions to Implementation Schedule**

A limited number of revisions to the 2014 implementation dates are proposed in Tables 2 through 5. Control measure EGM-01 rule adoption moves from 2010 to 2012 with full implementation for 2023. Control measure BCM-05 rule adoption is moved from 2010 to 2011-2012.

### **Requirements for Contingency Measures**

The CAA requires that non-attainment area SIPs contain sufficient contingency measures such that upon implementation of those measures additional emissions reduction of up to 3 percent of the emissions in the adjusted base year would be achieved in the year following the year where the failure to meet milestone emission reduction targets or attain the NAAQS was observed. The CAA requires that the contingency measures be fully adopted or otherwise ready for quick implementation, with a trigger mechanism and implementation schedule that quantifies emissions reductions.

## **Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley**

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The Final 2007 AQMP contained four contingency control measures (2007 AQMP, Table 9-1) to address the requirements of the CAA. The contingency control measures will be retained with a trigger for implementation of non-attainment of the PM<sub>2.5</sub> standard by 2015.

As a practical matter, all feasible measures, to adopt as rules, are already included as 2007 AQMP main control strategy measures and thus are not available for use as contingency measures. However, U.S. EPA may continue to conclude that this is not sufficiently quick implementation. Therefore, the AQMD would also rely on implementation of CARB's contingency measures for the 2007 SIP as a whole, which are already adopted.

### **Federal Measures Assignment**

A final key element in the notice of disapproval was the U.S. EPA's rejection of the SIP's assignment to EPA of 10 TPD NO<sub>x</sub> emissions reductions. The U.S. EPA cited that the CAA does not authorize a State to assign responsibility to the federal government for meeting SIP requirements. U.S. EPA did however recognize that the authority and responsibility to regulate certain nationwide sources is within its jurisdiction. The control measure in question requested federal funding to mitigate locomotive emissions. The sources in question would be those less well controlled than California regulated sources and the measure would be implemented to acquire equivalent emissions reduction to those estimated if Tier 4 NO<sub>x</sub> locomotive engine standards were enforceable in 2014.

SCAQMD understands that U.S. EPA's position is that a state may not, under the current Clean Air Act structure, unilaterally assign any portion of the SIP responsibility to U.S. EPA. However, we do not believe there is any prohibition on U.S. EPA voluntarily accepting such a responsibility. In this case it is only fair to do so, given the large percentage of remaining PM<sub>2.5</sub> precursor emissions, after implementation of SCAQMD and CARB measures that is attributable to federally-regulated sources.

Should U.S. EPA continue to not accept assignment for this measure, SCAQMD will work with CARB to modify or develop control measures that commit equivalent emissions reductions to assure PM<sub>2.5</sub> attainment to the extent needed. As part of its "fair share" the AQMD is committing an additional 1 TPD NO<sub>x</sub> emissions reduction in 2014 with ARB assuming the bulk of the federal assignment.

## Revisions to PM2.5 and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

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**Table-1**  
 SCAQMD PM2.5 SIP Implementation Status  
 for the 2007 AQMP (TPD)

<b>Pollutant</b>	<b>SIP Commitment by 2014</b>		
	<b>Commitment</b>	<b>Achieved</b>	<b>Balance*</b>
VOC	10.40	14.40	+4.00
NOx	10.80	7.60	-3.20
PM2.5	2.90	1.00	-1.90
SOx	2.90	4.01	+1.11

\* If the balance for each pollutant were converted to NOx-equivalent values, the remaining tons required to be obtained would be 3.53 TPD NOx, which are still scheduled to be obtained by 2014 in NOx-equivalent reductions. Or, they can be met by 0.36 TPD of PM2.5 or 0.24 TPD of SOx, based on each pollutant's effectiveness in PM2.5 formation. The District will continue to pursue further reductions of each of these pollutants.

**Table-2**

**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (VOC)<sup>1</sup>**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
MOB-05	AB923 Light-Duty Vehicle High-Emitter Identification Program [NOx, VOC] <sup>(a)(b)</sup>	On-going	On-going	2007-2020	On-going	0.8	0	0.7	0
<b>2007 Total</b>						<b>0.8</b>	<b>0</b>	<b>0.7</b>	<b>0</b>
FLX-02	Petroleum Refinery Pilot Program [VOC and PM2.5]	2008	(a)	2010		0.7	0	1.6	0
CTS-01	Emission Reductions from Lubricants [VOC][R1144]	2008	2009	2010	2011	1.9	3.9	2.0	4.2
MOB-06	AB923 Medium-Duty Vehicle High-Emitter Identification Program [NOx, VOC] <sup>(a)(b)</sup>	2008	On-going	2010-2020	On-going	0.5	0	0.6	0
FUG-04	Pipeline and Storage Tank Degassing[VOC]- R1149	2007	2008	2008-2009	2008	NA	0.04	NA	0.04
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [All]	2007-2008	2008	2008-2014	2008-2014	NA	0.44	NA	0.70
MCS-07	All Feasible Measures (R1125)	On-going	2008	2010-2020	2008	NA	0	NA	0
<b>2008 Total</b>						<b>3.1</b>	<b>4.4</b>	<b>4.2</b>	<b>4.9</b>
FUG-02	Emission Reductions from Gasoline Transfer and Dispensing Facilities [VOC]	2009	(c)	2010-2012		3.7	0	4.0	0
MCS-05	Emission Reductions from Livestock Waste [VOC]	2009	(a)	2011		0.8	0	0.6	00
EGM-01	Emission Reductions from New or Redevelopment Projects [NOx, VOC, PM2.5] <sup>(d)</sup>	2012		Beginning 2014		N/A	0	0.5	0
<b>2009 Total</b>						<b>4.5</b>	<b>0.0</b>	<b>5.1</b>	<b>0.0</b>

## Revisions to PM2.5 and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

### Table-2 Continued

**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (VOC) continued**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
MCS-01*	Facility Modernization [NOx, VOC, PM]-R1110.2 <sup>(a) (e)</sup>	On-going	2008+	Beginning 2012	2011+	2.0	0.3	9.2	0.3
CTS-03	Consumer Products Certification and Emissions Reductions from Use of Consumer Products at Institutional and Commercial Facilities [VOC] <sup>(f)</sup>	2007-2010		2010-2020		NA	0	NA	0
CTS-04	Emission Reductions from the Reduction of VOC Content of Consumer Products not Regulated by the State Board [VOC[R1143]] <sup>(f)</sup>	2008-2010	2009	2010-2020	2011	NA	9.7	NA	10.1
<b>2010 Total</b>						<b>2.0</b>	<b>10.0</b>	<b>9.2</b>	<b>10.4</b>
<b>Total SIP Commitment</b>						<b>10.4</b>	<b>14.4</b>	<b>17.9</b>	<b>15.3</b>

<sup>1</sup> 2014 reductions estimated in average annual day, 2023 in planning inventory.

<sup>(a)</sup> SIP commitment for the PM2.5 Plan was met via excess reductions achieved from CTS-04 (R1143).

<sup>(b)</sup> The SOON and AB923 incentive programs are on track to achieve the targeted reductions by 2014.

<sup>(c)</sup> AQMD lacks legal authority to adopt the control concept in the measure. SIP reduction commitment was met via excess reductions achieved from the CTS-04 (R1143).

<sup>(d)</sup> No SIP emission reduction commitment for the PM2.5 Plan. Rulemaking is delayed due to potential co-benefits of SB375 reduction targets.

<sup>(e)</sup> AQMD will continue to implement this measure to meet the overall SIP reduction commitment for 2023.

<sup>(f)</sup> CTS-03 was adopted by CARB in November 2010. Emission Reductions from CTS-04 are not included in AQMD's SIP commitments and there is no double counting in emission reductions relative to CARB regulations.

\* NOx emission reductions taken in 2008; PM emission reductions taken in 2009; VOC emission reductions taken in 2010.

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.

## Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

### Table-3

#### 2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (NOx)<sup>1</sup>

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
MOB-05	AB923 Light-Duty Vehicle High-Emitter Identification Program [NOx, VOC] <sup>(a)</sup>	On-going	On-going	2007-2020	On-going	0.4	0	0.4	0
<b>2007 Total</b>						<b>0.4</b>	<b>0</b>	<b>0.4</b>	<b>0</b>
CMB-01	NOx Reduction from Non-RECLAIM Ovens, Dryers and Furnaces [NOx][R1147]	2008	2008	Beginning 2010	2010	3.5	3.5	4.1	4.1
MOB-06	AB923 Medium-Duty Vehicle High-Emitter Identification Program [NOx, VOC] <sup>(a)</sup>	2008	On-going	2010-2020	On-going	0.5	0	0.6	0
MCS-01*	Facility Modernization [NOx, VOC, PM]-R1110.2, PR1146, PR1146.1	2008-2010	2008+	Beginning 2012	2011	1.6	2.17	2.2	3.15
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [All][R445]	2007-2008	2008	2008-2014	2008-2014	NA	0.06	NA	0.10
	SOON Program <sup>(a)(b)</sup>	2008	2008	2014	2008-2014	4-8	1.8	NA	NA
<b>2008 Total</b>						<b>9.6</b>	<b>7.5</b>	<b>6.9</b>	<b>7.3</b>
CMB-03	Further NOx Reductions from Space Heaters [NOx]	2009	2009	Beginning 2012	2012-2043	0.8	0.1	1.1	3.0
EGM-01	Emission Reductions from New or Redevelopment Projects [NOx, VOC, PM <sub>2.5</sub> ] <sup>(c)</sup>	2012		Beginning 2014		0		0.8	
<b>2009 Total</b>						<b>0.8</b>	<b>0.1</b>	<b>1.9</b>	<b>3.0</b>
<b>Total SIP Commitment<sup>(d)(e)</sup></b>						<b>10.8</b>	<b>7.6</b>	<b>9.2</b>	<b>10.3</b>

<sup>1</sup> 2014 reductions estimated in average annual day, 2023 in planning inventory.

<sup>(a)</sup> The SOON and AB923 incentive programs are on track to achieve the targeted reductions by 2014.

<sup>(b)</sup> A revised SIP commitment of 4 TPD reflects ARB's update on the off-road emissions inventory in December 2010 and maintains the same control efficiency.

The upper range of 8 TPD excludes the impact of recession.

<sup>(c)</sup> No SIP emission reduction commitment for the PM<sub>2.5</sub> Plan. Rulemaking is delayed due to potential co-benefits of SB375 reduction targets.

<sup>(d)</sup> The SIP shortfall for the 2014 reduction commitment was met via excess reductions achieved from the SOx RECLAIM amendments (CMB-02).

<sup>(e)</sup> AQMD commits an additional 1 TPD of NOx, if necessary, as a backstop measure should U.S. EPA not voluntarily accept responsibility for federal sources in the 2007 SIP.

\* NOx emission reductions taken in 2008; PM emission reductions taken in 2009; VOC emission reductions taken in 2010.

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.



## Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

### Table-4

#### 2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (PM<sub>2.5</sub>)

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [PM <sub>2.5</sub> ]	2007-2008	2008	2008-2014	2008-2014	1.0	1.0	1.6	1.6
FLX-02	Petroleum Refinery Pilot Program [VOC and PM <sub>2.5</sub> ] <sup>(a)</sup>	2008		2010		0.4		0.4	
<b>2008 Total</b>						<b>1.4</b>	<b>1.0</b>	<b>2</b>	<b>1.6</b>
EGM-01	Emission Reductions from New or Redevelopment Projects [NO <sub>x</sub> , VOC, PM <sub>2.5</sub> ] <sup>(b)</sup>	2012		Beginning 2014				0.5	
MCS-01*	Facility Modernization [NO <sub>x</sub> , VOC, PM] <sup>(a)(c)</sup>	On-going		Beginning 2012		0.4		1.7	
<b>2009 Total</b>						<b>0.4</b>		<b>2.2</b>	
BCM-05	PM Emission Reductions from Under-fired Charbroilers [PM <sub>2.5</sub> ] <sup>(d)</sup>	2011-2012		2014		1.1		1.2	
<b>2010 Total</b>						<b>1.1</b>		<b>1.2</b>	
<b>Total SIP</b>						<b>2.9</b>	<b>1</b>	<b>5.4</b>	<b>1.6</b>

<sup>(a)</sup> Reduction commitment for the PM<sub>2.5</sub> SIP was met via excess reductions achieved from the 2010 SO<sub>x</sub> RECLAIM amendments.

<sup>(b)</sup> No SIP emission reduction commitment for the PM<sub>2.5</sub> Plan. Rulemaking is delayed due to potential co-benefits of SB375 reduction targets.

<sup>(c)</sup> R1155 was adopted as part of MCS-01 implementation in 2010, but PM<sub>2.5</sub> reduction potential cannot be quantified. AQMD will continue to seek opportunities to further implement this measure.

<sup>(d)</sup> Reduction commitment for the PM<sub>2.5</sub> SIP was met via excess reductions achieved from the 2010 SO<sub>x</sub> RECLAIM amendments (CMB-02) and VOC reductions from CTS-03. The rulemaking will entail two phases with control equipment testing, certification, and deployment in 2011 and development of regulatory requirements in 2012.

\* NO<sub>x</sub> emission reductions taken in 2008; PM emission reductions taken in 2009; VOC emission reductions taken in 2010.

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.

## Revisions to PM<sub>2.5</sub> and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley

### Table-5

#### 2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (SO<sub>x</sub>)

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
CMB-02	Further SO <sub>x</sub> Reductions for RECLAIM (BARCT) [SO <sub>x</sub> ]	2008	2010	2011-2014	2013-2019	2.9	4.0	2.9	5.7
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [All]	2007-2008	2008	2008-2014	2008-2014	NA	0.01	NA	0.02
2008 Total						2.9	4.01	2.9	5.7
2009 Total						---		---	
2010 Total						---		---	
Total SIP						2.9	4.01	2.9	5.7

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.

## ATTACHMENT C

### SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

#### **Addendum: Revisions to the PM<sub>2.5</sub> and Ozone State Implementation Plan for the South Coast Air Basin and Coachella Valley**

**February 2011**

**SCAQMD No. 02022011SS  
State Clearinghouse No.: 2006111064**

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## **ADDENDUM**

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**Introduction**

**California Environmental Quality Act**

**Project Location**

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**Project Background**

**Project Description**

**Universe of Affected Sources**

## INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977<sup>1</sup> as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin referred to herein as the district. By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the district<sup>2</sup>. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP<sup>3</sup>. The 2007 AQMP concluded that major reductions in emissions of oxides of sulfur (SO<sub>x</sub>), particulate matter (PM) 2.5 and oxides of nitrogen (NO<sub>x</sub>) are necessary to attain the air quality standards for ozone and particulate matter. Emission reductions from volatile organic compounds (VOCs) are also necessary, but to a lesser extent because of the greater emphasis on NO<sub>x</sub> emission reductions, which is a precursor to both ozone and PM. Ozone, a criteria pollutant, is formed when VOCs react with NO<sub>x</sub> in the atmosphere and has been shown to adversely affect human health. NO<sub>x</sub> also contributes to the formation of PM<sub>10</sub> and PM<sub>2.5</sub>.

At a June 1, 2007 public hearing, the SCAQMD Governing Board approved the 2007 AQMP and certified the Final Program Environmental Impact Report (PEIR) for the 2007 AQMP. On September 27, 2007, the CARB Board adopted the State Strategy for the 2007 State Implementation Plan and the 2007 South Coast Air Quality Management Plan as part of the (SIP). The 2007 SIP was then forwarded to U.S. EPA for approval.

On November 22, 2010, U.S. EPA issued a notice of proposed partial approval and partial disapproval of the 2007 South Coast SIP for the 1997 Fine Particulate Matter Standards and the corresponding 2007 State Strategy. Specifically, U.S. EPA proposed approving the SIP's inventory and regional modeling analyses, but it also proposed disapproving the attainment demonstration because it relies too extensively on commitments to emission reductions in lieu of fully adopted, submitted, and SIP-approved rules. The notice also cited deficiencies in the SIP's contingency measures specifying the need for measures that are either fully adopted or otherwise ready for quick implementation and a trigger mechanism that achieves emissions reductions equivalent to one year of Reasonable Further Progress (RFP). Finally, U.S. EPA affirmed that it would not accept the SIP's assignment of 10 tons per day (tpd) of NO<sub>x</sub> emissions reductions to U.S. EPA as a contributing factor to its decision.

In response to U.S. EPA's partial disapproval of the 2007 SIP, the SCAQMD is proposing to submit: revisions to the PM<sub>2.5</sub> and Ozone SIP to update the implementation status of SCAQMD control measures necessary to meet the 2015 PM<sub>2.5</sub> attainment date; revisions to the control measure adoption schedule; and reflect changes made to the inventory resulting from California Air Resources Board's (CARB's) December 2010 revisions to the on-road truck and off-road equipment rules. Also, the SCAQMD commits to its "fair share" of additional NO<sub>x</sub> emission reductions, if needed, in the event U.S. EPA does not voluntarily accept the "federal assignment."

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<sup>1</sup> The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch 324 (codified at Health & Safety Code, §§40400-40540).

<sup>2</sup> Health & Safety Code, §40460 (a).

<sup>3</sup> Health & Safety Code, §40440 (a).

The 2007 SIP was considered to be a project as defined by California Environmental Quality Act (CEQA Guidelines §15378), so a PEIR was prepared because the 2007 AQMP had the potential to generate significant adverse environmental impacts. Further, because the 2007 SIP is considered to be a plan that governs the conduct of a continuing program, a program EIR was prepared pursuant to CEQA Guidelines §15168. The proposed revisions to the 2007 are also considered to be a project as defined by CEQA and are, therefore, subject to an appropriate CEQA analysis. As explained in the following section, an Addendum prepared pursuant to CEQA Guidelines §15164 is the appropriate CEQA document and has been prepared to address potential environmental impacts from the proposed 2007 PM2.5 and ozone Revisions.

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Revisions to the 2007 SIP which include: revising the PM2.5 and Ozone SIP to update the implementation status of SCAQMD control measures necessary to meet the 2015 PM2.5 attainment date; revising the control measure adoption schedule; and reflecting changes made to the inventory resulting from CARB's December 2010 revisions to the on-road truck and off-road equipment rules are considered to be a discretionary approval by a public agency and, therefore, are considered to be a "project" as defined by CEQA (CEQA Guidelines §15387). Staff has evaluated the proposed revisions to the 2007 PM2.5 and Ozone SIP and concluded that none of the revisions meet the conditions described in §15162 calling for preparation of a subsequent EIR have occurred and only minor technical changes or additions are necessary. Based on these conclusions, staff has determined that an Addendum prepared pursuant to CEQA Guidelines §15164 is the appropriate CEQA document for the proposed revisions to the 2007 PM2.5 and Ozone SIP.

When a lead agency has determined that a proposed project qualifies for an Addendum, CEQA Guidelines §15164(e) requires the lead agency to prepare a brief explanation of the decision not to prepare a subsequent EIR pursuant to §15162, which should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence. Substantial evidence supporting the determination to prepare an Addendum to the proposed 2007 PM2.5 and Ozone SIP revisions is provided in the section below entitled "Environmental Checklist and Discussion."

