STATE IMPLEMENTATION PLAN REVISION FOR FEDERAL LEAD STANDARD INFRASTRUCTURE REQUIREMENTS

Release Date: August 23, 2011
Hearing Date: September 22, 2011

California Environmental Protection Agency

Air Resources Board

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OVERVIEW

The purpose of this report is to provide a revision to the infrastructure portion of California's State Implementation Plan (SIP). The revision is required under the federal Clean Air Act (CAA) and is limited to changes that specifically address the national ambient air quality standard for lead (federal lead standard). It contains no changes for any other air pollutant. The following paragraphs provide background on the federal lead standard and requirements for the infrastructure portion of the SIP. The actual language of the SIP revision is provided in Appendix A: State Implementation Plan Revision for Federal Lead Standard Infrastructure Requirements.

INTRODUCTION

On October 15, 2008, the United States Environmental Protection Agency (U.S. EPA) revised the federal lead standard. The revised standard of 0.15 micrograms per cubic meter ($\mu g/m^3$), averaged over a three-month period, is 90 percent more stringent than the former 1.5 $\mu g/m^3$ standard and carries several new requirements with it. When U.S. EPA promulgates a new standard or, as in the case of lead, revises an existing standard, CAA Section 110(a)(1) requires each state to revise their SIP to show they have the authority and programs needed to implement, maintain, and enforce the standard, regardless of designation status. This documentation is submitted to U.S. EPA for approval and is generally referred to as an Infrastructure SIP. States must submit an Infrastructure SIP within three years after a federal standard is adopted or revised. California's Lead Infrastructure SIP is due to U.S. EPA by October 15, 2011.

California has already addressed most of the infrastructure requirements in a comprehensive Infrastructure SIP submitted in response to the CAA of 1970 and approved by U.S. EPA in 1979 (40 Code of Federal Regulations 52.220). The Air Resources Board (ARB or Board) submitted amendments to the Infrastructure SIP to comply with revisions to the federal 8-hour ozone standard and federal PM2.5 standard, but U.S. EPA has not yet acted fully on these revisions. The revision for the 2008 federal lead standard continues to affirm the Board's commitment to comply with CAA requirements. In addition, the revision responds to new elements required by U.S. EPA's 2008 revision of the federal lead standard, including new lead monitoring requirements, stationary source lead permitting requirements, and development of an emergency episode plan for lead.

The specific elements required for the Lead Infrastructure SIP are listed in CAA Section 110(a)(2). Table 1 lists the page number in Appendix A where each element is addressed. As mentioned earlier, the Lead Infrastructure SIP becomes part of the overall statewide SIP.

TABLE 1
REQUIRED INFRASTRUCTURE SIP ELEMENTS

Infrastructure SIP Element	***Clean Air Act Requirement***	***Element Description***
Emission Limits and Other Control Measures	§110(a)(2)(A)	Page A-1
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In addition to the infrastructure requirements, U.S. EPA designates areas as attainment, nonattainment, or unclassifiable to facilitate subsequent planning efforts to attain the federal standards. When a new standard is adopted or an existing standard is revised, states have one year to submit area designation recommendations. ARB submitted area designation recommendations for the revised federal lead standard on October 15, 2009. A copy of the staff report is available on ARB's website at http://www.arb.ca.gov/desig/feddesig.htm. U.S. EPA promulgated final area designations for lead one year later. Only one area in California, the Los Angeles County portion of the South Coast Air Basin, excluding the Channel Islands, is designated as nonattainment for the federal lead standard. A lead nonattainment SIP for this area is due to U.S. EPA on June 30, 2012. All other areas of the State are designated as unclassifiable.

APPENDIX A

STATE IMPLEMENTATION PLAN REVISION FOR FEDERAL LEAD STANDARD INFRASTRUCTURE REQUIREMENTS

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APPENDIX A
State Implementation Plan Revision
for Federal Lead Standard Infrastructure Requirements

Emission Limits and Other Control Measures ***[§110(a)(2)(A)]***

This section requires states to establish emission control measures and programs that limit lead emissions.

