



Carl Selnick - your copy

Air Pollution Control Board

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December 26, 1995

Lynn Terry
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**TRIENNIAL UPDATE OF THE
1991 REGIONAL AIR QUALITY STRATEGY
FOR THE SAN DIEGO AIR BASIN**

Please find enclosed the first Triennial Update of the 1991 Regional Air Quality Strategy for the San Diego Air Basin, submitted pursuant to Sections 40924 and 40925 of the California Health and Safety Code. This Triennial Update was adopted at a duly noticed public hearing of the San Diego County Air Pollution Control Board on December 12, 1995. The Board resolution adopting the Triennial Update is also included.

If you have any questions regarding this Triennial Update, you may call me at (619) 694-3303 or Carl Selnick at (619) 694-3338.

Paul A. Davis

for MORRIS E. DYE
Deputy Director

MED:CS:ndi

Enclosures

TRIENNIAL UPDATE OF THE 1991 REGIONAL AIR QUALITY STRATEGY FOR THE SAN DIEGO AIR BASIN

INTRODUCTION

The California Clean Air Act (state Act) requires local air pollution control agencies to prepare air quality strategies to attain state air quality standards, to annually and triennially report on progress made to implement those strategies, and to triennially revise the strategies as necessary. This first Triennial Update addresses the status of San Diego County Air Pollution Control District (District) efforts through 1994 to implement the 1991 Revised Regional Air Quality Strategy (1991 RAQS), adopted by the Air Pollution Control Board (Board) on June 30, 1992, and revises the RAQS control measure adoption schedule accordingly. The Triennial Update was prepared according to Air Resources Board (ARB) guidance. Because 1994 is included in the triennial reporting period, the Triennial Update also satisfies requirements for the 1994 annual progress report.

The state Act requires the RAQS to provide for a minimum interim progress of five percent annual emission reductions for nonattainment pollutants. If the five percent annual reductions are not achievable, the RAQS must include an expeditious schedule for adopting every feasible control measure. Since five percent annual reductions are not achievable in San Diego, the required measure of progress is the expeditious adoption of every feasible control measure.

While the state Act established requirements for areas not attaining the state ambient air quality standards for ozone, carbon monoxide, nitrogen dioxide and sulfur dioxide, San Diego is designated attainment for state nitrogen dioxide, sulfur dioxide and carbon monoxide standards. Therefore, this Triennial Update to the 1991 RAQS only addresses state ozone nonattainment requirements.

In addition to state Act requirements, nonattainment areas are subject to requirements of the federal Clean Air Act (federal Act). Some of those requirements satisfy state Act requirements. One requirement was to submit a State Implementation Plan (SIP) revision in 1994 demonstrating the federal ozone standard can be attained by 1999. ~~The federal Act also required the 1994 SIP revision to include an updated 1990 emissions inventory, future projected emissions, and control measure emission reductions for 1996 and 1999 to satisfy emission reduction progress requirements. Since the state Act requires such information be in the Triennial Update, the ARB is accepting these applicable portions of the 1994 SIP revision as fulfilling state requirements. This Triennial Update incorporates the 1994 SIP revision by reference rather than including it with the Update.~~

Another requirement of the Triennial Update is to show monitored air quality improvements in peak concentrations and population exposure. The ARB guidance allows the ARB "Air Quality Indicators" report presenting that information to satisfy this requirement. Consequently, this document is also incorporated by reference to prevent duplication. The report indicates air quality in San Diego has improved significantly since 1981. Measured peak daily ozone concentrations at Escondido improved by 22 percent, while Alpine and downtown San Diego both improved by 14 percent. Measured regional population-weighted ozone exposure improved by 69%.

Table 1 lists detailed state Act triennial progress reporting requirements and the corresponding documents satisfying those requirements. Changes in growth projections and emission factors since the 1991 RAQS adoption are addressed next. This is followed by sections addressing

control measure implementation, transportation control measures status, and interim measures of progress.

TABLE 1

Documents In Which Required Triennial Progress Report Information Is Provided

<u>Progress Reporting Requirement</u>	<u>Progress Report Document Reference</u>
Emission reductions and growth projected for the future [Health and Safety Code §40924(b)] and incorporate new data and projections [§40925(a)]	1994 SIP: 1990 Base Year Emissions Inventory (page 9), Attainment Demonstration, Table 4 (page 29), Rate-of-Progress Plan, Tables 1-4 (pp. 33-36)
Modeled air quality improvement [§40924(b)] and progress toward attainment of the state ambient air quality standards [§40924(c)]	1994 SIP: Attainment Demonstration (page 20, last paragraph)
Monitored air quality improvement [§40924(b)] and progress toward attainment of the state ambient air quality standards [§40924(c)]	ARB <u>Air Quality Indicators Report</u>
Contrast updated data to assumptions in 1991 Strategy [§40924(b)]	This <u>1994 Triennial Update</u>
Status of adopting District rules scheduled for adoption in 1994 [§40924(a)]	This <u>1994 Triennial Update</u>
Status of implementing TCMs [§40924(a)]	This <u>1994 Triennial Update</u>
Correct deficiencies in meeting interim measures of progress [§40925(a)]	This <u>1994 Triennial Update</u>

DATA UPDATED SINCE 1991 RAQS

Two key factors affect emissions inventory and future projected emissions: growth factors and emission factors. These data have been revised since the 1991 RAQS was adopted and are incorporated in the 1994 federal SIP revision. ~~With this Triennial Update, the 1999 emission reduction projections in the federal SIP replace the year 2000 projections in the 1991 RAQS.~~

One exception is electric utility boilers. Controlling these boilers was not necessary to meet federal SIP requirements, and consequently was not reflected in the SIP. However, control of the boilers is necessary to meet state mandates. District Rule 69 was adopted implementing the control measure in the 1991 RAQS for these boilers. Consequently, this Update assumes NO_x emissions required in Rule 69 (NO_x emission limits of 2,100 tons per year starting in 1997, reducing to 800 tons per year in 2001, and 650 tons per year beginning in 2005) rather than emissions projected in the federal SIP.