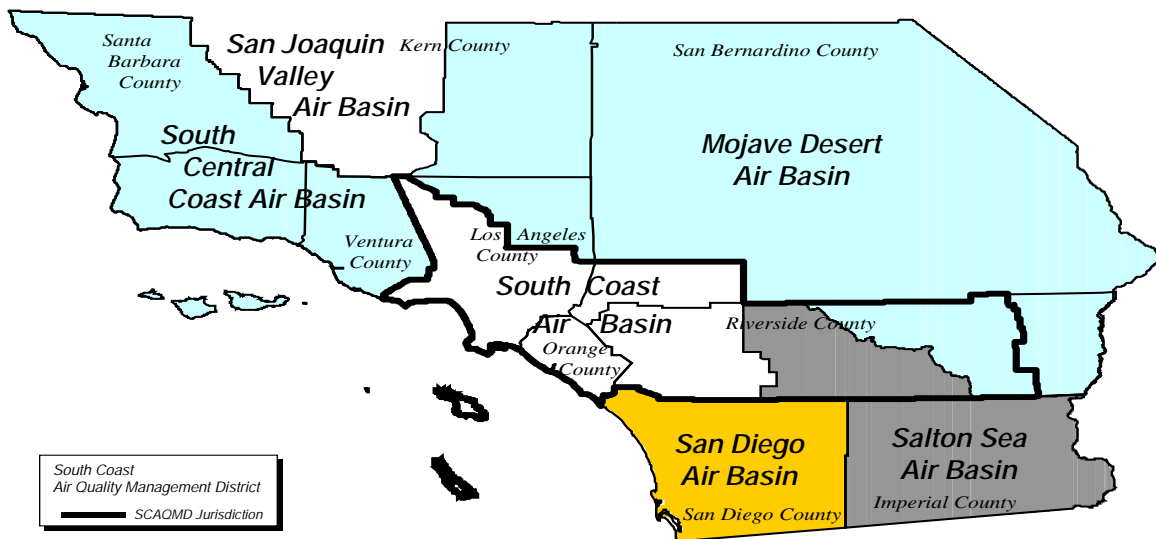
SCAQMD staff's review of the proposed project shows that the project would not have any significant adverse effects on the environment. Therefore, no alternatives or mitigation measures are required to be included in this Addendum. The analysis in subsequent sections supports the conclusion of no significant adverse environmental impacts. Finally, pursuant to CEQA Guidelines §15164(c) an addendum need not be circulated for public review.

## **PROJECT LOCATION**

The SCAQMD has jurisdiction over an area of 10,473 square miles, consisting of the four-county South Coast Air Basin (Basin) and the Riverside County portions of the Salton Sea Air Basin (SSAB) and the Mojave Desert Air Basin (MDAB), hereinafter referred to as district. The Basin, which is a subarea of the district, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The 6,745 square-



mile Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal non-attainment area (known as the Coachella Valley Planning Area) is a subregion of both Riverside County and the SSAB and is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 1). The 2007 SIP and the currently proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP apply to the entire district.



**Figure 1**  
**Boundaries of the South Coast Air Quality Management District**

## PROJECT OBJECTIVES

The general project objectives of the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are summarized in the following bullet points:

- Provide revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP that would allow U.S. EPA to expeditiously approve the portion of the 2007 PM<sub>2.5</sub> SIP that it is currently proposing to disapprove;
- Revise the PM<sub>2.5</sub> and Ozone SIPs to update the implementation status of SCAQMD control measures necessary to meet the 2015 PM<sub>2.5</sub> attainment date;
- Revise the control measure adoption schedule; and
- Reflect changes made to the inventory resulting from CARB's December 2010 revisions to the on-road truck and off-road equipment rules.

## **PROJECT BACKGROUND**

The 2007 Air Quality Management Plan was adopted by the SCAQMD Governing Board at its June 22, 2007 meeting and forwarded to CARB for inclusion in the SIP. The California Air Resources Board adopted the SIP, and the State Strategy for emissions reductions to meet the 2015 PM<sub>2.5</sub> standard at its September 27, 2007 meeting. The two components of the SIP were submitted to U.S. EPA on November 16, 2007 for approval. As part of its share, the 2007 AQMP committed the SCAQMD to reduce emissions to demonstrate attainment by 2014 in the following amounts: 18.8 tpd of NO<sub>x</sub>, 10.4 tpd of VOCs, 2.9 tpd of SO<sub>x</sub> and 2.9 tpd of PM<sub>2.5</sub>.

On November 22, 2010 U.S. EPA issued a notice of proposed partial approval and partial disapproval of the 2007 South Coast SIP for the 1997 Fine Particulate Matter Standards and the corresponding 2007 State Strategy. U.S. EPA proposed to approve the plan's inventory and regional modeling analyses; however it proposed to disapprove the attainment demonstration because it relies too extensively on commitments to emissions reductions in lieu of fully adopted, submitted, and SIP approved rules. The notice also cited deficiencies in the SIP's contingency measures specifying the need for measures that are either fully adopted or otherwise ready for quick implementation and a trigger mechanism that achieves emissions reduction equivalent to one year of Reasonable Further Progress (RFP). In addition, U.S. EPA affirmed that it would not accept the Plan's assignment of 10 tons per day (TPD) NO<sub>x</sub> emissions reductions to U.S. EPA as a contributing factor to its decision.

At the January 7, 2011 Governing Board meeting, the Board approved a proposal to send a letter to U.S. EPA in response to the partial disapproval of the 2007 SIP. The letter provided a detailed legal discussion of why the SCAQMD considers the proposed disapproval based on enforceable commitments of more than 10 percent of the needed reductions is "arbitrary and capricious." The letter noted further, that extension of the attainment date to 2015 is essential for the success of the SIP. Implementation of the adopted control measures listed in the AQMP/SIP has been structured to provide adequate lead time for a wide number of affected industries and mobile sources with the rules and regulations. For additional information on the content of SCAQMD's letter to U.S. EPA, please refer to the January 7, 2011 Board meeting, agenda item #19 at: <http://www.aqmd.gov/hb/attachments/2011-2015/2011Jan/2011-Jan7-019.pdf>.

### **Update of the 2007 AQMP Implementation Status**

The SCAQMD has fulfilled the majority of its emissions reductions commitments specified in the 2007 SIP. Table 1 summarizes the progress achieved toward fulfilling SCAQMD's emissions reductions commitments to attain the 1997 PM<sub>2.5</sub> annual and federal 8-hour ozone standards by the required dates. Through January 31, 2011, the SCAQMD Governing Board has amended and adopted 13 rules achieving approximately 96 percent of the SCAQMD's SIP commitment outlined in the 2007 AQMP. The majority of these rules have been submitted to U.S. EPA and approved as part of the SIP. Several recently adopted SCAQMD rules have been submitted to CARB and have been or are expected to be submitted to and subsequently evaluated by U.S. EPA. Overall, there are no proposed changes to the emissions reduction commitment for either 2014 or 2023.

**Table 1**  
**SCAQMD PM2.5 SIP Implementation Status**  
**for the 2007 AQMP (TPD)**

Pollutant	SIP Commitment by 2014		
	Commitment	Achieved	Balance*
VOC	10.40	14.40	+4.00
NOx	10.80	7.60	-3.20
PM2.5	2.90	1.00	-1.90
SOx	2.90	4.01	+1.11

\* If the balance for each pollutant were converted to NOx-equivalent values, the remaining tons required to be obtained would be 3.53 TPD NOx, which are still scheduled to be obtained by 2014 in NOx-equivalent reductions. Or, they can be met by 0.36 TPD of PM2.5 or 0.24 TPD of SOx, based on each pollutant's effectiveness in PM2.5 formation. The District will continue to pursue further reductions of each of these pollutants.

The 96 percent achievement rate of the SCAQMD's SIP commitment outlined in the 2007 AQMP represents the balance of emissions reductions achieved by calculating the relative contributions of VOC, NOx, PM2.5, and SOx emissions based on PM2.5 formation potential. As indicated in CARB's staff report *Proposed 2007 State Implementation Plan for the South Coast Air Basin – PM2.5 Annual and 8-Hour Average Ozone National Ambient Air Quality Standards (Appendix C)* and summarized in Tables 2 and 3, the relative contribution of the PM2.5 precursor emissions can be normalized to provide equivalent formation potential on a ton per day (TPD) basis. The common methodology chosen to express the formation potential is as equivalent NOx emissions reductions whereby one tpd VOC emission reduction is equivalent to 0.43 tpd of NOx mission reductions, one tpd of directly emitted PM2.5 emissions is equivalent to 9.86 tpd of NOx emissions, and one tpd of SOx emissions is equivalent to 15.03 tpd of NOx emissions. By applying these factors to the 2007 AQMP PM2.5 SIP the SCAQMD committed to 87.43 tpd of equivalent NOx emission reductions and through January, 2011, and has achieved 83.89 tpd equivalent NOx emission reductions. If the balance were to be met by NOx alone, they would be equivalent to 3.53 tpd of NOx emissions. Similarly, the remaining emission reduction commitment can be met by reducing 0.36 tpd of PM2.5 emissions or 0.24 tpd of SOx, emissions based on each pollutant's effectiveness in PM2.5 formation. The SCAQMD is committed to pursuing further reductions of each of these pollutants. For all measures in the 2007 AQMP, their environmental impacts have already been analyzed as part of the Final PEIR for the 2007 AQMP. As each control measure has been promulgated into a rule or regulation, individual Environmental Assessments<sup>4</sup> have been prepared during each rulemaking that tier off of the Final PEIR for the 2007 AQMP.

<sup>4</sup> Under its Certified Regulatory Program (Public Resources Code §21080.5), CEQA documents for SCAQMD regulatory projects are call environmental assessments rather than EIRs or mitigated/negative declarations.

**Table 2**  
**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (VOC)<sup>1</sup>**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
MOB-05	AB923 Light-Duty Vehicle High-Emitter Identification Program [NO <sub>x</sub> , VOC] <sup>(a)(b)</sup>	On-going	On-going	2007-2020	On-going	0.8	0	0.7	0
2007 Total						0.8	0	0.7	0
FLX-02	Petroleum Refinery Pilot Program [VOC and PM <sub>2.5</sub> ]	2008	(a)	2010		0.7	0	1.6	0
CTS-01	Emission Reductions from Lubricants [VOC][R1144]	2008	2009	2010	2011	1.9	3.9	2.0	4.2
MOB-06	AB923 Medium-Duty Vehicle High-Emitter Identification Program [NO <sub>x</sub> , VOC] <sup>(a)(b)</sup>	2008	On-going	2010-2020	On-going	0.5	0	0.6	0
FUG-04	Pipeline and Storage Tank Degassing[VOC]- R1149	2007	2008	2008-2009	2008	NA	0.04	NA	0.04
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [All]	2007-2008	2008	2008-2014	2008-2014	NA	0.44	NA	0.70
MCS-07	All Feasible Measures (R1125)	On-going	2008	2010-2020	2008	NA	0	NA	0
2008 Total						3.1	4.4	4.2	4.9
FUG-02	Emission Reductions from Gasoline Transfer and Dispensing Facilities [VOC]	2009	(c)	2010-2012		3.7	0	4.0	0
MCS-05	Emission Reductions from Livestock Waste [VOC]	2009	(a)	2011		0.8	0	0.6	00
EGM-01	Emission Reductions from New or Redevelopment Projects [NO <sub>x</sub> , VOC, PM <sub>2.5</sub> ] <sup>(d)</sup>	2012		Beginning 2014		N/A	0	0.5	0
2009 Total						4.5	0.0	5.1	0.0

**Table 2 Concluded**  
**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (VOC) continued**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
MCS-01*	Facility Modernization [NOx, VOC, PM]-R1110.2 <sup>(a) (e)</sup>	On-going	2008+	Beginning 2012	2011+	2.0	0.3	9.2	0.3
CTS-03	Consumer Products Certification and Emissions Reductions from Use of Consumer Products at Institutional and Commercial Facilities [VOC] <sup>(f)</sup>	2007-2010		2010-2020		NA	0	NA	0
CTS-04	Emission Reductions from the Reduction of VOC Content of Consumer Products not Regulated by the State Board [VOC[R1143]] <sup>(f)</sup>	2008-2010	2009	2010-2020	2011	NA	9.7	NA	10.1
2010 Total						2.0	10.0	9.2	10.4
Total SIP Commitment						10.4	14.4	17.9	15.3

<sup>1</sup> 2014 reductions estimated in average annual day, 2023 in planning inventory.

<sup>(a)</sup> SIP commitment for the PM2.5 Plan was met via excess reductions achieved from CTS-04 (R1143).

<sup>(b)</sup> The SOON and AB923 incentive programs are on track to achieve the targeted reductions by 2014.

<sup>(c)</sup> AQMD lacks legal authority to adopt the control concept in the measure. SIP reduction commitment was met via excess reductions achieved from the CTS-04 (R1143).

<sup>(d)</sup> No SIP emission reduction commitment for the PM2.5 Plan. Rulemaking is delayed due to potential co-benefits of SB375 reduction targets.

<sup>(e)</sup> AQMD will continue to implement this measure to meet the overall SIP reduction commitment for 2023.

<sup>(f)</sup> CTS-03 was adopted by CARB in November 2010. Emission Reductions from CTS-04 are not included in AQMD's SIP commitments and there is no double counting in emission reductions relative to CARB regulations.

\* NOx emission reductions taken in 2008; PM emission reductions taken in 2009; VOC emission reductions taken in 2010.

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.

**Table 3**  
**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (NOx)<sup>1</sup>**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
MOB-05	AB923 Light-Duty Vehicle High-Emitter Identification Program [NOx, VOC] <sup>(a)</sup>	On-going	On-going	2007-2020	On-going	0.4	0	0.4	0
2007 Total						0.4	0	0.4	0
CMB-01	NOx Reduction from Non-RECLAIM Ovens, Dryers ad Furnaces [NOx][R1147]	2008	2008	Beginning 2010	2010	3.5	3.5	4.1	4.1
MOB-06	AB923 Medium-Duty Vehicle High-Emitter Identification Program [NOx, VOC] <sup>(a)</sup>	2008	On-going	2010-2020	On-going	0.5	0	0.6	0
MCS-01*	Facility Modernization [NOx, VOC, PM]-R1110.2, PR1146, PR1146.1	2008-2010	2008+	Beginning 2012	2011	1.6	2.17	2.2	3.15
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [All][R445]	2007-2008	2008	2008-2014	2008-2014	NA	0.06	NA	0.10
	SOON Program <sup>(a)(b)</sup>	2008	2008	2014	2008-2014	4-8	1.8	NA	NA
2008 Total						9.6	7.5	6.9	7.3
CMB-03	Further NOx Reductions from Space Heaters [NOx]	2009	2009	Beginning 2012	2012-2043	0.8	0.1	1.1	3.0
EGM-01	Emission Reductions from New or Redevelopment Projects [NOx, VOC, PM2.5] <sup>(c)</sup>	2012		Beginning 2014		0		0.8	
2009 Total						0.8	0.1	1.9	3.0
Total SIP Commitment <sup>(d)(e)</sup>						10.8	7.6	9.2	10.3

<sup>1</sup> 2014 reductions estimated in average annual day, 2023 in planning inventory.

<sup>(a)</sup> The SOON and AB923 incentive programs are on track to achieve the targeted reductions by 2014.

<sup>(b)</sup> A revised SIP commitment of 4 tpd reflects ARB's update on the off-road emissions inventory in December 2010 and maintains the same control efficiency.

The upper range of 8 tpd excludes the impact of recession.

<sup>(c)</sup> No SIP emission reduction commitment for the PM2.5 Plan. Rulemaking is delayed due to potential co-benefits of SB375 reduction targets.

<sup>(d)</sup> The SIP shortfall for the 2014 reduction commitment was met via excess reductions achieved from the SOx RECLAIM amendments (CMB-02).

<sup>(e)</sup> AQMD commits an additional 1 TPD of NOx, if necessary, as a backstop measure should U.S. EPA not voluntarily accept responsibility for federal sources in the 2007 SIP.

\* NOx emission reductions taken in 2008; PM emission reductions taken in 2009; VOC emission reductions taken in 2010.

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.

## **PROJECT DESCRIPTION**

The proposed project consists of revisions to the PM<sub>2.5</sub> and Ozone SIP to update the implementation status of the SCAQMD control measures to meet the 2015 PM<sub>2.5</sub> attainment deadline, revisions to the control measure adoption schedule and modifications to the emissions reduction tonnage to reflect changes made to the inventory resulting from CARB's December 2010 revisions to the on-road truck and off road equipment rules.

The proposed project also consists of a commitment to adopt SCAQMD's "fair share" of NO<sub>x</sub> emission reductions if needed to replace the federal assignment. The SIP revision will retain the SCAQMD's proposal for contingency measures and also reference and rely on CARB's proposed contingency measures that rely on reductions achieved through adopted rules that go beyond the RFP requirement. The following sections summarize the modifications to the 2007 PM<sub>2.5</sub> and Ozone SIP that the SCAQMD is proposing to submit to CARB, which is expected to be forwarded to U.S. EPA.

### **R evisions to the E missions R eduction C ommitment**

Table 3 shows that the 2014 emissions reduction commitment for the Surplus Off-Road Opt-In for NO<sub>x</sub> (SOON) Program (SCAQMD Rule 2449 – Control of Oxides of Nitrogen Emissions from Off-Road Diesel Vehicles) has been revised from 12 tpd NO<sub>x</sub> reduction to four tpd to reflect CARB's update of the off-road emissions inventory adopted in December 2010. Due to better information on equipment population, load factors, and expected activity levels, the off-road mobile sources inventory has been revised to reflect lower baseline emissions. In effect, some of the reductions expected to be achieved by this measure have already been achieved due to reductions in the baseline inventory. Although SCAQMD's funding commitment and percent control efficiency for the SOON program remain the same, the expected reductions are lowered from 12 tpd to 4 tpd. This change does not result in higher emissions in the air. Should the economy recover to the levels projected in the 2007 SIP by 2014, the expected reductions can reach 8 tpd.

### **R evisions to the 2007 AQMP C ontr ol M easur es A doption S chedule**

SCAQMD is proposing to revise rule adoption dates for two AQMP control measures. These proposed revisions are shown in Tables 2 through 5. For example, the SCAQMD is proposing to modify the adoption date for control measure EGM-01 from 2010 to 2012 with full implementation by 2023. Similarly, the SCAQMD is proposing to modify the adoption date for control measure BCM-05 from 2010 to the 2011 – 2012 timeframe.

### **R equirements for C ontingency M easur es**

The federal Clean Air Act (CAA) requires that non-attainment area SIPs contain sufficient contingency measures such that upon implementation of those measures additional emissions reduction of up to three percent of the emissions in the adjusted base year would be achieved in the year following the year where the failure to meet milestone emission reduction targets or attain the National Ambient Air Quality Standards (NAAQS) was observed.

