

Appendix B

110(a)(2) Infrastructure SIP

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Introduction and Background

Section 110 (a) of the Clean Air Act (CAA) requires states to submit an implementation plan to the U.S. EPA Administrator that provides for implementation, maintenance, and enforcement of national ambient air quality standards. Section 110(a)(2) lists the elements that are to comprise the implementation plan. Several of the elements in §110(a)(2) specifically address the need for states to demonstrate the ability to implement, maintain, and enforce the air quality standards. These elements are sometimes compiled and submitted separately in what is referred to as an “infrastructure” SIP. This document is the infrastructure SIP for the new 8-hour ozone and PM2.5 air quality standards.

The elements of §110(a)(2) are listed below. Two elements that are not part of an infrastructure SIP but addressed separately elsewhere are underlined.

- Enforceable Emission Limitations and Other Control Measures (§110(a)(2)(A)) (see Appendix G)
- Air Quality Monitoring, Compilation, Data Analysis, and Reporting (§110(a)(2)(B))
- Enforcement and Stationary Source Permitting (§110(a)(2)(C))
- Interstate Transport (§110(a)(2)(D)) (see Appendix C)
- Resources, Conflict of Interest, and Emergency Backstop (§110(a)(2)(E))
- Stationary Source Emissions Monitoring and Reporting (§110(a)(2)(F))
- Emergency Powers and Contingency Plans (§110(a)(2)(G))
- SIP Revision For Revised Air Quality Standards or New Attainment Methods (§110(a)(2)(H))
- SIP Revisions for New Nonattainment Areas (§110(a)(2)(I))
- Consultation and Public Notification (§110(a)(2)(J))
- Air Quality Modeling and Reporting (§110(a)(2)(K))
- Major Stationary Source Permitting Fees (§110(a)(2)(L))
- Consultation with Local Entities (§110(a)(2)(M))

Most of these elements are addressed in the comprehensive §110(a)(2) SIP submitted in response to the CAA of 1970 and approved by U.S. EPA in 1979 in 40 CFR 52.220. This submittal continues to affirm ARB’s commitment to comply with §110(a)(2) requirements and is incorporated by reference into this submittal.

The following discussions respond to the new elements required by the 1990 CAA Amendments and commitments required by the adoption of new ozone and PM2.5 air quality standards.

§110(a)(2)(B) Air Quality Monitoring, Compilation, Data Analysis, and Reporting

States are to establish and operate devices, methods, systems, and procedures to monitor, compile, and analyze ambient air quality data and to provide the data to U.S. EPA.

California has an extensive air quality monitoring network operated by ARB and local air quality districts that collects air quality data that are compiled, analyzed, and reported to U.S. EPA. ARB's website contains up-to-date information about air quality monitoring, including a description of the network and information about monitoring of ozone, PM2.5, and meteorology. See <http://www.arb.ca.gov/aaqm/aaqm.htm> with links to all elements of the program, and the recent report on ARB's PM2.5 monitoring program at http://www.arb.ca.gov/pm/pm25_monitor_2005.pdf.

In addition to the network of federally-approved reference monitors that measure PM2.5 mass, ARB operates continuous PM2.5 mass monitors. For PM2.5 speciation, ARB analyzes filters collected by a network of reference monitors located throughout California with concentrations in PM2.5 nonattainment areas. The PM2.5 data can be accessed from two interactive databases: Aerometric Data Analysis and Management (ADAM), that provides historical data, and the Air Quality and Meteorological Information System (AQMIS), that provides real-time data. More details about ARB's Air Monitoring Program, including monitoring provided by local air districts, can be found at <http://www.arb.ca.gov/aaqm/mldaqsb/amn.htm>.

The 2006 California Almanac of Emissions and Air Quality includes a five-year summary of PM2.5 air quality data. This report can be found at <http://www.arb.ca.gov/aqd/almanac/almanac06/almanac06iu.htm>.

ARB commits to continue to operate an air quality monitoring network that complies with U.S. EPA requirements and to provide quarterly reports of compiled and analyzed air quality monitoring data to U.S. EPA.

§110(a)(2)(C) Enforcement and Stationary Source Permits

States are to implement a program for the enforcement of control measures associated with the "attainment SIP" and a permit program for stationary sources.

ARB's Enforcement Program covers mobile and stationary sources, consumer products, and fuels. Details about the program can be found at <http://www.arb.ca.gov/enf/enf.htm>.

ARB reviews and audits the programs of the local air pollution control and air quality management districts (districts) as a part of its oversight role with respect to districts in California and in accordance with Section 41500 of the Health and Safety Code. In addition, ARB reviews district rules at the draft, proposed, and adopted stages of their development to ensure that the rules meet all applicable state and federal requirements.

ARB maintains a rule review database accessible to the public to make comments and rules easily accessible.