Detailed comparison of the effects on projected emission reductions of changes to both growth and emission factors is not presented because the 1991 RAQS and federal SIP use different planning horizons, intervening statistical years, and growth and emission factors. The state Act requires a comprehensive RAQS update in 1997. A more detailed analysis will be provided considering the combined effects of changes to growth and emission factors at that time.

Growth Factors

The 1991 RAQS emissions projections were based on San Diego Association of Governments (SANDAG) pre-recession Series 7 growth forecasts, with rapid growth predicted in population, employment and vehicle travel through the 1990's, continuing the boom of the 1980's. The recession, however, considerably changed those expectations. Reduced employment opportunities associated with the recession slowed migratory population growth. This caused vehicle travel to level off. As the recession ends, growth, and corresponding vehicle travel, are expected to increase, but at a slower pace than the 1980's.

SANDAG Series 8 forecasts, used for future emissions projections in the 1994 federal SIP revision, account for the recession. While the Series 7 forecast predicted 80 million vehicle miles traveled daily in 2000, Series 8 forecasts 70 million.

Because the 1991 RAQS overestimated growth, emissions reductions relative to the 1987 base year were underestimated. For instance, daily on-road motor vehicle emissions of reactive organic gases (ROG) were projected in the 1991 RAQS to decrease from about 160 tons in 1987 to about 80 tons in 2000 (50% reduction). Had the 1991 RAQS not overestimated growth in vehicle miles traveled, projected daily ROG emissions in 2000 would have been close to 70 tons (56% reduction). Similar results apply to emission reduction projections for power plants and other stationary sources.

Electrical generation growth factors have also been revised, but reflect regulatory reform rather than the recession. The San Diego Gas and Electric Company (SDG&E) revised the 50% increase in locally generated electricity it previously projected by year 2000 for the 1991 RAQS to a no growth assumption. This reflects the uncertainty of deregulation proposed by the California Public Utilities Commission. The 1994 federal SIP reflects the SDG&E no growth assumption.

Emission Factors

The 1991 RAQS relied on an earlier version of the ARB's on-road motor vehicle emissions model (EMFAC 7E). The model has since been updated (EMFAC 7F). The 1994 federal SIP revision reflects the most recent version. For comparison, using the earlier version, 1990 daily on-road vehicle emissions were 111 tons of ROG, 126 tons of oxides of nitrogen (NOx) and 881 tons of carbon monoxide (CO). Using the updated version, 1990 daily on-road vehicle emissions are 197 tons of ROG (77% increase), 173 tons of NOx (37% increase) and 1,409 tons of CO (60% increase).

CONTROL MEASURE IMPLEMENTATION

Control Technology Requirements

Health and Safety Code Section 40914(b)(2) requires the 1991 RAQS include every feasible control measure and an expeditious adoption schedule. The intent is that control measures be adopted on an expeditious schedule for every source category in the District that can be feasibly controlled. Consequently, the measure of progress is whether every feasible control measure is being adopted expeditiously.

In addition, Health and Safety Code Section 40919(c) specifies the level of control for all existing stationary sources as Best Available Retrofit Control Technology (BARCT). Section 40406

defines BARCT as the emission limit based on the maximum degree of reduction achievable, considering environmental, energy, and economic impacts.

The level of control constituting BARCT is determined for each source category when adopting rules. The ARB, in consultation with districts, issues statewide BARCT determinations for certain source categories. BARCT must be at least as stringent as Reasonably Available Control Technology (RACT), as required by the federal Act. The federal Environmental Protection Agency (EPA) defines RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. In some cases, a rule adopted to meet federal RACT requirements may need to be further tightened to meet more stringent BARCT requirements.

Control Measure Adoption Status

The 1991 RAQS, as amended March 2, 1993 to reflect ARB comments, contains an expeditious schedule for adopting every feasible control measure. Adopting a control measure usually involves adopting or amending a District rule. Control measures can propose adopting new rules controlling previously uncontrolled sources, or propose amending rules to increase the control stringency for regulated categories. However, in some cases, a control measure may be implemented without adopting a rule.

Table 2 summarizes the status of District efforts to adopt or amend rules to implement control measures scheduled in the 1991 RAQS. Of the 22 control measures scheduled for adoption by 1994, 9 (41%) were adopted in 1994 and 1 (4.5%) was adopted in 1995. Additionally, one control measure scheduled for 1995 was adopted in 1994. Eight (36%) of the control measures are rescheduled for adoption in 1996 or 1997, 3 (14%) are being deleted from the adoption schedule, and 1 (4.5%) is being moved to unscheduled status.

