

III. ENVIRONMENTAL IMPACTS

The California Environmental Quality Act (CEQA) requires that state and local agency projects be assessed for potential significant environmental impacts. Air quality plans are “projects” that are subject to CEQA requirements. For the Bay Area Plan, the District prepared a Negative Declaration (ND) that includes a CEQA Initial Study. The ND references the environmental impact report (EIR) for the Bay Area 1991 Clean Air Plan and the subsequent EIR Addenda for the 1994 and 1997 Clean Air Plans. The ND determined that the Bay Area Plan will not have a significant impact on the environment.

The ND discusses the adopted measures, the proposed measures, and the contingency measures. The potential environmental impacts of the adopted measures were analyzed adequately in the 1991 EIR, the 1994 and 1997 EIR Addenda, and within the rule development staff reports for the measures. Similarly, the potential impacts of measures such as the Spare the Air Program that were implemented without a rulemaking were analyzed adequately in the 1991 EIR and 1994 and 1997 EIR Addenda. The contingency measures in the Bay Area Plan are all ARB measures that were analyzed adequately for environmental impacts in the respective ARB staff reports. Therefore, the adopted and already implemented measures and contingency measures are considered as part of the existing setting, and their impact is not further analyzed. The project analyzed in the ND thus is limited to the implementation of the proposed measures.

Five control measures are analyzed for environmental impacts in the ND: SS-06, Polystyrene, Polypropylene, and Polyethylene Foam Product Manufacturing; SS-07, Low Emitting Retrofits for Slotted Guide Poles, Organic Liquid Storage; SS-08, Emission Reductions from Gasoline Dispensing Facilities; SS-09, Prohibition of Contaminated Soil as Alternate Daily Cover at Landfills; and SS-10, Prohibition of Contaminated Soil Aeration. SS-06 was evaluated for potential environmental impacts in the 1994 EIR Addendum and a proposed Negative Declaration prepared during the rule development process. The potential environmental impacts for SS-07 and SS-08 were evaluated in the 1997 EIR.

The CEQA Initial Study evaluates the potential impacts of SS-06, SS-07, SS-08, SS-09, and SS-10 on air quality, water quality, biological resources, and other measures of environmental quality. Because SS-06, SS-07, SS-09, and SS-10 will require the use of abatement equipment to control VOC emissions at affected facilities, they are expected to have minor negative impacts on the environment. For example, the measures could require use of carbon adsorption, which could result in small amounts of wastewater requiring treatment. The measures could also require the use of afterburners to incinerate VOC. Afterburners emit NOx, carbon monoxide, and other combustion products. In the ND, Bay Area District staff state that these increased emissions of other pollutants are expected to be insignificant because afterburners require permits from the Bay Area District, which require any afterburner to include Best Available Control Technology to minimize combustion emissions. In general, the negative impacts are expected to be negligible and outweighed by the benefits of the measures. These control measures will reduce VOC emissions, thereby contributing to reduction of ozone levels in the Bay Area. Toxic air contaminants are also expected to be reduced as a side benefit.

In the ND, Bay Area District staff states that the Bay Area Plan will improve the quality of the environment in the Bay Area by reducing air pollutant emissions. Modifications at the facilities resulting from implementations of the control measures will not have a significant impact to the environment.

We reviewed the ND prepared by the District for the Bay Area Plan, and find that it accurately describes the potential environmental impacts of the plan. Staff concurs with the Bay Area District's conclusions, and finds that the Bay Area District has met its obligations under CEQA.

IV. LEGAL AUTHORITY

The Federal Clean Air Act Amendments of 1990 (the Act or CAAA; 42 U.S.C. section 7401 et seq.) require California to submit to the U. S. EPA revisions to the SIP for ozone and PM10 for certain areas. The primary tool to be used in the effort to attain national ambient air quality standards is a plan to be developed by any state with one or more nonattainment areas which provides for implementation, maintenance and enforcement of the standards --- the SIP (110(a)(1)). Section 110(a)(2)(A) broadly authorizes and directs states to include in their SIPs:

"...enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the Act."

Pursuant to these codes, ARB is charged with coordinating state, regional and local efforts to attain and maintain both state and national ambient air quality standards. The direct statutory link between ARB and the mandates of the CAA is found in 39602 of the Health and Safety Code. Pursuant to this section--

"The state board is designated the air pollution control agency for all purposes set forth in federal law.

