2004

Clean Air Plan

Supplemental EIR

Supplemental Environmental Impact Report

APCD – 2004 – SEIR – 01

Supplement to the 1991 Air Quality Attainment Plan EIR
(SCH No. 1991031045)

Final

December 2004

Santa Barbara County
Air Pollution Control District

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
for the 2004 Clean Air Plan
APCD-2004-SEIR-01
TABLE OF CONTENTS

EXECUTIVE SUMMARY

Pursuant to the California Environmental Quality Act this document has been prepared to address the potential adverse environmental impacts of the 2004 Clean Air Plan (2004 Plan) for Santa Barbara County. The 2004 Plan, prepared by the Santa Barbara County Air Pollution Control District (APCD) is a comprehensive strategy to meet the requirements of the California Clean Air Act of 1988.

The 2004 Plan is a revision of the 2001 Clean Air Plan (2001 CAP) and addresses only the California Clean Air Act mandates that require areas to update their clean air plans every three years to attain the state one-hour ozone standard. Like the previous air quality attainment plans, the 2004 Plan includes both stationary source control measures and transportation control measures. The implementation of the emission control measures in the 2004 Plan will reduce emissions of the ozone precursors (reactive organic compounds and oxides of nitrogen) and help the County to make progress in attaining the state ozone standard.

The majority of the 15 emission control measures evaluated for the 2004 Plan are substantially the same as the control measures in the 2001 CAP, 1998 CAP, 1994 CAP and the 1991 Air Quality Attainment Plan (AQAP). There are twelve revised measures and three measures proposed as new Rules in the 2004 Plan (see Table ES-1 below). These fifteen proposed measures are *to be adopted* as APCD rules in the near-term (2004-2006), mid-term (2007-2009) or long-term (2009-2011) for the purpose of attaining the state one-hour ozone standard. Measures classified as "further study measures" and are not analyzed in this SEIR.

The APCD is the lead agency for this project under California Environmental Quality Act. Since the 2004 Plan will retain the same control measures described in the 2001 CAP, 1994 CAP and the 1991 AQAP with a few updated strategies, this document is a supplemental environmental impact report (SEIR) to the environmental impact reports prepared for the 2001 CAP, 1994 CAP and the 1991 AQAP. A Notice of Preparation of a SEIR was not sent to interested public and government agencies through the State Clearinghouse because no comments were received on the 2001 CAP SEIR Notice of Preparation and there are no substantive changes to the 2004 Plan.

This SEIR:

1) summarizes the previous environmental documents (the 1991 AQAP EIR, 1994 CAP SEIR, and the 1998 CAP Negative Declaration and 2001 CAP SEIR) and incorporates them by reference.

2) updates the environmental setting in terms of the resources in the County which will be affected by implementing the 2004 Plan.

3) focuses on the revised control measures and new rules listed in Table ES-1 and the changes in project description from adopted, existing rules or 2001 CAP control measures.

4) analyzes the potentially significant impacts of the above listed "proposed" control measures and strategies identified in the 2004 Plan and summarizes the impacts of the 2004 Plan control measures that were addressed adequately in the previous environmental documents.

5) updates the 2001 CAP SEIR discussion of cumulative impacts, project alternatives, growth inducing impacts and other required EIR sections.

Table ES-2 is a summary of the potential impacts of implementing the 2004 Plan control measures and mitigation measures to reduce those impacts.

References are provided in Appendix A; Acronyms in Appendix B and a draft Mitigation Monitoring Program is presented in Appendix C.

TABLE ES-1

PROPOSED 2004 PLAN EMISSIONS CONTROL MEASURES

Rule	CAP Control Measure ID	Description
Emissions Control Measures Scheduled for Near-Term Adoption (2004-2006):		
321	R-SL-2	Solvent Cleaning Operations to become Solvent Degreasers (Revision)
362	R-SL-10	Solvent Cleaning Operations (New)
333	N-IC-1 N-IC-3	Stationary Internal Combustion Engines (Revisions to Rules 333 and 202 – change from 100 to < 50 bhp exemption, correct EPA deficiencies)
330 337	R-SC-2	Surface Coating of Metal Parts and Products; Surface Coating of Aircraft or Aerospace Vehicle Parts and Products (Revisions)
Emissions Control Measures Scheduled for Mid-Term Adoption (2007-2009):		
339	R-SC-4	Motor Vehicle and Mobile Equipment Coating Operations (Revision)
358	R-SL-4	Electronic Industry - Semiconductor Manufacturing (New)
361	N-XC-13	Small Industrial and Commercial Boilers, Steam Generators, and Process Heaters (2 MMBtu/hr to < 5 MMBtu/hr) (New)
351	R-SC-5	Surface Coating of Wood Products (Revision)
349	R-SL-5	Polyester Resin Operations (Revision)
353	R-SL-9	Adhesives and Sealants (Revision)
Emissions Control Measures Scheduled for Long-Term Adoption (2009-2011):		
354	R-SL-7	Graphic Arts (Revision)
352	N-XC-6	Residential Water Heaters; Residential and Commercial Space Heaters (Revision)
323	R-SC-1	Architectural Coatings (Revision to Regulate the Cleaning of Application Equipment used in Architectural Coating Applications)

TABLE ES-2 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Issue Area	Potential Impacts	Control Measures	Mitigation Measures	Level of Significance* / Residual Impacts
AIR QUALITY	Selective Catalytic Reduction (SCR) can result in ammonia slip.	N-IC-1 and 3	Systems shall be properly operated and maintained to minimize adverse impacts. To be implemented at APCD permit stage.	Class III/ Insignificant
AIR QUALITY	SCR and Selective Non-Catalytic Reduction (NSCR) can result in release of heavy metals (e.g., vanadium pentoxide).	N-IC-1 and 3	Systems shall be properly operated and maintained to minimize adverse impacts. To be implemented at APCD permit stage.	Class II/ Insignificant
WATER QUALITY	The ROC control measures use vapor control methods that have residual waste water or involve hazardous substances that could contaminate surface or ground water supplies.	R-SL-2, 4 ,5, 7, 9 and 10 R-SC-2 and 5	Hazardous wastes shall be minimized and operator shall be subject to federal, state and local regulations. APCD shall notify relevant jurisdictions during permit and compliance stage.	Class II/ Insignificant
RISK OF UPSET	The recovery of volatile hydrocarbon vapors, saturated adsorption carbon and electrostatic sprayers create a hazard of fire and explosion.	R-SL-2, 4 ,5, 7, 9 and 10 R-SC-2 and 5	Safe handling, operating, transportation, and disposal procedures shall be implemented consistent with federal, state and local regulations.	Class II/ Insignificant
HAZARDOUS MATERIALS	Some compliance methods generate hazardous waste materials such as carbon adsorption canisters, SCR or NSCR catalysts which could be disposed of improperly.	N-IC-1 and 3 N-XC-4, 5 and 13;R-SL-2, 4 ,5, 7, 9 and 10 R-SC-2 and 5	Hazardous wastes shall be minimized and operator shall be subject to federal, state and local regulations. APCD shall notify relevant jurisdictions during permit and compliance stage.	Class II/ Insignificant

* Level of Significance:

Class I Unavoidable, Significant
Class II Insignificant after Mitigation
Class III Adverse, but not Significant (Adverse Impacts are described in the 1991 AQAP EIR and are not repeated here).
Class IV Beneficial (Beneficial Impacts are described in the 1991 AQAP EIR and are not repeated here).

1.0 INTRODUCTION

The Santa Barbara County Air Pollution Control District (APCD) has prepared the 2004 Clean Air Plan to address the California Clean Air Plan mandates under the Health and Safety Code sections 40924 and 40925 that require areas to update their clean air plans to attain the State one-hour ozone standard every three years. More specifically, this 2004 Plan provides a three-year update to the APCD's 1991 Air Quality attainment Plan, the 1994 Clean Air Plan, the 1998 Clean Air Plan, and the 2001 Clean Air Plan for the state one-hour ozone standard.

This document assesses the potential environmental effects of the 2004 Plan and was prepared by the APCD as the lead agency under the California Environmental Quality Act (CEQA). The 2004 Plan will retain the same control measures described in the 2001 CAP with a few updated measures and no new strategies that were not analyzed in the 1991 AQAP EIR. Therefore, this environmental document is a supplemental environmental impact report (SEIR) which contains information necessary to make the environmental impact report prepared for the 1991 Air Quality Attainment Plan (1991 AQAP) adequate for the 2004 Plan (CEQA Guidelines §15163). In compliance with CEQA, this supplemental EIR (2004 Plan SEIR) will be circulated for public review without re-circulating the previous 1991 AQAP EIR. When the APCD Board of Directors acts on the 2004 Plan, they will consider the 1991 AQAP EIR as revised by the 2004 Plan SEIR and make findings on each significant effect identified in both EIRs.

1.1 Statement of Purpose

The purpose of this SEIR is to describe for the public and decision-makers the potential environmental consequences of implementing the proposed 2004 Plan. CEQA also requires that projects that may significantly affect the quality of the environment be analyzed to reduce or eliminate adverse effects on the environment.

In keeping with the requirements of CEQA and its Guidelines, this document focuses only on the environmental impacts of the 2004 Plan that were not discussed in the previous environmental documents. The 2004 Plan SEIR briefly summarizes the 1989 Air Quality Attainment Plan (1989 AQAP) EIR, the 1991 AQAP program EIR, the 1993 Rate-of-Progress Plan (1993 ROP Plan) EIR, the 1994 Clean Air Plan (1994 CAP) Supplemental EIR, the 1998 Clean Air Plan (1998 CAP) Negative Declaration and the 2001 CAP SEIR and incorporates by reference the analyses presented therein. These documents are available at the APCD office in Santa Barbara.

The 2004 Plan SEIR, like the 1991 AQAP EIR, is a program EIR, which assesses the impacts of the 2004 Plan and provides a general evaluation of the individual control measures. Like the 1991 AQAP EIR, it is also intended to lay the foundation for future environmental review of actions (rule-making) undertaken according to the 2004 Plan.

1.2 Lead and Responsible Agencies

The Santa Barbara County APCD is responsible for the control of air emissions from stationary sources in the county and is the CEQA lead agency for this project. The APCD is responsible for the implementation of the stationary source emission control measures to be adopted as APCD rules.

The California Air Resources Board (ARB) is the primary state agency responsible for air quality in the State of California. ARB will be the agency implementing the state-wide measures listed in the 2004 Plan. ARB is also responsible for approving the 2004 Plan. Therefore, ARB is a CEQA responsible agency.

1.3 Contents

- Section 1 provides the introduction and background, the purpose and describes the contents of this Supplemental Environmental Impact Report.

- Section 2 summarizes the previous environmental documents, especially the environmental impacts of the 1991 AQAP as determined in the 1991 AQAP EIR which this document supplements. This section also includes mitigation measures adopted to reduce or eliminate impacts of the 1991 AQAP.

- Section 3 contains the Project Description for the 2004 Plan which adds descriptions of new and revised control measures not included in the 1991 AQAP EIR.

- Section 4 includes a discussion of current conditions (the environmental setting) in the project area. The environmental setting defines the baseline for the analysis of potential impacts.

- Section 5 analyzes the environmental impacts. Criteria for determining significance are discussed and mitigation measures and residual impacts are described.

- Section 6 discusses the Cumulative Impacts of the 2004 Plan.

- Section 7 discusses the environmental impacts of alternatives to the project: the no project alternative and a more environmentally sensitive alternative. The impacts of these alternatives are evaluated in comparison to the proposed plan.

- Section 8 includes the CEQA topics of: the Relationship Between Local Short-Term Uses and Long-Term Productivity, Significant Irreversible Changes, Growth Inducing Impacts and Socio-Economic Impacts.

- The Appendices include references and a draft Mitigation Monitoring Plan.

2.0 PREVIOUS ENVIRONMENTAL DOCUMENTS

Many of the control measures in this 2004 Plan were analyzed in the program EIR prepared for the 1991 Air Quality Attainment Plan. A brief summary of the 1991 AQAP EIR is provided below.

2.1 1991 Santa Barbara County Air Quality Attainment Plan

The 1991 Santa Barbara County Air Quality Attainment Plan was required under the 1988 California Clean Air Act for areas that do not meet the state's air quality standards (i.e., nonattainment areas). The 1991 AQAP was intended to achieve a five percent annual reduction in emissions of both Reactive Organic Compounds (ROC) and nitrogen oxides (NO_x) until the state ozone standard is met. The 1991 AQAP presented a detailed description of the air quality of the county and meteorological conditions primarily responsible for ozone formation, an inventory of the pollutant sources, short and long term air pollution control measure strategies, and the future air quality impacts expected under current and projected growth trends.