TABLE 2
Revised RAQS Control Measure Adoption/Amendment Schedule

Rule Number	Control Measure Title	Pollutant	RAQS Scheduled Adoption/Amendment Year	Actual Adoption/Amendment Date	Revised Scheduled Adoption/Amendment Date
20.1-20.4, 60	Revised New Source Review	All	1992	Amended 5/17/94	
67.4	Further Control of <u>Can</u> Coating	ROG	1994	Amended 7/25/95	
67.4	Further Control of <u>Coil</u> Coating	ROG	1994		Deleted
67.6	Further Control of Solvent Cleaning	ROG	1994		Deleted
67.11	Further Control of Wood Products Coating	ROG	1994		Amend 1996-1997
67.12	Epoxy Resin Operations	ROG	1994		Deleted
67.13	Underground Storage Tank Decommissioning and Soil Decontamination	ROG	1993		1996-1997
67.18	Further Control of Marine Coating	ROG	1993	Amended 12/13/94	
67.19	Coatings and Printing Inks Manufacturing	ROG	1992	6/7/94	
67.20	Automotive Refinishing	ROG	1993		1996
67.21	Adhesives Operations	ROG	1993		1996-1997
67.22	Foam Blowing and Plastics Expanding	ROG	1993	6/7/94	
67.23	Plastic, Rubber, Composite, and Glass Coating	ROG	1993		1996-1997
67.24	Bakery Ovens	ROG	1993	6/7/94	
69	Electrical Generating Steam Boilers	NOx	1992	1/18/94	
69.2	Industrial and Commercial Boilers	NOx	1993	9/27/94	

TABLE 2 (continued)
Revised RAQS Control Measure Adoption/Amendment Schedule

Rule Number	Control Measure Title	Pollutant	RAQS Scheduled Adoption/Amendment Year	Actual Adoption/Amendment Date	Revised Scheduled Adoption/Amendment Date
69.3 ¹	Stationary Combustion Turbines	NOx	1994	9/27/94	
69.4 ²	Stationary Internal Combustion Engines	NOx	1995	9/27/94	
	Residential Low-NOx Water Heaters	NOx	1994		1996-1997
	Residential Low-NOx Furnaces	NOx	1994		1996-1997
1301 ³	Trip Reduction Program for Employers with 100 or More Employees	All	1992	1/18/94	Deleted
	Student Trip Reduction Program	All	1993		Unscheduled
	Indirect Source Program	All	1994		1996

¹Rule 69.3 meets federal Reasonably Available Control Technology requirements, and may be tightened in 1996 or 1997 if necessary to meet state Best Available Retrofit Control Technology requirements.

²Rule 69.4 meets federal Reasonably Available Control Technology requirements, and may be tightened in 1996 or 1997 if necessary to meet state Best Available Retrofit Control Technology requirements.

³Rule 1301 became inoperative upon federal ozone reclassification, and the state mandate has been eliminated. Consequently, the control measure is being deleted from the RAQS.

In the 1991 RAQS, emission limits for both can and coil coating operations (Rule 67.4) were proposed to be made more stringent. The subsequent ARB BARCT determination for these operations indicated the existing District rule already satisfied requirements for BARCT and the all feasible measures requirement. However, because the affected industry requested tighter emission limits for can coating operations, reflecting technology already implemented, the can coating emission limits in Rule 67.4 were reduced in 1995. Since no further control is required for coil coating, the proposed additional control for coil coating is being deleted from the RAQS adoption schedule.

Similarly, emission limits for solvent cleaning operations (Rule 67.6), and polyester and epoxy resin operations (Rule 67.12) were proposed to be made more stringent. Subsequent ARB BARCT determinations for these categories also indicated existing District rules already satisfied requirements for BARCT and all feasible measures. Consequently, the additional controls for these categories are being deleted from the RAQS adoption schedule.

The need for and appropriateness of developing a rule controlling underground storage tank decommissioning and soil decontamination (proposed Rule 67.13) will be reevaluated during the 1995-97 planning cycle. These operations are currently controlled by District permit requirements. If a rule is appropriate, adoption will be scheduled for 1996 or 1997.

The control measures for wood products coatings (Rule 67.11) and automotive refinishing (proposed Rule 67.20) are being delayed to 1996 or 1997 because of technological limitations. For wood product coatings, the current rule reflects existing technology. As technology advancements emerge, control levels reflected in the 1991 RAQS will be reevaluated and, if appropriate, rule amendments would be proposed. For automotive refinishing, the rule proposed for adoption in 1996 reflects currently available technology. The ARB BARCT determination is being reconsidered because it includes technology forcing measures that are proving infeasible. As control technology develops and the BARCT determination is reconsidered, emission limits in the proposed rule will be reevaluated and may be amended if necessary.

The BARCT determination for adhesive operations (proposed Rule 67.21) is nearing completion. This control measure is being delayed while awaiting the BARCT determination.

The control measure for plastic, rubber, composite, and glass coating operations (proposed Rule 67.23) is being delayed to 1996 or 1997 to allow focusing rule development efforts on federally mandated rule revisions, control measures with more emission reduction potential, and completion of a Socioeconomic Impact Assessment required by state law.

The rules adopted for stationary combustion turbines (Rule 69.3) and stationary internal combustion engines (Rule 69.4) were designed to meet federal requirements for Reasonably Available Control Technology (RACT) for oxides of nitrogen (NO_x). These rules may be tightened in 1996 or 1997 if necessary to meet BARCT requirements. To avoid federal sanctions, Rule 69.4 was adopted in 1994, despite being scheduled in the 1991 RAQS for adoption in 1995. Federal sanctions would mandate increased requirements on industry and jeopardize federal highway funding.

The control measure for residential low-NO_x water heaters was based on emission limits already achieved by South Coast Air Quality Management District (AQMD) regulations. Because the South Coast AQMD subsequently proposed further emission reductions, adoption of this control measure is being delayed awaiting the outcome of South Coast AQMD efforts.

The need for residential low-NO_x furnaces will be reevaluated during the 1995-97 planning cycle. This control measure was included in the 1991 RAQS because San Diego was nonattainment for

the state nitrogen dioxide standard. This standard is usually violated during winter months, when furnaces are used. San Diego is now designated attainment for nitrogen dioxide. However, some exceedances of the state ozone standard occur during winter months, and NO_x is also an ozone precursor. Therefore, if a rule is appropriate, adoption will be scheduled for 1996 or 1997.