**Table-4**  
**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (PM2.5)**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [PM2.5]	2007-2008	2008	2008-2014	2008-2014	1.0	1.0	1.6	1.6
FLX-02	Petroleum Refinery Pilot Program [VOC and PM2.5] <sup>(a)</sup>	2008		2010		0.4		0.4	
2008 Total						1.4	1.0	2	1.6
EGM-01	Emission Reductions from New or Redevelopment Projects [NOx, VOC, PM2.5] <sup>(b)</sup>	2012		Beginning 2014				0.5	
MCS-01*	Facility Modernization [NOx, VOC, PM] <sup>(a)(c)</sup>	On-going		Beginning 2012		0.4		1.7	
2009 Total						0.4		2.2	
BCM-05	PM Emission Reductions from Under-fired Charbroilers [PM2.5] <sup>(d)</sup>	2011-2012		2014		1.1		1.2	
2010 Total						1.1		1.2	
Total SIP						2.9	1	5.4	1.6

<sup>(a)</sup> Reduction commitment for the PM2.5 SIP was met via excess reductions achieved from the 2010 SOx RECLAIM amendments.

<sup>(b)</sup> No SIP emission reduction commitment for the PM2.5 Plan. Rulemaking is delayed due to potential co-benefits of SB375 reduction targets.

<sup>(c)</sup> R1155 was adopted as part of MCS-01 implementation in 2010, but PM2.5 reduction potential cannot be quantified. AQMD will continue to seek opportunities to further implement this measure.

<sup>(d)</sup> Reduction commitment for the PM2.5 SIP was met via excess reductions achieved from the 2010 SOx RECLAIM amendments (CMB-02) and VOC reductions from CTS-03. The rulemaking will entail two phases with control equipment testing, certification, and deployment in 2011 and development of regulatory requirements in 2012.

\* NOx emission reductions taken in 2008; PM emission reductions taken in 2009; VOC emission reductions taken in 2010.

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.



**Table-5**  
**2007 AQMP Emission Reduction Commitment by Measure/Adoption Date (SO<sub>x</sub>)**

Control Measure #	Control Measure Title	Adoption Date		Implementation Date		2014 Reductions (TPD)		2023 Reductions (TPD)	
		Commitment	Achieved	Commitment	Achieved	Commitment	Achieved	Commitment	Achieved
CMB-02	Further SO <sub>x</sub> Reductions for RECLAIM (BARCT) [SO <sub>x</sub> ]	2008	2010	2011-2014	2013-2019	2.9	4.0	2.9	5.7
BCM-03	Emission Reductions from Wood Burning Fireplaces and Wood Stoves [All]	2007-2008	2008	2008-2014	2008-2014	NA	0.01	NA	0.02
2008 Total						2.9	4.01	2.9	5.7
2009 Total						---		---	
2010 Total						---		---	
Total SIP						2.9	4.01	2.9	5.7

NA: Not applicable, no SIP Reductions quantified in the 2007 AQMP.

The CAA requires that the contingency measures be fully adopted or otherwise ready for quick implementation, with a trigger mechanism and implementation schedule that quantifies emissions reductions. The Final 2007 AQMP contained four contingency control measures (2007 AQMP, Table 9-1) to address the requirements of the CAA. The contingency control measures will be retained with a trigger for their implementation based on non-attainment of the PM<sub>2.5</sub> standard by 2015. To address U.S. EPA's comments, the SCAQMD would also rely on implementation of CARB's contingency measures for the 2007 SIP as a whole.

## **Federal Assignment**

A final key element in the notice of disapproval of the 2007 SIP was the assignment to the U.S. EPA a 10 tpd NO<sub>x</sub> emissions reduction commitment. U.S. EPA rejected this commitment citing the CAA, stating it does not authorize a state to assign responsibility to the federal government for meeting SIP requirements. U.S. EPA did however recognize that the authority and responsibility to regulate certain nationwide sources resides within its jurisdiction. The control measure in question requested federal funding to mitigate locomotive emissions in 2014 in lieu of implementation of the proposed new federal locomotive standard to meet the PM<sub>2.5</sub> attainment deadline. The sources in question would be those that are less well-controlled than California regulated sources and the measure would be implemented to acquire equivalent emissions reduction to those estimated if Tier 4 NO<sub>x</sub> locomotive engine standards were enforceable in 2014.

SCAQMD understands that U.S. EPA's position is that a state may not, under the current CAA structure, unilaterally assign any portion of the SIP responsibility to U.S. EPA. However, SCAQMD staff does not find in the CAA any prohibition against U.S. EPA voluntarily accepting such a responsibility. In this case it is only fair to do so, given the large percentage of remaining PM<sub>2.5</sub> precursor emissions, after implementation of SCAQMD and CARB measures that is attributable to federally-regulated sources.

Should U.S. EPA continue to not accept assignment for this measure, SCAQMD will work with CARB to modify or develop control measures that commit equivalent emissions reductions to assure PM<sub>2.5</sub> attainment to the extent needed. As part of its "fair share" the SCAQMD commits to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment.

## **ENVIRONMENTAL ANALYSIS**

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

## ENVIRONMENTAL CHECKLIST AND DISCUSSION

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS.</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

### Discussion

**I. a) – c):** Overall, it was concluded in the Initial Study (IS) for the 2007 AQMP that AQMP control measures are not expected to adversely affect scenic vistas in the district; damage scenic resources, including but not limited to trees, rock outcroppings, or historic buildings within a scenic highway; or substantially degrade the visual character of a site or its surroundings. The reason for this conclusion is that most of the AQMP control measures that would be implemented by the SCAQMD typically affect industrial, institutional, or commercial facilities located in appropriately zoned areas (e.g., industrial and commercial areas) that are not usually associated with scenic resources. Construction activities are expected to be limited to industrial and commercial areas. Further, modifications typically occur inside the buildings at the affected facilities, or because of the nature of the business (e.g., commercial or industrial) can easily blend with the facilities with little or no noticeable effect on adjacent areas. Some control measures that are under the jurisdiction of CARB or the U.S. EPA would establish exhaust emission standards. Establishing exhaust emission standards for mobile sources would also not be expected to adversely affect scenic resources.

Further, emission growth management control measures may require emission reductions from new or redevelopment land use projects. These control measures, however, do not initiate or promote land use projects, they may simply require emission reductions after the decision has already been made to pursue new or redevelopment projects. As a result, emission growth management control measures are not expected to adversely affect local land use policies or create aesthetic impacts.

It was concluded in the IS for the 2007 AQMP that it may have a beneficial effect on scenic resources by improving visibility as well as improving air quality, preventing smoke (BCM-03 and BCM-04, limit opening burning and wood burning), and minimizing dust (BCM-02 and EGM-01, dust control).

**I. d):** The 2007 AQMP is not expected to create additional demand for new lighting or exposed combustion sources (e.g., flares) that could create glare that could adversely affect day or nighttime views in any areas. As noted in item I. a) – c) above, facilities affected by AQMP control measures typically make modifications in the interior of an affected facility so any new light sources would typically be inside a building or not noticeable because of the presence of existing outdoor light sources. Further, operators of commercial or industrial facilities who would make physical modifications to facilities and may require additional lighting would be located in appropriately zoned areas that are not usually located next to residential areas, so new light sources, if any, would not be noticeable to residents.

### **Conclusion**

Based upon the above considerations, it was concluded in the 2007 AQMP IS that significant adverse project-specific aesthetic impacts would not be expected to occur due to implementation of the 2007 AQMP control measures.

The proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new aesthetics impacts or make substantially worse impacts identified in the 2007 AQMP IS for the following reasons. The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse aesthetics impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. The SCAQMD would also commit to retaining the contingency control measures, including triggers for implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are

no provisions in the proposed project that would create new adverse impacts or make existing aesthetics impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>II. AGRICULTURE AND FOREST RESOURCES.</b> Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Project-related impacts on agriculture and forest resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).

- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

### **Discussion**

**II. a) - c):** It was concluded in the 2007 AQMP IS that control measures, which typically affect existing commercial or industrial facilities or establish specifications for fuels or mobile source exhaust emissions, are not expected to generate any new construction of buildings or other structures that would require conversion of farmland to non-agricultural use or conflict with zoning for agricultural uses or a Williamson Act contract. There are no provisions in the 2007 AQMP that would affect or conflict with existing land use plans, policies, or regulations or require conversion of farmland to non-agricultural uses. Some control measures could affect agricultural facilities and farmers (e.g., BCM-04, prohibit agricultural burning, and on-road and off-road mobile source control measures and MCS-05, reduce emissions from livestock wastes), however, these control measures are not expected to convert agricultural land uses to non-agricultural land uses. Land use, including agriculture-related uses, and other planning considerations are determined by local governments and no agricultural land use or planning requirements will be altered by the proposed project. AQMP control measures, including control measures related to mobile sources, would have no direct or indirect effects on agricultural resources. The 2007 AQMP could provide benefits to agricultural resources by reducing ozone emissions and, thus, reducing the adverse impacts of ozone on plants and animals.

Emission growth management control measures may require emission reductions from new or redevelopment land use projects. These control measures, however, do not initiate or promote land use projects, they may simply require emission reductions after the decision has already been made to pursue new or redevelopment projects. As a result, emission growth management control measures are not expected to adversely affect local land use policies or result in the conversion of agricultural lands to non-agricultural land uses.

**II. d):** In March 2010, amendments to the CEQA Guidelines were finalized that added forest resources as a new topic in the environmental checklist to be evaluated along with agricultural resources. Because the 2007 AQMP Program EIR was certified in June 2007, there was no explicit evaluation of potential forestry resources impacts. It is expected that the 2007 AQMP would not generated significant adverse forestry resources impacts for the same reasons it would not adversely affect agricultural resources, i.e., control measures would typically affect existing commercial or industrial facilities or establish specifications for fuels or mobile source exhaust emissions, so are not expected to generate any new construction of buildings or other structures that would require conversion of forest resources to non-forest use or conflict with zoning for forestry uses. Further, there are no provisions in the proposed 2007 AQMP that would affect or conflict with existing land use plans, policies, or regulations or require conversion of forests to non-forest uses.

### **Conclusion**

Based upon the above considerations, it was concluded in the 2007 AQMP IS that significant adverse project-specific agricultural impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Impacts to forestry resources was added as an environmental topic for evaluation in 2010, after certification of the 2007 AQMP Final PEIR. However, it is not expected that the 2007 AQMP would create significant adverse forest

resources impacts for the same reasons it is not expected to create significant adverse agricultural resources impacts.

The proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new agriculture and forestry impacts or make substantially worse impacts identified in the 2007 AQMP IS for the following reasons. The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse agriculture and forestry impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part through reliance on greater than anticipated emission reductions from previously implemented control measures, and 2023. The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing agricultural or forestry resources impacts worse.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS</b>				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

**III. a)** The IS for the 2007 AQMP concluded that implementing AQMP control measures is, in effect, an update of the SCAQMD's 2003 AQMP, which is required pursuant to state law. By revising and updating emission inventories and control strategies, the SCAQMD is complying with state law, and furthering development and implementation of AQMP control measures, which are expected to reduce emissions and make progress towards attaining and maintaining all state and federal ambient air quality standards in the district. Consequently, it was concluded that implementing the 2007 AQMP would not create significant adverse impacts as a result of obstructing implementation of the applicable AQMP.

**III. b)** Potential adverse air quality impacts from adopting the proposed project are discussed in the following subsections.



### Air Quality Significance Criteria

To determine whether or not air quality impacts from adopting and implementing the proposed project are significant, impacts will be evaluated and compared to the criteria in Table 6. The project will be considered to have significant adverse air quality impacts if any one of the thresholds in Table 6 are equaled or exceeded.

**Table 6**  
**SCAQMD Air Quality Significance Thresholds**

<b>Mass Daily Thresholds <sup>a</sup></b>		
<b>Pollutant</b>	<b>Construction <sup>b</sup></b>	<b>Operation <sup>c</sup></b>
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
<b>Toxic Air Contaminants (TACs), Odor and GHG Thresholds</b>		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Hazard Index $\geq$ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 metric tons per year for industrial facilities	
<b>Ambient Air Quality for Criteria Pollutants <sup>d</sup></b>		
NO2  1-hour average annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.25 ppm (state – peak hour); 0.10 ppm (federal – 98 <sup>th</sup> percentile) 0.053 ppm (federal)	
PM10 24-hour average annual geometric average annual arithmetic mean	10.4 $\mu\text{g}/\text{m}^3$ (construction) <sup>e</sup> & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$ 20 $\mu\text{g}/\text{m}^3$	
PM2.5 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) <sup>e</sup> & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
Sulfate 24-hour average	25 $\mu\text{g}/\text{m}^3$	
CO  1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	

<sup>a</sup> Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

<sup>b</sup> Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

<sup>c</sup> For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

<sup>d</sup> Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

<sup>e</sup> Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day      ppm = parts per million       $\mu\text{g}/\text{m}^3$  = microgram per cubic meter       $\geq$  greater than or equal to

### **Construction Impacts**

The analysis of air quality impacts in the PEIR for the 2007 AQMP concluded that for most air quality impact areas, e.g., operational secondary impacts from increased electricity demand, mobile sources, etc., would be less than applicable significance thresholds and, therefore, would not contribute to significant adverse cumulative impacts. Construction air quality impacts (PM10) were concluded to be significant. Nine mitigation measures were identified to reduce construction air quality impacts. However, the analysis concluded that implementing the nine mitigation measures would not reduce construction air quality impacts to less than significant.

The proposed revisions to the 2007 PM2.5 and Ozone SIP are not expected to create any new construction air quality impacts or make substantially worse impacts identified in the 2007 AQMP PEIR for the following reasons. Construction air quality impacts identified in the 2007 AQMP PEIR were primarily the result of installing control equipment to comply with the control requirements in the 2007 AQMP control measures. For some types of control equipment, it may be necessary to use heavy-duty diesel off-road equipment and perform substantial site preparation. The proposed revisions to the 2007 PM2.5 and Ozone SIP do not include incorporating any new control measures or modifying the substantive requirements of any 2007 AQMP control measures. Since the proposed project does include any new or modified control measures, no changes to the conclusions regarding construction air quality impacts from implementing the 2007 AQMP control measures are anticipated.

### **Operational Impacts**

The analysis of operational air quality impacts in the 2007 AQMP PEIR concluded that, overall, implementing 2007 AQMP control measures would produce beneficial air quality benefits through reducing emissions from stationary and on-road and off-road sources.

As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. Further, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse air quality impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures.

Consequently, the proposed project would not create significant adverse construction air quality impacts or substantially contribute to significant adverse project-specific or cumulative construction air quality impacts identified in the PEIR for the 2007 AQMP.

**III. c)** As noted in the discussions of construction and operational air quality impacts in item III. b) above, the proposed project would not create any construction or operational air quality impacts not already evaluated in the 2007 AQMP. Specifically, no new or additional construction activities to install control equipment to comply with the proposed project would be required because the proposed project does not include any new or modified control measures. As a result, construction air quality impacts from the proposed project are not considered to be cumulatively considerable and, therefore, are concluded to be cumulatively insignificant. The proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse cumulative air quality impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures.

The analysis of air quality impacts in the PEIR for the 2007 AQMP concluded that for most air quality impact areas, e.g., operational secondary impacts from increased electricity demand, mobile sources, etc., would be less than applicable significance thresholds and, therefore, would not contribute to significant adverse cumulative impacts. Implementing the currently proposed project is not expected to create significant adverse cumulative operational air quality impacts or to change the conclusion regarding cumulative impacts in the PEIR for the 2007 AQMP in any way.

**III. d)** Potential air quality impacts from exposing sensitive receptors to substantial criteria pollutant and air toxic concentrations were evaluated in the Program EIR for the 2007 AQMP. In general, the modeling performed for the 2007 AQMP showed improvements, i.e., declining concentrations, from the baseline year (2005) compared to future milestone years (2015 and 2024) for all criteria pollutants, VOC, and air toxics emissions.

As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. Further, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse air quality impacts that could expose sensitive receptors to substantial pollutant concentrations. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures.

Consequently, the proposed project would not create significant adverse air quality impacts from exposing sensitive receptors to substantial criteria pollutant and air toxic concentrations or change any of the conclusions regarding potential impacts to sensitive receptors evaluated in the Program EIR for the 2007 AQMP.

**III. e)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse odor impacts for the following reasons. Promulgation of AQMP control measures into rules or regulations may involve reformulated coatings or solvents, which may have noticeable odors. It is typically the case, however, that reformulated products

have less noticeable odors than the products they are replacing. Reformulated products tend to have reduced VOC content and reduced emissions and, therefore, fewer potential odors. As a result, significant adverse odor impacts have not been associated with reformulated products compared to conventional high VOC products. However, owners/operators of industries affected by control measures in the proposed 2007 AQMP would still be subject to existing air quality rules and regulations, including SCAQMD's Rule 402 - Nuisance, which prohibits creating odor nuisances. For these reasons, implementing the 2007 AQMP is not expected to create significant adverse odor impacts and, therefore, will not be further addressed in the Draft PEIR.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse odor impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures that generate odor impacts.

**II. f)** The 2007 AQMP contains control measures that are expected to bring the district into compliance with all ambient air quality standards as required by the federal and California Clean Air Acts. For this reason the IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts by diminishing existing air quality rules or future compliance requirements. The currently proposed revisions do not include incorporating any new control measures into the SIP that could diminish existing rules or future compliance requirements. Although the adoption schedule for some control measures would be delayed, the implementation dates and associated emission reductions would not be delayed. Finally, The proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures.

**III. g) & h)** Global warming is the observed increase in average temperature of the earth's surface and atmosphere. The primary cause of global warming is an increase of GHG emissions in the atmosphere. The six major types of GHG emissions identified in the Kyoto Protocol and in CARB's RMP regulation are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). The GHG emissions absorb longwave radiant energy emitted by the earth, which warms the atmosphere. The GHGs also emit longwave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation emitted by the atmosphere is known as the "greenhouse effect."

The current scientific consensus is that the majority of the observed warming over the last 50 years can be attributable to increased concentration of GHG emissions in the atmosphere due to human activities. Events and activities, such as the industrial revolution and the increased consumption of fossil fuels (e.g., combustion of gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHG emissions. As reported by the California Energy Commission (CEC), California contributes 1.4 percent of the global and 6.2 percent of the national GHG emissions (CEC, 2004). Further, approximately 80 percent of GHG emissions in California are from fossil fuel combustion (e.g., gasoline, diesel, coal, etc.).

The 2007 AQMP did not include any control measures that specifically address controlling GHGs. However, reducing certain criteria pollutants, especially combustion pollutants, has the potential of generating substantial GHG emission reduction co-benefits. For example, SCAQMD staff evaluated the GHG emission reduction potential of four control measures and

concluded that by 2020, they have the potential of reducing over 1.5 million metric tons of CO<sub>2</sub> emissions. This analysis did not include potential N<sub>2</sub>O or CH<sub>4</sub> GHG emission reductions, nor did it include an evaluation of other 2007 AQMP control measures that may have GHG emission reduction co-benefits.