Reductions in emissions of ozone precursors, ROC and NO_x, are realized through the implementation of control measures. Table 2-3 in the 1991 AQAP EIR listed the emission control measures analyzed in the 1991 AQAP EIR along with the associated compliance methods.

The 1991 AQAP EIR identified rule requirements, compliance methods and potential environmental impacts from the compliance methods required by the APCD rules. The following compliance methods (i.e., control systems and/or control techniques) identified in the 1991 AQAP EIR could be used to comply with the APCD Rules and Regulations:

VR	Vapor Recovery
RE	Reformulation
TE	Transfer Efficiency
EC	External Combustion Modification
IC	Internal Combustion Modification
PC	Post-Combustion Modification
EL	Electric Motor Replacement
CF	Alternative Combustion Fuels
OM	Operational Modifications

In addition, the following general methods were included for use in complying with Transportation Control Measures:

TR	Trip Reduction
TF	Traffic Flow Improvement
AF	Alternative Transportation Fuels

2.1.1 Summary of Environmental Impacts of the 1991 AQAP

The 1991 AQAP EIR evaluated the impacts of the 1991 AQAP as a whole based on the compliance methods which would be employed to implement the 1991 AQAP. The EIR also evaluated the environmental impacts of the individual control measures that were adopted in the 1991 AQAP. A summary of the compliance methods that could be used by the affected sources to comply with individual control measures was provided in Section 2.1 of the 1991 AQAP EIR.

The environmental impacts of the 1991 AQAP are summarized below and are presented in Appendix A. No unavoidable potentially significant adverse impacts were identified (i.e., Class I impacts). The potentially significant adverse impacts of the 1991 AQAP that could be mitigated to a level of insignificance (i.e., Class II impacts) are associated with toxic and hazardous materials or other public safety concerns on a regional basis. Public safety (related to transportation and risk of upset), water resources, biological, and hazardous waste generation are areas where mitigation was required to avoid potentially significant adverse impacts. Most of the adverse environmental effects of the 1991 AQAP were classified as not significant.

One area of concern that had been identified as significant in the 1991 AQAP EIR (and the EIR on the 1989 AQAP) is the use of anhydrous ammonia. The potential for a Class I impact was avoided in the 1991 AQAP by eliminating the use of anhydrous ammonia in emission control equipment and substituting the use of urea or aqueous ammonia as a reducing agent in the selective catalytic reduction (SCR) and selective non-catalytic reduction processes (NSCR). However, the substitution creates a tradeoff where the potential for impacts to water resources and biological resources increases and the risk of upset is reduced in significance. Impacts to water and biological resources were considered insignificant after mitigation.

The effects of emissions of Toxic Air Contaminants (TAC) were another area of concern associated with the 1991 AQAP that, when fully implemented, would affect a broad range of sources associated with TAC emissions. Most of ROC control measures reduce emissions by containing volatile compounds in the system. Since TACs are constituents of many of these compounds (especially ROCs from combustion), they are also reduced. However, solvents and coatings that have been reformulated to reduce ROC may be replaced with toxic compounds which are exempt from restrictions of APCD Rules and Regulations.

Nitrogen oxide (NO_x) control measures that increase energy efficiency also reduce TAC emissions associated with combustion fuels. But other controls reduce NO_x at the expense of decreased fuel efficiency resulting in increased TAC emissions associated with fuel combustion. Thus the actual implementation of 1991 AQAP has the potential to affect TAC emissions in an opposing manner. Overall, the reductions in TAC are greater than the increases. The EIR identified the positive and negative effects of the individual compliance methods.

Transportation Control Measures were associated with the potential to result in impacts such as: the use of hazardous alternative transportation fuels, increased transit system demand, public works demands, and public safety. The use of methanol as a substitute transportation fuel was cited as a potentially significant impact because of its physical and chemical properties and the need to transport greater quantities. The 1991 AQAP did not specify the means of achieving

vehicle emission reductions. Instead, it required local jurisdictions to implement TCM plans that are appropriate for the locality by using any of a number of suggested Transportation Mitigation Measures. The use of methanol was not encouraged. Other potentially adverse effects were identified but could not be clearly tied to significance criteria on a regional basis.

Overall the 1991 AQAP, when fully implemented, will improve the quality of the environment by improving air quality and increase the efficiency of the use of natural resources and the transportation of goods and people. Long-term impacts and effects on productivity were considered beneficial or insignificant if adverse. No significant irreversible changes were identified. Growth-inducing impacts were related to improved air quality and in turn the increased desirability to live in the county. The 1991 AQAP EIR concluded that it would be highly speculative, however, to attempt to separate normal growth under the county's General Plan from that specifically resulting from the 1991 AQAP.

The 1991 AQAP EIR included a Mitigation Monitoring Plan (MMP) to implement the measures required to reduce potentially significant impacts to a level of insignificance (see Appendix D of the 1991 AQAP EIR).

The 1991 AQAP control measures have been adopted as APCD rules or are currently going through the rule adoption process. Before being adopted as rules, individual CEQA review was conducted. The 1991 AQAP EIR and those CEQA documents which are addenda to the 1991 AQAP EIR are also used as references for this 2001 CAP SEIR. A copy of the 1991 AQAP EIR is available for review at the APCD's Santa Barbara office.

2.2 Other Previous Environmental Documents

2.2.1 1989 Air Quality Attainment Plan Environmental Impact Report

The 1989 AQAP EIR (SCH No. 89012511), a program EIR, was prepared by the APCD to assess the impacts of the 1989 Air Quality Attainment Plan (1989 AQAP). The 1989 AQAP applied only to the southern portion of Santa Barbara County and was required by the U.S. Environmental Protection Agency (EPA) to demonstrate attainment of the federal one-hour ozone standard in Santa Barbara County. The 1989 AQAP EIR examined the potential environmental effects of the 1989 AQAP, including the impacts of a county-wide implementation option examined in the alternatives section of the EIR. The 1989 AQAP EIR did not identify any significant impacts that could not be mitigated to insignificant levels.

The environmental impacts of greatest concern stemmed from the use of anhydrous ammonia in several control technologies for the reduction of nitrogen oxides. The potential for an accident, most likely to occur during transportation and involving a massive release of anhydrous ammonia gas, was considered to present a significant risk to public health and safety. Therefore the use of anhydrous ammonia in NO_x control was prohibited in the 1989 AQAP and in subsequent documents for the implementation of the Plan through the adoption of rules. A projected increase in traffic from service and supply vehicles to multiple facilities in the same area was also classified as a potentially significant impact to existing traffic congestion. The

mitigation measure in the 1989 AQAP EIR required APCD permit conditions to specify and require documentation of delivery schedules that avoid peak traffic hours for such facilities. No other potentially significant impacts were identified.

2.2.2 1993 Federal Rate-of-Progress Plan EIR

The 1990 Federal Clean Air Act Amendments required all ozone nonattainment areas classified as moderate and above to submit a Rate-of-Progress Plan (1993 ROP Plan) to the Environmental Protection Agency by November 15, 1993. The 1993 Rate-of-Progress Plan affected all of Santa Barbara County. The purpose of the 1993 ROP Plan was to develop an inventory of ozone season emissions, an adjusted "base year inventory" for 1990 and a plan showing reactive organic compound (ROC) emission reductions of at least 15% by November 15, 1996. The base year for the 15% emission reduction was 1990. Therefore, any emission reductions resulting from rules adopted from 1990 onward counted towards the 15% reduction needed under the 1990 Federal Clean Air Act Amendments. For this reason existing and pending rules were included in the 1993 ROP Plan.

The implementation of the control measures in the 1993 ROP Plan was intended to reduce emissions of ROC. The majority of the ROC control measures in the 1993 Plan were substantially the same as the ROC control measures in the 1991 AQAP. Therefore, the finding was made that the 1991 AQAP EIR adequately described the general environmental setting of the project, significant environmental impacts of the project and alternatives and mitigation measures related to each significant effect. To be sufficient, both the circumstances and the environmental impacts of the two projects (the 1991 AQAP and the 1993 ROP Plan) are required to be essentially the same. The 1991 AQAP EIR was recirculated as the draft EIR for the 1993 ROP Plan. The final 1993 ROP Plan EIR, prepared as a subsequent document under CEQA Guidelines Section 15153, concluded that no significant impacts would result from the 1993 ROP Plan.

2.2.3 1994 Clean Air Plan Supplemental EIR (94-SD-3)

As required by the 1990 Federal Clean Air Act Amendments, the 1994 CAP was prepared as a revision of the 1989 AQAP and the 1993 ROP Plan. In addition, the 1994 CAP contained a request for redesignation from a nonattainment area to a maintenance area for the federal one-hour ozone standard along with a plan to show maintenance of that standard through the year 2006. These components were later withdrawn by the APCD.

The 1994 CAP also addressed the California Clean Air Act requirements for the triennial update of the 1991 Air Quality Attainment Plan (1991 AQAP). The 1994 CAP like the previous air quality attainment plans included both stationary source control measures and transportation control measures. The majority of the measures in the 1994 CAP were substantially the same as the control measures in the 1991 AQAP and the 1993 ROP Plan. The primary change in the project description in terms of the effects on the environment was the addition of Outer

Continental Shelf sources to the APCD permit jurisdiction. The new Regulatory Flexibility Program was introduced in the 1994 CAP but the environmental impacts were not analyzed.

Since the proposed 1994 CAP retained the same control measures described in the 1991 AQAP with a few updated measures and new strategies, a supplement to an EIR (SEIR) was prepared which contained information necessary to make the program Environmental Impact Report prepared for 1991 AQAP adequate for the 1994 CAP, as revised (CEQA Guidelines, §15163). The 1994 CAP SEIR focused on the changes in project description, consisting of the control measures (some of which are now adopted as APCD rules) that are relevant to Outer Continental Shelf sources. No additional significant issues other than those identified in the 1991 AQAP EIR were identified in the 1994 CAP SEIR.

2.2.4 1998 CAP Mitigated Negative Declaration (APCD-98-ND-01)

The 1998 Final Mitigated Negative Declaration was prepared for the 1998 Clean Air Plan. No new impacts were identified nor new mitigations adopted.

2.2.5 2001 Clean Air Plan Supplemental Environmental Impact Report (APCD-2001-SEIR-01, SCH No. 1991031045).

The 2001 CAP was a revision of the 1998 Clean Air Plan (1998 CAP) and addressed all federal planning requirements for "Maintenance Plans" by providing for ongoing maintenance of the federal one-hour ozone standard through the year 2015. It also formally requested that U.S. Environmental Protection Agency re-designate Santa Barbara County as an attainment area for the federal one-hour ozone standard. The 2001 CAP established a new on-road mobile source reactive organic compounds and oxides of nitrogen emission budgets to address federal transportation conformity requirements. It also addressed the California Clean Air Act requirements for the triennial update of the 1991 Air Quality Attainment Plan (1991 AQAP), the 1994 Clean Air Plan (1994 CAP) and the 1998 CAP for the state ozone standard. Like the previous air quality attainment plans, the 2001 CAP included both stationary source control measures and transportation control measures, however, there were no new Transportation Control Measures (TCMs) proposed for adoption in the 2001 Clean Air Plan. The implementation of the control measures in the 2001 CAP was intended to reduce emissions of the ozone precursors (reactive organic compounds and oxides of nitrogen) and help the County to make progress in attaining the state ozone standard.

The majority of the control measures evaluated for the 2001 CAP were substantially the same as the control measures in the 1998 CAP, 1994 CAP and the 1991 AQAP. However, three revised measures and five new measures were proposed in the 2001 CAP and analyzed in the 2001 CAP SEIR. The SEIR did not identify additional significant impacts and no new mitigations were adopted.

3.0 2004 PLAN PROJECT DESCRIPTION

3.1 Project Proponent

The project proponent is:

Santa Barbara County Air Pollution Control District
260 North San Antonio Road, Suite A
Santa Barbara, CA 93110

3.2 Project Location

Geographically, the area covered by the 2004 Plan consists of the entire County of Santa Barbara including California coastal waters.

3.3 Project Objective and Characteristics

The 2004 Plan for Santa Barbara County prepared by the Santa Barbara County Air Pollution Control District (APCD) is a triennial update to meet the requirements of the California Clean Air Act of 1988.

The 2004 Plan addresses the California Clean Air Act requirements for the triennial update of the 2001 CAP, which updated the 1998 Clean Air Plan (1998 CAP) and the 1991 Air Quality Attainment Plan (1991 AQAP). The 2004 Plan like the previous air quality attainment plans, includes both stationary source control measures and transportation control measures and like the 2001 CAP, there are no new Transportation Control Measures (TCMs) proposed for adoption in the 2004 Plan. The implementation of the proposed stationary source control measures in the 2004 Plan will reduce emissions of the ozone precursors (reactive organic compounds and oxides of nitrogen) and help the County to make progress in attaining the state ozone standard.