The employer based trip reduction program (Rule 1301) has become inoperative pursuant to a sunset clause included in the rule. The rule focused on federal Clean Air Act requirements for Severe ozone nonattainment areas. The requirements were eliminated when the federal Environmental Protection Agency (EPA) reclassified San Diego from Severe to Serious. In addition, state requirements for employer based trip reduction programs have been eliminated by Senate Bill 437 (Stats. 1995, Ch. 607). Consequently, this control measure is being deleted from the RAQS.

The student trip reduction program is unscheduled because necessary ARB guidance is not available. ARB was required pursuant to Health and Safety Code Section 40919(d) to revise guidance on calculating transportation performance standards. The need for a student trip reduction program depends upon how transportation performance standards are calculated. ARB had also announced it would develop guidance specific to student trip reduction programs.

To implement an indirect source program pursuant to Health and Safety Code Section 40918(d), the District was directed by the Board in June 1994 to develop a strategy for reviewing major public projects and collaborate with the cities and the County to support local indirect source program development. In response, the District is recommending development of indirect source guidelines and the provision of technical assistance to local governments.

Table 3 summarizes rules adopted or amended in 1994 that were not reflected in the 1991 RAQS. Most of the rules in Table 3 were adopted or amended to meet federal requirements. However, Rule 27 - Banking of Mobile Source Emission Reduction Credits, and related amendments to Rule 21 - Permit Conditions, were adopted following an industry request for greater flexibility in meeting New Source Review (NSR) emission offset permitting requirements.

TABLE 3
District Rules Adopted or Amended in 1994
Not Scheduled in the 1991 RAQS

Rule Number	Control Measure Title	Pollutant	Actual Adoption/ Amendment Date
20.9-20.10	Federally Enforceable New Source Review	All	5/17/94
21	Permit Conditions	All	Amended 11/29/94
27	Banking of Mobile Source Emission Reduction Credits	All	11/29/94
67.3	Coating of Metal Parts and Products	ROG	Amended 11/1/94
67.4	Metal Container, Closure and Coil Coating Operations	ROG	Amended 9/27/94
67.10	Kelp Processing and Bio-Polymer Manufacturing Operations	ROG	Amended 6/15/94
67.16	Graphic Arts Operations	ROG	Amended 9/20/94
68	Fuel Burning Equipment	NOx	Amended 9/20/94
1401... 1425 12 rules	Title V Federally Enforceable Operating Permits	All	1/18/94

While most of the rule amendments in Table 3 will have negligible emission reduction effects, Rule 67.10 - Kelp Processing and Bio-Polymer Manufacturing Operations is an exception. The amendment to Rule 67.10, adopted in 1994 to meet federal RACT requirements, provided significant additional emission reductions not reflected in the 1991 RAQS. When the 1991 RAQS was developed, kelp processing emissions were thought to be much lower than now known, and the need for the further controls was not recognized.

It should be noted that the amendment to Rule 67.4 listed in Table 3 differs from the amendment to Rule 67.4 listed in Table 2. The amendment listed in Table 3 was primarily due to federal technical requirements, while the amendment listed in Table 2 was scheduled in the 1991 RAQS and provided further emission reductions.

Health and Safety Code Section 40913(b) requires the Board to make a finding that each update to the RAQS is a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date. The Board made such a finding when adopting the 1991 RAQS, which included an assessment of the cost-effectiveness of proposed control measures and a list ranking the control measures by cost-effectiveness, pursuant to Section 40922(a). The Triennial Update does not propose adding any new control measures to the RAQS. Thus, the cost-effectiveness analysis in

the 1991 RAQS still applies. Since all feasible control measures are still scheduled to be adopted as expeditiously as is now considered practicable, the Board can find that the Triennial Update of the RAQS is still a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date.

NONREGULATORY TRANSPORTATION CONTROL MEASURES STATUS

The 1991 RAQS included six nonregulatory transportation control measures (TCMs): Transit Improvements, Vanpools, High Occupancy Vehicle (HOV) Lanes, Park and Ride Facilities, Bicycle Facilities, and Traffic Signal Improvements. The TCMs reflect commitments to continue existing implementation efforts as specified in the Regional Transportation Plan (RTP).

According to the 1994 RTP and the 1994-2001 Regional Transportation Improvement Program (RTIP), the following improvements are programmed for completion by 2001 with identified funding sources. Consequently, the commitments in the 1991 RAQS to these TCMs are being met.

Transit Improvements: Trolley service to Santee and commuter rail service from Oceanside to downtown San Diego have recently begun. Trolley extensions to Old Town and Mission Valley are under construction. A trolley extension to University City, commuter rail service from Oceanside to Escondido, new express bus services, and several new transit centers are programmed. Additionally, the Board allocated funding in the 1993-94 Vehicle Registration Funding Allocation Plan to provide about 50% of the local match to a federal grant for the Metropolitan Transit Development Board to purchase 83 new low-emission compressed natural gas (CNG) buses to replace higher emitting older diesel buses. The 1994-95 Vehicle Registration Funding Allocation Plan again provided 50% of the local match for the purchase of an additional 30 CNG buses. Over 100 additional low-emission replacement buses are programmed through 2001.

Vanpools: Implementing the vanpool program was contingent upon additional funding. The Board allocated funding in the 1993-94 and 1994-95 Vehicle Registration Funding Allocation Plans to jointly fund an incentive program with the San Diego Association of Governments (SANDAG) to encourage van pooling. Currently, 10 CNG vans and 22 gasoline powered vans are operated in that program. UCSD also operates 25 vans. Due to these efforts, new vanpools continue to be formed.

HOV Lanes: HOV Lanes are programmed for construction along I-5 from I-805 to Manchester Avenue by the end of the decade. The next highest priorities are to continue the I-5 HOV lanes to Oceanside, and to continue the current I-15 HOV lanes to Escondido.