No additional statewide control measures or programs are needed to comply with the national ambient air quality standard for lead (federal lead standard). However, control measures aimed at reducing lead emissions from large lead processing facilities in the South Coast Air Basin will be part of the South Coast Air Quality Management District's (South Coast District) lead nonattainment SIP that is due to the United States Environmental Protection Agency (U.S. EPA) in June 2012.

Discussion

When U.S. EPA first adopted a lead standard in 1978, it was estimated that over 90 percent of ambient lead concentrations were attributable to the use of lead in gasoline. The phase-out of lead in gasoline began during the 1970s, and Air Resources Board (ARB) regulations (California Code of Regulations (CCR), title 13, section 2253.4) virtually eliminated lead from gasoline sold in California starting January 1, 1992. The Clean Air Act (CAA) Amendments of 1990 mandated the elimination of lead from all U.S. motor fuel by January 1, 1996, specifying the same 0.05 grams of lead per gallon limit as the California regulations. As a result of these State and federal regulations, maximum monthly average lead concentrations measured at ambient population-oriented monitors are now 99 percent lower – about 10 micrograms per cubic meter ($\mu g/m^3$) in the mid-1970s compared with 0.04 $\mu g/m^3$ or less, now. These monthly average concentrations are well below the level of the three-month average specified in the 2008 federal lead standard. The State and federal regulations will continue to provide the basic framework needed to ensure long-term attainment and maintenance of the federal lead standard on a statewide level, with the exception of the Los Angeles County portion of the South Coast Air Basin.

In contrast to the rest of the State, the Los Angeles County portion of the South Coast Air Basin is the only area in California impacted by local, stationary source lead emissions. Furthermore, it is the only area in California designated as nonattainment for the 2008 federal lead standard. The South Coast District has jurisdiction over stationary sources in the nonattainment area and has been proactive in mitigating their impact on ambient lead concentrations. On September 11, 1992, the South Coast District adopted Rule 1420 - Emissions Standard for Lead. Rule 1420 specifies emission limits, control requirements, monitoring requirements, modeling requirements, recordkeeping requirements, and reporting requirements for lead, and it applies to all facilities in the South Coast Air Basin that use or process lead-containing materials. In addition to Rule 1420, the South Coast District adopted Rule 1420.1 on November 5, 2010. Rule 1420.1 applies specifically to large lead-acid battery recycling facilities, which have been identified as the source of the Los Angeles County federal lead standard violations. These rules will be discussed in more detail in the South Coast District lead nonattainment SIP.

Ambient Air Quality Monitoring/Data System ***[§110(a)(2)(B)]***

This section requires states to monitor, compile, and analyze ambient lead concentrations and provide the data to U.S. EPA.

Current monitoring requirements for lead include population-oriented or exposure monitoring, source-oriented monitoring, and a pilot program for monitoring lead at general aviation airports where leaded fuel is used. Existing and planned lead monitors in California are sufficient to comply with the population exposure and source-oriented monitoring requirements. U.S. EPA is currently working with five general aviation airports in California as part of the pilot program.

Discussion

ARB, air pollution control and air quality management districts (districts), private contractors, and other government entities (for example, the National Parks Service) maintain a statewide network of monitoring sites. Monitoring instruments at these sites collect data for many air pollutants and a number of meteorological parameters. Current information about California's overall air quality monitoring program, as well as information about individual monitoring sites is available on ARB's website at http://www.arb.ca.gov/aqd/aqmoninca.htm. Data collected at the individual monitoring sites are compiled, analyzed, and reported to U.S. EPA's Air Quality System per the schedule set forth in federal monitoring regulations. These data are also available on ARB's website at http://www.arb.ca.gov/adam. ARB and districts also submit annual air quality monitoring plans to U.S. EPA that describe how the State and districts comply with monitoring requirements. These plans also describe proposed monitoring changes.

As a result of the success of removing lead from gasoline, significant lead emissions now come from just a few industrial sources. Recognizing this, lead monitoring requirements include source-oriented monitoring, as well as population exposure monitoring. With respect to population exposure monitoring, federal regulations require lead monitoring at NCore sites in any Core Based Statistical Area (CBSA) with a population of 500,000 or more. NCore sites form a "National Core" of multi-pollutant monitoring sites. There are currently six NCore sites in California, as shown in Table A-1. Lead monitors are already operating at five of California's six NCore sites, with the remaining monitor to be deployed and operating by the required January 1, 2012, deadline. Lead measurements at the NCore sites are collected using Federal Reference Method (FRM) or Federal Equivalent Method (FEM) lead-total suspended particulate (Pb-TSP) samplers or lead-fine particulate matter (Pb-PM10) samplers. All samplers meet siting and operating parameters as mandated by U.S. EPA for lead in 40 Code of Federal Regulations (CFR) Part 58.