The majority of the emission control measures evaluated for the 2004 Plan are substantially the same as the proposed control measures in the 2001 CAP. Of the fifteen proposed control measures, none are new. Twelve are revisions to existing Rules (Table 3-1) and three are previously analyzed control measures that will be adopted as new rules. Nine measures (those whose CAP Control Measure ID in Table 1 commence with a "R") will reduce the emissions of ROC and six measures (those whose CAP Control Measure ID in Table 3-1 commence with a "N") will reduce the emissions of NO_x. These *proposed* measures are to be adopted as APCD Rules in the near-term (2004-2006) or mid-term (2007-2009) or long-term (2009-2011) for the purpose of attaining the state one-hour ozone standard. Emissions control measures that have already been adopted as Rules before 2003 and Further Study Measures listed in the 2004 Plan are not included in this document because they have either been already analyzed and are therefore, part of the baseline conditions or they are not proposed for implementation and therefore not a part of the project.

3.4 Description of 2004 Plan Control Measures

The majority of the control measures evaluated for the 2004 Plan are substantially the same as the control measures in the 2001 CAP, 1998 CAP, 1994 CAP and the 1991 AQAP. These proposed measures are to be adopted as APCD Rules for the purpose of attaining the state one-hour ozone standard. The 2004 Plan organizes the control measures by their adoption schedule: there are four measures scheduled for near-term adoption (2004-2006), 6 measures scheduled for mid-term adoption (2007-2009) and three measures scheduled for long-term adoption (2009-2011). A complete description of the proposed measures analyzed in this SEIR is provided in the 2004 Plan which is hereby incorporated by reference.

Transportation Control Measures reduce emissions from on-road motor vehicles and trucks. The 2004 Plan, like the 2001 CAP, does not propose new TCMs for adoption that are different from the ones adopted in the 1991 AQAP. Therefore, TCMs are not analyzed again in this supplemental EIR.

The 1991 AQAP EIR described and analyzed the impacts of the adopted, proposed, pending and contingency control measures. All the control measures that the 2004 Plan relies on to achieve the required emission reductions were analyzed in the 1991 AQAP EIR and subsequent environmental documents. Further Study Measures and Rejected Measures listed in the 2004 Plan are not included in this document because they are not proposed for implementation and therefore not a part of the project. Table 3-1 shows the control measures that will be analyzed in the 2004 Plan SEIR and the compliance methods to be used in implementing them. The compliance methods are:

Vapor Control (Vap. Con.)
Reformulation (Reformuln.)
Transfer Efficiency (Trans. Eff.)
External Combustion (Ext. Comb.)
Internal Combustion (Int. Comb.)
Post Combustion (Post Comb.)
Electric Motor Replacement (Electr. Rep.)
Operation and Maintenance Methods (O and M)

Control Measures Scheduled for Near –Term Adoption (2004-2006)

3.4.1 R-SL-2: (Rule 321 Revision) Solvent Degreasers

APCD Rule 321 (Control of Degreasing Operations) is a prohibitory rule that controls emissions of ROC from solvent degreasing operations in Santa Barbara County.

Solvent degreasing is practiced by operations such as automotive repair shops, oil well field operations, aerospace and electronic industries. Degreasing precedes operations such as painting, plating, repair and assembly. Typically an object is degreased by exposure to a

synthetic or petroleum-based solvent liquid or vapor contained in tanks, trays or drums. ROC emissions can occur due to direct evaporation of solvent from tanks, spills and by evaporation of residual solvents in cracks, crevices, indentations or as a thin surface film on the cleaned part. Rule 321 reduces emissions by requiring the use of low ROC cleaning solvents, increasing the height of the sides of degreasing tanks to reduce solvent losses due to spills[1] and good housekeeping techniques (e.g., closed solvent containers) that reduce evaporative emissions. The use of add-on exhaust control equipment such as carbon adsorption may be used to comply with the rule requirements.

Rule 321 will be revised to include the additional control techniques outlined below:

- Requiring air-tight or airless cleaning systems in lieu of meeting the requirements for batch-loaded cold cleaners or open-top vapor degreasers.
- Increasing the minimum freeboard ratio from 0.75 to 1 on open-top vapor degreasers and conveyorized degreasers.
- Requiring that the solvent have an ROC content of 50 grams per liter or less for batch-loaded cold cleaners and conveyorized cold cleaners.

Current control techniques required by Rule 321 include:

1. Following general good housekeeping operating procedures for minimizing emissions.
2. Using covers, an internal draining facility (e.g., a parts basket where drained solvent is returned to the tank), low-volatility solvent and units with adequate freeboard heights, ratios and chillers.

3.4.2 R-SL-10: (New Rule 362) Solvent Cleaning Operations

Solvent cleaning activities occur during the production, repair, maintenance, or servicing of products, tools, machinery and general work areas. Such cleaning may be performed at auto repair shops, garages and service stations, printing shops, metal fabrication facilities, aircraft and aerospace handling facilities, electronic manufacturing facilities, medical device manufacturing facilities, and filter manufacturing facilities. Revised Rule 362 will not apply to certain solvent cleaning operations that are governed by other APCD rules such as Rule 321, Solvent Degreasers, Rule 330 (Surface Coating of Metal Parts and Products); Rule 337 (Surface Coating of Aircraft or Aerospace Vehicle Parts and Products), Rule 339 (Motor vehicle and Mobile equipment Coating Operations, Rule 349 (Polyester Resin Operations); Rule 353 (Adhesives and Sealants and Rule 354 (Graphic Arts). All these rules are proposed to be revised to be consistent with the revised solvent requirements (analyzed as one Rule 362 in the 2001 CAP SEIR) and are included in the 2004 Plan as separate Rules. Although new Rule 358, Semiconductor Manufacturing is also included in the 2004 Plan, there are no facilities in the County to which this rule would apply. The current analysis indicates there would be no emission reductions from adopting this control measure. Therefore, the APCD does not propose to adopt this rule.

[1] This is known as increasing the "freeboard ratio"

R-SL-10 is the renamed control measure which will now be adopted as revised Rule 362. This revised rule will be patterned after the South Coast Air Quality Management District's Rule 1171 and will set ROC limits for specific solvent cleaning activities, require specific cleaning methods or devices and require proper storage and disposal of all ROC containing solvents.

Control techniques common to all the above-mentioned revised Rules include:

1. Limiting solvent characteristics.
2. Requiring use of cleaning devices or methods.
3. Establishing requirements for remote reservoir cleaners.
4. Requiring proper storage and transfer of the solvents.
5. Allowing use of alternative compliance through the use of add-on controls.

3.4.3 N-IC-1 and N-IC-3: (Rule 333 Revision) Control of Emissions from Reciprocating Internal Combustion Engines

Rule 333 requires NO_x control techniques for spark-ignited (N-IC-1) and compression-ignited (N-IC-3) internal combustion engines. Spark-ignited combustion is typical of piston-type engines burning natural gas, field gas, waste gas, propane gas or gasoline. There are primarily two different types of spark-ignited engines: lean burn and rich burn. Different control methods are used for each of these types of spark-ignited engines.

Compression-ignited engines (i.e., diesel engines) operate differently in that the combustion process is not initiated until the compression stroke where fuel is injected into the combustion chamber. Upon injection, the fuel mixes with the hot air and spontaneously burns (no spark is required). Operators use both types of engines to drive rotating equipment in remote locations and the engines range in size from less than 50 to over 1,000 brake horsepower (bhp).

Existing Rule 333 will be revised in the near-term to address EPA-identified deficiencies so it may be included into the State Implementation Plan. These deficiencies include inconsistent applicability cutoffs and exemptions, unenforceable provisions in the definitions and inconsistent emission limit requirements.

Existing Rule 333 applies to permitted, spark-ignited and compression-ignited internal combustion engines that have a horsepower rating greater than or equal to 50 bhp. Engine owners and operators have complied with the requirements of Rule 333 by switching to electric motors, installing selective catalytic reduction equipment, nonselective catalytic reduction equipment, retarding diesel engine injection timing, lean-burn tuning of rich burn spark-ignited engines, retarding the ignition on spark-ignited engines, and using other combustion modification systems. These control techniques can be used to comply with the proposed revisions to Rule 333.

3.4.4 R-SC-2 (Revisions to Rules 330 and 337) Surface Coating of Metal Parts and Products; Surface Coating of Aircraft or Aerospace Vehicle Parts and Products.

The existing APCD Rules 330 and 337 are prohibitory rules which in general, reduce emissions of reactive organic compounds (ROC) from paint coatings applied at manufacturing or assembly plants that make metal parts and products and aircraft and aerospace vehicles.

The rule specifies limits on the ROC content of the coatings used (by reformulation) and the use of emission reduction methods to meet rule requirements. Reformulation, which is done by the paint manufacturer, involves changing the original coating to achieve emission reduction limits specified in the Rules. Emission reduction methods specified for implementing the rule include the use of transfer efficiency, closed storage containers and proper labeling of containers. Add-on air pollution controls such as carbon adsorption is not commonly used to comply with Rules 337, 330 and similar coatings rules in Santa Barbara County. Transfer efficiency refers to the application of coatings with properly operating equipment; using the methods such as electrostatic application, high-volume low-pressure spray, paint brush, hand roller, or any other method where the equipment is at least 65% efficient.

The proposed revisions to these metal coating rules will incorporate the revised solvent cleaning requirements patterned after the South Coast Air Quality Management District's Rule 1171 and will set ROC limits for specific solvent cleaning activities, require specific cleaning methods or devices and require proper storage and disposal of all ROC containing solvents as compliance methods.

Control Measures Scheduled for Mid-Term Adoption (2007-2009)

3.4.5 R-SC-4 (Revision to Rule 339) Motor Vehicle and Mobile Equipment Coating Operations.

Painting motor vehicles and mobile equipment causes ROC emissions and the process may also cause some toxic compounds to be emitted. Sources affected by this measure are automobile body repair and paint shops, automobile dealers, "do-it-yourselfers" and companies or agencies with their own in-house motor vehicle and mobile equipment coating operations. Product manufacturers and their representatives are also subject to the provisions of the control measures related to product formulation.

Rule 351 requires the use of low-ROC coatings and the use of approved or alternative application methods that achieve a transfer efficiency of at least 65 percent. Add-on exhaust control equipment such as after-burners or carbon adsorbers may be used and must reduce uncontrolled emissions by at least 90 percent.

The proposed revisions to Rule 339 will incorporate the revised solvent cleaning requirements patterned after the South Coast Air Quality Management District's Rule 1171 and will set ROC

limits for specific solvent cleaning activities, require specific cleaning methods or devices and require proper storage and disposal of all ROC containing solvents as compliance methods.

3.4.6 R-SL-4: (New Rule 358) Electronic Industry- Semiconductor Manufacturing

Semiconductor manufacturers use organic solvents in coatings, stripping materials, and cleaning operations. Use of photoresist is an integral process of semiconductor manufacturing and ROC emissions occur from the application, exposure and development of photoresist. Semiconductor manufacturers also use inorganic toxic gases called dopants in certain steps to give the devices desirable electronic characteristics. About 99 percent of the dopants diffuse into the wafers. The semiconductor manufacturers collect most of the solvents in liquid form for reclamation or waste disposal.

This control measure and proposed rule is included in the 2004 Plan for consistency with the 2001 CAP. However, a reassessment of the emission reductions from the control measure shows that the companies performing the negative photoresist process have either left Santa Barbara County or switched over to the positive photoresist process. Furthermore, the majority of the previously assessed emission reductions attributed to this control measure will be accomplished through R-SL-2 or R-SL-10. The current analysis indicates there would be no emission reductions from adopting a negative photoresist control measure. Therefore, the Air Pollution Control District does not plan to adopt Rule 358 and no further environmental analysis is necessary.

3.4.7 N-XC-13: (New Rule 361) Small Industrial and Commercial Boilers, Steam Generators and Process Heaters (2 MMBtu/hr to < 5 MMBtu/hr heat input rating)

Analyzed as N-XC-4 in the 2001 CAP, this control measure is scheduled for adoption in the mid-term (2007-2009). Fossil fuels are burned in water heaters, boilers, steam generators, and process heaters to transfer heat from combustion gases to water or other fluids. The only significant emissions to the atmosphere from the units in normal operation, regardless of the fluid being heated or vaporized, are those resulting from the combustion of the fuel. Differences in design and operation of these devices can affect their production of air contaminants. The combustion of fuel and air in these units cause the formation of nitric oxide (NO). In uncontrolled units, the NO is emitted to the air along with other products of combustion in the flue gas. Smaller amounts of nitrogen dioxide (NO_2) form in the combustion process, and some NO oxidizes to NO_2 in the stack.