Park and Ride Facilities: The commitment in the 1991 RAQS was to continue to promote existing park and ride facilities to improve use. This is being done through continuing efforts by Caltrans to collocate some services at park and ride facilities, and by the regional ridesharing program, Commuter Computer.

Bicycle Facilities: 402 miles of additional bikeways are programmed, averaging over 50 miles of additional bikeways per year. The commitment in the 1991 RAQS was to add at least 25 miles per year.

Traffic Signal Improvements: 42 signal retiming and interconnection projects are programmed through 1995. The RTP indicates signal interconnection should focus on the regional arterial system.

CORRECTION OF DEFICIENCIES IN MEETING INTERIM MEASURES OF PROGRESS

California Health and Safety Code Section 41503.3 mandates that the ARB require the District adopt contingency measures when the minimum rate of progress has not been achieved, unless the District demonstrates that the discrepancy will be corrected and the deficiency restored during the next reporting period (i.e. 1995-1997). The interim measure of progress for San Diego is expeditious implementation of every feasible control measure.

As indicated previously, the District has determined some control measures in the 1991 RAQS to be unnecessary and has deleted those measures from the rule adoption schedule. Because existing rules implement BARCT for the affected source categories, the measures can be deleted. The removal of unnecessary control measures from the adoption schedule does not constitute a deficiency because the "every feasible measure" requirement remains fulfilled.

As indicated previously in Table 2, control measures not adopted in 1994 and still considered necessary have been rescheduled for adoption in the 1995-97 reporting period. Unless determined not feasible or unnecessary, all unadopted control measures scheduled for adoption by 1997 will be adopted during the 1995-1997 planning cycle. Because no required control measures are being delayed beyond the next planning cycle, contingency measures implementation is not required.

**SAN DIEGO COUNTY AIR POLLUTION CONTROL BOARD
RESOLUTION ADOPTING
TRIENNIAL UPDATE OF REGIONAL AIR QUALITY STRATEGY**

On motion of member Slater, seconded by member Roberts, the following resolution is adopted:

WHEREAS, California Health and Safety Code Sections 40910 through 40922 require local air pollution control agencies in air basins not attaining health based state air quality standards to submit air quality strategies to the California Air Resources Board to provide for attaining and maintaining the state standards by the earliest practicable date;

WHEREAS, the Air Resources Board has designated the San Diego County Air Pollution Control District (the District) as a serious ozone nonattainment area;

WHEREAS, the San Diego County Air Pollution Control Board (the Board) adopted the Revised Regional Air Quality Strategy on June 30, 1992, pursuant to the requirements of California Health and Safety Code Sections 40910 through 40922;

WHEREAS, the Board amended the Regional Air Quality Strategy on March 2, 1993, by adopting a revised rule adoption schedule reflecting Air Resources Board comments;

WHEREAS, California Health and Safety Code Sections 40924 and 40925 require annual and triennial progress reports and triennial strategy revisions be submitted to the Air Resources Board;

WHEREAS, the District has prepared a Triennial Update of the Regional Air Quality Strategy, according to Air Resources Board guidance, addressing the requirements of California Health and Safety Code Sections 40924 and 40925;

WHEREAS, the Triennial Update satisfies the annual progress reporting requirements of California Health and Safety Code Section 40924(a), by addressing District rulemaking in 1994 and progress in implementing nonregulatory transportation control measures;

WHEREAS, the 1994 State Implementation Plan revision, adopted by the Board on November 1, 1994, pursuant to the federal Clean Air Act, also satisfies state triennial update requirements for emissions inventory, future projected emissions, and modeled progress toward attaining air quality standards;

WHEREAS, the Triennial Update incorporates the 1994 State Implementation Plan revision by reference;

WHEREAS, the "Air Quality Indicators" report, prepared by the Air Resources Board in September 1995, fulfills triennial update requirements to report monitored air quality improvements in peak concentrations and population exposure;

WHEREAS, the Triennial Update incorporates the "Air Quality Indicators" report by reference;

WHEREAS, California Health and Safety Code Section 40913(b), requires that air quality strategies be based on findings by district boards that the strategies are cost-effective strategies to achieve attainment of the state standards by the earliest practicable date;

**Triennial Update of the
Regional Air Quality Strategy**

WHEREAS, California Health and Safety Code Section 40924(b), requires the Triennial Update be adopted by the Board at a public hearing; and

WHEREAS, a noticed public hearing has been held on the Triennial Update;

NOW, THEREFORE, BE IT RESOLVED that the Air Pollution Control Board hereby adopts the Triennial Update of the Regional Air Quality Strategy.

BE IT FURTHER RESOLVED that the Air Pollution Control Board directs the Air Pollution Control Officer to submit this resolution and the Triennial Update to the California Air Resources Board for approval.

BE IT FURTHER RESOLVED that the Air Pollution Control Board finds that the Regional Air Quality Strategy, as amended by the Triennial Update, is a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date.

PASSED AND ADOPTED by the Air Pollution Control Board of the San Diego County Air Pollution Control District, State of California, this 12th day of December, 1995, by the following votes:

AYES: Cox, Jacob, Slater, Roberts, Horn
NOES: None
ABSENT: None

STATE OF CALIFORNIA)^{ss}
County of San Diego)

I hereby certify that the foregoing is a full, true, and correct copy of the Original Resolution which is now on file in my office.