The proposed revisions to the 2007 AQMP do not include incorporating any new control measures into the SIP that could create new adverse GHG emission reduction impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures that could limit their effectiveness in reducing GHG emissions.

### **Conclusion**

It was concluded in the PEIR for 2007 AQMP that implementing AQMP control measures could result in significant adverse construction air quality impacts (PM<sub>10</sub>), while operational air quality impacts were concluded to be less than significant.

The proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new air impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons. The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse air quality impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing air quality impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES.</b>				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

**Discussion**

**IV. a), b), & d)** In the 2007 AQMP IS, no direct or indirect impacts from implementing AQMP control measures were identified that could adversely affect plant and/or animal species in the district. The effects of implementing AQMP control measures would typically result in reducing mobile source exhaust emissions, modifying fuel specifications, or modifications at existing commercial or industrial facilities to control or further control emissions. Such existing commercial or industrial facilities are generally located in appropriately zoned commercial or industrial areas, which typically do not support candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Similarly, modifications at existing facilities would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with native or resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Further, since some control measures in the 2007 AQMP regulate stationary emission sources at existing commercial or industrial facilities, they do not directly or indirectly affect land use policy that may adversely affect riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or identified by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Improving air quality is expected to provide health benefits to plant and animal species in the district. There are no control measures contained in the proposed project that would alter this determination.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse biological resources impacts to plant and/or animal species in the district. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures that could adversely affect biological resources.

**IV. c) As** noted in the previous item, promulgating control measures in the 2007 AQMP may require modifications at existing industrial or commercial facilities to control or further control emissions at these affected facilities. Similarly, the 2007 AQMP contains control measures that establish emission standards for mobile sources, result in additional control of emissions from mobile sources, or revise fuel specifications. As a result, the proposed project will not affect land use policies or designations. Some control measures could result in the installation of additional controls at port facilities, which are located on the coast. However, the port facilities are considered to be heavy industrial facilities and the installation of additional controls would be consistent with this land use. For these reasons the proposed project will not adversely affect protected wetlands as defined by §404 of the Clean Water Act, including, but not limited to marshes, vernal pools, coastal wetlands, etc., through direct removal, filling, hydrological interruption or other means.

**IV. e) & f)** Implementing the 2007 AQMP is not expected to affect land use plans, local policies or ordinances, or regulations protecting biological resources such as a tree preservation policy or ordinance for the reasons already given, i.e. control measures promulgated as rules or regulations primarily affect existing facilities located in appropriately zoned areas or establish emission standards for mobile sources or fuel specifications. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by the proposed project. Similarly, the proposed amendments to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to affect in any way habitat conservation or natural community conservation plans, agricultural resources or operations, and would not create divisions in any existing communities.

### **Conclusion**

It was concluded in the 2007 AQMP IS that significant adverse project-specific biological resources impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new biological resources impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse biological resources impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. Therefore, emission reduction benefits to biological resources would be expected to occur on the same schedule as projected in the 2007 AQMP Final PEIR.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue



to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing biological resources impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES.</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource, site, or feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

**Discussion**

**V. a), b), c), & d)** As noted in the IS for the 2007 AQMP, implementing the 2007 AQMP control measures is primarily expected to result in controlling stationary source emissions at existing commercial or industrial facilities, establish emission standards for mobile sources, or establish fuel standards. Affected facilities where physical modifications may occur are typically located in appropriately zoned commercial or industrial areas that have previously been disturbed. Because potentially affected facilities are existing facilities and controlling stationary source emissions does not typically require extensive cut-and-fill activities or excavation, it is unlikely that implementing control measures in the proposed 2007 AQMP will: adversely affect

historical or archaeological resources as defined in CEQA Guidelines §15064.5, destroy unique paleontological resources or unique geologic features, or disturb human remains interred outside formal cemeteries.

Emission growth management control measures may require emission reductions from new or redevelopment land use projects. These control measures, however, do not initiate or promote land use projects, they may simply require emission reductions after the decision has already been made to pursue new or redevelopment projects. As a result, emission growth management control measures are not expected to adversely affect local land use policies or create additional development that would impact cultural resources.

### **Conclusion**

It was concluded in the 2007 AQMP IS that significant adverse project-specific cultural resources impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new cultural resources impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse cultural resources impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. Therefore, emission reduction benefits to cultural resources (e.g., improving air quality reduces the destructive effects of ozone on culturally significant structures) would be expected to occur on the same schedule as projected in the 2007 AQMP Final PEIR.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing cultural resources impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>VI. ENERGY.</b> Would the project:				
a) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the need for new or substantially altered power or natural gas utility systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Create any significant effects on local or regional energy supplies and on requirements for additional energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create any significant effects on peak and base period demands for electricity and other forms of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with existing energy standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts to energy and mineral resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

**Discussion**

**VI. a) & e)** It was concluded in the 2007 AQMP IS that AQMP control measures are not anticipated to result in any conflicts with adopted energy conservation plans or violations of any energy conservation standards by affected facilities. In some cases facilities complying with 2007 AQMP control measures may need to install various types of control equipment, which could potentially increase energy demand in the district. It is expected, however, that owners/operators of affected facilities would comply with any applicable energy conservation standards in effect at the time of installation. Alternatively, implementing the proposed 2007 AQMP may result in owners/operators of affected facilities replacing old inefficient equipment with newer more energy efficient equipment (e.g., MCS-01, Facility Modernization and MCS-03, Energy Efficiency and Conservation), thus providing beneficial impacts on energy demand. Based upon these considerations, however, the net effect of implementing the 2007 AQMP is that it is not expected to conflict with any adopted energy conservation plans or energy efficiency standards. The proposed project does not contain any revisions to the substantive

requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures that would conflict with adopted energy conservation plans or violate any energy conservation standards by affected facilities.

**VI. b), c), & d)** The IS for the 2007 AQMP indicated that 2007 AQMP control measures may interfere with energy conservation efforts in the district. Further, implementing some AQMP control measures could increase energy demand in the region at affected facilities. As a result, these topics were further analyzed in the PEIR. The analysis concluded that energy impacts as a result of implementing control measures in the 2007 AQMP would not be significant for the following reasons. Although implementing AQMP control measures may increase demand for electricity, natural gas, and alternative fuels, it is expected that local utilities have the capacity to supply future demand. Further, installing new less polluting and more efficient equipment as a result of complying with AQMP control measures may provide beneficial reductions in future demand. Finally, greater reliance on electricity, natural gas, and alternative fuels would reduce demand for other fossil fuels. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts to energy supplies or energy production facilities.

### **Conclusion**

It was concluded in the 2007 AQMP IS that significant adverse project-specific energy impacts may occur due to implementation of the 2007 AQMP control measures. Further analysis in the 2007 AQMP Final PEIR of potential energy impacts from implementing 2007 AQMP control measures concluded that impacts to energy conservation programs, energy supplies, and energy production facilities would be less than significant. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new impacts or make substantially worse impacts to energy conservation programs, energy supplies, and energy production facilities identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse impacts to energy conservation programs, energy supplies, and energy production facilities. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. Therefore, potential non-significant energy impacts from implementing 2007 AQMP control measures would be expected to occur on the same schedule as projected in the 2007 AQMP Final PEIR.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM2.5 standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NOx emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing impacts to energy conservation programs, energy supplies, and energy production facilities worse.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>VII. GEOLOGY AND SOILS.</b> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

**Discussion**

**VII. a), c) & d)** It was concluded in the 2007 AQMP IS that the control measures will not directly or indirectly expose people or structures to earthquake faults, seismic shaking, seismic-related ground failure including liquefaction, landslides, mudslides or substantial soil erosion for the following reasons. When implemented as rules or regulations, AQMP control measures do not directly or indirectly result in construction of new structures. Some structural modifications at existing affected facilities may occur as a result of installing control equipment or making process modifications. In any event, existing affected facilities or modifications to existing facilities would be required to comply with relevant Uniform Building Code requirements in effect at the time of initial construction or modification of a structure.

New structures must be designed to comply with the Uniform Building Code Zone 4 requirements since the district is located in a seismically active area. The local cities or counties

are responsible for assuring that projects comply with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the Code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some non-structural damage; and (3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation conditions at the site.

Any potentially affected facilities that are located in areas where there has been historic occurrence of liquefaction, e.g., coastal zones, or existing conditions indicate a potential for liquefaction, including expansive or unconsolidated granular soils and a high water table, may have the potential for liquefaction-induced impacts at the project sites. The Uniform Building Code requirements consider liquefaction potential and establish more stringent requirements for building foundations in areas potentially subject to liquefaction. Therefore, compliance with the Uniform Building Code requirements is expected to minimize the potential impacts associated with liquefaction. The issuance of building permits from the local cities or counties will assure compliance with the Uniform Building Code requirements. Therefore, no significant impacts from liquefaction are expected and this potential impact will not be considered further.

Because facilities affected by any AQMP control measures are typically located in industrial or commercial areas, which are not typically located near known geological hazards (e.g., landslide, mudflow, seiche, tsunami or volcanic hazards), no significant adverse geological impacts are expected. Tsunamis at the ports, i.e., Port of Los Angeles and Port of Long Beach, are not expected because the ports are surrounded by breakwaters that protect the area from wave action. In any event, AQMP control measures will not increase potential exposures to tsunamis. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse geological hazards impacts.

**VII. b)** Although the 2007 AQMP control measures may require modifications at existing industrial or commercial facilities, it was concluded in the IS for the 2007 AQMP that such modifications are not expected to require substantial grading or construction activities. Soil stabilization methods and paving of unpaved areas could be required under control measure BCM-02 which would further reduce PM10 emissions from paved and unpaved roads. Soil compaction or over covering with a hard-ground cover such as asphalt or concrete pavement could contribute to surface water erosion of soils in areas adjacent to paved or other impervious surface areas. However, these potential impacts from paving of unpaved roads are not anticipated from the 2007 AQMP. Further, the control measure (BCM-02) is expected to reduce wind erosion of soil. The proposed project does not have the potential to substantially increase the area subject to compaction or overcovering since the subject areas would be limited in size

and, typically, have already been graded or displaced in some way (e.g., shoulders of roadways). The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse soil or erosion impacts.

**VII. e)** Septic tanks or other similar alternative waste water disposal systems are typically associated with small residential projects in remote areas. As noted in the IS for the 2007 AQMP, the 2007 AQMP does not contain any control measures that generate construction of residential projects in remote areas. AQMP control measures typically affect existing industrial or commercial facilities that are already hooked up to appropriate sewerage facilities. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that require alternative wastewater treatment equipment.

### **Conclusion**

It was concluded in the 2007 AQMP IS that significant adverse project-specific geology and soils impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new geology or soils impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse geology or soils impacts. Further, the proposed project does not contain any revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing geology or soils impacts worse.



	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
h) Significantly increased fire hazard in areas with flammable materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

**Discussion**

**VIII. a), b) & c) The** 2007 AQMP PEIR indicated that the 2007 AQMP control measures have the potential to create direct or indirect hazard impacts in several ways, including potential hazardous impacts that may result from the reformulation of products with materials that are low or exempt VOC materials, ammonia use in selective catalytic reduction equipment, use of fuel additives, etc., could generate significant offsite hazard impacts. The analysis of hazard impacts concluded that only potential impacts from modifications at refineries to produce a modified CARB Phase 3 gasoline (ONRD-03) and/or reformulated diesel fuel (ONRD-07) that could require equipment modifications or new equipment could generate significant offsite hazard impacts. One mitigation measure was identified to reduce this significant hazard impact, but hazard impacts remained significant.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse hazardous materials impacts or make existing significant hazardous materials impacts substantially worse.

**VIII. d)** Government Code §65962.5 typically refers to a list of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits or site cleanup activities. For any facilities affected by control measures that are on the list, it is anticipated that they would be required to manage any and all hazardous materials in accordance with federal, state and local regulations. According to the IS for the 2007 AQMP, implementing AQMP control measures is not expected to interfere with site cleanup activities or create additional site contamination.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could interfere with a facility listed on Government Code §65962.5 complying

with site cleanup activities that could create new significant adverse impacts or make existing site contamination impacts substantially worse.

**VIII. e)** According to the IS for the 2007 AQMP, implementing AQMP control measures is not expected to adversely affect any airport land use plan or result in any safety hazard for people residing or working in the district. U.S. Department of Transportation – Federal Aviation Administration Advisory Circular AC 70/7460-2K provides information regarding the types of projects that may affect navigable airspace. Projects that involve construction or alteration of structures greater than 200 feet above ground level within a specified distance from the nearest runway; objects within 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each one foot vertically from the nearest point of the runway); etc., may adversely affect navigable airspace. Control measures in the 2007 AQMP are not expected to require construction of tall structures near airports so potential impacts to airport land use plans or safety hazards to people residing or working in the vicinity of local airports are not anticipated. These controls are expected to establish emission standards or increase the use of electrical equipment, but are not expected to interfere with airport activities.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse safety hazard impacts or make existing safety hazard impacts for people living and working within the vicinity of public or private airports substantially worse.

**VIII. f)** According to the IS for the 2007 AQMP, implementing AQMP control measures is not expected to interfere with any emergency response procedures or evacuation plans. Operators of any existing commercial or industrial facilities affected by the AQMP control measures will typically have their own emergency response plans for their facilities already in place. Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public, but the facility employees as well. The implementation of certain control measures could result in the need for additional storage of hazardous materials (e.g., ammonia). Such modifications may require revisions to emergency response plans if new hazardous are introduced to a facility. However, these modifications would not be expected to interfere with emergency response procedures and would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse impacts or make existing impacts to business emergency response plans substantially worse.

**VIII. g)** Control measures in the 2007 AQMP would typically affect existing commercial or industrial facilities in appropriately zoned areas. Since commercial and industrial areas are not typically located near wildland or forested areas, according to the IS prepared for the 2007

AQMP, implementing AQMP control measures has no potential to increase the risk of wildland fires.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse wildland fire impacts or make existing wildland fire impacts by substantially worse.

**VIII. h) The 2007 AQMP IS** concluded that some control measures in the 2007 AQMP that require add-on control equipment or reformulated products may increase potential fire hazards in areas with flammable materials and may be a potentially significant impact. The PEIR, however, concluded that potential fire hazard impacts would be less than significant through complying with applicable laws and regulations regarding storage, handling and transport of flammable materials. Further, increased use of some types of flammable substances, e.g., alternative fuels, would result in a commensurate reduction in other types of flammable substances e.g., fossil fuels.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse flammability impacts or make existing flammability impacts substantially worse.

### **Conclusion**

With the exception of accidental releases of hazardous materials it was concluded in the 2007 AQMP Final PEIR that significant adverse project-specific hazards and hazardous materials impacts could occur due to implementation of the 2007 AQMP control measures. One mitigation measure was identified to reduce significant hazardous materials impacts, but impacts remained significant. It was concluded in the 2007 AQMP IS that significant adverse project-specific hazards or hazardous materials impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new hazards or hazardous materials impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons. Further, the IS for the 2007 AQMP concluded that implementing 2007 AQMP control measures would not create other types of hazard or hazardous materials impacts such as interfering with site cleanup, increasing the potential for wildfires, increasing flammability impacts, etc.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM2.5 standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NOx emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing hazards or hazardous materials impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY.</b> Would the project:				
a) Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **Significance Criteria**

Potential impacts on water resources will be considered significant if any of the following criteria apply:

#### Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

#### Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

### **Discussion**

**IX. a) & i)** The 2007 AQMP IS concluded that some control measures in the 2007 AQMP that would control particulate and/or SO<sub>x</sub> emissions could require additional wastewater discharge from devices like wet gas scrubbers (e.g., BCM-01, PM Control Devices, and CMB-02, SO<sub>x</sub> Controls). Facilities, such as refineries, could also require modifications to supply reformulated gasoline (ONRD-03), reformulated diesel fuels (ONRD-07), and cleaner marine fuels (ONRD-06), and these modifications could generate additional wastewater discharge. Further, affected facilities that generate waste water and are subject to waste discharge or pretreatment requirements currently comply with and will continue to comply with all relevant waste water requirements, waste discharge regulations and standards for stormwater runoff, and any other relevant requirements for direct discharges into sewer systems. These standards and permits require water quality monitoring and reporting for onsite water-related activities. The analysis in the PEIR for the 2007 AQMP concluded that implementing five mitigation measures would reduce water quality impacts to less than significant.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse water quality impacts or make existing water quality impacts substantially worse.

**IX. b), g) & h)** The 2007 AQMP IS concluded that some control measures in the 2007 AQMP that would control particulate (fugitive dust) and/or SO<sub>x</sub> emissions could require additional water use from affected facilities (e.g., BCM-01, CMB-02, ONRD-03, ONRD-06, MCS-07, EGM-01, EGM-02, and MOB-01). The analysis in the Final PEIR concluded, however, that

potential water demand impacts from implementing AQMP control measures would not exceed applicable significance thresholds.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse water demand impacts or make existing water demand impacts substantially worse.

**IX. c), & d)** Soil stabilization methods and paving unpaved areas could be required under control measure BCM-02 which would further reduce PM10 emissions from paved and unpaved roads. Soil compaction or over covering with a hard-ground cover such as asphalt or concrete pavement could contribute to surface water runoff since additional impervious surface areas would be created. However, the 2007 AQMP IS concluded that potential impacts from paving unpaved areas from the 2007 AQMP are not expected to be significant because project would also include curbs and gutters that would direct runoff to storm drains. The proposed project does not have the potential to substantially increase the area subject to runoff since the subject areas would be limited in size and, typically, have already been graded or displaced in some way (e.g., shoulders of roadways and curbs).

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new significant adverse water runoff or drainage pattern impacts or make existing significant water runoff or drainage pattern impacts substantially worse.

**IX. e), & f)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not require the construction of new, or relocation of existing housing or other types of facilities and, as such, would not require the construction or the placement of housing or other structures within a 100-year flood area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map (See also XIII “Population and Housing”). Consequently, the 2007 AQMP would not be expected to create or substantially increase risks from flooding; expose people or structures to significant risk of loss, injury or death involving flooding; or increase existing risks, if any, of inundation by seiche, tsunami, or mudflow.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse flooding impacts or make existing flooding impacts substantially worse.

### **Conclusion**

It was concluded in the 2007 AQMP IS that significant adverse project-specific hydrology and water quality impacts may occur due to implementation of the 2007 AQMP control measures. Five mitigation measures were identified that would reduce significant hydrology/water quality impacts to less than significant. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM2.5 and Ozone SIP are not expected to create any new



hydrology or water quality impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse hydrology or water quality impacts or make existing hydrology or water impacts worse.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>X. LAND USE AND PLANNING.</b>				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

**Discussion**

**X. a)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts that could physically divide a community because, generally, control measures would be expected to impose control requirements on stationary sources at existing commercial or institutional facilities or establish emission exhaust specifications for mobile sources. As a result, the 2007 AQMP does not require construction of structures for new land uses in any areas of the district and, therefore, is not expected to create divisions in any existing communities or conflict with any applicable habitat conservation or natural community conservation plans. Implementing the currently proposed project is not expected to change this conclusion in any way.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse land use and planning impacts or make existing land use and planning impacts substantially worse.