Commercial/industrial boilers and hot water heaters in the size range of 75,000 to 2,000,000 Btu per hour predominately burn natural gas and are used to heat water and raise steam. Typically, natural gas burns with air to release heat which is subsequently transferred to water confined in a jacket or tubes. Most of the units in this size range use the natural draft created by the combustion of the natural gas and air to transfer heat to the confined water and do not rely on fans or blower to transport either air or combustion gases.

In general, units less than 300,000 Btu per hour are larger versions of residential water heaters and businesses use them to heat potable water. For such units, an annular tank holds the water. Hot flue gases flow vertically through the annulus thereby heating the water. Larger units (greater than 300,000 Btu per hour) are usually designed with a series of tubes placed somewhat perpendicular to the exhaust flow. As the hot gases flow around the tubes, the water is heated creating hot water or steam.

The formation of NO by combustion processes is governed primarily by (1) the chemically bound nitrogen content of the fuel, (2) the oxygen concentration of the flame, (3) the temperature of the flame, and (4) the length of time that the combustion gases are held at the flame temperature.

Rule 361 will set specific emission rates (e.g., pounds of NO_x per unit heat input) which will be a function of heat input rating of the boiler, heater or steam generator.

To reduce the formation of thermal oxides of nitrogen, manufacturers lower the unit's peak flame temperature or reduce the amount of air flowing to the burner. Manufacturers add fans to the units to provide better mixing of the air and fuel and to better control the amount of air. Reducing excess air and other low-NO_x strategies also improve fuel efficiency. This is due in part to a reduction in heat loss through the stack. By reducing the amount of combustion air, less air is heated and, therefore, less fuel is required.

Reducing peak flame temperature is a function of burner design. This is usually accomplished by limiting the amount of air in the immediate vicinity of the flame or to spread the flame out across a surface so that it burns cooler. Both of these design concepts are in operation today from manufacturers in units in the subject size range. The two primary low-NO_x burner types are known as (1) forced draft low-NO_x, and (2) atmospheric low-NO_x burners.

3.4.8 R-SC-5 (Revised Rule 351) Surface Coating of Wood Products

Wood product coatings use ROC-bearing solvents as carriers for binders, sealers, stains and pigments. ROC emissions occur during coating application, drying and cleaning of application equipment. Sources affected by this rule are cabinet-makers, household and office furniture manufacturers and wood refinishing shops.

Rule 351 requires the use of low-ROC coatings and the use of approved or alternative application methods that achieve a transfer efficiency of at least 65 percent. Add-on exhaust control equipment such as after-burners or carbon adsorbers may be used and must reduce uncontrolled emissions by at least 85 percent. The Rule also sets limits on each type of application (e.g., stains, fillers, coatings, etc.).

3.4.9 R-SL-5 (Revised Rule 349) Polyester Resin Operations

Fiberglass impregnation and fabrication are used in the manufacturing of synthetic marble, spas/hot tubs, surfboards, bathroom fixtures, swimming pools and boats. The production of these materials through the process of combining polyester and styrene mixtures and glass fibers results in the release of styrene, a ROC. Sources of emissions include ovens where fiberglass is cured, spray booths or other areas where resin is applied.

Rule 349 requires the use of high transfer-efficiency spray guns or electrostatic spray equipment, and low-ROC resins, closed –mold systems or resins containing vapor-suppressants or add-on control devices that reduce uncontrolled emissions by 85 percent.
The proposed revisions to Rule 349 will incorporate the revised solvent cleaning requirements patterned after the South Coast Air Quality Management District's Rule 1171 and will set ROC limits for specific solvent cleaning activities, require specific cleaning methods or devices and require proper storage and disposal of all ROC containing solvents as compliance methods.

3.4.10 R-SL-9 (Revised Rule 353) Adhesives and Sealants

Adhesives and sealants are used by industry in product manufacturing, packaging, construction and installation of metal, wood, rubber, plastic, ceramics, and fiberglass materials. ROC's are emitted during transfer, drying, surface preparation, and cleanup operations. The revision to rule 353 would add solvent cleaning requirements and increase the emission reductions to an "all feasible" level of control.

Rule 353 reduces ROC emissions by setting limits on the ROC content of adhesives and sealants sold and requiring sources to use good house-keeping and cleanup methods.

The proposed revisions to Rule 353 will incorporate the revised solvent cleaning requirements patterned after the South Coast Air Quality Management District's Rule 1171 and will set ROC limits for specific solvent cleaning activities, require specific cleaning methods or devices and require proper storage and disposal of all ROC containing solvents as compliance methods.

Control Measures Scheduled for Long-Term Adoption (2010-2012)

3.4.11 R-SL-7 (Revised Rule 354) Graphic Arts

Printing operations that are regulated by this Rule include graphic arts (rotogravure and flexography) but not letterpress, offset lithography, and screen printing. ROC emissions from graphic arts processes occur from evaporation of solvents in inks, dampening solutions and cleaning solutions.

The Rule limits the ROC content of inks, fountain solutions and solvents; requires the use of closed containers for disposal of cleaning materials and restricts the application, storage and disposal of solvent.

The proposed revisions to Rule 339 will incorporate the revised solvent cleaning requirements patterned after the South Coast Air Quality Management District's Rule 1171 and will set ROC limits for specific solvent cleaning activities, require specific cleaning methods or devices and require proper storage and disposal of all ROC containing solvents as compliance methods.

3.4.12 N-XC-6 (Revised Rule 352) Residential Water Heaters; Residential and Commercial Space Heaters

Residential water heaters use controlled external combustion of utility-grade natural gas to heat water as do fan-type central furnace heaters which heat residences, commercial buildings, warehouses and other structures. The revision to rule 352 would result in decreasing the allowable NOx emissions from 0.0930 to 0.0465 pounds per MMBtu (output) for these types of equipment.

The Rule prohibits a person from supplying, selling, offering for sale, installing, or soliciting the installation of furnaces and water heaters unless the equipment complies with the emission standard.

3.4.13 R-SC-1 (Rule 323 Revision) Architectural Coatings

This revision will regulate the cleaning of application equipment used in architectural coating applications. Architectural coatings are coatings applied to stationary structures and their appurtenances. Examples of coatings include house paints, stains, industrial maintenance coatings and traffic coatings. Painting structures with architectural coatings and related equipment cleanup activities release ROC and toxic air contaminant (e.g., benzene, toluene and xylene) emissions. Architectural coatings are typically non-aerosol and include lacquers, sealers, maintenance coatings, primers, stains and enamels.

The APCD originally adopted Rule 323 (Architectural Coatings) on October 18, 1971 to regulate the reactive organic compound emissions from the application of architectural coatings. Since 1971, the rule has been amended eight times: February 24, 1975, August 22, 1977, October 23, 1978, June 11, 1979, March 11, 1985, February 20, 1990, March 16, 1995, and July 18, 1996. The amendments in 1975 through 1985 revised effective dates of technology-forcing ROC content limits and clarified language. The amendments in February 1990 revised the rule to be consistent with the California Air Resources Board (ARB) 1989 Suggested Control Measure (SCM). The 1995 and 1996 amendments dealt with general rule cleanup issues and expanded the list of compounds exempt from the definition of volatile organic compound to be consistent with EPA's definitions. ARB, in cooperation with the local air districts, again amended its SCM for architectural coatings in June 2000. According to ARB, the revised SCM reflects both the advances in coatings technologies over the past 10 years and the need for further emission reductions to attain health-based air quality standards in many air districts. The APCD's proposed rule amendment is based on ARB's SCM and will reduce existing Rule 323's allowable ROC content for several coating categories

Because architectural coating painting operations are typically portable and are not at the same site frequently, use of add-on control equipment (e.g., carbon adsorption) is difficult to apply to the process. The most practical and efficient way to reduce ROC emissions from this source category is through the use of coatings formulated with low ROC bases such as water or exempt solvent bases. Coatings reformulated from solvent-based coatings to water-based coatings require less use of thinners and cleanup solvents. Therefore, emissions from thinner and cleanup use will also decrease.

Table 3-1
2004 Plan SEIR Proposed Control Measures and Compliance Methods

Rule #	2004 Plan SEIR Control Measures[2]	Vap. Con	Reformuln	Trans. Eff.	Ext. Comb.	Int. Comb.	Post Comb	Electr Rep.	O and M.
321	R-SL-2 Solvent Cleaning Operations to become Solvent Degreasers	x	x	x					x
362	R-SL-10 Solvent Cleaning Operations (New)	x	x						x
333	N-IC-1 and N-IC-3 Stationary ICE (Near-term and Long-term limits)				x	x		x	x
330 & 337	R-SC-2 Surface coating of Metal Parts and Products; Surface Coating of Aircraft or Aerospace Vehicle Parts and Products	x	x						x
339	R-SC-4 Motor Vehicle and Mobile Equipment Coating Operations	x	x	x					x
361 (New)	N-XC-13 Small Industrial and Commercial Boilers, Steam Generators and Process Heaters					x	x		
351	R-SC-5 Surface Coating of Wood Products	x	x	x					x
349	R-SL-5 Polyester Resin Operations	x	x	x					
353	R-SL-9 Adhesives and Sealants	x	x	x					x
354	R-SL-7 Graphic arts	x	x	x					x
352	N-XC-4 Residential Water heaters; Residential and Commercial Space Heaters					x	x		x
323	R-SC-1 Architectural Coating	x	x	x					

[2] Proposed emission control measures are control measures to be adopted in the near-term, mid-term or long-term for the purpose of attaining the state 1-hour ozone standard.

4.0 ENVIRONMENTAL SETTING

The following documents describe the existing Santa Barbara County environment setting and are incorporated herein by reference:

1. The 1991 Air Quality Attainment Plan Environmental Impact Report (91-EIR-4, State Clearinghouse Number 91031045)

2. The 1994 Clean Air Plan Supplemental EIR (94-SD-3)

3. The 1998 Clean Air Plan Mitigated Negative Declaration (APCD-98-ND-01)

4. The 2001 Clean Air Plan Supplemental EIR (APCD-2001-SEIR-01)

4.1 Environmental Issues of Focus

Based on the previous environmental documents, Air Quality, Biological Resources, Hazards/Hazardous Material, Hydrology/Water Quality and Noise/Nuisance were identified as issue areas, which would potentially be affected by the implementation of this project. The cumulative environmental impacts of all the proposed measures in the 2004 Plan and the potential environmental impacts of alternatives to the 2004 Plan project are discussed in Section 6 and Section 7 respectively. The following sections describe the Environmental and Regulatory Setting for each affected issue and the significance criteria used to evaluate project impacts.

4.2 Air Quality

Environmental Setting: Based on air quality data collected in the three-year period 2001-2003, Santa Barbara County has not violated the federal one-hour ozone standard. However, the County continues to violate the state one-hour ozone and 24-hour PM_{10} standards. The 2004 CAP, which is incorporated herein by reference, shows that there has been a dramatic decrease in the number of state ozone exceedances since 1988, when the county experienced 42 days where the state standard was exceeded. In contrast, there were only two days where the state ozone standard was exceeded during 2004. A clear declining trend in the number of state ozone exceedances is evident from 1988 through 1999. Since 1999, with the relatively low number of state 1-hour ozone exceedances experienced in Santa Barbara County, the trend is less discernable.

The long-term declining trend in exceedance days has occurred concurrently with increases in both population and daily vehicle miles traveled in Santa Barbara County. This shows that local, state and federal emission reduction programs have been effective in improving air quality in Santa Barbara County despite significant increases in population and vehicle miles traveled. Chapter 3 of the 2004 CAP describes the baseline emission inventory for the ozone precursors, NOx and ROC, used in the development of the 2004 CAP. The emission inventory accounts for the types and amounts of pollutants emitted from a wide variety of sources, including on-road motor vehicles and other mobile sources (including marine shipping emissions), fuel combustion at industrial facilities, solvent and surface coating usage, consumer product usage, and emissions

from natural sources. Natural Sources (both Biogenic and Geogenic Sources) contribute the most ROC emissions in the Annual Emission Inventory. On-Road Motor Vehicles, specifically Light Duty Passenger, also produce large amounts of ROC emissions and most of the NO_x emissions. On-Road Motor Vehicles, Light Duty Trucks, and Other Mobile Sources, Off-Road Equipment and Farm Equipment, also contribute large amounts of NO_x emissions. Two- thirds of the ROC emissions in the OCS are from Natural Sources, specifically offshore oil seeps and gas seeps. Ships and Commercial Boats in transit, and Oil and Gas Production, primarily offshore platform fugitive hydrocarbons, contribute the largest remaining portions of ROC emissions to the OCS inventory. Ships and Commercial Boats also account for almost all of the NO_x emissions. The most significant emission source in both the Annual Emission Inventory and the Planning Emission Inventory is ships and commercial boats on the Outer Continental Shelf.