THOMAS J. PASTUSZKA
Clerk of the Board of Directors

By A. Gomez
Adair Gomez, Deputy

12/12/95 (APCD-3)

APPROVED AS TO FORM AND LEGALITY
COUNTY COUNSEL

BY G. Dutton
DEPUTY

1995

DATE: December 12, 1995
TO: Air Pollution Control Board
SUBJECT: Triennial Update of the Regional Air Quality Strategy

SUMMARY:

The California Clean Air Act (state Act) requires local air pollution control agencies to prepare air quality strategies to attain state air quality standards, and to annually and triennially report on progress made to implement those strategies. Triennial updates are required to be adopted by the Board after a public hearing. This first Triennial Update addresses the status of implementing the 1991 Revised Regional Air Quality Strategy (1991 RAQS) through 1994, and revises the RAQS control measure adoption schedule. The RAQS was adopted by the Air Pollution Control Board (Board) on June 30, 1992, and amended March 2, 1993, in response to Air Resources Board (ARB) comments. Because 1994 is included in the triennial reporting period, the Triennial Update also satisfies requirements for the 1994 annual progress report.

The state Act requires the RAQS to provide for a minimum interim progress of five percent annual emission reductions for nonattainment pollutants. If that is not achievable, the RAQS must include an expeditious schedule for adopting every feasible control measure. Since five percent annual reductions are not achievable in San Diego, the required measure of progress is the expeditious adoption of every feasible control measure.

Although adopting individual control measures has fallen behind the ambitious 1991 RAQS schedule, the conclusion in the Triennial Update is that the District is making satisfactory progress because all measures determined feasible and necessary are scheduled to be adopted by 1997. If adequate progress were not made, the District would have to implement contingency measures.

Of the 22 control measures scheduled for adoption from 1992 through 1994, 9 (41%) were adopted in 1994, 1 (4.5%) was adopted in 1995, 8 (36%) are rescheduled for adoption in either 1996 or 1997, 3 (14%) are being deleted from the adoption schedule, and 1 (4.5%) is being identified as unscheduled. Delays in adopting control measures are attributable to: 1) control technology not developing as anticipated; 2) the state not completing guidance documents; and 3) the District reevaluating the need for certain control measures. However, 15 new rules and 6 rule amendments not reflected in the 1991 RAQS were adopted in 1994 in response to federal requirements or industry requests.

SUBJECT: Triennial Update of the Regional Air Quality Strategy

The employer based trip reduction program (Rule 1301) has become inoperative pursuant to a sunset clause included in the rule, because federal requirements were eliminated when San Diego was reclassified from Severe to Serious. In addition, state requirements for employer based trip reduction programs have been eliminated by Senate Bill 437 (Stats. 1995, Ch. 607). Consequently, this control measure is being deleted from the 1991 RAQS. The student trip reduction program is proposed to be unscheduled because necessary ARB guidance is not available.

To implement an indirect source program pursuant to Health and Safety Code Section 40918(d), the District was directed by the Board in June 1994 to develop a strategy for reviewing major public projects and collaborate with the cities and the County to support local indirect source program development. In response, the District is recommending development of indirect source guidelines and the provision of technical assistance to local governments.

Health and Safety Code Section 40913(b) requires the Board to make a finding that each update to the RAQS is a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date. The Board made such a finding when adopting the 1991 RAQS, which included an assessment of the cost-effectiveness of proposed control measures and a list ranking the control measures by cost-effectiveness. The Triennial Update does not propose adding any new control measures. Thus, the cost-effectiveness analysis in the 1991 RAQS still applies. Since all feasible control measures are still scheduled to be adopted as expeditiously as is now considered practicable, the Board can find that the Triennial Update of the RAQS is still a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date.

The 1991 RAQS included six nonregulatory transportation control measures (TCMs): Transit Improvements, Vanpools, High Occupancy Vehicle (HOV) Lanes, Park and Ride Facilities, Bicycle Facilities, and Traffic Signal Improvements. The TCMs reflect commitments to continue existing implementation efforts as specified in the Regional Transportation Plan (RTP). According to the 1994 RTP and the 1994-2001 Regional Transportation Improvement Program (RTIP), the commitments are being met.

The state Act also requires the Triennial Update to address updates to emissions inventory, future projected emissions, modeled progress toward attaining air quality standards, and monitored air quality improvements, as well as comparing the emission rates and growth assumptions in the 1991 RAQS to updated information. Because the 1994 State Implementation Plan (SIP) revision, adopted by the Board on November 1, 1994, pursuant to the federal Clean Air Act, contains these required updates, the ARB is accepting the 1994 SIP revision as fulfilling state Triennial Update requirements.

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SUBJECT: Triennial Update of the Regional Air Quality Strategy

Issue

Should the Board adopt the Triennial Update of the Regional Air Quality Strategy?

References

- | | |
|------------------|--|
| November 1, 1994 | Adoption of 1994 State Implementation Plan Revision |
| March 2, 1993 | Adoption of revised rule adoption schedule for the Revised Regional Air Quality Strategy |
| June 30, 1992 | Adoption of Revised Regional Air Quality Strategy |

Recommendation

AIR POLLUTION CONTROL OFFICER

1. Adopt the resolution adopting the Triennial Update and finding that the Regional Air Quality Strategy, as amended by the Triennial Update, is a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date.
2. Direct the Air Pollution Control Officer to submit the resolution and the Triennial Update to the California Air Resources Board for approval.

Advisory Statement

On November 1, 1995, the Air Quality Strategy Development Committee recommended adoption of the Triennial Update.

Fiscal Impact

There is no fiscal impact associated with the recommendation.

Alternatives

Do not adopt the Triennial Update. This alternative is not recommended, because the Triennial Update is mandated by the California Clean Air Act.

BACKGROUND:

On June 30, 1992, the Board adopted the 1991 Revised Regional Air Quality Strategy (RAQS) pursuant to the California Clean Air Act (state Act) as specified in Health and Safety Code Sections 40910 through 40922. On March 2, 1993, the Board amended the control measure adoption schedule, in response to Air Resources Board (ARB) comments.