In addition to the NCore sites, Table A-1 shows lead monitors at several other population-oriented sites in California, including Calexico, Riverside (Magnolia location), San Bernardino, and Upland. Lead concentrations at these sites are collected using FRM or FEM Pb-TSP monitors. Although not required, these monitors will continue operating, providing a long-term record for comparison with future lead levels to ensure compliance with the federal lead standard.

TABLE A-1
Population Exposure Lead Monitoring Sites in California

Monitor Location	County	Type of Monitor	Type of Monitor
El Cajon	San Diego	NCore / Population Exposure	Pb-TSP
Fresno	Fresno	NCore / Population Exposure	Pb-TSP
Los Angeles	Los Angeles	NCore / Population Exposure	Pb-TSP&Pb-PM10
Riverside (Rubidoux)	Riverside	NCore / Population Exposure	Pb-TSP&Pb-PM10
Sacramento*	Sacramento	NCore / Population Exposure	Pb-PM10
San Jose	Santa Clara	NCore / Population Exposure	Pb-PM10
Calexico	Imperial	Neighborhood / Population Exposure	Pb-TSP
Riverside (Magnolia)	Riverside	Neighborhood / Population Exposure	Pb-TSP
San Bernardino	San Bernardino	Neighborhood / Population Exposure	Pb-TSP
Upland	San Bernardino	Neighborhood / Population Exposure	Pb-TSP

**Monitor will be deployed and operating by January 1, 2012.*

The revised federal lead standard also requires source-oriented lead monitoring near industrial sources emitting more than 0.5 tons of lead per year. The only qualifying source in California is located in the South Coast Air Basin. The South Coast District maintains a network of source-oriented lead monitors, as described in their 2011 Annual Air Quality Monitoring Network Plan. The Plan is available on the web at http://www.aqmd.gov/tao/AQ-Reports/AQMonitoringNetworkPlan/FinalAMNetworkPlan.pdf. These source-oriented monitors measure concentrations around the South Coast Air Basin's most significant industrial lead-related sources. The South Coast District has monitored lead concentrations around these sources for two decades and is committed to continue operating the monitors, long-term.

U.S. EPA's last lead monitoring requirement defines a 12-month pilot program to monitor lead concentrations near general aviation airports where fuel containing lead could cause elevated lead concentrations. U.S. EPA selected fifteen airports, nationwide, to participate in the pilot program. Five of these fifteen airports are located in California (refer to Table A-2). The airports, districts, and ARB are working with U.S. EPA to develop sites and implement lead monitoring near these airports. Lead data will be collected by FRM or FEM Pb-TSP samplers, so they are comparable with the federal lead standard. Consistent with U.S. EPA requirements, any site measuring a three-month average lead concentration greater than half the level of the 2008 federal lead standard must continue to monitor for lead after the pilot program ends.

TABLE A-2
California Airports Participating in U.S. EPA Pilot Lead Monitoring Study

Airport Name	County
Gillespie Field	San Diego
McClellan-Palomar	San Diego
Palo Alto	Santa Clara
Reid-Hillview	Santa Clara
San Carlos	San Mateo

Programs for Enforcement, PSD, and NSR [§110(a)(2)(C)]

> *This section requires states to enforce control measures associated with attaining and maintaining the federal lead standard and to implement a permitting program to regulate the construction and modification of major stationary sources of lead. In addition, Prevention of Significant Deterioration (PSD) programs must also apply to stationary sources that emit Greenhouse Gases, in accordance with U.S. EPA's Tailoring Rule.*

ARB has a comprehensive enforcement program in place, including enforcement of State fuels regulations. No new statewide programs are needed for lead. In California, districts are responsible for permit programs for stationary sources. Each district has developed their own program, resulting in a comprehensive set of applicable rules and regulations. With respect to PSD, five districts have SIP-approved PSD programs. Two districts operate programs with partial SIP-approved authority. PSD programs in the remaining districts are administered by U.S. EPA.