**X. b)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts that could interfere with complying with any applicable land use plans, zoning ordinances, habitat conservation or natural community conservation plans for the following reasons. No control measures were identified that would directly affect these plans, policies, or regulations. The SCAQMD is specifically excluded from infringing on existing city or county land use authority (California Health & Safety Code §40414). Land use and other planning considerations are determined by local governments and no present or planned land uses in the region or planning requirements will be altered by the proposed project in any way. There are existing links between population growth, land development, housing, traffic, and air quality. SCAG's Regional Comprehensive Plan accounts for these links when designing ways to improve air quality, transportation systems, land use, compatibility and housing opportunities in the region. Land use planning is handled at the local level and contributes to development of the AQMP growth projections, for example, but the AQMP does not affect local government land use planning decisions.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could conflict with land use plans, policies, or regulations.

**Conclusion**

It was concluded in the 2007 AQMP IS that significant adverse project-specific land use and planning impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new land use or planning impacts that could conflict with land use plans, policies, or regulations for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse land use and planning impacts. Further, there are no revisions to the substantive

requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing land use impacts worse.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XI. MINERAL RESOURCES.</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

**Discussion**

**XI. a) & b)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts that would directly result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Further, implementing AQMP control measures is not expected to deplete non-renewable mineral resources, such as aggregate materials, metal ores, etc., at an accelerated rate or in a wasteful manner because AQMP control measures are typically not mineral resource intensive measures. Therefore, it was concluded in the IS for the 2007 AQMP that significant adverse impacts to mineral resources from implementing 2007 AQMP control measures would not be expected to occur.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts to mineral resources or make existing impacts to mineral resources substantially worse.

**Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific mineral resources impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new mineral resources impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse mineral resources impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing mineral resources impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XII. NOISE.</b> Would the project result in:				
a) Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts on noise will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

**Discussion**

**XII. a), b) & c)** It was concluded in the 2007 AQMP IS that certain control measures may require existing commercial or industrial owners/operators of affected facilities to install air pollution control equipment or modify their operations to reduce stationary source emissions. Potential modifications will occur at facilities typically located in appropriately zoned industrial or commercial areas. The 2007 AQMP could require additional control equipment that could generate noise impacts, but virtually all of the control equipment would be installed at industrial and commercial facilities.

The IS for the 2007 AQMP noted that ambient noise levels in commercial and industrial areas are typically driven primarily by freeway and/or highway traffic in the area and any heavy-duty equipment used for materials manufacturing or processing at nearby facilities. It is not expected that any modifications to install air pollution control equipment would substantially increase ambient [operational] noise levels in the area, either permanently or intermittently, or expose people to excessive noise levels that would be noticeable above and beyond existing ambient levels. It is not expected that affected facilities would exceed noise standards established in local general plans, noise elements, or noise ordinances currently in effect. Affected facilities would be required to comply with local noise ordinances and elements, which may require construction of noise barriers or other noise control devices.

In addition to the above, the IS noted that some control measures would provide an incentive for the early retirement of older equipment, replacing it with newer technologies. In most cases, newer equipment and newer engines are more efficient and generate less noise than older equipment. For example, electric and hybrid vehicles generate less noise than standard gasoline fueled vehicles. Therefore, some control measures could result in noise reductions at industrial/commercial facilities or along freeways/highways/streets as a result of quieter engines (e.g., MCS-01, Facility Modernization, and ONRD-06, Accelerated Penetration of Partial Zero-Emission and Zero Emission Vehicles).

It was concluded in the IS for the 2007 AQMP that implementing AQMP control measures would not cause an increase in groundborne vibration levels because air pollution control equipment is not typically vibration intensive equipment. Consequently, the 2007 AQMP would not directly or indirectly cause substantial noise or excessive groundborne vibration impacts. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse noise impacts or make existing noise impacts substantially worse.

**XII. d)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts at affected facilities because they would still be expected to comply, and not interfere, with any applicable airport land use plans and disclose any excessive noise levels to affected residences and workers pursuant to existing rules, regulations and requirements, such as CEQA. It is assumed that operations in these areas near airports are subject to and in compliance with existing community noise ordinances and applicable OSHA or Cal/OSHA workplace noise reduction requirements. In addition to noise generated by current operations, noise sources in each area may include nearby freeways, truck traffic to adjacent businesses, and operational noise from adjacent businesses. It was concluded that none of the control measures in the 2007 AQMP would locate residents or commercial buildings or other sensitive noise source closer to airport operations. Consequently, there are no components of the 2007 AQMP that would substantially increase ambient noise levels, either intermittently or permanently. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse noise impacts or make existing noise impacts substantially worse to people residing or working in the vicinity of local airports.

**Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific noise impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM2.5 and Ozone SIP are not expected to create any new noise impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse noise impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM2.5 standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NOx emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing noise impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING.</b>				
Would the project:				
a) Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

**Discussion**

**XIII. a)** The IS for the 2007 AQMP noted that, according to SCAG (2004), population growth in the SCAG region (which includes all of the district) is expected to grow to 22.9 million due to immigration and births within the region. Consistent with SCAG's population growth projections, the proposed project is not anticipated to generate any significant effects, either directly or indirectly, on the district's population or population distribution. The 2007 AQMP generally affects existing commercial or industrial facilities located in predominantly industrial or commercial urbanized areas throughout the district. It is expected that the existing labor pool within the areas surrounding any affected facilities would accommodate the labor requirements for any modifications at affected facilities. In addition, it is not expected that affected facilities would be required to hire additional personnel to operate and maintain new control equipment on site because air pollution control equipment is typically not labor intensive equipment. In the event that new employees are hired, it is expected that the existing local labor pool in the district can accommodate any increase in demand for workers that might occur as a result of the 2007 AQMP. As a result, implementing AQMP control measures is not expected to result in significant adverse changes in population densities or induce significant growth in population.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse population or housing impacts or make existing population or housing impacts substantially worse.

**XIII. b)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts that would increase demand for new workers in the district. Any demand for new employees is expected to be accommodated from the existing labor pool so no substantial population displacement is expected. Construction activities generated by the 2007 AQMP are expected to be limited to stationary sources within industrial and commercial areas for the installation of new technology or equipment. The 2007 AQMP is not expected to require construction activities that would displace people or existing housing. Implementing the currently proposed project is not expected to change this conclusion in any way.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse because the 2007 AQMP does not displace existing people or housing.



## **Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific population and housing impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new population or housing impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse housing or population impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing population or housing impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XIV. PUBLIC SERVICES.</b> Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

**Discussion**

**XIV. a), b), & d)** It was concluded in the 2007 AQMP IS that there is no potential for significant adverse public service impacts to fire departments, police departments, or other public services as a result of implementing AQMP control measures. Similarly, the proposed project would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times or other performance objectives. Similarly, most industrial facilities have on-site security that controls public access to facilities so no increase in the need for police services are expected. Most industrial facilities have on-site fire protection personnel and/or have agreements for fire protection services with local fire departments. For these reasons, implementing the 2007 AQMP is not expected to require additional fire or police protection services. As a result, the analysis in the IS for the 2007 AQMP concluded that existing resources at services such as fire departments, police departments and local governments would not be significantly adversely affected as a result of implementing AQMP control measures.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse public service impacts to local fire or police departments or make existing public service impacts substantially worse.

**XIV. c)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts to schools because implementing AQMP control measures is not expected to induce population growth and, therefore, would not increase or otherwise alter the demand for schools in the district. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts to schools or make existing impacts to schools substantially worse.

### **Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific public service impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new public service impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse public service impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing public service impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XV. RECREATION.</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

**Discussion**

**XV. a) & b)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts to recreational resources for the following reasons. As discussed under “Land Use and Planning” and “Population and Housing” in the IS for the 2007 AQMP, there are no provisions that would affect land use plans, policies, ordinances, or regulations. Land use and other planning considerations are determined by local governments. No land use or planning requirements, including those related to recreational facilities, will be altered by the proposal. The IS for the 2007 AQMP concluded that implementing AQMP control measures would not have the potential to directly or indirectly induce population growth or redistribution. As a result, implementing AQMP control measures would not increase the use of, or demand for existing neighborhood and/or regional parks or other recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse recreation impacts or make existing recreation impacts substantially worse.

**Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific recreational impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM2.5 and Ozone SIP are not expected to create any new recreation impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse recreation impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM2.5 standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NOx emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing recreation impacts worse.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XVI. SOLID/HAZARDOUS WASTE.</b>				
Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

The proposed project impacts on solid/hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

**Discussion**

**XVI. a)** The 2007 AQMP IS concluded that implementing control measures in the 2007 AQMP could create significant adverse solid waste impacts for the following reasons. Implementing AQMP control measures could require facilities to install air pollution control equipment, such as carbon adsorption devices, particulate filters, catalytic incineration, selective catalytic reduction or other types of control equipment that could increase the amount of solid/hazardous wastes generated in the district due to the disposal of spent catalyst, filters or other mechanisms used in the control equipment. Solid waste impacts were further analyzed in the PEIR for the 2007 AQMP. The analysis in the PEIR concluded that most solid waste impacts resulting from implementing AQMP control would not exceed applicable significance thresholds. The analysis also concluded that potentially significant adverse solid waste impacts from disposal of spent batteries from increasing penetration of electric vehicles into the district fleet and disposal of spent carbon from carbon adsorption control equipment could result in significant adverse solid waste impacts. However, three mitigation measures were identified that could reduce potentially significant adverse impacts to less than significant. To the extent applicable, mitigation measures would continue to be required for future projects. Therefore, it was concluded in the PEIR for the 2007 AQMP that solid waste impacts from implementing AQMP control measures, along with implementing mitigation measures as applicable, would not create significant adverse solid waste impacts.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse solid waste impacts or make existing solid waste impacts substantially worse.

**XVI. b)** The 2007 AQMP IS concluded that the 2007 AQMP control measures are not expected to interfere with affected facilities' abilities to comply with federal, state, or local statutes and regulations related to solid and hazardous waste handling or disposal. The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts that could interfere with complying with applicable regulations related to handling solid and hazardous waste handling or disposal or make such existing impacts substantially worse.

**Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific solid/hazardous waste impacts may occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new solid waste impacts or make substantially worse impacts identified in the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse solid waste impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM2.5 standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NOx emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing solid waste impacts worse.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XVII. TRANSPORTATION/TRAFFIC.</b>				
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	county agency for congestion management for designated roads or highways?				
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection’s volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- Increase customer traffic by more than 700 visits per day.

**Discussion**

**XVII. a) & b)** It was concluded in the IS for the 2007 AQMP that implementing AQMP control measures would not be expected to adversely affect transportation and traffic in the district. The IS for the 2007 AQMP noted that implementing AQMP control measures is not expected to substantially increase vehicle trips or vehicle miles traveled in the district. The 2007 AQMP relies on transportation and related control measures developed by SCAG (SCAG, 2004). These transportation control measures include strategies to enhance mobility by reducing congestion



through transportation infrastructure improvements, mass transit improvements, increasing telecommunications products and services, enhanced bicycle and pedestrian facilities, etc. Specific strategies that serve to reduce vehicle trips and vehicle miles traveled, such as strategies resulting in greater reliance on mass transit, ridesharing, telecommunications, etc., are expected to result in reducing traffic congestion. Although population in the district will continue to increase, implementing the transportation control measures (in conjunction with the Regional Transportation Plan) will ultimately result in greater percentages of the population using transportation modes other than single occupant vehicles. As a result, relative to population growth, existing traffic loads and the level of service designation for intersections district-wide would not be expected to decline at current rates, but could possibly improve to a certain extent. Therefore, implementing AQMP control measures could ultimately provide transportation improvements and congestion reduction benefits.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse transportation or traffic impacts or make existing traffic or transportation impacts substantially worse.

**XVII. c)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant adverse impacts to air traffic or air traffic patterns because control measures typically do not require transporting materials by air. Further, controlling emissions at existing commercial or industrial facilities and establishing mobile source exhaust and fuel specifications do not require constructing any structures that could impede air traffic patterns in any way. Therefore, implementing AQMP control measures is not expected to generate significant adverse air traffic impacts. Implementing the currently proposed project is not expected to change this conclusion in any way.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts to air traffic or air traffic patterns or make existing impacts to air traffic or air traffic patterns substantially worse.

**XVII. d)** It was concluded in the 2007 AQMP IS that the 2007 AQMP will not directly or indirectly increase roadway design hazards or incompatible risks. To the extent that implementing components of the transportation control measure and related measures further develop roadway infrastructure, it is expected that there would ultimately be a reduction in roadway hazards or incompatible risks as part of any roadway infrastructure improvements and reduced congestion. Implementing the currently proposed project is not expected to change this conclusion in any way.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse roadway hazard impacts or make existing roadway hazard impacts substantially worse.

**XVII. e)** The IS for the 2007 AQMP concluded that implementing AQMP control measures would not create significant impacts that could adversely affect affected facilities' emergency access routes or plans. Controlling emissions at existing commercial or industrial facilities and establishing mobile source exhaust and fuel specifications are not expected to affect in any way emergency access routes at any affected commercial or industrial facilities. The reason for this conclusion is that controlling emissions (from stationary sources in particular) is not expected to require construction of any structures that might obstruct emergency access routes at any affected facilities. Implementing the currently proposed project is not expected to change this conclusion in any way.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts to emergency access routes or plans or make existing impacts to emergency access routes or plans substantially worse.

**XVII. f)** The 2007 AQMP IS concluded that adopting the proposed 2007 AQMP will not conflict with adopted policies, plans or programs supporting alternative transportation programs. In fact, the transportation and related control measures would specifically encourage and provide incentives for implementing alternative transportation programs and strategies. Therefore, implementing AQMP control measures will not significantly adversely affect alternative transportation programs. Implementing the currently proposed project is not expected to change this conclusion in any way.

The proposed project does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures and is not expected to change this conclusion in any way. Similarly, the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts resulting from conflicts with adopted policies, plans or programs supporting alternative transportation programs or make such existing impacts substantially worse.

### **Conclusions**

It was concluded in the 2007 AQMP IS that significant adverse project-specific transportation/traffic impacts would not be expected to occur due to implementation of the 2007 AQMP control measures. Based upon the above considerations, it is concluded that the proposed revisions to the 2007 PM<sub>2.5</sub> and Ozone SIP are not expected to create any new transportation or traffic impacts or make substantially worse impacts identified in the IS for the 2007 AQMP for the following reasons.

The proposed revisions would not change any of the above conclusions because they do not include incorporating any new types of control measures into the SIP that could create new adverse transportation impacts. Further, there are no revisions to the substantive requirements of any 2007 AQMP control measures. As of January 2011, the SCAQMD has achieved 96 percent of its emissions reductions commitment. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures.

The SCAQMD would also commit to retaining the contingency control measures, including triggers for their implementation in the event that the PM<sub>2.5</sub> standard is not achieved by 2015. Finally, if U.S. EPA fails to voluntarily accept the 10 tpd emission reduction in the 2007 SIP, the SCAQMD would commit to an additional one tpd of NO<sub>x</sub> emission reductions in 2014 with CARB assuming the remaining nine tpd reductions of the federal assignment in order to continue to demonstrate attainment of all applicable standards. This additional one tpd commitment would not foreseeably have any different impacts than existing 2007 AQMP control measures. These emission reductions would most likely occur as a result of greater reductions obtained from adopted regulations or early implementation of control measures in the 2007 AQMP. There are no provisions in the proposed project that would create new adverse impacts or make existing transportation or traffic impacts worse.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XVIII.a)** In the 2007 AQMP IS, no direct or indirect impacts from implementing the 2007 AQMP control measures were identified that could potentially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. The effects of implementing AQMP control measures are typically reducing mobile source exhaust emissions, modifying fuel specifications, or modifications at existing commercial or industrial facilities to control or further control emissions. Such existing commercial or industrial facilities are generally located in appropriately zoned commercial or industrial areas, which typically do not support candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Similarly, modifications at existing facilities would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with native or resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Further, since the 2007 AQMP primarily regulates stationary emission sources at existing commercial or industrial facilities, it does not directly or indirectly affect land use policy that may adversely affect riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or identified by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Improving air quality is expected to provide health benefits to plant and animal species in the district. There are no control measures contained in the 2007 AQMP that would significantly adversely affect biological resources. Although the adoption dates for some of the remaining control measures have been delayed, the implementation dates have not; therefore, the SCAQMD is expected to achieve its remaining emission reduction commitments by both 2014 and 2023, in part, through reliance on greater than anticipated emission reductions from previously implemented control measures. Therefore, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

**XVIII. b)** As noted in the 2007 AQMP Final PEIR, with the exception of the environmental topic areas discussed below, implementing AQMP control measures would not generate project-specific adverse impacts for the environmental topics on the environmental checklist (CEQA Guidelines, Appendix G). Cumulative impacts are not considered to be "cumulatively considerable" as defined by CEQA guidelines §15065(a)(3) for these environmental topics. For example, the environmental topics checked 'No Impact' in the IS for the 2007 AQMP (e.g., agriculture, biological resources, land use and planning, mineral resources, population and housing, public services, recreation, and transportation and traffic) would not be expected to make any contribution to potential cumulative impacts whatsoever. Therefore, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

For the environmental topics checked 'Less than Significant Impact' (e.g., aesthetics, geology and soils, and noise), the analysis indicated that proposed project impacts would not exceed any

project-specific significance thresholds. These determinations are based on the fact that the analyses for each of these environmental areas concluded that the incremental effects of the proposed project would be minor and, therefore, not considered to be cumulatively considerable and would not contribute significantly to cumulative impacts. Therefore, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

The following topics were checked potentially significant on the IS for the 2007 AQMP and were further analyzed in the PEIR: air quality, energy, hazards and hazardous materials, hydrology and water quality, and solid/hazardous waste. The analysis of energy impacts in the PEIR for the 2007 AQMP concluded that project-specific impacts would not be significant and were not considered to be cumulative considerable. Therefore, cumulative energy impacts were concluded to be less than significant. Therefore, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

The analysis of hydrology and water quality and solid/hazardous waste impacts in the PEIR for the 2007 AQMP concluded that impacts to these environmental topic areas would be significant. Five mitigation measures were identified to that could reduce project-specific hydrology and water quality impacts to less than significant and three mitigation measures were identified that could reduce project-specific solid/hazardous waste impacts to less than significant. Based on these conclusions, implementing AQMP control measures was not expected to contribute to significant adverse cumulative hydrology and water quality or solid/hazardous waste impacts. Therefore, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

The analysis of air quality impacts in the PEIR for the 2007 AQMP concluded that for most air quality impact areas, e.g., operational secondary impacts from increased electricity demand, mobile sources, etc., would be less than applicable significance thresholds and, therefore, would not contribute to significant adverse cumulative impacts. Construction air quality impacts (PM10) were concluded to be significant. Nine mitigation measures were identified to reduce construction air quality impacts. However, the analysis concluded that implementing the nine mitigation measures would not reduce construction air quality impacts to less than significant. As a result, construction air quality impacts were considered to be cumulatively considerable. Therefore, it was concluded that implementing the 2007 AQMP contributed to significant adverse cumulative construction air quality impacts. However, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

The 2007 AQMP included an analysis of GHG impacts from implementing AQMP control measures. An analysis of GHG impacts is considered to be a cumulative impact analysis because it cannot be demonstrated that project-specific GHG emissions contribute to global climate change. The analysis concluded that implementing AQMP control measures to reduce criteria pollutants would also produce GHG emission reduction co-benefits. Consequently, cumulative GHG emission impacts were concluded to be less than significant. Therefore, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

The analysis of hazards and hazardous materials impacts in the PEIR for the 2007 AQMP concluded that for most hazards and hazardous materials impact areas, e.g., use of alternative fuels, use of ammonia in air pollution control equipment, etc., would be less than applicable significance thresholds and, therefore, would not contribute to significant adverse cumulative impacts. Impacts to modifications at refineries to produce alternative fuels could result in significant exposures to flammable materials and, therefore, were concluded to be significant. Five mitigation measures were identified to reduce the severity of hazards and hazardous materials impacts. However, the analysis concluded that implementing the five mitigation measures would not reduce hazards and hazardous materials impacts to less than significant. As a result, hazards and hazardous materials impacts were considered to be cumulatively considerable. Therefore, it was concluded that implementing the 2007 AQMP contributed to significant adverse cumulative hazards and hazardous materials impacts. However, implementing the currently proposed project is not expected to change this conclusion in any way because it does not contain any revisions to the substantive requirements of any remaining 2007 AQMP control measures the proposed revisions do not include incorporating any new control measures into the SIP that could create new adverse impacts or make existing impacts substantially worse.