The state Act requires annual and triennial progress reports and updates to the air quality strategy. Triennial updates are required to be adopted by the Board after a public hearing.

SUBJECT: Triennial Update of the Regional Air Quality Strategy

This first Triennial Update addresses the status of implementing the RAQS through 1994, and revises the control measure adoption schedule. The Update is consistent with ARB guidance. Because 1994 is included in the triennial reporting period, the Triennial Update also satisfies requirements for the 1994 annual progress report.

The state Act requires the RAQS to provide for a minimum interim progress of five percent annual emission reductions for nonattainment pollutants. If that is not achievable, the RAQS must include an expeditious schedule for adopting every feasible control measure. Since five percent annual reductions are not achievable in San Diego, the required measure of progress is the expeditious adoption of every feasible control measure.

Although adopting individual control measures has fallen behind the ambitious RAQS schedule, the conclusion in the Triennial Update is that the District is making satisfactory progress because all measures determined feasible and necessary are scheduled to be adopted by 1997. If adequate progress were not made, the District would have to implement contingency measures.

Of the 22 control measures scheduled for adoption from 1992 through 1994, 9 (41%) were adopted in 1994, 1 (4.5%) was adopted in 1995, 8 (36%) are rescheduled for adoption in either 1996 or 1997, 3 (14%) are being deleted from the adoption schedule, and 1 (4.5%) is being identified as unscheduled. One measure scheduled for 1995 was adopted ahead of schedule in 1994. Additionally, 15 new rules and 6 rule amendments not reflected in the 1991 RAQS were adopted in 1994. The following table summarizes the status of District efforts to adopt or amend rules to implement scheduled control measures.

SUBJECT: Triennial Update of the Regional Air Quality Strategy

Revised RAQS Control Measure Adoption/Amendment Schedule

Rule Number	Control Measure	Pollutant	1991 RAQS Scheduled Adoption/Amendment Year	Actual Adoption/Amendment Date	Revised Scheduled Adoption/Amendment Year
20.1-20.4, 60	Revised New Source Review	All	1992	Amended 5/17/94	
67.4	Further Control of <u>Can</u> Coating	ROG	1994	Amended 7/25/95	
67.4	Further Control of <u>Coil</u> Coating	ROG	1994		Deleted
67.6	Further Control of Solvent Cleaning	ROG	1994		Deleted
67.11	Further Control of Wood Products Coating	ROG	1994		Amend 1996-1997
67.12	Epoxy Resin Operations	ROG	1994		Deleted
67.13	Underground Storage Tank Decommissioning and Soil Decontamination	ROG	1993		1996-1997
67.18	Further Control of Marine Coating	ROG	1993	Amended 12/13/94	
67.19	Coatings and Printing Inks Manufacturing	ROG	1992	6/7/94	
67.20	Automotive Refinishing	ROG	1993		1996
67.21	Adhesives Operations	ROG	1993		1996-1997
67.22	Foam Blowing and Plastics Expanding	ROG	1993	6/7/94	
67.23	Plastic, Rubber, Composite, and Glass Coating	ROG	1993		1996-1997
67.24	Bakery Ovens	ROG	1993	6/7/94	
69	Electrical Generating Steam Boilers	NOx	1992	1/18/94	
69.2	Industrial and Commercial Boilers	NOx	1993	9/27/94	

SUBJECT: Triennial Update of the Regional Air Quality Strategy

Revised RAQS Control Measure Adoption/Amendment Schedule (continued)

Rule Number	Control Measure	Pollutant	1991 RAQS Scheduled Adoption/Amendment Year	Actual Adoption/Amendment Date	Revised Scheduled Adoption/Amendment Year
69.3 ¹	Stationary Combustion Turbines	NOx	1994	9/27/94	
69.4 ²	Stationary Internal Combustion Engines	NOx	1995	9/27/94	
	Residential Low-NOx Water Heaters	NOx	1994		1996-1997
	Residential Low-NOx Furnaces	NOx	1994		1996-1997
1301 ³	Trip Reduction Program for Employers with 100 or More Employees	All	1992	1/18/94	Deleted
	Student Trip Reduction Program	All	1993		Unscheduled
	Indirect Source Program	All	1994		1996

The District proposes to delete the control measures for further control of coil coating, solvent cleaning and epoxy resin operations from the adoption schedule because existing Rules 67.4, 67.6 and 67.12 already meet the Best Available Retrofit Control Technology (BARCT) requirement of the state Act.

The District is also deleting the employer based trip reduction program because the federal and state mandates for the program have been removed. Rule 1301 has become inoperative pursuant to a sunset clause included in the rule. The rule focused on federal Clean Air Act requirements for Severe ozone nonattainment areas. The federal requirements were removed when the federal Environmental Protection Agency (EPA) reclassified San Diego from Severe to Serious. In addition, state requirements for

¹Rule 69.3 meets federal Reasonably Available Control Technology requirements, and may be tightened in 1996 or 1997 if necessary to meet state Best Available Retrofit Control Technology requirements.

²Rule 69.4 meets federal Reasonably Available Control Technology requirements, and may be tightened in 1996 or 1997 if necessary to meet state Best Available Retrofit Control Technology requirements.

³Rule 1301 became inoperative upon federal ozone reclassification, and the state mandate has been eliminated. Consequently, the control measure is being deleted from the RAQS.

SUBJECT: Triennial Update of the Regional Air Quality Strategy

employer based trip reduction programs were removed by Senate Bill 437 (Stats. 1995, Ch. 607).