Discussion

ARB's enforcement program covers mobile sources, stationary sources, consumer products, and fuels. Details about the program are available on ARB's website at http://www.arb.ca.gov/enf/enf.htm. In addition to the statewide program, districts implement rules incorporating California Health and Safety Code provisions that grant all district officers and employees the authority to adopt and enforce their own rules and regulations (California Health and Safety Code sections 40001, 40120, 40702, 40752, 40753, and 41510). ARB reviews and audits district enforcement programs as part of its oversight role and in accordance with California Health and Safety Code section 41500. ARB also reviews district rules at their draft, proposed, and adopted stages to ensure the rules meet all applicable State and federal requirements. ARB maintains an online publically accessible district rules database at http://www.arb.ca.gov/drdb/drdb.htm.

California Health and Safety Code section 40000 gives districts the responsibility for controlling air pollution from stationary sources. This includes responsibility for New Source Review (NSR) and PSD. Both NSR and PSD address the construction or modification of major stationary sources so they do not cause or contribute to a violation of federal standards. NSR applies in nonattainment areas. In general, NSR rules in California must meet federal requirements, as well as more stringent State requirements. In contrast to NSR, PSD only applies in areas designated as attainment or unclassifiable for a federal standard. As noted above, various provisions in the California Health and Safety Code grant all district officers and employees authority to adopt and enforce rules and regulations, including stationary source permitting programs.

In terms of the federal lead standard, there is only one nonattainment area in California, the Los Angeles County portion of the South Coast Air Basin. Therefore, NSR applies in this area. The rest of California is designated as unclassifiable for lead, and therefore, PSD requirements apply. PSD requirements are very complex and often change, as evidenced by the new requirements applicable to Greenhouse Gases (GHG). In California, PSD programs

are either (1) fully implemented by a district, (2) partially implemented by a district, or (3) wholly implemented by U.S. EPA. Five California districts, all of which are designated as unclassifiable for the 2008 federal lead standard, have authority to fully implement their SIP-approved PSD program. Table A-3 lists these districts, their qualifying rules, and the significant lead emission rate specified in the rules. In addition to criteria pollutants, such as lead, the SIP-approved PSD programs in these districts also apply to GHG emissions, in accordance with U.S. EPA's Tailoring Rule.

TABLE A-3
California Districts with SIP-Approved PSD Lead Rules

District	***Rule Covering Lead***	***Significance Level for Lead***	***SIP Approval Federal Register Citation***
Mendocino County Air Quality Management District	Rule 220	0.6 tons/year	50 FR 30942
Monterey Bay Unified Air Pollution Control District	Rule 207	3.28 pounds/day*	65 FR 5433
North Coast Unified Air Quality Management District	Rule 220	0.6 tons/year	50 FR 30941
Northern Sonoma County Air Pollution Control District	Rule 220	0.6 tons/year	50 FR 30943
Sacramento Metropolitan Air Quality Management District	Rule 202	3.3 pounds/day	50 FR 25417

**3.3 pounds/day is nominally equivalent to 0.6 tons per year*

Two California districts, the Bay Area Air Quality Management District and South Coast Air Quality Management District, operate their PSD and NSR programs with partial SIP-approved authority. Those portions of their PSD and NSR programs that have not been SIP-approved are administered by U.S. EPA. The remaining districts in California are all designated as unclassifiable for the 2008 federal lead standard, and all have PSD programs for both lead and GHG that are wholly administered by U.S. EPA.

Interstate and International Transport Provisions *[§110(a)(2)(D)]*

> *This section prohibits the transport of lead emissions from one state to another, where they could contribute significantly to violations of the federal lead standard, interfere with maintenance of the federal lead standard, or contribute to reduced visibility.*

Stationary source lead emissions do not have a transport impact unless the source is located very near a state or international boundary. Transport is not an issue in California's only nonattainment area (Los Angeles County portion of the South Coast Air Basin) because stationary lead sources are located more than 100 miles from the nearest state or international border. In addition to transport, U.S. EPA has determined that lead emissions do not impact visibility.