The significant increase in marine shipping emissions from 1999 to 2000 is a direct result of our updated calculation methodology as opposed to an increase in the level of marine shipping activity or the number of vessels transits off our coast. Therefore, the projected increases in marine shipping do not constitute a change in the baseline emissions.

Regulatory Setting: The APCD has jurisdiction over the air resources of Santa Barbara County and the Outer Continental Shelf sources in the region for which the County is the corresponding onshore area.

Significance Criteria: A proposed project will not have a significant air quality effect on the environment if operation of the project will:

- emit (from all project sources) less than the daily trigger for offsets or AQIA set in the APCD New Source Review Rule, for any pollutant; and
- emit less than 25 pounds per day of NOx or ROC from motor vehicle trips only; and
- not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and
- not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- be consistent with adopted federal and state air quality plans.

4.3 Water Quality

Environmental Setting: The 1991 AQAP EIR (page 3-33) discusses the existing water resources of Santa Barbara County. Water quality varies considerably from one water basin to another. In general, the water quality is being degraded due to agricultural runoff (fertilizers and pesticides);

public and private sewage treatment systems (e.g., reclamation projects and septic tanks) and sea water intrusion from over pumping of aquifers.

Regulatory Setting: In general, discharges are also governed by regulations implemented by the Regional Water Quality Control Board.

Significance Criteria: Any substantial degradation of existing water quality (marine or freshwater), contamination of a public water supply or depletion of groundwater supplies is considered to be a potentially significant adverse impact (CEQA Guidelines, Appendix G).

4.4 Biological Resources

Environmental Setting: The 1991 AQAP EIR (pages 3-33 through 3-38) discusses the existing biological resources of Santa Barbara County. Biologically sensitive coastal areas include, Santa Maria River Mouth, Santa Ynez Lagoon and many others. These areas are important habitat for numerous flora and fauna.

Regulatory Setting: At the state level, the California Coastal Commission, the California State Lands Commission, California Department of Fish and Game, the California State Water Resources Control Board have jurisdiction over the coastal areas of the County. The policies in the Santa Barbara County Local Coastal Plan and zoning ordinances, which generally conform to state coastal zone management objectives, are administered by the Santa Barbara County Planning and Development Department.

Significance Criteria: The effects on biological resources are a function of the impacts on water quality, noise and nuisance and risk of upset. Any activity that would substantially affect a rare or endangered species of animal or the habitat of the species; interfere substantially with the movement of any resident or migratory fish or wildlife species; or substantially diminish habitat for fish, wildlife or plants is considered to be a significant adverse impact (CEQA Guidelines, Appendix G).

4.5 Noise/Nuisance

Environmental Setting: The 1991 AQAP EIR discusses noise as an unwanted sound. The major sources of ambient noise in the County are from transportation on major highways, roadways, airports and the railroad. In general, the noise levels in the urban, populated areas of the county range from 65 to 75 dB CNEL (Community Noise Equivalent Level).

Regulatory Setting: The County Planning and Development Department and the individual City Planning Departments issue land use permits. When a discretionary land use permit is required, noise levels at the property line are evaluated and must comply with the Noise Element of the Comprehensive Plan. In the workplace, Cal-OSHA implements and monitors their noise regulations.

Significance Criteria: Noise generated by a project in excess of 65 decibels CNEL that could affect sensitive receptors would be considered a significant adverse impact. A significant noise impact would also occur where interior noise could not be reduced to 45 dB CNEL or less (County Thresholds). Significant nuisance impacts would result from activities that create a public nuisance by substantially increasing vibration, odor, fugitive dust or glare.

4.6 Risk of Upset

Environmental Setting: Accidental releases of hazardous substances could occur during transportation. Transportation of hazardous wastes in the County includes transporting of rocket fuel to Vandenberg Air Force Base and hauling of hazardous wastes to Class I landfills outside the County. Fire/Explosion are primary hazards associated with drilling, production, bulk storage, processing and transportation of petroleum and petroleum by-products related to oil and gas facilities.

Regulatory Setting: The transport of hazardous wastes is regulated by the Federal Department of Transportation, the State Department of Health Services, the California Highway Patrol and Santa Barbara County. Fire/Explosion is the purview of the County fire department and the individual city/community fire departments.

Significance Criteria: When the frequency of an accidental event cannot be estimated, accidental releases are determined to be significant if it would cause substantial adverse effects on human beings, either directly or indirectly, i.e., could result in injury or death to the public (1991 AQAP EIR).

4.7 Hazardous Materials

Environmental Setting: The largest generator of hazardous wastes is the oil and gas industry, which generates about 68% (by weight) of the county's hazardous wastes. Other large generating industries include auto dealers and service stations (7%), utilities (5%) and the military (3%) (1991 AQAP EIR). There are no Class I hazardous waste landfills in the County and most hazardous waste is hauled either by truck to the Chemical Waste Management Landfill at Kettleman City or by rail to Salt Lake City, Utah. Small business and household hazardous wastes are collected at the Hazardous Waste Collection Facility at the University of California's Santa Barbara campus and shipped out of the County periodically. Since the facility opened in 1992, the illegal disposal of small amounts of hazardous wastes is expected to have decreased.

Regulatory Setting: The California Department of Health Services Toxic Substances Control requires that hazardous waste shipped off-site be documented by a filed manifest identifying the type and quantity of wastes in the shipment and the origination and destination points.

Significance Criteria: The production, use or disposal of hazardous waste materials, which may pose a hazard to public or biological health, is considered to be a significant adverse impact (CEQA Guidelines, Appendix G).

4.8 Consistency with Applicable General Plans and Regional Plans

CEQA Guidelines § 15125 requires a discussion of any inconsistencies between the project and applicable local and regional plans. Consistency of the 2004 Plan with applicable plans such as the County's Comprehensive Plan, local General Plans, the Congestion Management Plan and the Regional Transportation Plan is discussed below. The 2001 CAP is the County's air quality plan with which all other local and regional plans are also required to be consistent.

The County's Comprehensive Plan and the local General Plans are blueprints for future growth in the County. Consistency between the 2004 Plan and these plans means that stationary and vehicle emissions associated with the existing and future land use development and resulting population and traffic increases are accounted for in the 2004 Plan's emissions growth assumptions. The 2004 Plan generally relies on the land use and population projections provided in the Santa Barbara County Association of Governments' Regional Growth Forecast. This forecast is generally consistent with the local plans; therefore, the 2004 Plan is consistent with local general plans.

The air quality policies in the Air Quality Supplement of the County's Land Use Element of the Comprehensive Plan encourage mixed use development and alternative transportation modes. The 2001 CAP includes these policies in the transportation control measures section. Therefore, the 2004 Plan is consistent with the Air Quality Supplement.

The Congestion Management Plan and the Regional Transportation Plan are prepared by the Santa Barbara County Association of Governments (SBCAG). The Congestion Management Plan is a regional planning document that identifies and addresses congestion on designated roadways in the County. The Congestion Management Plan sets level of service standards for designated roadways in the County, and identifies the responsibilities of local jurisdictions in implementing the policies in the Congestion Management Plan. The responsibilities of the APCD include preparing a list of measures that could contribute to significant improvements in air quality for use by local jurisdictions in developing deficiency plans, and developing transportation control measures (TCM) in response to the federal and state Clean Air Acts. The list of measures has been prepared and provided to SBCAG. Chapter 5 of the 2004 Plan presents TCMs designed to reduce ozone levels in the County. Therefore, the 2004 Plan is consistent with the Congestion Management Plan. The Regional Transportation Plan is a multi-modal regional planning document which identifies policies and capital improvements to meet the short-term and long-term needs of the County. The programs identified in the Regional Transportation Plan are required to be consistent with the transportation control strategies in the 2004 Plan as well as meeting federal transportation conformity requirements in order to be approved. In general, the Regional Transportation Plan programs result in a reduction in daily vehicle emission rates. Therefore, the 2004 Plan is consistent with the Regional Transportation Plan.

5.0 PROJECT IMPACTS AND MITIGATION MEASURES

Section 5 analyzes the environmental impacts of only those control measures that are new or modified in the 2004 Plan. The environmental impact analysis in this document supplements the analysis of control measures and compliance methods performed in the 1991 AQAP EIR. For a description of the environmental impacts of all the control measures (previously adopted) in the 2004 Plan please refer to the 1991 AQAP EIR. The project environmental impacts and residual impacts are classified as follows:

a. Class I Impacts - Significant unavoidable adverse impacts for which the decision maker must adopt a statement of Overriding Consideration.

b. Class II Impacts - Significant environmental impacts that can be feasibly mitigated or avoided for which the decision maker must adopt findings and recommended mitigation measures.

c. Class III Impacts - Adverse impacts found not to be significant for which the decision maker does not have to adopt findings under CEQA.

d. Class IV Impacts - Beneficial impacts (Beneficial impacts are described in detail in the 1991 AQAP EIR and are not reiterated in this document).

5.1 R-SL-2: (Rule 321 Revision) Solvent Degreasers

Rule 321 requires the proper handling and disposal of cleanup solvents used in equipment cleaning. Mitigation measures were included in the Mitigation Monitoring Program (MMP) of the 1994 CAP SEIR to notify the applicable jurisdictions during the permit review and compliance process. Residual impacts were classified as insignificant.

Additional control techniques that could be incorporated into the proposed amendment to Rule 321 include:

1. Requiring air-tight or airless cleaning systems in lieu of meeting the requirements for batch-loaded cold cleaners or open-top vapor degreasers.
2. Increasing the minimum freeboard ratio from 0.75 to 1 on open-top vapor degreasers and conveyorized degreasers.
3. Requiring that the solvent have an ROC content of 50 grams per liter or less for batch-loaded cold cleaners and conveyorized cold cleaners.

The 1991 AQAP EIR described the environmental impacts of this measure on page 5-18. Class II (insignificant after mitigation) impacts were identified for Noise/ Nuisance, Hazardous Wastes, Risk of Upset, Water Resources, and Biological Resources as a result of the use of vapor control techniques. No additional impacts that were not discussed in previous environmental documents will occur as a result of implementing the above-mentioned additional control techniques.

No new mitigations will be required. Residual impacts are insignificant.

5.2 R-SL-10: (New Rule 362) Solvent Cleaning Operations

The control measure techniques for proposed new Rule 362 will:

- Apply to wipe cleaning (currently exempt from Rule 321).
- Set solvent composite partial pressure limits and ROC limits in grams/liter (and equivalent pounds per gallon) for specific solvent cleaning activities, grouped in the following categories:
    - Product cleaning during manufacturing process or surface preparation for coating, adhesive, or ink application
    - Repair and maintenance cleaning
    - Cleaning of coatings, or adhesives application equipment
    - Cleaning of ink application equipment
    - Cleaning of polyester resin application equipment
- Require certain cleaning methods or devices (wipe cleaning, closed containers or hand held spray bottles, solvent container that can be closed, remote reservoir cleaners, approved non-atomized solvent flow, and approved solvent flushing methods.
- Require proper storage and disposal of all ROC-containing solvents. The operators will need to store the solvents in non-absorbent, non-leaking containers, which will be kept closed at all times except when filling or emptying.

The 1991 AQAP EIR (page 5-18) analyzed the environmental impacts of control measure R-SL-2 for degreasing operations and discussed impacts on air quality and water quality, biological resources, risk of upset, utilities/energy and hazardous wastes, related to vapor recovery methods. The environmental impacts were classified as Class II (insignificant, after mitigation) Class III (adverse but insignificant) or Class IV (beneficial).

Class II impacts were related to water quality degradation due to hazardous wastewater produced in the steam- regeneration of canisters used in carbon adsorption. Mitigation included ensuring proper treatment and disposal of substances, which could potentially contaminate potable water supplies. Fire hazard from carbon particles charged with solvents was also classified as Class II. Mitigation was to maintain temperatures below the Lower Explosion Limit of the compounds and to isolate potential fire and explosive hazards from flames and sparks.

The potential for the use of low-ROC substitutes which are toxic and/or associated with stratospheric ozone depletion, e.g., 1,1,1 trichloroethane as cleaning solvents was classified as an adverse but insignificant (Class III) impact in the 1991 AQAP EIR (page 4-15). Water supply impacts due to water used in steam-regeneration of used carbon canisters was classified as insignificant. Other impacts were classified as insignificant or beneficial.