ARB does not have authority to issue permits to stationary sources of air pollution. The responsibility for permitting such sources rests with the local air districts. This includes prevention of significant deterioration (PSD) and new source review (NSR) preconstruction permitting programs for attainment and nonattainment pollutants, respectively. California Health and Safety Code Section 39002 grants to ARB the ability to undertake control activities in any area where it determines that districts have failed to meet the responsibilities given to it for the control of air pollution from stationary sources. District permitting regulations are federally enforceable because all have been approved by U.S. EPA as part of the state SIP. Local air district permit programs are discussed at <http://www.arb.ca.gov/permits/permits.htm>.

ARB commits to the continued enforcement of control measures for which it has jurisdiction and the continued oversight of local district permitting and enforcement programs with respect to measures required by the CAA.

§110(a)(2)(E) Resources, Conflict of Interest, and Emergency Backstop

States are to provide assurances that (i) adequate personnel, funding, and legal authority will be available to carry out the SIP; (ii) a majority of its state board members represent the public interest and do not derive a significant portion of their income from entities that are subject to permits, and that conflicts of interest of members be adequately disclosed; and (iii) the State has responsibility for ensuring adequate implementation of plan provisions to be carried out by local districts.

The California Legislature annually approves ARB's funding and personnel resources for carrying out the programs of the SIP to demonstrate attainment of the PM_{2.5} and 8-hour ozone standards. Districts' budgets are approved annually by each district's governing board. The annual budget process provides a periodic update that enables ARB and districts to adjust funding and personnel needs. While it is not legally possible for ARB and districts to provide specific commitments about future year budgets (funding and staff resources), 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 federal Clean Air Act. Since ARB's Clean Air Act-mandated programs have received State funding for more than 30 years, and since there is consistently strong public support in California for providing clean air, it is reasonable to assume that implementation of the Clean Air Act mandates in California will continue to obtain the necessary funding.

Through fiscal year 2006-2007, about 90 percent of ARB's funding is devoted to meeting the Clean Air Act mandates. The majority of ARB's budget currently consists of dedicated funds that are collected from regulated emission sources and can only be used for air pollution control. These dedicated fees are periodically adjusted in order to provide necessary funding for the ARB's programs. Air districts receive funding from

fees paid by regulated businesses, motor vehicle registration fees, state and federal grants, and other local sources. Collectively, the 2006-2007 ARB and local air districts' budgets total about \$685 million with about 3,100 full-time equivalent staff positions.

California Government Code Sections 87100-87105 specify conflict of interest requirements for members of ARB and local district boards. These requirements specifically prohibit all state and local public officials from participating in governmental decisions for which they have a financial interest and also require ARB and local districts to develop conflict of interest policies to meet these legal requirements.

California Health and Safety Code Section 39002 grants to ARB overall regulatory authority for local districts' programs and power to undertake a district's air pollution control programs if the ARB determines that a district has failed to meet the responsibilities given to it by this section or by any other provision in State law.

ARB commits to actively maintain programs for the enforcement of control measures included in the approved SIP and measures required by the CAA.

§110(a)(2)(F) Stationary Source Emissions Monitoring and Reporting

States are to require the installation, maintenance, and replacement of equipment to monitor stationary sources of emissions by the owners or operators of these sources and the provision of periodic reports on these emissions.

40CFR51.214 requires every SIP to include requirements for the monitoring of emissions from major stationary sources as specified in 40CFR51 Appendix P. Every air district in California has adopted regulations to implement the requirements of 40CFR51.214, and all of these district regulations have been approved by U.S. EPA as part of the state SIP. California Health & Safety Code Section 42700 et seq encourages districts to require emission monitoring devices on major stationary sources, and many districts have adopted stationary source monitoring regulations in response.

ARB maintains a database with emissions data for more than 10,000 stationary source facilities in California at <http://www.arb.ca.gov/ei/disclaim.htm>. In addition, ARB maintains the latest reports of emissions from stationary sources at <http://www.arb.ca.gov/ei/emissiondata.htm> where these emissions can be viewed from a statewide, air basin, or county level, by source category. The local air districts are responsible for providing these data to ARB.

ARB commits to continue its oversight of air district stationary source monitoring requirements and to the reporting of data collected by such monitoring activities.

§110(a)(2)(G) Emergency Powers and Contingency Plans

States are to provide for authority comparable to that in Section 303, which provides legal authority to the U.S. EPA to halt the emission of air pollutants causing or contributing to injury to public or welfare. U.S. EPA is authorized to either bring a lawsuit in federal court or, if such civil 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. In addition, states are to provide for adequate contingency plans to implement such authority.

The authority granted to the U.S. EPA Administrator is vested in ARB and the air pollution control/air quality management districts in California under California Health & 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 in urban areas. Emergency episode plans are required in areas that record pollutant concentrations in excess of threshold levels specified in 40CFR51.150. U.S. EPA is proposing to amend this regulation to address new ozone and PM_{2.5} standards.

ARB commits to submit any necessary revisions to its Air Pollution Emergency Plan upon adoption of amended guidance by U.S. EPA.