**XVIII. c)** Based on the foregoing analyses, implementing AQMP control measures may cause significant adverse effects on human beings. However, implementing the currently proposed project is not expected to increase the severity in any way of impacts to human beings that might result from implementing other AQMP control measures.

Based on the preceding analyses in items I through XVIII above, the proposed project is not expected to contribute to, or make substantially worse project-specific or cumulative impacts to the following environmental topic areas: aesthetics, agriculture and forest resources, air quality and greenhouse gas emissions, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation.



## ATTACHMENT E



Clerk of the Boards  
21865 Copley Drive  
Diamond Bar, CA 91765-4178  
Via email to [cob@aqmd.gov](mailto:cob@aqmd.gov)

February 22, 2011

**Re: Revisions to the PM2.5 and Ozone State Implementation Plan for the South Coast Air Basin and Coachella Valley**

To Whom it May Concern:

Thank you for the opportunity to comment on the adequacy of the South Coast Air Quality Management District (SCAQMD) PM2.5 (particulate matter) portion of the 2007 Air Quality Management Plan (AQMP). In its *Technical Support Document for the Proposed Action on the South Coast 2007 AQMD for PM2.5 and the South Coast Portions of the Revised 2007 State Strategy* (TSD), EPA stated: “The South Coast nonattainment area’s degree of PM2.5 nonattainment can fairly be characterized as severe.”<sup>1</sup> These serious air quality issues merit prompt attention by the SCAQMD to make sure we meet the annual PM2.5 on time.

For context regarding the actual experience of neighbors in heavily industrial areas disproportionately affected by PM2.5 and other air pollution, CBE Community Organizer Alicia Rivera describes her experience as reported by neighbors as follows:

PM 2.5 reductions and strict regulation are badly needed in the community of Wilmington where I organize. Despite the fact that I encounter residents suffering from asthma so often, each case strikes me differently. Two weeks ago, Eduardo Castillo, a Wilmington resident, approached me at a community meeting. He mentioned that his three children suffer from asthma. I asked him about their ages and how he feels about it. With a very somber face he told me how sad it is for him to see his six-month-old baby being treated with the oxygen mask to control his asthma attacks. His other two children are younger than six. He said he feels impotent about all the pollution, living in the backdrop of Valero, Tesoro, and Conoco Phillips, the railroad trucks, the auto dismantling facility and the Alameda corridor. He told me that all his nieces and nephews also suffer from asthma. “All of us here in Wilmington are plagued with asthma,” he said.

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<sup>1</sup> United States Environmental Protection Agency, *Technical Support Document for the Proposed Action on the South Coast 2007 AQMP for PM<sub>2.5</sub> and the South Coast Portions of the Revised 2007 State Strategy*, [hereinafter, “TSD”] p. 64. <http://www.epa.gov/region9/air/actions/pdf/ca/South-Coast-PM25-TSD.pdf>



People in Wilmington are exposed to flaring emissions regularly. Although we have been letting them know about the importance to report to 1-800 CUT SMOG, some of them have become skeptical about doing so, because they do not believe that their complaints go anywhere. "Inspectors come and give us the same reason that the refineries give us for having flared," Patricia Ramos told me. They believe that no real measures are taken to prevent new flaring events. There are so many sources that Wilmington residents are exposed to less than a mile away from them. They are in close proximity to refineries, railroad tracks, freeways, the port, and the Alameda corridor traffic, all emitters of PM2.5. The levels of asthma, respiratory illnesses, allergies and cancer that I encounter in almost every household would be treated as an epidemic if it was some other type of a contagious illness. To me, PM2.5 is an epidemic affecting almost every home.

The combined effect of PM2.5 from many sources is potent and its cumulative impacts should be addressed. The public depends on the AQMD to develop and implement strategies and measures that reduce and prevent PM2.5, and on EPA to make sure the AQMD does this according to the Clean Air Act.

EPA found that the SIP relies too heavily on unenforceable commitments, rather than adopted, submitted, and SIP approved rules to meet PM2.5 attainment. EPA also found that sufficient RACM/RACT are not demonstrated in the plan:

As discussed below, however, we are proposing to disapprove the RACM/RACT demonstration in the South Coast 2007 AQMP because we cannot approve the attainment demonstration. As stated in the PM2.5 implementation rule preamble at 20601, EPA cannot grant an extension of the attainment date beyond the initial five years provided by section 172(a)(2)(A) if the State has not adequately considered and evaluated the implementation of RACM and RACT in the area. By definition, RACM/RACT are those controls that are necessary to demonstrate attainment as expeditiously as practicable and meet any RFP requirements. 40 CFR § 51.10101(a).<sup>2</sup>

The SCAQMD's revisions to the SIP are an attempt to correct the deficiencies EPA pointed to in the AQMP. Unfortunately, the revisions continue to ignore RACM/RACT and continue to rely on unenforceable commitments. It is crucial for public health that the Governing Board reject the current revisions to the PM2.5 and ozone SIP for the South Coast Air Basin and Coachella Valley until SCAQMD makes the needed improvements to reach attainment.

#### **A. The PM2.5 and Ozone Plan Cannot Rely on Unenforceable Commitments**

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<sup>2</sup> Ibid, p. 65.

The SCAQMD argues that the Clean Air Act (CAA) does not specifically define an acceptable ratio of adopted rules to commitments above which EPA will approve a SIP.<sup>3</sup> To the contrary, under the Clean Air Act, SIPs must include “enforceable emission limitations, and such other control measures . . . as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date specified in this part.”<sup>4</sup> Moreover, in a recent Ninth Circuit case, the court found EPA’s approval of the Pesticide Element of the SCAQMD’s ozone SIP was arbitrary and capricious, because EPA approved the element even though EPA knew it failed to include enforceable commitments necessary to achieve the required reductions.<sup>5</sup> The CAA and case law both state that EPA cannot approve a SIP that relies on unenforceable commitments.

The SCAQMD complains that 10% as the maximum amount of commitments allowed in an approvable plan is not a fixed number, that EPA is engaging in underground rulemaking by sticking to that number, and that the plan includes dozens of measures which can only feasibly be adopted over many years.

#### **A. The PM2.5 and Ozone Plan Must Include all RACM/RACT Necessary to Reach Attainment**

Since EPA found that the AQMD has not completed the required attainment demonstration, and since all RACM/RACT measures are required to be included, including those measures that significantly reduce the PM2.5 precursor pollutants NOx, VOC, and SOx,<sup>6</sup> SCAQMD must complete a new RACM/RACT assessment. This should include an updated assessment of *all* available control measures for direct emissions of PM 2.5, in addition to measures for control of secondary PM2.5 resulting from NOx, SOx, and VOC precursor emissions.

Furthermore, since the 2007 AQMP is now a few years old and since we are almost at the point of the required “mid-course review” of the plan, it is important to reassess and update new measures, especially given the SCAQMD’s failure to demonstrate attainment. EPA describes the mid-course review below:

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<sup>3</sup> SCAQMD, Comments on Docket No. EPA-R09-OAR-2009-0366, January 20, 2011, p. 3.

<sup>4</sup> 42 U.S.C. § 7502(c)(6); 42 U.S.C. § 7410(a)(2)(A)

<sup>5</sup> *Assoc. of Irrigated Residents v. U.S. Environmental Protection Agency*, 2011 WL 310357, 8-9 (9<sup>th</sup> Cir. 2011). See also *Environmental Defense v. U.S. EPA*, 396 F.3d 193, 210 (2d Cir. 2004) (EPA could “accept enforceable commitments in view of the fact that they represented only a *small portion* of an otherwise thorough plan”); *Natural Resources Defense Council v. U.S. EPA*, 22 F.3d 1125, 1134 (D.C. Cir. 1994) (EPA approval “cannot reasonably be made unless the conditionally approved submittal contains something more than a mere promise to take appropriate but unidentified measures in the future.”); *Sierra Club v. U.S. EPA*, 356 F.3d 296, 302-304 (D.C. Cir. 1994) (Where SIPs were missing elements, including a RACM analysis and implementation of RACM necessitated by the analysis, and “specific enforceable measures to offset growth in vehicle emissions and reasonably available control technology for additional major sources,” EPA could not “conditionally approve” the SIPs based on other, included measures and unenforceable commitments by the states. EPA may not grant conditional approval based “on nothing more than the States’ promise to do next year what the Clean Air Act requires them to have already done.”).

<sup>6</sup> *Ibid.*, pp. 64-65.

Under 40 CFR § 51.1011 of the PM<sub>2.5</sub> implementation rule, each area with an approved attainment date in 2014 or 2015 is required to submit a mid-course review by April 2011. **The midcourse review is to include an updated attainment demonstration** as well as a review of the implementation status of measures included in the April 2008 submittal and a review of recent air quality data, as well as new or revised control measures necessary to ensure attainment by the applicable attainment date. The midcourse review is in lieu of RFP milestone reviews or any other form of tracking to ensure reasonable progress in reducing emissions is occurring. See 72 FR 20586, 20641.

**A list of additional RACM/RACT measures**, as part of a new, broader, and complete RACM/RACT assessment to demonstrate attainment expeditiously, includes, but is not limited to:

- **Industrial Boilers and Heaters.** The AQMP must set BARCT standards for NO<sub>x</sub> and other precursors, and require replacement of old and severely inefficient equipment at oil refineries and for other large sources. This measure would not only help bring the region into attainment for criteria pollutants, but also serve to reduce CO<sub>2</sub> emissions, making these measures more cost-effective.
- **Implement Industrial Energy Efficiency Audit standards.** For example, under AB32, the State requires that audits be conducted, but does not yet require that any findings of these audits be implemented. Again, this measure would be doubly effective because it would reduce all pollutants, including criteria pollutants, toxics, and greenhouse gases.
- **Supplement SO<sub>x</sub> reductions.** The AQMD must implement measures that were identified in the recent SO<sub>x</sub> RECLAIM regulation, but not adopted.
- **Improvements to the existing refinery Flare Regulation.** The AQMD must require that each refinery have a Flare Minimization Plan that truly minimizes flaring, according to the methods demonstrated to be achievable by the Shell Martinez, CA and Flint Hills, TX facilities. Shell has shown that it could reduce flaring to almost zero, including in emergencies. While such episodic measures will probably not make a major dent in annual emissions levels, they could easily make a major difference in daily exceedances. Major flaring episodes that still occur regularly in the region not only cause very significant NO<sub>x</sub> and VOC emissions, but can also be major smoking events, that badly and directly increase particulate matter levels in the air.
- **Removal of methane exemption for VOCs.** There is no longer an excuse for such exemptions in the VOC regulations. Harvard and Princeton studies show that methane is actually a reactive VOC. Methane is also a potent greenhouse gas. Removing these exemptions in the regulation is a reasonably available control measure, since the SCAQMD rules already control other VOCs.

- **Alternative energy use for oil refinery grid electricity use.** Oil refineries use substantial electricity from the grid, which contributes to PM2.5 emitted by electrical power plants. Dependence on grid electricity has also caused major particulate matter emissions during power outages, because flares can be overwhelmed by the large volume of gases during unplanned complete shutdown and cause extreme heavy smoking for hours.. The solution is to have backup power. Requiring clean alternative energy backup power would provide the lowest emissions source of energy, and at the same time prevent refinery power outage emissions when grid power becomes unavailable.
- **Coke Drum Emissions control** (not coke handling). The SCAQMD is in the process of developing a regulation controlling emissions from refinery coke drums. This rule controls emissions when coke drums are opened at the end of each cycle (close to twice a day). The amount of refinery coking (processing of the heaviest portion crude oil) is increasing due to the use of increasingly heavier crude used at oil refineries. The SCAQMD will likely complete the rule this year, and should adopt stringent limits for this source. The rule should also be added to the AQMP and SIP.
- **Require 33% RPS for all power plants within the SCAQMD.**
- **Comply with RACM for Locomotive Measures.**

Several of these measures are detailed below.

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### **Industrial Boilers and Heaters**

It is well known that there are varying degrees of age and efficiency of industrial boilers in use, in the South Coast District, and throughout the state. **Newer boilers are generally far less polluting.** Some are many decades old and extremely inefficient, others are less efficient for other reasons. Instead of requiring oil refineries to directly clean up emissions from boilers and heaters, oil refineries in the South Coast are allowed to buy credits through the AQMD's RECLAIM process. This measure, by definition, does not produce the full reduction that is achievable and needed in the region, since it is clearly feasible to achieve the reductions from both the facilities selling credits to the refineries and, at the same time, from cleaning up refinery boilers and heaters. In that case, double the reductions that occur under RECLAIM would be achieved. An evaluation providing a listing of each industrial boiler and heater, the age, the type of fuel used and the emissions per unit of fuel should be carried out as part of a RACM demonstration.

The State of California's AB32 greenhouse gas regulatory process has recently performed part of such an evaluation, identifying quantities of emissions and means for

reducing fuel use and resultant greenhouse gas (GHG) emissions from these sources. The measures identified by CARB would also reduce criteria pollutants, including PM2.5 precursors. In 2007-2008, CBE originally proposed to California Air Resources Board (CARB) a plan for replacing old industrial boilers and heaters and adding further controls to others, and the state responded by finding that such measures would be feasible. However, CARB ultimately decided instead to include these sources in a Cap and Trade regulation, where facilities could buy credits rather than be subject to direct controls.

The attached CARB spreadsheet lists the measures they identified for reducing energy use from boilers and heaters.<sup>7</sup> For boilers, these include: replacing old boilers, optimizing efficiency by reducing excess air, retrofitting boilers with feedwater economizers, preheating air, blowdown reduction and feedwater cleanup, blowdown heat recovery, optimizing steam quality, optimizing condensate recovery, minimizing vented steam, insulation maintenance, steam trap maintenance, and steam leak maintenance. For heaters, the spreadsheet quantified achievable reductions from replacing old heaters, optimizing combustion, recovering flue gas heat, replacing refractory brick, and insulation maintenance.

The spreadsheet provided by CARB does not separate out the SCAQMD sources from the statewide total, but certainly the SCAQMD could provide the separated data to show the reductions in energy use that would be achievable using the same means identified by CARB. The greenhouse gas emissions identified in the spreadsheet are calculated based on the fuel use, and by multiplying times an emission factor for CO2. The criteria pollutant emissions can also be determined doing the same calculations with criteria pollutant emissions factors. CBE performed those calculations for the statewide Cap and Trade public comment.<sup>8</sup> CBE calculated some co-pollutant emissions as a result of this process based on the CARB statewide data. EPA should require the same evaluation of fuel use, criteria pollutants, toxics, and GHGs to be done by the SCAQMD. Furthermore, EPA should require the SCAQMD to identify the age of all its boilers and heaters. The SCAQMD should demonstrate RACM for all Industrial Boilers and Heaters, and identify whether these measures have been applied. This RACM demonstration should not depend on buying or selling credits. Direct controls can achieve additional reductions.

The State of California also previously found in its Early Action Items evaluation that measures for reducing energy use at Boilers and Heaters could save money:<sup>9</sup>

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<sup>7</sup> California Air Resources Board, spreadsheets available on CARB website, under “Supplemental Materials: Compliance Pathways Analysis – Boilers, and Compliance Pathways Analysis –Heaters.” <http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm>. The two original CARB spreadsheets are also attached as “CBE Attach 01 to EPA PM2.5 - CARB Boilers Spreadsheet,” and “CBE Attach 02 to EPA PM2.5 - CARB Heaters Spreadsheet.”

<sup>8</sup> *CBE Comments on Draft Cap and Trade Regulation: Draft Cap & Trade Regulation Misses California GHG and Pollution Reduction Opportunities, Job Opportunities, and Contains Egregious Errors*, December 14, 2010, attached as “CBE Attach 03 to EPA PM2.5 - Cap and Trade comments,” available at: <http://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=capandtrade10>.

<sup>9</sup> *Expanded List of Early Action measures to Reduce Greenhouse Gas Emissions in California, Recommended for Board Consideration* (attached, pages D-16 and D-17), California Air Resources Board, October, 2007, attached as “CBE Attach 04 to EPA PM2.5 - CARB Early Action Items,” available at [http://www.arb.ca.gov/cc/ccea/meetings/ea\\_final\\_report.pdf](http://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf).

ARB staff has identified two potential measures that could generate energy savings with minimal investment. The U.S. Department of Energy's (DOE) Industrial Technologies Program helps industrial plants operate more efficiently and profitably by identifying ways to reduce energy use in key process systems. **The program has identified that minimal improvements in burner efficiency can result in significant savings.** The following case from the DOE website ([www.eere.energy.gov/industry](http://www.eere.energy.gov/industry)) provides an example of the potential savings:

Case: Consider a 50,000 lb/hr process boiler with a combustion efficiency of 79% (E1). The boiler annually consumes 500,000 million Btu (MMBtu) of natural gas.

At a price of \$8.00/MMBtu, the annual fuel cost is \$4 million. The installed cost is \$75,000 for a new burner that provides an efficiency improvement of 2% (E2).

The cost savings is:

$$\text{Cost Savings} = \text{Fuel Consumption} \times \text{Fuel Price} \times (1 - E1/E2)$$

$$= 500,000 \text{ MMBtu/year} \times \$8/\text{MMBtu} \times (1 - 0.79/0.81)$$

$$= \$98,760/\text{year}$$

The simple payback on investment is:

$$\text{Simple Payback} = \$75,000 / \$98,760/\text{year} = 0.76 \text{ year}$$

The table below shows the annual dollar savings for 1% and 3% efficiency improvements.