5.3 N-IC-1 and N-IC-3 Stationary ICEs (Revisions to Rule 333)

Rule 333 applies to permitted spark-ignited and compression-ignited internal combustion engines that have a horsepower rating greater than or equal to 50 bhp. Engine owners and operators have complied with the requirements of Rule 333 by switching to electric motors, installing selective

catalytic reduction equipment, nonselective catalytic reduction equipment, retarding diesel engine injection timing, lean-burn tuning of rich burn spark-ignited engines, retarding the ignition on spark-ignited engines, and using other combustion modification systems. These control techniques can be used to comply with the amended Rule 333.

Impacts: Rule 333 was adopted in November 1991. The 1991 AQAP EIR identified potentially significant impacts which were mitigated fully (Class II) in the areas of Air Quality, Water Resources, Biological Resources and Hazardous Materials. The short-term and long-term revisions to Rule 333 will result in reductions in NOx and a slight increase in ROC (approx.6-7 lbs/day) by the years 2010 to 2020. This is not considered a significant adverse air quality impact. There will be no new environmental impacts that were not analyzed in the 1991 AQAP EIR. The impacts are described below:

Air Quality: The air quality impacts stem from the use of post combustion treatment processes which require the use of a catalyst (Selective Catalytic Reduction and Non Selective Catalytic Reduction) which can result in the release of heavy metals, such as vanadium pentoxide. Ammonia slip (release of unused ammonia gas) is also a potential impact. However, SCR and NSCR are unlikely to be used on the Outer Continental Shelf platforms due to lack of space for the required equipment. Therefore, the impact is considered adverse but insignificant (Class III).

Water Quality: Ground and surface water could become contaminated by materials such as aqueous ammonia. Ammonia released into marine waters would have no significant effect since sea water has an excellent buffering capacity. Therefore, the impact on water quality is considered adverse but insignificant.

Hazardous Wastes: Hazardous wastes generated would include spent SCR and NSCR catalysts. California law currently requires the proper handling, transportation and disposal of hazardous wastes. The 1991 AQAP EIR encouraged waste minimization practices such as regeneration and recycling. No new impacts are expected due to the implementation of Rule 333 on the OCS. Therefore, the impact classification remains potentially significant.

Mitigation Measures: In accordance with the MMP in the 1991 AQAP EIR, the APCD is required to notify the appropriate agencies of the potential hazardous waste generation as part of the permit and compliance process. This notification was extended to include appropriate federal agencies with jurisdiction over the OCS when the 1994 CAP was adopted.

Residual Impacts: Insignificant.

5.4 R-SC-2 (Revisions to Rules 330 and 337) Surface Coating of Metal Parts and Products; Surface Coating of Aircraft or Aerospace Vehicle Parts and Products.

The existing APCD Rule 337 (Surface Coating of Aircraft or Aerospace Vehicle Parts and Products) is a prohibitory rule which in general, reduces emissions of reactive organic compounds (ROC) from aircraft and aerospace vehicle paint coatings applied at manufacturing or assembly plants. The rule specifies limits on the ROC content of the coatings used (by

reformulation) and the use of emission reduction methods to meet rule requirements. Reformulation, which is done by the paint manufacturer, involves changing the original coating to achieve emission reduction limits specified in the Rule. Emission reduction methods specified for implementing the rule include the use of add-on exhaust control equipment, transfer efficiency, closed storage containers and proper labeling of containers. Add-on air pollution controls such as carbon adsorption is not commonly used to comply with Rule 337 and similar coatings rules in Santa Barbara County. Transfer efficiency refers to the application of coatings with properly operating equipment; using the methods such as electrostatic application, high-volume low-pressure spray, paint brush, hand roller, or any other method where the equipment is at least 65% efficient.

In 1994, Rule 337 was amended to increase the currently specified ROC limits for coatings that are applied to aircraft wings and space vehicles because low-ROC coatings are unavailable for these specific uses. A Negative Declaration (94-ND-19) was prepared to analyze the environmental impacts of these amendments. In 1995 another ND was prepared (APCD-95-ND-01) to examine the impacts of revisions to Rule 330 (Surface Coating of Metal Parts and Products) to delete the currently specified ROC limits for baked coatings that are applied to metals at new sources; limit the total usage of non-compliant coatings; exempt aerosol cans and residential, non-commercial operations from the rule; correct several minor deficiencies noted by the federal Environmental Protection Agency (EPA) to improve the enforceability of the rule, and streamline the recordkeeping requirements of the rule.

The 1991 AQAP EIR (page 5-18) analyzed the environmental impacts of control measure R-SL-2 for degreasing operations and discussed impacts on air quality and water quality, biological resources, risk of upset, utilities/energy and hazardous wastes, related to vapor recovery methods. The environmental impacts were classified as Class II (insignificant, after mitigation) Class III (adverse but insignificant) or Class IV (beneficial).

Class II impacts were related to water quality degradation due to hazardous wastewater produced in the steam- regeneration of canisters used in carbon adsorption. Mitigation included ensuring proper treatment and disposal of substances, which could potentially contaminate potable water supplies. Fire hazard from carbon particles charged with solvents was also classified as Class II. Mitigation was to maintain temperatures below the Lower Explosion Limit of the compounds and to isolate potential fire and explosive hazards from flames and sparks.

The potential for the use of low-ROC substitutes which are toxic and/or associated with stratospheric ozone depletion, e.g., 1,1,1 trichloroethane as cleaning solvents was classified as an adverse but insignificant (Class III) impact in the 1991 AQAP EIR (page 4-15). Water supply impacts due to water used in steam-regeneration of used carbon canisters was classified as insignificant. Other impacts were classified as insignificant or beneficial.

No new significant impacts on the environment were found.

5.5 R-SC-4 (Revision to Rule 339) Motor Vehicle and Mobile Equipment Coating Operations.

The emission reduction methods specified in implementing the requirements of the rule are the use of add-on exhaust control equipment, transfer efficiency, the use of reformulated solvents and coatings, closed storage containers and prohibition on the sale of non-compliant coatings in the County. Transfer efficiency refers to the application of coatings with properly operating equipment, using the methods listed in Section D.8 of the Rule. These methods include electrostatic application or high-volume low-pressure (HVLP) spray or paint brush or hand roller or any other method where the equipment is at least 65% efficient. Reformulation involves changing the original coating supplied by the manufacturer to achieve emissions reduction limits specified in the Rule. These emission reduction methods are described in the 1991 AQAP EIR (pages 2-17 and 18) which is incorporated herein by reference.

The 1991 AQAP EIR (page 5-22) analyzed the environmental impacts of control measure R-SC-4 for automobile refinishing and discussed impacts on air and water quality, biological resources, risk of upset, utilities/energy and hazardous wastes, related to reformulation and transfer efficiency methods. The environmental impacts were classified as Class II (insignificant, after mitigation); Class III (adverse but insignificant) or Class IV (beneficial).

Class II impacts were related to the general tendency to treat water-based coatings and associated clean-up wastes as environmentally benign. This could result in improper disposal of hazardous waste and may potentially cause adverse impacts on water quality, biological resources. The use of electrostatic coating operations and the use of low molecular weight coatings which can be cured with ultraviolet/infrared light was also identified as a potentially significant risk of fire or explosion. The potential for the use of low-VOC substitutes which are toxic and/or associated with stratospheric ozone depletion, e.g., 1,1,1 trichloroethane in coatings and solvents reformulation, was classified as a Class III impact in the 1991 AQAP EIR.

The rule requires the proper handling and disposal of cleanup solvents used in equipment cleaning. Mitigation measures were included in the Mitigation Monitoring Program (MMP) of the AQAP EIR to notify the applicable jurisdictions during the permit review and compliance process. Residual impacts were classified as insignificant.

Overall, the proposed changes to Rule 339 will strengthen the current rule to increase ROC emission reductions, improve enforceability by the APCD and streamline recordkeeping requirements. No relaxation in air quality standards will occur. The revisions will not cause new significant effects which were not addressed in the 1991 AQAP EIR and no new mitigation measures are required.

5.6 R-SL-4: (New Rule 358) Electronic Industry- Semiconductor Manufacturing

This measure is included in the 2004 Plan for consistency with the 2001 CAP. However, a reassessment of the emission reductions from the control measure shows that the companies performing the negative photoresist process have either left Santa Barbara County or switched over to the positive photoresist process. Furthermore, the majority of the previously assessed emission

reductions attributed to this control measure will be accomplished through R-SL-2 or R-SL-10. The current analysis indicates there would be no emission reductions from adopting a negative photoresist control measure. Therefore, the Air Pollution Control District does not plan to adopt Rule 358 and no further environmental analysis is necessary.

5.7 N-XC-13: (New Rule 361) Small Industrial and Commercial Boilers, Steam Generators and Process Heaters (2 MMBtu/hr to < 5 MMBtu/hr heat input rating) and N-XC-4 and N-XC-5 (Revised Rule 342) Boilers, Steam Generators and Process Heaters with Decreased NOx Limits.

The techniques to reduce the formation of nitrogen oxides are to lower the peak flame temperature or to reduce the amount of air flowing to the burner, both of which can be accomplished by appropriate design of the burner (see Appendix B of the 2001 CAP for details). The 1991 AQAP EIR (page 5-48) analyzed the impacts for commercial water heaters (Measure N-XC-2) with heat input ratings between 75,000 Btu/hour and 2 million Btu/hour. Class III (adverse but insignificant) impacts were found for air quality and utilities/energy
With respect to air quality, lower flame temperatures could result in minor increases of ROC emissions. However, they would be offset in part by increased combustion efficiency that would reduce the quantity of fuel burned. NO_x reductions resulting from this control measure may lead to localized increases in ambient ozone concentrations, also known as the "scavenging effect". This effect is not considered significant based on the regional reduction in ozone precursor emissions that would result from the 2004 Plan.

There could be increases in electricity use as manufacturers add fans and blowers to burner units to provide better mixing of the air and fuel and to better control the amount of air. These increases, however, are considered to be minor.

No mitigation measures are required.

No new impacts that were not discussed in previous environmental documents will occur due to the adoption of the revisions to the existing rules because the control techniques will not change; only the limits will change.

5.8 R-SC-5 (Revised Rule 351) Surface Coating of Wood Products

The Air Pollution Control District Rule 351 (Surface Coating of Wood Products) is a prohibitory rule which in general, reduces emissions of reactive organic gases (ROG) from coatings applied to wood products. The emission reduction methods specified for implementing the rule include the use of reformulated coatings, the use of add-on exhaust control equipment and transfer efficiency. Transfer efficiency refers to the application of coatings with properly operating equipment, using the methods listed in the Rule. These methods include electrostatic application, high-volume low-pressure (HVLP) spray guns, paint brush, hand roller, or any other method where the transfer efficiency of the equipment is at least 65% efficient. Reformulation, which is done by the paint manufacturer, involves changing the original coating to achieve emissions reduction limits specified in the Rule.

The 1991 Air Quality Attainment Plan Environmental Impact Report (1991 AQAP EIR), 91-EIR-4, SCH# 91031045, was prepared as a program EIR in order to assess the impacts of the county-wide 1991 Air Quality Attainment Plan (1991 AQAP). In 1994, the APCD Board certified a supplemental EIR (94-SD-3) when they adopted the 1994 Clean Air Plan. In September, 1995, a Negative Declaration for revisions to Rule 351 was adopted. These environmental documents provide the basis for the environmental review of rules adopted subsequent to the 1994 CAP.

Rule 351 and the associated compliance methods are discussed in the 1991 AQAP EIR and subsequent supplemental documents as R-SC-5. The 1991 AQAP EIR analyzed in detail the environmental impacts of the emission reduction methods described above and discussed impacts on air and water quality, biological resources, risk of upset, utilities/energy and hazardous wastes, related to reformulation and transfer efficiency methods. The environmental impacts were classified as Class II (insignificant, after mitigation); Class III (adverse, but insignificant) or Class IV (beneficial).

The rule requires the proper handling and disposal of cleanup solvents used in equipment cleaning. Mitigation measures were included in the Mitigation Monitoring Program (MMP) of the 1991 AQAP EIR to notify the applicable jurisdictions during the permit review and compliance process. Residual impacts were classified as insignificant.

Overall, the proposed changes to Rule 351 will strengthen the current rule to increase ROC emission reductions, improve enforceability by the APCD and streamline recordkeeping requirements. No relaxation in air quality standards will occur. The revisions will not cause new significant effects which were not addressed in the 1991 AQAP EIR and no new mitigation measures are required.