Discussion

Lead is a primary pollutant that does not undergo atmospheric transformation. Furthermore, because lead particles are relatively heavy, they tend to settle out quickly. As a result, lead impacts are very localized. The highest concentrations occur in the immediate vicinity of the emission source, with concentrations dropping off rapidly with distance from the source. Given the characteristics of lead, only states with sources located very near a state or international boundary have the potential to contribute to nonattainment or maintenance of the federal lead standard in another area via transport. In recent guidance, U.S. EPA defined the critical distance as 2 miles.

There are only two sources in California that contribute to violations of the lead NAAQS. Both facilities are located in the Los Angeles County nonattainment area, and both are more than 100 miles from the nearest state or international boundary. Although lead concentrations near the facilities violate the federal standard, lead concentrations at all other sites in the South Coast Air Basin, including nonsource-oriented sites in the Los Angeles County nonattainment area, are well below the level of the federal lead standard (maximum 2005-2007 3-month averages ranged from 0.01 $\mu g/m^3$ to 0.03 $\mu g/m^3$). Based on these data, the large lead facilities in the Los Angeles County nonattainment area do not contribute to lead violations or interfere with maintenance of the federal lead standard, outside the local nonattainment area. Thus, transport is not a concern. Nevertheless, while the South Coast District is developing their lead nonattainment SIP, major stationary lead sources are covered under Appendix S to 40 CFR Part 51. Appendix S sets forth U.S. EPA's Interpretive Ruling on preconstruction review requirements and conditions, insuring that lead emissions from major stationary sources and major stationary source modifications are controlled to the greatest extent possible, that emission offsets are obtained, and that the area continues progress toward attainment.

In addition to transport, U.S. EPA has determined that lead emission sources have an insignificant impact on visibility. Nevertheless, California has a federally-approved Regional Haze Plan in place. The Regional Haze Plan is available on the ARB website at http://www.arb.ca.gov/planning/reghaze/reghaze.htm.

Adequate Personnel, Funding, and Authority [§110(a)(2)(E)]

This section requires states and local districts to maintain adequate personnel, funding, and legal authority to implement their SIP and to ensure that a majority of their board members represent the public interest.

A majority of ARB and district budgets go toward meeting CAA mandates. Much of this funding comprises fees collected from regulated emission sources and is dedicated to air pollution control activities. All ARB and district board members must comply with conflict of interest requirements established in State law.

Discussion

Each year, the California State Legislature approves ARB's funding and staff resources for carrying out the programs of the SIP. Similarly, district budgets are approved each year by the district's governing board. The annual budget process provides a periodic update that enables ARB and the districts to adjust funding and personnel needs. Although it is not legally possible for ARB and the districts to provide specific commitments about future-year funding, the annual budget appropriations process undertaken by the California State Legislature enables ARB to present a request for resources required to meet the mandates of the CAA. These mandated programs have received State funding for more than three decades, and there is consistently strong public support in California for providing clean air. Therefore, it is reasonable to assume that implementation of CAA mandates will continue to be funded at an appropriate level.

Over the last several years, more than 80 percent of ARB's budget has gone toward meeting CAA mandates. Furthermore, the majority of ARB's budget comprises dedicated fees collected from regulated emission sources. These funds can only be used for air pollution control activities and are periodically adjusted to maintain the funding necessary for ARB programs. Districts receive funding from fees paid by regulated businesses, motor vehicle registration fees, State and federal grants, and other local revenue sources. Collectively, the 2009-2010 ARB and district budgets totaled $1.2 billion, with 3,422.4 full-time equivalent staff positions. If a district fails to meet its responsibilities, California Health and Safety Code section 39002 grants ARB the overall regulatory authority for districts' air pollution control programs and the power to implement these programs.

California Government Code Sections 87100 through 87105 specify conflict of interest requirements for members of ARB and district boards. These requirements specifically prohibit all state and local public officials from participating in governmental decisions in which they have a financial interest. They also direct ARB and the districts to develop conflict of interest policies to meet these legal requirements. Each year, all ARB Board members and professional staff must complete a conflict of interest statement, which becomes a public document.