Burner Combustion Efficiency Improvement	Annual Energy Savings (MMBtu/year)	Annual Dollar Savings
1%	6,250	\$50,000
2%	12,345	\$98,760
3%	18,290	\$146,320

Another paper authored by the John Zink Company and Chevron also found that there are methods available for reaching ultra-low NOx levels, while also at the same time saving money:<sup>10</sup>

<sup>10</sup> Tim Webster, John Zink Company, Jim Seebold, et al, Chevron, Jerry Lang, Combustion Consulting, *The Application of Gas Conditioning Technology for NOx Reduction on Five Water Tube Boilers*, AFRC 2001 Joint International Combustion Symposium, attached as "CBE Attach 05 to EPA PM2.5 - Chevron Boilers Gas Conditioning," available at [http://furnacesimulator.johnzink.com/products/burners/pdfs/tp\\_todd\\_app\\_gascond.pdf](http://furnacesimulator.johnzink.com/products/burners/pdfs/tp_todd_app_gascond.pdf).

The result of this cooperative venture between Chevron's NOx Reduction Project Team, Jerry Lang Combustion Consulting, and the John Zink Company was an innovative and cost-effective solution to a tough emissions reduction application. The LCF burners developed as part of this project have demonstrated the ability to provide over 90% NOx reduction and maintain safe reliable combustion performance. In addition, with the use of additional steam sparging, the burners are capable of reaching Ultra Low NOx levels of less than 7ppm. As a result of taking this innovative approach to finding a solution to their NOx problem, Chevron has seen a savings of over \$7 million for the cost of the project and avoided an additional \$1 million to \$1.5 million a year in operating expenses.

Such methods should be evaluated as part of a RACM/RACT process for industrial boilers and heaters as part of completing the required RACM/RACT analysis for the AQMP.

### **Implement Industrial Energy Efficiency Audits Standards**

CBE proposed adding industrial energy efficiency audits and implementation for the 2007 AQMP in order to reduce energy use and consequently reduce all pollutants, but the SCAQMD did not evaluate or include these proposals in the AQMP. CBE also proposed industrial energy efficiency audits at the State level. The State agreed and adopted a regulation requiring that these audits be performed in order to reduce GHGs, but stopped short of requiring that the measures identified in the audits be implemented.

Because these audits will be carried out under CARB's AB32 program, the SCAQMD has an excellent head start for supplementing CARB's work in two ways: by requiring that the results of the audits be implemented; and, by expanding the regulation to cover more industrial sources, since the State's proposal has some loopholes that leave out very large sources. An example of a loophole is the rule that if an oil refining company operates two halves of a refinery, but one of them does not sell products directly on the market, that one does not have to perform an audit, regardless of how big the emissions are or how inefficient the facility is. This is an illogical and unjustified exemption. The SCAQMD has an opportunity to close this loophole, and ensure that all large industrial sources, including oil refineries in the District, are audited.

### **Energy efficiency audits and implementation are a very useful and important approach to reduce emissions because:**

- 1) **Each refinery is customized; each has its own unique strengths, but also weaknesses, which can be corrected in a facility-wide energy use audit.** Source-by-source regulatory programs might miss opportunities for reduction, because of the uniqueness of each refinery. For example, some refineries have boilers and heaters that are several decades old, and are completely outdated. These boilers and heaters have often been grandfathered into the regulations, thus able to avoid modern standards. Indeed, they are often hoarded as a source to

trade for emissions reductions during a refinery expansion, even though these sources could and should have been cleaned up long ago. Some refineries have most of their Pressure Relief Devices vented to controls, others dump them to atmosphere. As another example, the Bay Area AQMD (BAAQMD) did an audit of refinery gas systems after EPA found in 2001 that the AQMP did not include all RACM. The District was surprised to find that one of its refineries had an uncontrolled blowdown system with no flare attached, causing it to dump major emissions directly to the open air, unlike any other refinery in the Bay Area.

- 2) **Implementing energy efficiency measures reduces all pollutants**, including PM<sub>2.5</sub>, as well as NO<sub>x</sub>, SO<sub>x</sub>, CO, VOCs, toxics, CO<sub>2</sub>, methane, and others.
- 3) **Energy efficiency audits have been demonstrated to result in big improvements.** Several efficiency audits demonstrations are attached. For example, the Shell Martinez audit<sup>11</sup> achieved more than 6,000,000 MMBtu (Mega British Thermal Units) per year reduction in energy use (that's six million million Btus!). It reviewed the entire energy supply and use chain, including procurement of supplemental energy (usually natural gas and electrical power), conversion of chemical to thermal energy (combustion efficiency or conversion from electricity to horsepower), distribution efficiency (losses in getting the heat or power to its process use), and end use of energy in the refining process. Please see the attached sheet which identifies specific energy saving measures this audit identified as effective, including hydrogen system optimization (an important one, because hydrogen systems in refineries use a very large amount of energy, and hydrogen production is increasing to accommodate increasingly heavier, more contaminated crude oil). The list also includes minimizing pressure in distillation, waste minimization in boilers, flares, use of heat exchangers, etc., and many other specific measures. Another energy efficiency audit paper is also attached (Chevron Salt Lake City<sup>12</sup>).

Since industrial energy audits reduce not only pollution, but also energy costs, they actually save money and should be required to be implemented as part of RACM/RACT in order to meet PM 2.5 requirements, as well as RACM for other criteria pollutants and GHGs.

CBE took part in a public workshop at CARB regarding the development of CARB's energy efficiency audit regulation. Because there are many unnecessary weaknesses in that final regulation, CBE objected to the form of the regulation. However, these weaknesses are easily fixed. For example, while CARB required companies to carry out the audits, it allowed the facilities to report only very vague information to CARB, and to

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<sup>11</sup> U.S. Department of Energy, *Martinez Refinery Completes Plant-Wide Energy Assessment*, May 2001, Best Practices Assessment Case Studies, DOE/GO-102002-1618, attached as "CBE Attach 06 to EPA PM2.5 - 32615 Martinez energy efficiency," available at <http://www.nrel.gov/docs/fy03osti/32615.pdf>.

<sup>12</sup> U.S. Department of Energy, *Chevron: Refinery Identifies \$4.4 Million in Annual Savings by Using Process Simulation Models to Perform Energy-Efficiency Assessment*, DOE/GO-102004-1759, May 2004, attached as "CBE Attach 07 to EPA PM2.5 - Chevron Utah energy efficiency," available at [https://www.eecbg.energy.gov/industry/bestpractices/pdfs/petrol\\_cs\\_chevron\\_utah.pdf](https://www.eecbg.energy.gov/industry/bestpractices/pdfs/petrol_cs_chevron_utah.pdf).



keep the details of the audit in the company's possession, secret from the public. The reporting requirements are so weak as to make it impossible for the public to be able to verify the accuracy of the audits. The regulation also requires no reductions at all – no actual implementation of the audit findings.

Importantly, however, the program demonstrates the *feasibility* of doing such audits, and CARB does publish information on its website about the program and the regulation, including reporting requirements and the types of energy efficiency measures that CARB evaluated, among other information. CARB's website states:

The AB 32 Scoping Plan approved by the ARB in December 2008, includes a measure requiring facilities emitting more than 0.5 million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>E) annually to conduct an energy efficiency assessment of individual combustion and other direct sources of greenhouse gases to determine the potential reduction opportunities, including those for criteria pollutants and toxic air contaminants. This site is dedicated to the proposed regulatory effort for the Scoping Plan measure.<sup>13</sup>

CARB found audits as a feasible measure; it is also Reasonably Available to the SCAQMD for reducing criteria pollutants, including PM 2.5. EPA should require audits be added to the AQMP in a strengthened form, with reduction targets attached.

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### **Improvements to the Refinery Flare Regulations Requiring Flare Minimization Plans**

CBE has been intensively involved in the development of refinery flare regulations for the last two decades. These regulations and preventive measures are important for local community health, and accident prevention. The SCAQMD and BAAQMD have both adopted important flare monitoring and control regulations, but with at least two differences. The BAAQMD requires *all* refineries to carry out Flare Minimization Plans (FMP).<sup>14</sup> The SCAQMD only requires an FMP if the annual flaring emissions exceed certain thresholds. So far only one FMP has been performed in the South Coast.

Performing an FMP at each refinery is a Reasonably Available measure. Shell Martinez is the model, as its FMP provides a rigorous method for achieving the tightest flaring limits. Shell Martinez achieved very low levels of flaring compared to all the other refineries due to its Flare Minimization Planning process, published in 2007.<sup>15</sup>

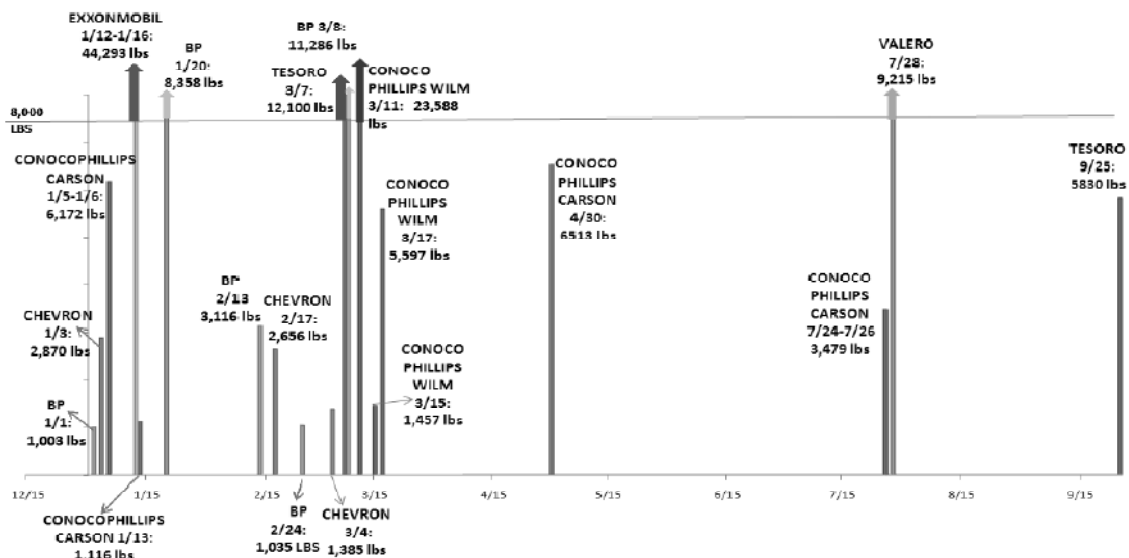
<sup>13</sup> <http://www.arb.ca.gov/cc/energyaudits/energyaudits.htm>.

<sup>14</sup> Regulation 12, Miscellaneous Standards of Performance, Rule 12, Flares At Petroleum Refineries, attached as CBE Attach 08 to EPA Pm2.5 - BAAQMD rg1212 flares , also available at <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Rules%20and%20Regs/reg%2012/rg1212.ashx>

<sup>15</sup> *Shell Martinez Refinery, Regulation 12 Rule 12, Flare Minimization Plan, Redacted Version*, submitted to the BAAQMD, Revised March 25 2007, attached as “CBE Attach 09 to EPA PM2.5 - shell completed fmp.” available at

The Flint Hills Texas facility also performed a rigorous FMP, and the methods have been published in the attached document.<sup>16</sup> Even though adding a requirement for FMPs to the AQMP is not likely to achieve large annual reductions compared to emissions from continuous emissions sources, it is likely to achieve large reductions from short term PM2.5 emission levels. Because the SCAQMD focuses heavily on the annual emissions threshold, it allows large individual flaring events to occur without requiring an FMP. This is in contrast to the BAAQMD rule, and particularly contrasts with the achievements of the Shell Martinez refinery.

There have been many very large flaring events occurring over the last several years in the District. CBE requested the flare data from the SCAQMD through a Public Records Act request two years ago, and a compilation of the large flaring events is attached.<sup>17</sup> In addition, CBE put together the chart below from the SCAQMD data, showing that large flaring events continue to occur. The largest one was over 44,000 lbs in one day of SOx. (Flares are designed to be able to put out large emissions in a short time, even hours or minutes.) This figure charted SCAQMD SOx emission data, so it does not show whether smoking also occurred during these flaring events, but major flaring with smoking is common and has certainly occurred. The total reported SOx from these episodic events for 2009 was at least 175,000 lbs. This chart only includes the large flaring events.



<http://www.baaqmd.gov/~media/Files/Compliance%20and%20Enforcement/Flares/Redacted%20Update%2010-15-09%20Submittal.ashx>. Shell’s flaring emissions history is available on the BAAQMD website, where the flare data is published: <http://hank.baaqmd.gov/enf/flares/>.

<sup>16</sup> *Minimize Facility Flaring - Flares are Safety Devices that Prevent the Release of Unburned Gases to Atmosphere*,

J. Peterson, Flint Hills Resources, Texas, N. Tuttle, et al, John Zink Co., LLC, Oklahoma , Hydrocarbon Processing, 2007, attached as “CBE Attach 10 to EPA PM2.5 - Minimize Flaring Flint Hills hydro\_proc\_june\_2007,” available at

[http://www.zinkco.com/products/flares/pdfs/flare\\_hydro\\_proc\\_june\\_2007.pdf](http://www.zinkco.com/products/flares/pdfs/flare_hydro_proc_june_2007.pdf).

<sup>17</sup> “CBE Attach 11 to EPA PM2.5 - SCAQMD data compiled large flaring events 2009.”

Here are a few photos of smoking events that can occur due to oil refinery flaring and explosions (including events in the SCAQMD in recent years). The SCAQMD is also in possession of such photos and has taken air samples during such events. This shows graphically just how bad the particulate matter can get during a bad flaring event or other refinery accident. A good Flare Minimization Plan not only minimizes flaring, but improves safety, and minimizes such bad flaring events.



The EPA should require that the SCAQMD include modeling of large flaring events with heavy smoking to determine what PM2.5 levels would occur during a bad flaring event. EPA should require the SCAQMD to add a supplement to the flare regulation, requiring FMPs meeting the best of Shell Martinez or Flint Hills Texas BARCT limits for flaring.

### **Removal of Methane Exemption for VOCs**

For many years, CBE has been asking the SCAQMD to remove the exemptions for methane from its rules during the rulemaking process. So far, the SCAQMD has done so for a single rule. CBE also asked CARB to require that methane exemptions in VOC regulations be removed statewide. CARB found this feasible, but did not carry out this proposal.

Since EPA and SCAQMD have both found that additional VOC reductions are necessary to meet RACM/RACT requirements for the 2007 AQMP, and because it is now known that methane is a smog precursor in addition to being a potent GHG, EPA should require the SCAQMD to begin phasing out methane exemptions in its smog rules.

### **CBE submitted comments to the SCAQMD during the 2007 comment period on this matter:<sup>18</sup>**

Currently AQMD regulations exempt methane from the definition of VOCs:<sup>19</sup>

**VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding methane,** carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

The exemption for methane can no longer be justified in any sense for oil refineries or any pollution source. Methane is not only a highly potent greenhouse gas (20 times more potent than CO<sub>2</sub>, and warranting aggressive control for this reason alone), it is also a key smog precursor (for ground-level ozone), and its reduction is highly effective in reducing smog. A Harvard study, *Linking ozone pollution and climate change: The case for controlling methane*<sup>20</sup> found:

***“Methane (CH<sub>4</sub>) emission controls are found to be a powerful lever for reducing both global warming and air pollution via decreases in background tropospheric ozone (O<sub>3</sub>) ”***

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<sup>18</sup> CBE, *Comments on Draft 2007 AQMP*, (with comments opposing the Refinery Pilot Project pollution trading proposal and proposing direct refinery controls instead) March 30, 2007, attached as CBE Attach 12 to EPA PM2.5 -CBE Comments SCAQMD 2007 AQMP Refineries.

<sup>19</sup> SCAQMD Regulation 1, General Provisions, Rule 102, Definition of Terms (Amended Dec 3, 2004).

<sup>20</sup> Fiore, et al, Harvard University, *Linking ozone pollution and climate change: The case for controlling methane*, 2002, USEPA/OAQPS MC: D243-01, attached as “CBE Attach 13 to EPA PM2.5 -fiore Harvard methane study.” available at [http://www.gfdl.noaa.gov/bibliography/related\\_files/amf0201.pdf](http://www.gfdl.noaa.gov/bibliography/related_files/amf0201.pdf).

The report was summarized in Environmental Science & Technology, Dec. 1, 2002:

*“Aggressive efforts to improve urban air quality could be undermined by rising levels of methane, a compound more closely linked to global warming than air pollution. Using a global model of tropospheric chemistry, researchers at Harvard University, Argonne National Laboratory, and the U.S. EPA determined that higher methane levels could increase ozone background levels worldwide, lead to a greater frequency of days with high ozone levels in the summer, and produce a longer “season of ozone pollution days.”*”

*“It is already known that methane is a major source of worldwide tropospheric ozone background concentrations, and this study supports that finding. However, the surprise is that a 50% reduction in anthropogenic methane in their scenario is as effective as a 50% drop in anthropogenic NOx concentrations at lowering summer afternoon ozone levels over the United States.”* (page 452A)

There is no longer any excuse for exempting this pollutant. The methane exemption in District regulations also makes enforcement more difficult – regulators must continually subtract methane from VOCs in order to apply controls. The subtraction of methane also makes VOC control look less cost-effective than it actually is. It is essential that the VOC definition be modified to remove the exemption for methane. This will assist the AQMD in identifying additional VOC reductions.

The AQMP<sup>21</sup> separates the following individual refinery sources into Total Organic Gases (TOG which includes methane), and VOCs, which do not. This list is not inclusive of all refinery sources, for example, some refinery emissions are included in the RECLAIM category but not separately identified as refinery emissions.

CODE	Source Category	TOG	VOC	CO	NOx	SOx	TSP	PM10	PM2.5
40	<b>PetroleumRefining (Combustion)</b>	<b>3.58</b>	<b>1.31</b>	13.62	0.00	0.00	1.76	1.69	1.66
320	<b>PetroleumRefining</b>	<b>6.49</b>	<b>4.68</b>	8.27	0.36	6.96	1.64	1.08	0.87
	<b>Total</b>	<b>10.1</b>	<b>6.0</b>	21.9	0.4	7.0	3.4	2.8	2.5

According to the emissions sources listed in the chart above, TOG for refineries for these sources (presumably including methane as well as other organic gases) are 68% higher than VOCs (or ROG, not including methane). It is time for the District to control all organic gases from oil refineries. The District should also

<sup>21</sup> Attachment A to Proposed Modifications to Draft 2007 AQMP Appendix III, Annual Average Emissions by Major Source Category, Table A-1, 2002 Annual Average Emissions by Source Category in South Coast Air Basin (Tons/Day) -- Excerpts related to Refineries.

review its current list of other TOG compounds now exempt, some of which although of lower reactivity, become more reactive after a few days of high temperature.