Delays in adopting control measures to either 1996 or 1997 are attributable to: 1) control technology not developing as anticipated; 2) the state not completing guidance documents; and 3) the District reevaluating the need for certain control measures. The control measures for further control of wood products coatings (Rule 67.11) and automotive refinishing (Rule 67.20) are delayed because of technological limitations. The control measure for adhesive operations awaits a statewide BARCT determination, while the control measure for residential low-NOx water heaters awaits the outcome of South Coast Air Quality Management District efforts to revise its rule, upon which the District's rule will be based. The student trip reduction program is proposed to be unscheduled because necessary ARB guidance is not available. The need for rules controlling underground storage tank decommissioning and soil decontamination, and residential low-NOx furnaces will be reevaluated.

The control measure for plastic, rubber, composite, and glass coating operations (Rule 67.23) is delayed to allow focusing rule development efforts on federally mandated rule revisions, control measures with more emission reduction potential, and completing a Socioeconomic Impact Assessment required by state law.

To avoid federal sanctions, Rule 69.4 - Stationary Internal Combustion Engines, was adopted in 1994, despite being scheduled in the 1991 RAQS for adoption in 1995. Federal sanctions would mandate increased requirements on industry and jeopardize federal highway funding. However, because Rule 69.3 - Stationary Gas Turbines and Rule 69.4 were adopted to meet the federal Reasonably Available Control Technology (RACT) requirement, they may need to be further tightened to meet more stringent state BARCT requirements.

The rule adoptions and amendments in 1994 not reflected in the 1991 RAQS were in response to federal requirements or local industry requests. Rule 67.3 - Coating of Metal Parts and Products; Rule 67.4 - Metal Container, Closure and Coil Coating Operations; Rule 67.10 - Kelp Processing and Bio-Polymer Manufacturing Operations; Rule 67.16 - Graphic Arts Operations; and Rule 68 - Fuel Burning Equipment were amended in 1994 to meet federal RACT requirements. Rules 20.9 and 20.10 implement federal New Source Review requirements. Regulation 14 implements Title V federal operating permit requirements. Rule 27 - Banking of Mobile Source Emission Reduction Credits was adopted following an industry request for greater flexibility in meeting New Source Review emission offset permitting requirements.

The 1994 amendment to Rule 67.10 provided significant additional emission reductions not reflected in the 1991 RAQS. When the 1991 RAQS was developed, kelp processing emissions were thought to be much lower than now known, and the need for the further controls was not recognized.

To implement an indirect source program pursuant to Health and Safety Code Section 40918(d), the District was directed by the Board in June 1994 to develop a strategy for reviewing major public projects and collaborate with the cities and the County to support local indirect source program development. In response, the District is recommending

SUBJECT: Triennial Update of the Regional Air Quality Strategy

indirect source guidelines be developed and technical assistance be provided to local governments.

Health and Safety Code Section 40913(b) requires the Board to make a finding that each update to the RAQS is a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date. The Board made such a finding when adopting the 1991 RAQS, which included an assessment of the cost-effectiveness of proposed control measures and a list ranking the control measures by cost-effectiveness. The Triennial Update does not propose adding any new control measures. Thus, the cost-effectiveness analysis in the 1991 RAQS still applies. Since all feasible control measures are still scheduled to be adopted as expeditiously as is now considered practicable, the Board can find that the Triennial Update of the RAQS is still a cost-effective strategy to achieve attainment of the state standards by the earliest practicable date.

The 1991 RAQS included six nonregulatory transportation control measures (TCMs): Transit Improvements, Vanpools, High Occupancy Vehicle (HOV) Lanes, Park and Ride Facilities, Bicycle Facilities, and Traffic Signal Improvements. The TCMs reflect commitments to continue existing implementation efforts as specified in the Regional Transportation Plan (RTP). According to the 1994 RTP and the 1994-2001 Regional Transportation Improvement Program (RTIP), the commitments are being met.

In addition to control measure implementation status, the state Act requires the Triennial Update to address updates to emissions inventory, future projected emissions, modeled progress toward attaining air quality standards, and monitored air quality improvements, as well as comparing the emission rates and growth assumptions in the 1991 RAQS to updated information. Because the 1994 State Implementation Plan (SIP) revision, adopted by the Board on November 1, 1994, pursuant to the federal Clean Air Act, contains the required updates to emissions inventory, future emission projections, and air quality modeling, the ARB is accepting the 1994 SIP revision as fulfilling those state Triennial Update requirements.

Monitored air quality improvements are addressed in the "Air Quality Indicators" report prepared by the ARB. The report indicates air quality in San Diego has improved significantly since 1981. Measured peak daily ozone concentrations at Escondido improved by 22 percent, while Alpine and downtown San Diego both improved by 14 percent. Measured regional population-weighted ozone exposure improved by 69%. For efficiency, the Triennial Update incorporates the 1994 SIP revision and ARB's "Air Quality Indicators" report by reference, rather than including the information.

The Triennial Update compares the emission rates and growth assumptions in the 1991 RAQS to updated information reflected in the 1994 SIP revision. The 1991 RAQS reflected an earlier version of the ARB's on-road motor vehicle emissions model (EMFAC 7E). ARB's updated vehicle emission factors (EMFAC 7F) indicate

The Board of Directors of the University of California has the honor to acknowledge the cooperation and assistance of the various departments and offices of the University in the preparation of this report.

CONTENTS

Statement of the Board of Directors regarding the University's financial position and the Board's policy regarding the University's financial affairs.



SUBJECT: Triennial Update of the Regional Air Quality Strategy

considerably higher emission rates than the previous version. The 1991 RAQS was also based on pre-recession growth forecasts. Those population, employment and vehicle travel forecasts predicted more rapid growth than is expected since the recession. Electrical generation growth factors have also been revised.

Concurrence:

Respectfully submitted,

DAVID E. JANSSEN
Chief Administrative Officer

R. J. SOMMERVILLE
Air Pollution Control Officer