The state board is designated as the state agency responsible for the preparation of the state implementation plan required by the Clean Air Act (42 U.S.C., Sec. 7401, et seq.) and, to this end, shall coordinate the activities of all districts necessary to comply with that act.

Notwithstanding any other provision of this division, the state implementation plan shall only include those provisions necessary to meet the requirements of the Clean Air Act."

V. STAFF RECOMMENDATIONS

The ARB staff have reviewed and commented on the 1999 San Francisco Bay Area Ozone Attainment Plan. We are satisfied Bay Area Plan meets the minimum Clean Air Act requirements as outlined in the July 10, 1998 *Federal Register* notice and as interpreted by U.S. EPA in subsequent correspondence.

Staff recommends that the Board approve the Bay Area Plan as a SIP revision, specifically the 1995 emission inventory for VOC and NO_x, the attainment assessment, the control strategy, the new transportation conformity budget, and the contingency measures. Staff is recommending further that the Board direct the Executive Officer to submit this SIP revision to U.S. EPA as soon as possible.

REFERENCES

- Bay Area Air Quality Management District. 1994. Bay Area '94 Clean Air Plan (and Triennial Progress Report). Volume I. December 21, 1994. San Francisco, CA.
- Bay Area Air Quality Management District. 1999. CEQA Initial Study/Negative Declaration for San Francisco Bay Area Ozone Attainment Plan. May 11, 1999. San Francisco, CA.
- Bay Area Air Quality Management District. 1999. San Francisco Bay Area Ozone Attainment Plan for the One-Hour National Ozone Standard. Adopted June 1999. San Francisco, CA. Available at <http://www.baaqmd.gov/pln/plans/ozone/1999/index.asp>.
- Federal Register. July 10, 1998. Volume 63, Number 132. 40 CFR Part 81: Designation of Area for Air Quality Planning Purposes; State of California; Redesignation of the San Francisco Bay Area to Nonattainment for Ozone.
- U.S. Environmental Protection Agency. 1997. "Guidance on Incorporating Voluntary Mobile Source Emission Reduction Programs in State Implementation Plans (SIPs)". Memorandum from Richard D. Wilson, Acting Assistant Administrator for Air And Radiation to EPA Regional Administrators, 1-10. Office of Air and Radiation. Washington, D.C.

APPENDIX A

1995 Annual Emissions Inventory Stationary and Area Source		
	<u>VOC (tpd)</u>	<u>NOx (tpd)</u>
INDUSTRIAL COMMERCIAL PROCESSES		
Petroleum Refining Facilities:		
Basic Refining Processes	0.10	6.42
Wastewater (Oil-Water) Separators	3.32	--
Wastewater Treatment Facilities	0.13	--
Cooling Towers	2.27	--
Flares and Blowdown Systems	0.11	1.73
Other Refining Processes	0.51	--
Fugitives	9.90	--
<i>Subtotal</i>	16.3	8.2
Chemical Manufacturing Facilities:		
Sulfur Manufacturing	0.03	0.06
Coatings and Inks Manufacturing	0.68	--
Resins Manufacturing	0.02	--
Other Chemical Manufacturing	0.73	2.18
Fugitives (all manufacturing) – Valves and Flanges		
<i>Subtotal</i>	3.1	2.2
Other Industrial Commercial Processes:		
Bakeries	1.33	--
Cooking	0.97	--
Wineries	0.64	--
Other Food and Agricultural Processes	0.54	--
Metallurgical	0.04	--
Asphalt Concrete Plants	0.05	0.04
Glass and Related Products Manufacturing	0.02	0.82
Stone, Sand, and Gravel	0.06	--
Oil Production Fields	0.06	--
Gas Production Fields	0.15	--
Waste Management	4.47	0.24
Semiconductor Manufacturing	0.86	--
Flexible and Rigid Discs Manufacturing	0.02	--
Fiberglass Products Manufacturing	0.49	--
Rubber Products Manufacturing	0.20	--
Plastic Products Manufacturing	0.68	0.03
Contaminated Soil Aeration	4.07	--
Soil Vapor Extraction and Air Stripping	0.29	--
Other Industrial Commercial	0.90	0.23
<i>Subtotal</i>	15.8	1.4
PETROLEUM PRODUCTS/SOLVENT EVAPORATION		
Petroleum Refinery:		
Storage Tanks	6.71	--
Loading Operations	2.94	--
<i>Subtotal</i>	9.7	--