### **Alternative energy use for oil refinery grid electricity use**

Like the methane exemption, CBE commented on this measure during the 2007 AQMP process, but this measure was not included in the AQMP by the SCAQMD, even though the District has made efforts to identify this problem. These efforts should be formalized into a RACM measure in the plan to avoid refinery power outages that cause major emissions, and to do this with clean alternative energy. CBE's 2007 AQMP comments are still relevant:

#### **Electrical energy use at oil refineries results in many tons per day of air pollution**

Oil refineries use substantial amounts of electricity which is generated at power plants by burning fossil fuels. These emissions occur near the power plants, but also cause regional smog. Also, when reliability problems bring down the electrical grid, oil refineries shut down, causing upset conditions and huge air emissions near the oil refineries. Such an event happened in the fall of 2005, when major flaring occurred at several oil refineries in the District.

Alternative energy sources including wind and solar energy are now readily available and viable alternatives for replacing fossil-fuel electricity generation used at oil refineries. Such alternatives need to be evaluated and required by the AQMD, and included in the AQMP.

The following table was presented to the AQMD October 2006 AQMD Working Group. Those with moderate or higher risk of experiencing power outages can cause massive air emissions of dozens of tons of air pollution when power is lost and refineries shut down. Furthermore, on an ongoing basis, electrical energy use at refineries results in many tons per day of power plant emissions.

**REFINERIES AND ROTATING POWER OUTAGE RISKS\***

Company	Location	Operating Crude Oil Atm Dist Capacity (MBPSD)	Electric Utility Service Area	Estimated Electricity Demand (MW)	Cogen Capacity (MW)	Number of Cogen Units	Cogen vs Demand - Cogen Coverage (%)
<b>HIGH RISK</b>							
ExxonMobil	Torrance	160	SCE	94	42	1	44.8%
Conoco-Phillips	Carson	137	SCE	26	0	0	N/A
<b>MODERATE RISK</b>							
Chevron	El Segundo	273	SCE	108	138	2	127.8%
Shell	Wilmington	100	SCE	58	60	2	103.4%
<b>LOW RISK</b>							
BP	Carson	260	SCE	82	331	1	403.5%
Ultramar	Wilmington	79	LADWP	37	0	0	N/A
Conoco-Phillips	Wilmington	0	LADWP	47	59	1	124.5%
<b>UNDEFINED RISK</b>							
Paramount	Paramount	48					

If the oil refineries were to replace either the percentage of electricity demand not covered by cogeneration capacity at each refinery (115 megawatts - MW), or replace all the electrical demand (452 MW) by clean alternative energy regardless of cogeneration capacity at the refineries, electricity not generated through fossil fuels or nuclear energy would result in many tons per day of emissions reductions calculated below.

Information is available on emissions caused by power plants generated per megawatt hour. For example, PG&E published its 2002 Environmental report online<sup>22</sup> which provides estimations of air emissions associated with generation of electrical energy. A table from the report is provided below, with air emissions in terms of pounds per megawatt-hour of energy. The two columns at the right are added to calculate daily emissions by power plants generating 115MW or 452MW.

<sup>22</sup> PG&E 2002 Environmental Report, 2002 Performance Results , Air Emissions: NOx, SO2, Mercury, and Greenhouse Gases, available at [http://www.pgecorp.com/corp\\_responsibility/environmental/report/2002/perf\\_results/02.html](http://www.pgecorp.com/corp_responsibility/environmental/report/2002/perf_results/02.html).

*From PG&E 2002 Environmental Report*

	Pounds per megawatt-hour of electricity produced	Pounds per megawatt-hour of electricity produced	<b>ADDED COLUMNS USING PG&amp;E numbers:</b>	
			<b>Emissions in 24 hours</b> for 115 and 452MW electrical energy needed from fossil-fueled power plant for the South Coast oil refineries	
<u>Emissions Rates</u>	<b>PG&amp;E Corporation*1</b>	<b>National Average*2</b>	115 MW or 2760 MW-hours per day	452MW or 10,848 MW-hours per day
SO2 Fossil-Fuel Units Only	3.2	8.5	4.4 tons/day	17.4 tons/day
SO2 All Generation Sources	1.9	6.0	2.6 tons/day	10.3 tons/day
NOx Fossil-Fuel Units Only	1.3	4.1	1.8 tons/day	7.1 tons/day
NOx All Generation Sources	0.8	3.0	1.1 tons/day	4.4 tons/day

1. Emissions rates for 2002 2. National average is from U.S. EPA's eGRID Database (Version 2.01 Released 2003, provides data for 2000, latest year available for complete comparison) \* Pounds per megawatt-hour of electricity produced

In a 24-hour period, refineries using 115 MW of electric energy continuously from fossil-fueled power plants results in 2.6 to 4.4 tons per day of SOx emissions and 1.1 to 1.8 tons per day of NOx emissions according to the data above. The total electrical energy use at the oil refineries of 452 MW continuously results in 10.3 to 17.4 tons/day of SOX emissions and 4.4 to 7.1 tons per day of NOx emissions. This calculation assumes that emission rates at the power plants generating this electricity are similar to PG&E's rates, and not similar to the higher National Average pollution rates on the chart above. Either way, clearly the large air emissions caused by fossil fuel generation at Power Plants due to oil refinery electricity demand is worthy of phaseout requirements by the AQMD as a measure in the AQMP.

These calculations do not include VOC, CO, mercury emissions, greenhouse gas emissions or SF6 (sulfur hexafluoride) emissions, also identified by PG&E's report. The emissions probably do not represent peak electricity use, which causes higher emissions.

Please also note that the CBE 2007 AQMP comments discussed above and attached to this letter also identify additional measures that were not added to the plan by the SCAQMD. Please refer to these attached comments, which we incorporate by reference.

**RACM for Locomotive and Railyard Measures**

The 2007 South Coast SIP Fails to Comply with RACM for Locomotive and Railyard Measures. Three documents attached to these comments provide evidence that the RACM analysis for locomotive emissions is deficient.<sup>23</sup> These attached technical

<sup>23</sup> East Yard Communities for Environmental Justice, Comments to Mary Nichols and CARB re: "9/25/09 Board Hearing Agenda Item No. 09-8-5: Public Meeting to Consider Staff Recommendations to Provide



reports and letters articulate several measures to reduce locomotive and other railyard emissions. The SCAQMD failed to analyze these Reasonably Available technologies in the AQMP, and accordingly, California and the District have not complied with RACM requirements. Assessment of these provisions to control locomotive emissions is timely given the recent ruling in *Association of American Railroads v. South Coast Air Quality Management District*, 622 F.3d 1094 (9th Cir. 2010). In that case, the Ninth Circuit determined that, although some local air district rules were preempted by federal law, “[b]ecause the District's rules have not become a part of California's EPA-approved state implementation plan, they do not have the force and effect of federal law, even if they might in the future. Accordingly, there is no authority for the courts to harmonize the District's rules with ICCTA.” *Id.* at 1098. Thus, the Ninth Circuit has indicated that the SCAQMD and the State of California have the authority to reduce emissions from locomotive sources through its determination that ICCTA may not preempt some measures included in a federally approved SIP. Accordingly, EPA should direct California and the SCAQMD to cure this defect.

For these reasons, CBE supports EPA’s decision to disapprove part of the SCAQMD’s and the State’s for PM2.5 attainment, and urges EPA to require further RACT/RACM measures in the plan.

Thank you for your attention to these matters, which are so crucial to the health of people in the region. We look forward to your response.

Sincerely,

/s/

Julia May  
Senior Scientist, CBE

/s/

Maya Golden-Krasner  
Staff Attorney, CBE

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Further Locomotive and Railyard Emissions Reductions,” September 23, 2009, attached as “CBE Attach 14 to EPA PM2.5 –EYCE 2009 Locomotive Comments,”; California Air Resources Board, *Technical Options to Achieve Additional Emissions and Risk Reductions from California Locomotives and Railyards*, August 2009, attached as “CBE Attach 15 to EPA PM2.5 –CARB Technical Options for Emissions and Risk Reductions for Locomotives and Railyards,”; Soil/Water/Air Protection Enterprise, Comments to Mary Nichols and CARB re: “Recommendations To Improve Air Quality And Reduce Cancer Risk To Communities Surrounding California Rail Yards,” September 22, 2009, attached as “CBE Attach 16 to EPA PM2.5 –SWAP 2009 Railyard Comments.”



*Fighting for Life*

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East Yard Communities for Environmental Justice - 2317 Atlantic Blvd. Commerce, CA. 90040

Via Email

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February 22, 2011

Joseph Cassmassi  
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Planning and Rules Manager  
21865 Copley Dr.  
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Re: Revisions to the PM2.5 and Ozone State Implementation Plan for South Coast Air Basin and Coachella Valley - March 4, 2011 Hearing

Dear Mr. Cassmassi:

The undersigned respectfully provide comments on the revisions to the PM2.5 and ozone State Implementation Plan for South Coast Air Basin and Coachella Valley. We urge your Board to include railyard measures in the revised Plan, including your Rules 3501 et seq. to control PM2.5 and ozone emissions for railyard sources.

**I. CALIFORNIA RAIL YARD AND LOCOMOTIVE MEASURES ARE NEEDED TO MEET FEDERAL CRITERIA POLLUTANT STANDARDS AND TO REDUCE UNACCEPTABLY HIGH CANCER RISK TO COMMUNITIES THROUGHOUT THE STATE**

In September 2007, CARB adopted the State Implementation Strategy for the California State Implementation Plan (“SIP”) that includes emissions reduction targets for locomotives and other mobile sources present at the rail yards that are necessary as part of the State’s effort to meet health-based federal and State air quality standards for ozone and particulate matter (“PM”). The 2007 State SIP strategy for PM-10 attainment concedes that “the severity of the region’s PM-2.5 problem and the attainment deadline make it necessary to further mitigate locomotive emissions in 2014.” This is particularly true given the South Coast Air Basin’s reliance on unknown “black box” measures to demonstrate ozone attainment pursuant to CAA section 182 and the 2009 California Budget revisions to CARB’s heavy duty truck regulation. In this circumstance, the State and the South Coast Air Basin need every available measure.

Further, starting in 2005, CARB prepared detailed human health risk assessments (“HHRAs”) determining that California’s 18 major intermodal and classification rail yards create cancer risks for local communities throughout the State as high as 3,300 per one million. These California’s rail yards **far exceed** accepted regulatory standards and are among the highest airborne toxic emitters in the State.<sup>1</sup> CARB has concluded that “every feasible effort” is needed to “reduce localized risk in communities adjacent” to rail yards.

Over three million people are exposed statewide to excess cancer risk of at least 10 in one million. For example, for both the BNSF San Bernardino rail yard and four Commerce rail yards, there are enormous residential areas that have 10 in a million or greater risk of cancer surrounding the rail yards (61,880 acres and 76,000 acres, respectively). We believe that total cumulative risk from all regional sources is far greater and non-cancer risks are estimated by the South Coast AQMD to be at least ten times higher. Simply put, the measures taken to date are not enough.

The HHRAs also demonstrate that for each of the communities affected by railway emission, a large percentage of the population at risk includes the elderly, the immune-compromised, and children (sensitive receptors). By way of example, around the BNSF San Bernardino rail yard, there are at least 41 locations with sensitive receptors, such as the Ramona-Alessandro Elementary School (670 Ramona Avenue, San Bernardino) that has a student body of 825 exposed to cancer risk ranging from over 500 to 25 in a million. Similarly, there are at least 45 sensitive receptors exposed to cancer risk ranging from over 500 to 50 in a million at the four Commerce rail yards.

Excess cancer risk is present at all of the 18 major intermodal and classification rail yards. The high exposure of sensitive receptors to these risks requires immediate action by your agency.

## **II. NUMEROUS REGULATORY MEASURES ARE LIKELY NOT PREEMPTED**

The Federal Clean Air Act (“CAA”) delegates regulatory responsibility to CARB for criteria pollutant and air toxic control measures. Thus, pursuant to CAA sections 110(a), 172(c) and 182(b), the SIP<sup>2</sup> must demonstrate attainment or include all feasible measures. CAA section 209(e) also gives California authority to regulate certain non-

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<sup>1</sup> In 1990, Congress adopted a one in one million threshold in Section 112 of the Clean Air Act, which requires the U.S. EPA to issue technology-based emission standards to reduce emissions of hazardous air pollutants, and further requires the U.S. EPA to consider issuing residual risk emission standards if the excess cancer risk to the individual most exposed to such emissions would exceed the one in one million risk level.

<sup>2</sup> While SIP measures generally are intended to achieve National Ambient Air Quality Standards for criteria air pollutants, PM-10 and PM-2.5 are both criteria pollutants responsible for much of the toxic risk created by locomotive and rail yard emissions in the State. Thus, a SIP measure that reduces PM from rail yard sources will also reduce toxic risk.

road engines and adopt “in-use” requirements. See *Engine Mfrs. Ass’n v. U.S.E.P.A.*, 88 F.3d 1075 (D.C. Cir. 1996); Cal. Health & Saf. Code sections 39650 *et seq.* and 41701.

Pursuant to this delegation, the Cal. Health & Saf. Code sections 36902, 40462, 40469 and 43018 confirm that that the State has authority to take “whatever” actions are “necessary, cost-effective and technologically feasible” to achieve the maximum degree of reduction possible from mobile sources.

In September 2010, the Ninth Circuit Court of Appeals addressed your efforts to address this railyard pollution in *Association of Am. Railroads v. S. Coast Air Qual. Mgmt Dist.* Starting in 2005, the District adopted Rules 3501 to 3503 that require the rail operators to monitor and minimize locomotive idling, provide inventory reports and conduct health risk assessments. The *Association of Am. Railroads v. S. Coast Air Qual. Mgmt Dist.* opinion lays out a path by which such state and local air quality rules can survive ICCTA pre-emption. The opinion holds that: “to the extent that state and local agencies promulgate EPA-approved statewide plans under federal environmental laws (such as ‘statewide implementation plans’ under the Clean Air Act), ICCTA generally does not preempt those regulations because it is possible to harmonize the ICCTA with those federally recognized regulations. See, e.g., *Bos. & Me. Corp.*, 2001 WL 458685, at ([N]othing in section 10501(b) is intended to interfere with the role of state and local agencies in implementing Federal environmental statutes, such as the Clean Air Act [and the federal clean water statutes].)” The principle of harmonization will apply if the rules are submitted by California pursuant to the Clean Air Act to the federal EPA and then approved as part of California’s state implementation plan. “Once approved by EPA, state implementation plans have ‘the force and effect of federal law.’”

### **III. SOUTH COAST AQMD SHOULD PUT RAILYARD MEASURES IN ITS SIP, INCLUDING RULES 3501 ET SEQ. AND OTHER, COST-EFFECTIVE AND FEASIBLE OPTIONS STUDIED BY THE CALIFORNIA ARB**

The important ruling from the Ninth Circuit in *Association of American Railroads v. South Coast Air Quality Management District* poses an opportunity for the South Coast AQMD to address rail measures. The Ninth Circuit has expressly allowed your Board to put Rules 3501 *et seq.* in its SIP. The United States EPA Region 9, very concerned about rail emissions, likely will not have a problem with this approach. There is no reason to wait to some time in the future. When the analysis was originally done, you deemed these Rules cost-effective and feasible. The opportunity has come to show that rail emissions are truly a priority for your staff and Board. We urge your Board to include railyard measures in the revised Plan, including your Rules 3501 *et seq.* to control PM2.5 and ozone emissions for railyard sources.

In addition, the CARB has studied ways to reduce PM2.5 and ozone from railyard sources. Please see its 2009 “Technical Options to Achieve Additional Emissions And Risk Reductions From California Locomotives and Rail Yards” and “Recommendations to Implement Further Locomotive and Railyard Emissions Reductions.” These are

submitted by email for the record herewith and can be linked at <http://www.arb.ca.gov/railyard/ted/ted.htm>.

Thus, CARB has determined that many measures are cost-effective and feasible, including:

- Options 1 (replacement of 152 Tier 0 and older switch locomotives with Tier 3 Ultra-Low Emitting Switch Locomotives), 2 (retrofit of 244 gen-set switch locomotives with nitrous oxides and particulate matter emission controls), 5 (repower of 400 older medium horsepower locomotives with low-emitting engines), 7 (retrofit of 400 low-emitting medium horsepower locomotives with nitrous oxides and particulate matter emission controls) are feasible and cost effective. However, they are not the only options that will have a significant impact on emissions from rail yards.
- Option 11, which consists of revamping all 322 diesel yard trucks into electric-powered yard trucks, would reduce PM and toxic risk to the surrounding communities. If implemented, the trucks would reduce DPM and nitrous oxides emissions from yard trucks from 0.062 tons/year to zero tons/year. The successful testing at the Port of Los Angeles of electric yard trucks shows that it is technically feasible.
- Option 21 involves installation of an Advanced Locomotive Emission Control System (“ALECS”) near locations where locomotives are idling and would reduce PM and toxic risk to the surrounding communities. ALECS have been shown to reduce NOx and DPM emissions by 90% during service and idling periods at UP Roseville. The cost effectiveness is about \$23/lb of NOx and PM for 20 years for the UP Roseville rail yard, using Carl Moyer calculations.
- Option 35 involves the installation of ambient monitoring stations with Aethelometers to measure rail yard DPM emissions in an addition to air toxic monitoring. This option is feasible and critical for demonstrating the effectiveness of mitigation plans. These stations would allow for real-time tracking and monitoring of DPM emissions, as well as measurement of pollutant concentrations to which the public is exposed.

SCAQMD’s recent and successful MATES III Study (a regional monitoring and risk assessment program), shows that real-time monitoring can be achieved for toxic contaminants present in DPM (see <http://www.aqmd.gov/prdas/matesIII/matesIII.html>). The cost of each monitoring system is estimated to be about \$30,000 to \$35,000 – this is very cost-effective given the significant cancer risks at California rail yards.

- Option 36 involves an enhanced truck and locomotive inspection program. Stepped up enforcement of idling regulations through SCAQMD staff inspections at designated rail yards would ensure continuous compliance by the rail lines. This includes heavy duty diesel truck idling and retrofit inspection and enforcement, as well as in connection with CARB rules concerning drayage fleets, locomotive in use compliance testing for federal standards, non-essential and essential locomotive idling, refrigerated units, intrastate locomotive fuel and cargo handling rules. This is particularly true

because the Report relies on compliance with the Port Drayage Truck Regulation with regard to analysis of reductions from truck measures in Options 17 to 19 and anti-idling measures set forth in Options 23.

We thank you for the opportunity to provide these comments and urge South Coast AQMD to follow through on the important ruling from the Ninth Circuit, expressly allowing your Board to put Rules 3501 *et seq.* in its SIP. You have deemed these Rules cost-effective and feasible and now is the opportunity for your staff and Board to show that rail emissions are truly a priority. We respectfully urge your Board to include railyard measures in the revised Plan, including your Rules 3501 *et seq.* to control PM2.5 and ozone emissions for railyard sources.

Sincerely,

A handwritten signature in black ink, appearing to read 'A Logan', with a horizontal line extending to the right.

Angelo Logan  
Director, East Yard Communities for Environmental Justice

Attachs.