5.9 R-SL-5 (Revised Rule 349) Polyester Resin Operations

Fiberglass impregnation and fabrication are used in the manufacturing of synthetic marble, spas/hot tubs, surfboards, bathroom fixtures, swimming pools and boats. The production of these materials through the process of combining polyester and styrene mixtures and glass fibers results in the release of styrene, a ROC. Sources of emissions include ovens where fiberglass is cured, spray booths or other areas where resin is applied.

Control Methods: Rule 349 requires the use of high transfer-efficiency spray guns or electrostatic spray equipment, and low-ROC resins, closed –mold systems or resins containing vapor-suppressants or add-on control devices that reduce uncontrolled emissions by 85 percent.

The rule requires the proper handling and disposal of cleanup solvents used in equipment cleaning. Mitigation measures were included in the Mitigation Monitoring Program (MMP) of the AQAP EIR to notify the applicable jurisdictions during the permit review and compliance process. Residual impacts were classified as insignificant.

Overall, the proposed changes to Rule 349 will strengthen the current rule to increase ROC emission reductions, improve enforceability by the APCD and streamline recordkeeping requirements. No relaxation in air quality standards will occur. The revisions will not cause new significant effects which were not addressed in the 1991 AQAP EIR and no new mitigation measures are required.

5.10 R-SL-9 (Revised Rule 353) Adhesives and Sealants

Adhesives and sealants are used by industry in product manufacturing, packaging, construction and installation of metal, wood, rubber, plastic, ceramics, and fiberglass materials. ROC's are emitted during transfer, drying, surface preparation, and cleanup operations.

Control Methods: Rule 353 reduces ROC emissions by setting limits on the ROC content of adhesives and sealants sold and requiring sources to use good house-keeping and cleanup methods.

5.11 R-SL-7 (Revised Rule 354) Graphic Arts

Printing operations that are regulated by this Rule include graphic arts (rotogravure and flexography) but not letterpress, offset lithography, and screen printing. ROC emissions from graphic arts processes occur from evaporation of solvents in inks, dampening solutions and cleaning solutions.

Control Methods: The Rule limits the ROC content of inks, fountain solutions and solvents; requires the use of closed containers for disposal of cleaning materials and restricts the application, storage and disposal of solvent. Approved add-on controls may also be used.

The proposed Rule revision requires the proper handling and disposal of cleanup solvents used in equipment cleaning. Mitigation measures were included in the Mitigation Monitoring Program (MMP) of the AQAP EIR to notify the applicable jurisdictions during the permit review and compliance process. Residual impacts were classified as insignificant.

Overall, the proposed changes to Rule 354 will strengthen the current rule to increase ROC emission reductions, improve enforceability by the APCD and streamline recordkeeping requirements. No relaxation in air quality standards will occur. The revisions will not cause new significant effects which were not addressed in the 1991 AQAP EIR and no new mitigation measures are required.

5.12 N-XC-6 (Revised Rule 352) Residential Water Heaters; Residential and Commercial Space Heaters

Residential water heaters use controlled external combustion of utility-grade natural gas to heat water as do fan-type central furnace heaters which heat residences, commercial buildings,

warehouses and other structures. The revision to Rule 352 would result in decreasing the allowable NOx emissions from 0.0930 to 0.0465 pounds per MMBtu (output) for these types of equipment.

The Rule prohibits a person from supplying, selling, offering for sale, installing, or soliciting the installation of furnaces and water heaters unless the equipment complies with the emission standard.

Overall, the proposed changes to Rule 352 will strengthen the current rule to increase NOx emission reductions, improve enforceability by the APCD and streamline recordkeeping requirements. No relaxation in air quality standards will occur. The revisions will not cause new significant effects which were not addressed in the 1991 AQAP EIR and no new mitigation measures are required.

5.13 R-SC-1 (Rule 323 Revision) Architectural Coatings

This revision will regulate the cleaning of application equipment used in architectural coating applications. Architectural coatings are coatings applied to stationary structures and their appurtenances. Examples of coatings include house paints, stains, industrial maintenance coatings and traffic coatings. Painting structures with architectural coatings and related equipment cleanup release ROC and toxic air contaminant (e.g., benzene, toluene and xylene) emissions. Architectural coatings are typically non-aerosol and include lacquers, sealers, maintenance coatings, primers, stains and enamels.

Coatings reformulated from solvent-based coatings to water-based coatings require less use of thinners and cleanup solvents. Therefore, emissions from thinner and cleanup use will also decrease.

Impacts: The 1991 AQAP EIR discussed impacts as follows: "Reformulation would reduce the emissions of toxic compounds such as benzene, toluene and xylene. Reformulation, however, could result in the use of other potentially toxic or carcinogenic exempt compounds (such as 1,1,1-trichloroethane (TCA), methylene chloride and trichlorotrifluoroethane). The release of toxic air contaminants may pose a hazard to public health. The manufacture of TCA and other compounds which are stratospheric ozone-depleting compounds will be phased out by the year 1996 to comply with the federal Clean Air Act". The potential impact to public health was classified as an adverse, but insignificant impact in the 1991 AQAP EIR (Class III). No mitigations were identified in the 1991 AQAP EIR.

As analyzed in the 2001 CAP SEIR, the use of low-ROC solvents for the cleaning of spray equipment will not result in any new significant impacts which cannot be mitigated.

No significant impacts were identified in the previous environmental documents and no significant impacts are anticipated with the adoption of the proposed revisions to Rule 323.

6.0 CUMULATIVE IMPACTS

CEQA defines cumulative impacts as "two or more individual effects which when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impacts from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects" (CEQA Guidelines Section 15355).

The 1991 AQAP EIR examined two primary issues of concern that involve cumulative impacts beyond county borders, air pollution transport and electric power generation. Air pollution transport is considered to occur between Santa Barbara County, adjacent counties, the South Coast Air Basin (Los Angeles), and the Outer Continental Shelf. The cumulative effect of air quality plans of other districts was considered a beneficial effect. Secondly, the cumulative effect of control measures for replacing fossil-fueled equipment with electric equipment and the resulting effect on energy demand was discussed. The 1991 AQAP EIR concluded that it would be speculative to draw any conclusions on this issue.

Since the 1991 AQAP EIR and subsequent environmental documents included all issues in the discussion of cumulative impacts, no further discussion is provided in this SEIR for the 2004 Plan.

7.0 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA requires that an EIR evaluate a range of reasonable alternatives to the proposed project (including the "No Project Alternative") that could feasibly attain the basic objectives of the project and evaluate the comparative merits of the alternatives. The discussion of alternatives must focus on alternatives capable of eliminating any adverse environmental effects of reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of project objectives, or would be more costly (CEQA Guidelines Section 15126 (d) (3)).

The key issue in determining the range of alternatives is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation. The EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. A feasible alternative is one that can be "accomplished within a reasonable period of time, taking into account economic, legal, social and technological factors" (Public Resources Code 21061.1).

The 1991 AQAP EIR evaluated the effects of three alternatives, a No Project Alternative, a less stringent control alternative and a more stringent control alternative as compared to the effects of the 1991 AQAP. The No Project Alternative and the less stringent Alternative were not considered to meet the basic objective of the 1991 AQAP, i.e., the attainment of the state ozone standard. The more stringent alternative was assessed to have a substantially higher cost.

In the SEIR for the 2001 CAP, the alternatives analysis focused on eliminating any adverse environmental effects of implementing the 2001 CAP as proposed or reducing the adverse effects to a level of insignificance. The adverse environmental impacts identified in the 2004 Plan SEIR, similar to the 2001 CAP SEIR, may be attributed to improper hazardous waste generation and disposal (e.g., disposal of used carbon adsorption canisters, or paints), the use and transportation of hazardous or toxic substances in air pollution control and the use of stratospheric ozone depleting substitution compounds in the solvent industry. Therefore, based on these adverse impacts, two alternatives were selected. These are the required No Project Alternative and an alternative requiring the APCD to encourage the use of less environmentally harmful compliance methods where feasible. The impacts of these alternatives are evaluated in comparison to the 2004 Plan.

Alternative 1. The No Project Alternative

The No Project Alternative consists of not adopting the 2004 Plan. If the 2004 Plan is not adopted, the 2001 CAP would continue to be in effect. The 2001 CAP does not fulfill the California Clean Air Act requirements for the triennial update. Consequently, the primary objective of the 2004 Plan will not be met and the No Project Alternative is not viable.

Alternative 2. The More Stringent Alternative.

The control measures in the 2004 Plan and previous air quality attainment plans do not specify the compliance methods that must be used to achieve the specified emission limits. As discussed in the 1991 AQAP EIR and this supplemental EIR, certain compliance methods may result in potentially significant adverse impacts to air quality, water resources, biological resources, hazardous waste disposal and risk of upset. Mitigation measures to reduce these adverse impacts consist of notification to the various local, state and federal agencies with jurisdiction over these issues. However, these impacts could be avoided if compliance methods approved by the APCD for use by an operator were examined to select those with the least cross-media environmental impacts. In terms of significant environmental impacts, compared to the 2004 Plan as proposed, the Environmentally Superior Alternative will not be substantially different. The residual impacts of the 2004 Plan (after mitigation measures have been applied) are insignificant. Adopting the Environmentally Superior Alternative may not be feasible, taking into account economic, legal, social and technological factors. Therefore, this is not considered a viable option.

8.0 OTHER CEQA TOPICS

Section 8 includes the CEQA topics of: the environmentally superior project, the Relationship Between Local Short-Term Uses and Long-Term Productivity, Significant Irreversible Changes, Growth Inducing Impacts, Socio-Economic Impacts and Consistency with applicable Plans and Policies. The following sections summarize the discussion of these issues in the 1991 AQAP EIR. Since the 2004 Plan is similar to the 1991 AQAP the discussion has not been amended for this SEIR.

8.1 Relationship Between Short-term Uses and Long-term Productivity

As required by Section 15126 (e) of the State CEQA Guidelines, the 1991 AQAP EIR discussed the cumulative and long-term effects of the 1991 AQAP which adversely affect the environment and justified why the project must be implemented now rather than in the future. The 2004 Plan is similar to the 1991 AQAP and there are some short term costs associated with the implementation of the plan in terms of commitment of financial, material and human resources. No significant environmental impacts which cannot be mitigated to a level of insignificance were identified. The air quality benefits of implementing the control measures, improving the efficiency of natural resource use and transportation systems, will enhance long term productivity. The reason for considering the implementation of the 2004 Plan now, instead of in the future, is because of State Clean Air Act mandates.

8.2 Significant Irreversible Changes

The 1991 AQAP EIR did not identify any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126 (f)). The 2004 Plan like the 1991 AQAP would require an incremental use of limited non-renewable resources, such as water, energy, minerals and land. However, the incremental use of resources attributable to any new and revised control measures in the 2004 Plan is not significant.

8.3 Growth Inducing Impacts

CEQA Guidelines Section 15126(g) requires the discussion of the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. The 1991 AQAP EIR stated it is plausible that the improved air quality in the county could encourage people to move to the area as a healthier place to live, but it would be highly speculative to attempt to separate normal growth under the County's General Plan from that specifically resulting from the 2004 Plan.

8.4 Socio-economic Impacts

The 1991 AQAP EIR discussed the beneficial socio-economic impacts of the plan, such as reduced health care costs, reducing damage to crops and forest, and reduced deterioration of some paints, dyes and textile fibers. Cost savings due to increased fuel efficiencies and growth of emission control industries were also cited.

The adverse socio-economic impacts of the control measures were listed as increased capital and/or operation and maintenance costs to individual businesses or residents. These were classified as adverse but not significant in the 1991 AQAP EIR.

APPENDIX A - REFERENCES

State of California, Office of Planning and Research, 2000. California Environmental Quality Act (CEQA) Statutes and Guidelines.

Santa Barbara County Air Pollution Control District, Revised November, 2000. Environmental Review Guidelines for the Santa Barbara County Air Pollution Control District: Guidelines for implementing the California Environmental Quality Act of 1970, as amended.

Santa Barbara County Planning and Development Department, January 1995. Environmental Thresholds and Guidelines Manual.

Santa Barbara County Air Pollution Control District, December 1998. 1998 Clean Air Plan for Attainment of the State and Federal Ozone Standard in Santa Barbara County.

Santa Barbara County Air Pollution Control District, 1998. Mitigated Negative Declaration for the 1998 Clean Air Plan (APCD-98-ND-01).

Santa Barbara County Air Pollution Control District, November 1994. 1994 Clean Air Plan.

Santa Barbara County Air Pollution Control District, 1994. Supplemental Environmental Impact Report for the 1994 Clean Air Plan (94-SD-3).

Santa Barbara County Air Pollution Control District and Santa Barbara County Association of Governments, 1993. 1993 Rate-of-Progress Plan, Federal Ozone Standard Countywide.