**1995 Annual Emissions Inventory
Stationary and Area Source (cont.)**

	<u>VOC (tpd)</u>	<u>NOx (tpd)</u>
Fuels Distribution:		
Natural Gas Distribution	0.45	--
Bulk Plants (Gasoline Only)	0.82	--
Bulk Plants and Terminals (Non-Gasoline)	0.06	--
Loading Trucks	0.41	--
Trucking	0.17	--
Gasoline Filling Stations	23.40	--
Aircraft Fueling	2.71	--
Recreational Boat Fueling	0.87	--
Ferry and Fishing Boats Fueling	0.19	--
Other Fueling	0.19	--
<i>Subtotal</i>	29.3	--
Other Organic Compounds Evaporation:		
Industrial Degreasing	3.27	--
Commercial Degreasing	2.22	--
Dry Cleaners	0.14	--
Printing	8.25	--
Adhesives and Sealants	11.10	--
Structures Coating	25.40	--
Industrial/Commercial Coating	31.30	--
Storage Tanks	1.39	--
Lightering	0.08	--
Ballasting	1.67	--
Marine Vessel Cleaning and Gas Freeing	0.68	--
Sterilizers	--	--
Marine Loading (Non-Refinery)	0.19	--
Asphalt Paving	0.25	--
Other Organics Evaporation	0.90	--
<i>Subtotal</i>	86.8	--
COMBUSTION-STATIONARY SOURCES		
Fuels Combustion:		
Domestic	2.03	11.80
Cogeneration	0.78	11.50
Power Plants	0.06	12.90
Oil Refineries External Combustion	0.37	31.20
Glass Melting Furnaces – Natural Gas	--	4.61
Reciprocating Engines	0.30	8.78
Turbines	0.13	2.16
Other External Combustion	0.91	41.20
<i>Subtotal</i>	4.6	124.2

**1995 Annual Emissions Inventory
Stationary and Area Source (cont.)**

	<u>VOC (tpd)</u>	<u>NOx (tpd)</u>
Burning of Waste Material:		
Incineration	0.70	1.22
Planned Fires	0.09	0.01
<i>Subtotal</i>	0.8	1.2
MISCELLANEOUS OTHER SOURCES		
Construction Operations	--	--
Farming Operations	--	--
Entrained Road Dust	--	--
Accidental Fires	0.42	0.14
Animal Waste	3.75	--
Wind Blown Dust	--	--
Agricultural Pesticides	2.86	--
Non-Agricultural Pesticides	1.51	--
Consumer Products (no pesticides)	42.20	--
Other Miscellaneous Sources	0.18	0.07
<i>Subtotal</i>	50.9	0.2
<i>Bay Area Stationary and Area Source Emissions Total</i>	217.3	137.4

APPENDIX B

1995 Annual Emissions Inventory – Mobile Sources		
	<u>VOC (tpd)</u>	<u>NOx (tpd)</u>
COMBUSTION-MOBILE SOURCES		
Off-Highway Mobile Sources:		
Lawn, Garden, and Other Utility Equipment	13.30	0.61
Transportation Refrigeration Units	0.22	1.79
Farm Equipment	1.26	7.14
Heavy Duty Industrial/Construction Equipment	2.27	26.20
Light Duty Industrial/Construction Equipment	22.10	77.70
Locomotive Operations	0.50	11.00
Off-Road Motorcycles	2.16	0.16
All Terrain Vehicles	0.74	0.02
Four-wheel Drive Vehicles	0.11	0.08
Ships Maneuvering	0.11	3.12
Ships Berthing	0.28	1.65
Ships In-Transit	0.15	5.42
Commercial Boats	0.65	4.02
Recreational Boats	16.90	1.41
<i>Subtotal</i>	<i>60.7</i>	<i>140.3</i>
Aircraft:		
Commercial Aircraft	3.58	17.00
General Aviation	0.88	0.20
Military Aircraft	5.91	4.35
Agricultural Aircraft	--	--
Airport Ground Support Equipment	0.16	0.47
<i>Subtotal</i>	<i>10.5</i>	<i>22.0</i>
On-Road Motor Vehicles:		
Light Duty Passenger	176.30	149.00
Light Duty Trucks	74.40	86.60
Medium Duty Trucks	9.70	12.80
Light Heavy Duty Trucks	3.48	17.70
Medium Heavy Duty Trucks	2.92	15.20
Heavy Heavy Duty Trucks	4.35	38.80
Heavy Duty Buses	0.53	5.28
Motorcycles	2.01	0.93
<i>Subtotal</i>	<i>273.7</i>	<i>326.3</i>
<i>Mobile Source Emissions Inventory Total</i>	<i>344.9</i>	<i>488.6</i>