§110(a)(2)(H) SIP Revisions For Revised Air Quality Standards Or New Attainment Methods

States are to provide for revision of SIPs from time to time when air quality standards are revised or new attainment methods become available or when U.S. EPA informs states that current SIPs are inadequate to attain standards or to comply with additional requirements under the Clean Air Act.

ARB is submitting a revised SIP that responds to revised and new air quality standards for both 8-hour ozone and PM_{2.5}.

ARB commits to submit SIP revisions whenever revised air quality standards are promulgated by U.S. EPA.

§110(a)(2)(I) SIP Revisions for New Nonattainment Areas

States are to submit SIP revisions for newly designated nonattainment areas to meet the requirements of Part D - Plan Requirements for Nonattainment Areas under Clean Air Act Title I - Air Pollution Prevention and Control. Part D of the Clean Air Act specifies both general requirements for all SIPs and specific requirements for different criteria pollutants. ARB maintains all SIP documents at:

<http://www.arb.ca.gov/planning/sip/sip.htm>.

ARB commits to submit SIP revisions whenever areas of the state are newly designated nonattainment for any federal ambient air quality standard.

§110(a)(2)(J) Consultation and Public Notification

States are to meet the applicable requirements of CAA Section 121 (relating to consultation), Section 127 (relating to public notification), and Part C (relating to prevention of significant deterioration (PSD) of air quality and visibility protection).

Section 121 requires that states provide a satisfactory process of consultation with general purpose local governments, designated organizations of elected officials of local governments, 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 air districts, air quality planning agencies, and the public when adopting local 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.

ARB commits to maintaining a process of consultation with parties designated under Section 121.

Section 127 requires the states to provide measures which will be effective to notify the public on a regular basis of instances or areas in which any air quality standard is exceeded during the preceding calendar year, to advise the public of the health hazards associated with such pollution, and to enhance public awareness of measures that can be taken to prevent such standards from being exceeded.

California Health and Safety Code Section 39607 requires ARB to implement a program for securing air quality data in each air basin and reporting these data to the public. ARB maintains these air quality data and the other information required by Section 127 on its website, which is continuously available to the public.¹

¹<http://www.arb.ca.gov/aqd/aqinfo.htm>, <http://www.arb.ca.gov/research/health/health.htm>, <http://www.arb.ca.gov/html/cando.htm>, viewed on February 1, 2007.

ARB commits to maintaining a public information and education program that satisfies the requirements of Section 127.

Many air districts in California have adopted regulations for the prevention of significant deterioration (PSD) that have been approved by U.S. EPA. In those areas where approvable regulations have not been adopted, U.S. EPA enforces PSD requirements through a federal stationary source permitting program under enabling authority prescribed by 40CFR52.21.

ARB commits to ensuring that PSD regulations are implemented in California.

§110(a)(2)(K) Air Quality Modeling and Reporting

States are to provide for the use of air quality modeling to predict the effect of emissions on ambient air quality and to submit data related to such modeling when requested by U.S. EPA.

ARB's air quality modeling work complies with U.S. EPA's final guidance on the use of models in attainment demonstrations for the 8-hour ozone standard and uses U.S. EPA's latest draft final guidance for modeling PM_{2.5}. This is a rapidly-evolving field in which ARB endeavors to use the latest methodology and techniques, and documents information that its staff uses when conducting modeling or when evaluating the performance of air quality models used for this purpose. ARB consults and works closely with local districts that conduct their own regional 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>.

ARB commits to continue to use air quality models in accordance with both U.S. EPA and ARB's currently approved modeling guidance and protocols and the continued submittal of data and modeling results to U.S. EPA.

§110(a)(2)(L) Major Stationary Source Permitting Fees

States are required to assess the owner or operator of each major stationary source with fees sufficient to cover the reasonable costs of reviewing and acting upon any application for such a permit, and if a permit is granted, the reasonable costs of implementing and enforcing the terms and conditions of the permit. Owners or operators are also required to comply with the fee provisions of Title V Sections 501 – 507 of the Clean Air Act. Such fees are required to be payable to the permitting authority.

As noted above, responsibility to issue permits for stationary sources of air pollution is vested with the local air districts, and each air district in California has adopted regulations that require an additional fee for facilities subject to Title V requirements.

Information concerning these permits issued by local air districts is found at <http://www.arb.ca.gov/permits/airdisop.htm> and <http://www.arb.ca.gov/permits/permits.htm>.

ARB commits to continue to implement district-adopted major stationary source permit fee regulations.

§110(a)(2)(M) Consultation with Local Entities

States are to provide for consultation and participation by local political subdivisions affected by the plan.

California is divided into local air districts, which are county or regional local government authorities that have responsibility for controlling air pollution from stationary sources. A map of the local air districts showing boundaries for each district is found at <http://www.arb.ca.gov/capcoa/dismap.htm>. Links to the local air districts' web sites can be found at <http://www.arb.ca.gov/capcoa/roster.htm>.

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

ARB commits to maintaining a consultation process with local political subdivisions affected by the SIP.