Stationary Source Monitoring and Reporting ***[§110(a)(2)(F)]***

This section calls for states to require owners and operators of stationary sources to install, maintain, and replace equipment for monitoring stationary source lead emissions and to provide periodic reports on these emissions.

ARB maintains an emissions inventory for lead that goes beyond what U.S. EPA requires. In addition, existing State and district rules require stationary source owners and operators to determine the amount of lead emitted by their facilities.

Discussion

ARB maintains an emissions inventory with information for more than 14,000 stationary source facilities in California. The inventory includes information on lead emissions. These data are available on the ARB's website at http://www.arb.ca.gov/ei/disclaim.htm. The Federal Air Emissions Reporting Requirements Rule requires states to collect and report lead emissions data for facilities emitting more than 5 tons of lead per year. ARB's "Hot Spots" program for toxic air contaminants is even more stringent, requiring stationary source owners and operators to report lead emissions at levels well below 1 pound (0.0005 tons) per year.

Emissions estimates for stationary sources rely in part, on accurate emissions monitoring data. In addition, emissions monitoring data provide a basis for determining whether facilities meet performance standards established in State and district rules. California Health and Safety Code section 41511 authorizes ARB and districts to adopt rules and regulations requiring any emission source owner or operator to take reasonable steps to determine the amount of emissions released from the source. This would include emissions that contribute to a violation of any ambient air quality standard, including the federal lead standard. In order to determine the amount of emissions coming from a particular source, districts have rules giving the Air Pollution Control Officer authority to request the installation, use, maintenance, and inspection of Continuous Emission Monitoring System (CEMS) equipment. Some district rules that trigger the CEMS requirement are tied to specific source categories and/or emission thresholds. These rules specify performance standards for the monitoring equipment, requirements for recordkeeping and reporting, and requirements for violation and equipment breakdown notification.

Emergency Episodes *[§110(a)(2)(G)]*

> *This section requires states to have the authority to halt lead emissions that cause or contribute to injury of public health or welfare and to develop an emergency plan for lead.*

State law grants ARB and the districts authority to halt pollutant emissions that could cause a public health emergency or nuisance. Although U.S. EPA has not established a contingency plan or requirements for emergency lead episodes, California includes such a plan in this Infrastructure SIP.

Discussion

Under State law, ARB and districts are authorized to take action to halt pollutant emissions that could cause a public health emergency or nuisance. California Health and Safety Code section 41509 specifies that ARB or other local agency rules cannot infringe upon a district's authority to declare, prohibit, or abate a nuisance. This section also specifically authorizes California's Attorney General to enjoin any pollution or nuisance, at the request of a district or ARB. In addition to State law, U.S. EPA is authorized under the CAA either to bring a lawsuit in federal court or, if such action cannot assure prompt protection of public health or welfare, to issue such orders as may be necessary to protect public health or welfare or the environment. The authority granted to U.S. EPA is vested in ARB and the districts under California Health and Safety Code section 42400, et seq. These sections apply to a range of emission violations and impose penalties that are equivalent to or exceed comparable federal penalties for the same violations.

The requirement for states to provide for adequate contingency plans to implement such authority is intended to establish emergency episode plans for responding to elevated pollutant levels. For nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, and particulate matter, U.S. EPA regulations include a classification system that identifies areas as Priority 1 (most severe), Priority 2, or Priority 3 (least severe), based on their air quality problem. The most comprehensive emergency episode plan is required for Priority 1 areas, while a less detailed plan is required for Priority II areas, and no plan is required for Priority 3 areas. Emergency episode plans for the Priority I areas must provide for actions to abate emissions, based on "Significant Harm Levels" that U.S. EPA has defined for the specific pollutant in 40 CFR Part 51.151.

U.S. EPA has not defined any significant harm levels for lead, leaving determination of what constitutes an adequate emergency episode plan up to the State. California will use a lead concentration of 0.60 µg/m^3 averaged over a three-month period to define a Significant Harm Level for lead. This concentration is about four times the level of the federal lead standard, consistent with the average Significant Harm Level for Priority I areas that U.S. EPA has established for other pollutants (refer to 40 CFR part 51.151)**.** Currently available monitoring data do not show ambient concentrations at any site in California approaching the 0.60 µg/m^3 trigger level, except in the vicinity of large lead-acid battery recycling facilities in the Los Angeles County lead nonattainment area. Existing State authority is sufficient to implement an emergency response for lead if concentrations at any site outside the nonattainment area reach the 0.60 µg/m^3 trigger level.