APPENDIX C

DRAFT

2000 Planning Inventory for the Bay Area

Source Category	VOC (tpd)	NOx (tpd)
INDUSTRIAL COMMERCIAL PROCESSES		
Petroleum Refining Facilities:		
Basic Refining Processes	0.10	6.49
Wastewater (Oil-Water) Separators	3.53	--
Wastewater Treatment Facilities	0.09	--
Cooling Towers	2.35	--
Flares and Blowdown Systems	0.08	1.36
Other Refining Processes	0.54	--
Fugitives	8.93	--
Subtotal	15.6	7.9
Chemical Manufacturing Facilities:		
Sulfur Manufacturing	0.03	0.07
Coatings and Inks Manufacturing	0.70	--
Resins Manufacturing	0.02	--
Other Chemicals Manufacturing	0.74	2.20
Fugitives (all manufacturing) – Valves and Flanges	1.70	--
Subtotal	3.2	2.3
Other Industrial Commercial Processes:		
Bakeries	1.30	--
Cooking	1.07	--
Wineries	0.88	--
Other Food and Agricultural Processes	0.26	--
Metallurgical	0.04	0.01
Asphalt Concrete Plants	0.03	0.03
Glass and Related Products Manufacturing	0.02	0.87
Stone, Sand and Gravel	0.04	--
Oil Production Fields	0.05	--
Gas Production Fields	0.19	--
Waste Management	4.22	0.25
Semiconductor Manufacturing	0.78	--
Flexible and Rigid Discs Manufacturing	0.02	--
Fiberglass Products Manufacturing	0.52	--
Rubber Products Manufacturing	0.22	--
Plastic Products Manufacturing	0.72	0.03
Contaminated Soil Aeration	3.06	--
Soil Vapor Extraction and Air Stripping	0.30	--
Other Industrial Commercial	0.90	0.23
Subtotal	14.6	1.4
PETROLEUM PRODUCTS/SOLVENT EVAPORATION		
Petroleum Refinery:		
Storage Tanks	7.48	--
Loading Operations	2.74	--
Subtotal	10.2	--

2000 Planning Inventory for the Bay Area (cont.)

Source Category	VOC (tpd)	NOx (tpd)
Fuels Distribution:		
Natural Gas Distribution	0.45	--
Bulk Plants (Gasoline Only)	0.70	--
Bulk Plants and Terminals (Non-gasoline)	0.06	--
Loading Trucks	0.41	--
Trucking	0.15	--
Gasoline Filling Stations	9.80	--
Aircraft Fueling	2.82	--
Recreational Boat Fueling	0.93	--
Ferry and Fishing Boats Fueling	0.20	--
Other Fueling	0.20	--
Subtotal	15.7	--
Other Organic Compound Evaporation:		
Industrial Degreasing	3.33	--
Commercial Degreasing	2.26	--
Dry cleaners	0.15	--
Printing	6.75	--
Adhesives and Sealants	8.98	--
Structures Coating	26.00	--
Industrial/Commercial Coating	30.70	--
Storage Tanks	1.51	--
Lightering	0.09	--
Ballasting	1.85	--
Marine Vessel Cleaning and Gas Freeing	0.72	--
Sterilizers	--	--
Marine Loading (Non-refinery)	0.22	--
Asphalt Paving	0.33	--
Other Organics Evaporation	0.67	--
Subtotal	83.6	--
COMBUSTION-STATIONARY SOURCES		
Fuels Combustion:		
Domestic	2.10	12.00
Cogeneration	0.76	6.16
Power Plants	0.17	30.20
Oil Refineries External Combustion	0.40	32.90
Glass Melting Furnaces – Natural Gas	--	4.21
Reciprocating Engines	0.34	4.83
Turbines	0.14	2.37
Other External Combustion	1.18	21.80
Subtotal	5.1	114.5
Burning of Waste Material:		
Incineration	0.75	1.30
Planned Fires	0.10	0.01
Subtotal	0.9	1.3