To address high lead concentrations in the nonattainment area, the South Coast District adopted Rule 1420.1, which applies to any large lead-acid battery recycling facility in the South Coast Air Basin that processes or has ever processed 50,000 tons or more of lead per year. The South Coast District identified lead emissions from these recycling facilities as the source of the area's violations of the federal lead standard. Rule 1420.1 requires total enclosures for any process associated with the preparation, recovery, refining, and storage of lead-containing material and requires pollution control devices on the enclosures and on lead emission point sources. Rule 1420.1 also includes housekeeping, monitoring, and recordkeeping requirements. The trigger level specified in Rule 1420.1 is 0.15 $\mu g/m^3$ averaged over any consecutive 30-day period. In addition, as of July 1, 2011, any facility exceeding an ambient lead concentration of 0.12 $\mu g/m^3$ averaged over any consecutive 30-day period must submit a Compliance Plan identifying additional lead emission reduction measures, thereby ensuring subsequent compliance with the federal lead standard. The provisions of Rule 1420.1 will be addressed in more detail in the South Coast District lead nonattainment SIP.

Future SIP Revisions ***[§110(a)(2)(H)]***

> *This section requires states to revise their SIP when an air quality standard is promulgated or revised, new attainment methods become available, or U.S. EPA determines a SIP is either inadequate or does not meet revised CAA requirements.*

California has and will continue to submit revisions to its SIP, as mandated by U.S. EPA.

Discussion

Clean air is a priority in California. To help meet this goal, California is submitting this Infrastructure SIP for lead, in compliance with the revised federal lead standard. Only one area in the State, the Los Angeles County portion of the South Coast Air Basin, is designated as nonattainment for lead. CAA Section 110(a)(2)(I) requires states to submit SIP revisions for newly designated nonattainment areas. ARB is working with the South Coast District to develop an approvable SIP for the nonattainment area and will submit the lead nonattainment SIP to U.S. EPA by the June 2012 deadline. ARB maintains a current collection all SIP documents on its website at http://www.arb.ca.gov/planning/sip/sip.htm.

Consultation with Government Officials, Public Notification, PSD and Visibility Protection [§110(a)(2)(J)]

> *This section requires states to meet requirements of the CAA relating to consultation and public notification and to implement PSD and visibility protection programs for lead.*

ARB complies with all federal regulatory requirements, including requirements for consultation, notification, comment, and adoption. Furthermore, ARB has information available on its website about ambient lead concentrations and the health impacts of lead in the ambient air. As addressed earlier, in response to CAA Section 110(a)(2)(C), PSD requirements are addressed at the district level. U.S. EPA has determined that visibility issues do not need to be addressed, with respect to the federal lead standard.

Discussion

CAA Section 121 requires states to provide a satisfactory process for consulting with general purpose local governments, designated organizations of elected local government officials, and any affected federal land manager in carrying out CAA requirements. California Health and Safety Code section 41650, et seq., requires ARB to conduct public hearings and to solicit testimony from districts, air quality planning agencies, and the public when adopting nonattainment plans for inclusion in the SIP. Additionally, the California Administrative Procedures Act, Government Code Section 11340, et seq., requires notification and provision of comment opportunities to all parties affected by proposed regulations.

CAA Section 127 requires states to provide measures that will be effective in notifying the public on a regular basis of instances or areas in which a federal standard was exceeded during the preceding calendar year. This requirement is similar to California Health and Safety Code section 39607, which requires ARB to implement a program for securing air quality data in each air basin and report these data to the public. To fulfill this requirement, ARB maintains air quality data on its website at http://www.arb.ca.gov/aqmis2/aqdselect.php.

CAA Section 127 also requires states to advise the public about the health hazards associated with air pollution and enhance public awareness of measures to prevent violation of a federal standard. In compliance with this requirement, ARB maintains webpages detailing relevant health information (http://www.arb.ca.gov/research/research.htm) and ways of reducing air pollution (http://www.arb.ca.gov/html/cando.htm).