2000 Planning Inventory for the Bay Area (cont.)

Source Category	VOC (tpd)	NOx (tpd)
COMBUSTION – MOBILE SOURCES		
Off-Highway Mobile Sources:		
Lawn, Garden, and Other Utility Equipment	6.57	1.29
Transportation Refrigeration Units	0.23	1.84
Farm Equipment	1.28	6.55
Heavy Duty Industrial/Construction Equipment	2.37	22.40
Light Duty Industrial/Construction Equipment	22.20	72.10
Locomotive Operations	0.48	10.60
Off-Road Motorcycles	1.18	0.12
All Terrain Vehicles	0.46	0.02
Four-Wheel Drive Vehicles	0.10	0.08
Ships Maneuvering	0.11	3.28
Ships Berthing	0.29	1.73
Ships In-Transit	0.15	5.70
Commercial Boats	0.69	4.33
Recreational Boats	16.40	1.71
Subtotal	52.5	131.8
Aircraft:		
Commercial Aircraft	3.16	15.00
General Aviation	0.91	0.21
Military Aircraft	6.06	4.55
Agricultural Aircraft	--	--
Airport Ground Support Equipment	0.17	0.49
Subtotal	10.3	20.2
On-Road Motor Vehicles:		
Light Duty Passenger	116.8	106.5
Light Duty Trucks	44.10	62.00
Medium Duty Trucks	7.98	13.20
Light Heavy Duty Trucks	2.09	14.40
Medium Heavy Duty Trucks	1.68	14.20
Heavy Heavy Duty Trucks	2.79	31.00
Heavy Duty Buses	0.52	4.82
Motorcycles	1.78	0.99
Subtotal	177.7	247.1
Further Reductions due to Reformulated Gasoline	2.5	--
Subtotal	175.3	
MISCELLANEOUS OTHER SOURCES		
Construction Operations	--	--
Farming Operations	--	--
Entrained Road Dust	--	--
Accidental Fires	0.41	0.13
Animal Waste	4.00	--
Wind Blown Dust	--	--
Agricultural Pesticides	2.95	--
Non-Agricultural Pesticides	1.53	--
Consumer Products (No pesticides)	41.70	--
Other Miscellaneous Sources	0.19	0.07
Subtotal	50.8	0.2
TOTAL	438	527
Banking Emissions:	7.56	7.69
GRAND TOTAL:	445	534

APPENDIX D

Transportation Control Measures Remaining in the SIP

TCMs REMAINING IN THE SIP	
TCM Id #	Control Measure
FTCM 1	Reaffirm commitment to 28% transit ridership increase between 1978 and 1983
FTCM 2	Support post-1983 improvements identified in transit operator's 5-year plans/Adopt ridership increase targets for 1983-1987
FTCM 3	Seek to expand and improve public transit beyond committed levels
FTCM 4	285 miles of HOV lanes. (Formerly FTCM 4 and FTCM 20)
FTCM 5	Support a regional ridematching service and encourage employers to participate in ridesharing activities
FTCM 7	Support the development of park and ride lots, serving carpools and transit
FTCM 8	Shared Use Park and Ride Lots
FTCM 9	Expand commute alternatives
FTCM 10	Information Program for Local Government
FTCM 13	Increase bridge tolls to \$1.00 on all bridges
FTCM 14	Bay Bridge surcharge of \$1.00
FTCM 15	Increase state gas tax by 9 cents
FTCM 17	Continue October 1989 Post-Earthquake Transit Services
FTCM 18	Sacramento – Bay Area Amtrak Service
FTCM 19	Upgrade Caltrain Peninsula Service
FTCM 20	Regional HOV System Plan
FTCM 21	Regional Transit Coordination
FTCM 22	Expand Regional Transit Connection Services
FTCM 23	Employer Audits
FTCM 24 & 25	Expand and maintain signals
FTCM 26	Incident management on Bay Area freeways
FTCM 27	Update MTC guidance on development of local Transportation Systems Management programs
FTCM 28	Local TSM initiatives