With respect to PSD requirements, several districts in California have fully SIP-approved or partially approved PSD programs that comply with the requirements for lead. PSD programs in the remaining districts are administered by U.S. EPA through a federal stationary source permitting program under enabling authority in 40 CFR Part 52.21. With respect to visibility programs, U.S. EPA guidance concludes that since the visibility protection and regional haze program requirements do not change with the establishment of a new federal

primary standard, there are no new applicable visibility protection obligations under CAA Section 110(a)(2)(J) for the 2008 federal lead standard. Nevertheless, California has in place, a Regional Haze Plan that U.S. EPA approved on June 14, 2011. California's Regional Haze Plan is available on the ARB website at http://www.arb.ca.gov/planning/reghaze/reghaze.htm.

Air Quality Modeling/Data [§110(a)(2)(K)]

> *This section requires states to use air quality models to predict the effect of lead emissions on ambient concentrations and to submit the modeling data to U.S. EPA when requested.*

ARB is well versed in the use of air quality models to predict the impact of emissions on air quality. ARB modeling complies with U.S. EPA guidance, and ARB works closely with districts that conduct their own modeling to ensure similar compliance. Modeling results are available on request.

Discussion

U.S. EPA anticipates that the predominant type of air quality modeling conducted for implementing the federal lead standard will be source-oriented dispersion modeling, using models such as AERMOD. ARB has an air quality modeling group with extensive experience related to modeling for compliance with the federal standards. Furthermore, ARB's air quality modeling work complies with U.S. EPA's guidance on the use of models in attainment demonstrations. In addition, ARB documents information used when conducting modeling or evaluating the performance of air quality models used for this purpose. Finally, ARB consults and works closely with districts that conduct their own air quality modeling.

ARB provides air quality modeling software and documentation with links to databases and search engines at http://www.arb.ca.gov/html/soft.htm#modeling. This page includes a link to both State-approved and U.S. EPA-approved models and documentation.

Permitting Fees *[§110(a)(2)(L)]*

> *This section requires states to assess lead stationary source owners or operators fees to cover the cost of reviewing and acting on a permit application. If a permit is granted, states must also assess fees to cover the cost of implementing and enforcing the permit. Finally, owners or operators must comply with the fee provisions of Title V Sections 501 through 507 of the CAA and pay such fees to the permitting authority.*

Districts are responsible for issuing stationary source permits, and each district has rules requiring additional fees subject to Title V requirements.

Discussion

As described previously (Programs for Enforcement, PSD, and NSR Section 110(a)(2)(C)), responsibility for issuing stationary source permits is vested with the districts, and each district in California has adopted rules requiring an additional fee for facilities subject to Title V requirements. Information on district-issued permits is available on the ARB website at http://www.arb.ca.gov/permits/airdisop.htm and http://www.arb.ca.gov/permits/permits.htm. In addition, ARB maintains various email notification lists that provide subscribers with current, on-going email notification about updates and changes to programs related to permitting. Information about subscribing to these email notification lists is available on the ARB website at http://www.arb.ca.gov/permits/permits.htm.

Consultation/Participation by Affected Local Entities *[§110(a)(2)(M)]*

> *This section requires states to consult with and allow political subdivisions affected by the lead Infrastructure SIP to participate in the development process.*

ARB coordinates on a regular basis with the State's 35 districts. State law requires ARB to conduct a public hearing and solicit input from affected agencies and the public when developing the SIP.

Discussion

California is divided into 35 districts, comprising county or regional local government authorities with responsibility for controlling stationary source emissions. A map of district boundaries is available on ARB's website at http://www.arb.ca.gov/capcoa/dismap.htm. Links to districts' websites are available at http://www.arb.ca.gov/capcoa/roster.htm.

ARB consults and provides liaison with all districts and provides for frequent and regular communication and consultation with management and staff of these districts. Because district boards are composed of local elected officials, this framework provides for regular consultation with and participation by local government entities (cities and counties) affected by the SIP. Furthermore, California Health and Safety Code section 41650, et seq., requires ARB to conduct a public hearing and to solicit testimony from districts, air quality planning agencies, and the public when adopting local nonattainment plans for inclusion in the SIP.