Santa Barbara County Air Pollution Control District, September 1993. Environmental Impact Report for the 1993 Rate-of-Progress Plan.

Santa Barbara County Air Pollution Control District, December 1991. 1991 Air Quality Attainment Plan: State Ozone Standard Countywide.

Santa Barbara County Air Pollution Control District, December 1991. Final Environmental Impact Report for the 1991 Santa Barbara County Air Quality Attainment Plan. State Clearinghouse Number 91031045; County Document No. 91-EIR-4. Prepared by Jacobs Engineering Group.

Santa Barbara County Air Pollution Control District, May 1990. 1989 Air Quality Attainment Plan for the Federal Ozone Standard, South County.

Santa Barbara County Air Pollution Control District, May 1990. Final Environmental Impact Report for the 1989 Air Quality Attainment Plan. State Clearinghouse No. 89012511; Santa Barbara County # 89-EIR-9

Santa Barbara County Air Pollution Control District. Rules and Regulations.

Santa Barbara County Air Pollution Control District, 1993. 1992 Annual Air Quality Report.

Santa Barbara County Air Pollution Control District, November 22, 1991. Final EIR for District Rule 333, Control of Emissions from Reciprocating Internal Combustion Engines. State Clearinghouse No. 91031045; County Document No. 91-EIR-4.

Santa Barbara County Air Pollution Control District, April 1994. Draft EIR for APCD Rule 359 - Flares and Thermal Oxidizers. SCH No. 94031005; 94-EIR-3.

APPENDIX B - ACRONYMS

APCD	Air Pollution Control District
AQAP	Air Quality Attainment Plan
AQIA	Air Quality Impact Assessment
AQMD	Air Quality Management District
ARB	(California) Air Resources Board
Btu	British thermal unit
CAP	Clean Air Plan
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
EPA	(United States) Environmental Protection Agency
FCAAA	Federal Clean Air Act Amendments
MMP	Mitigation Monitoring Plan
ND	Negative Declaration
NO_x	Nitrogen oxides or oxides of nitrogen
NSCR	Selective Non-Catalytic Reduction
PEIR	Program Environmental Impact Report
ROC	Reactive Organic Compound
ROP	Rate-of-Progress (Plan)
SBCAG	Santa Barbara County Association of Governments
SCH	State Clearinghouse
SCM	Suggested Control Measure
SCR	Selective Catalytic Reduction
SEIR	Supplemental Environmental Impact Report
TAC	Toxic Air Contaminant
TCM	Transportation Control Measure

APPENDIX C – MITIGATION MONITORING PLAN

Impact	Mitigation Measures	Monitoring Actions	Monitoring Responsibility	Monitoring Schedule
Air Quality: Post Combustion treatment processes which require use of catalysts (SCR and NSCR) can result in ammonia slip and release of heavy metals, such as vanadium pentoxide.	Systems shall be properly operated and maintained to minimize adverse impacts.	Any source proposing to use catalysts, the APCD permit shall require compliance with manufacturer's specifications.	Air Pollution Control District (APCD).	During APCD permit process.
Water Quality: Ground and surface water could be contaminated by materials or waste products used by some emission control systems.	Wastewater or other waste streams shall be treated to meet discharge standards or handled as hazardous waste.	Any source proposing to use emission control systems involving waste streams, the operator is subject to the regulations of relevant jurisdictions.	County Environmental Health Service (EHS), local sanitary district, Regional Water Quality Control Board, State Fish and Game; USEPA (on OCS or federal lands), Minerals Management Service (MMS).	APCD will notify relevant jurisdictions during APCD permit and compliance process.
Biological Resources: Compliance methods that adversely impact humans or water resources will also impact flora and fauna.	Adverse impacts to flora and fauna shall be minimized.	All mitigation measures identified under air quality, water quality, noise/nuisance, risk of upset and hazardous wastes shall be implemented.	State Dept. of Fish and Game, MMS.	APCD will notify relevant jurisdictions during APCD permit and compliance process.
Noise/Nuisance: The use of compressors, fans or pumps in emission control may increase ambient noise substantially. Night time glare from flares used to destroy ROC emissions may have an impact in visually sensitive areas.	Noise shall be mitigated in compliance with OSHA regulations. Planned flaring shall be restricted to day time hours or enclosed flares shall be used.	Any source proposing to use noise-generating equipment shall be subject to the regulations of relevant jurisdictions.	Occupational Safety Health Agency, MMS (for OCS).	APCD will notify relevant jurisdictions during APCD permit and compliance process.
Risk of Upset: The use of carbon adsorption canisters and electrostatic sprayers may create a hazard of fire and explosion.	Safe handling, operating, transportation, and disposal procedures shall be used.	Any source proposing to use emission controls which increase risk of fire and explosion shall implement procedures consistent with relevant federal, state and local regulations.	Local Fire Departments Office of Emergency Management (OEM), EHS, USEPA	APCD will notify relevant jurisdictions during APCD permit and compliance process.
Hazardous Wastes: Used carbon canisters or used catalysts could be disposed of improperly.	All hazardous wastes generated during emission control processes shall be disposed of properly.	Operator shall be subject to federal, state and local regulations governing the disposal of hazardous wastes.	EHS, County Fire Dept.,Local Fire Dept., USEPA, US Dept. of Transportation, Calif. Highway Patrol.	APCD will notify relevant jurisdictions during APCD permit and compliance process.

APPENDIX D – APCD RESPONSE TO COMMENTS

This appendix provides the three written comments received on the 2004 CAP SEIR and APCD staff responses to these comments.

TMA

#1

October 8, 2004

Dr. Ron Tan
APCD Planning and Technology Supervisor
260 N. San Antonio Rd, Suite A
Santa Barbara, CA 93110-1315

Dear Dr. Tan;

Thank you for the opportunity to review and comment on the proposed Draft Supplemental Environmental Impact Statement for the Air Quality Management Plan. Attached you will find a letter of comment that we submitted to the agency regarding Chapter Seven of the draft plan raising concerns regarding the various impacts of the recommended policies in that chapter. We could find no reference in the Supplemental Impact Statement to these policies.

As noted in the attached letter, the recommended policies if implemented would significantly alter the amount and location of new development from exiting plans. Such changes would create a range of impacts on almost all aspects of the environment, including air quality. When the Draft Supplemental (in Section 8) addresses the growth inducing effects of the plan there is no analysis of whether the recommendations of the Air Pollution Control District for higher densities in Chapter Seven would induce growth or what the impacts of such densification might be.

As you know, CEQA requires "…EIRs and negative declarations should be carried out as early as feasible in the planning process to enable environmental considerations to influence project program or design…" (15004(b) of CEQA Guidelines). We believe that this section requires an analysis of the potential impacts of the recommended policies of Chapter Seven, irrespective of whether the Air Quality Plan proposes to directly implement those policies. Clearly a full environmental analysis would be required if the Air Pollution Control District in any way seeks to implement these policies. Such implementation would include using these comments as a basis for commenting on local governmental plans or development proposals.

130 Cremona Drive, Suite B, Goleta, CA 93117 P 805.961.7500 F 805.685.2635 www.cityofgoleta.org

Thank you for your attention to our comments.

Sincerely,

Patrick L. Dugan
General Plan Manager

Cc: Frederick C. Stouder
City Manager

CITY OF GOLETA 130 Cremona Drive, Suite B, Goleta, CA 93117 P 805.961.7500 F 805.685.2635 www.cityofgoleta.org

ATTACHMENT

CITY OF GOLETA

September 23, 2004

Mr. Tom Murphy
APCD Manager
Technology and Environmental Assessment
260 N. San Antonio Rd, Suite A
Santa Barbara, CA 93110-1315

Dear Mr. Murphy;

Thank you for the opportunity to review and comment on the proposed Air Quality Management Plan. While the Plan contains valuable information, Chapter Seven raises several questions.

Chapter Seven contains many useful suggestions to enhance the potential for greater use of alternative transportation modes. However, the chapter also contains numerous recommendations that could create adverse impacts on the local quality of life and if implemented by the Air Resources Board would be an unwarranted intrusion into local land use authority and jurisdiction. These recommendations may even serve to reduce air quality in the region instead of improving it. There are two sets of policies that are particularly troubling, the policies relating to densification (Section 7.3.1) and parking (Section 7.4.3).

DENSIFICATION POLICIES

The densification policies in this chapter, Section 7.3.1, are based on inadequate premises and could be growth inducing.

Premises of the Recommendations:

Chapter Seven advocates policies to intensify land use based on the conclusion that past land use patterns and trends are creating an increase in vehicle miles traveled and that research conducted in other geographical areas has demonstrated that more dense land use patterns reduce vehicle miles traveled (VMT) on a per unit basis.

130 Cremona Drive, Suite B, Goleta, CA 93117 P 805.961.7500 F 805.685.2635 www.cityofgoleta.org

Increasing VMT

The recommendations in this chapter appear to be based on the following:

> The largest source of human-generated onshore air pollution in Santa Barbara County is motor vehicles. Consistent with state and national trends, and as discussed in Chapter 5 of this 2004 Plan, motor vehicle use continues to increase and the rate at which vehicle miles traveled is growing much faster than the rate of population growth. *The principal reasons for this are high housing prices and land use patterns that encourage long-distance commuting from home to work and increasingly require cars to be used for every errand, from taking children to school to shopping to dining.* (Italics added; Page 7-2)

There is no documentation presented for the conclusion that a change in land use patterns or housing costs are the principal causes of the increasing rate of growth for vehicle miles traveled. During this period of time there has been very little change in residential development patterns on the south coast. The changes that have occurred would tend to indicate that the population of the south coast area is becoming more concentrated rather than more dispersed.

Between 1990 and 2000 the total number of housing units on the south coast increased by only 3.4%, almost all of this consisting of "infill" of parcels within the existing development pattern. Most of this development occurred at locations where travel patterns would be very similar to the travel patterns with the surrounding uses and therefore would not tend to increase the *per capita* Vehicle Miles Traveled. The 3.4% rate of growth was less than half the rate of population growth in the same period (8%)—indicating that about half of the population growth was absorbed into existing units. In addition all of the net population growth in the Santa Barbara County Census Division consisted of Hispanic households who tend to reside in the city centers of the area. Hispanic households also tend to use alternative forms of transportation more than non-Hispanic households. As such, these trends can not be considered a significant change that would account for the amount of increase in vehicle miles traveled.

While there has been an increase in long distance commuting between 1990 and 2000, the amount of this increase is very small relative to the total amount of population, employment or vehicle miles traveled. The US Census of Population reports for the period indicate that the number of people who commute more than 30 minutes to work increased by 10% (not 20% as reported on page 5-17 of the Plan)[1] a little above the population increase of 8%.

[1] Americanfactfinder, Tape 3 of 2000 Census, Table P31 and Tape 3 of 1990 Census, Table P50.

In addition, as correctly noted on page 5-11, an increase in inter-county commuters has occurred. Countywide this increase was 5,403 between 1990 and 2000.[2] This number represents only about 3% of the entire Santa Barbara County workforce. It is difficult conclude that these numbers (combined, accounting for only about 5% of the 18% increase in VMT for 1990 to 2000 shown on figure 5.1) account for the increases in VMT cited in Chapter 5 as noted by the above quoted paragraph.

The Plan does not significantly address other potential influences. For example changes in VMT may be closely related to economic conditions. The graph on page 5-2 should be compared to economic indicators to see if economic conditions may be a significant factor—the trough between 1989 and 1995 does suggest that this may be a factor. We also note that the VMT data is from CalTrans and therefore is likely based on traffic count data on the State system which would be heavily influenced by through and recreational traffic volumes unrelated to local population growth in the area. Other significant factors that should also be considered include—relative gas prices, general demographic factors etc. Finally, since VMT is difficult to estimate at the local level, the methodology involved in making these estimates should be examined.

Research in Other Areas.

In order to justify the effectiveness of its recommended land use strategy the Plan relies on a study for the Air Resources Board "Transportation –Related Land Use Strategies to Minimize Motor Vehicle Emissions: an Indirect Source Research Project" (1995). As noted on page 7-3 of the Plan, this study did find substantial differences in VMT generation from different densities of development, with high-density areas having substantially lower VMT rates than lower density areas. However, all of the higher density areas studied were very large urban areas, parts of large metropolitan regions (San Francisco Bay area, Los Angeles , Sacramento and San Diego) of millions of people. Even the suburban "control" places were within or closely associated with these metropolitan areas. None of these high density areas included geographic areas that were comparable in scale of development or population to any part of Santa Barbara County now, or forecasted for the future the SBCAG.

Since the study only included metropolitan areas and used density as the primary variable to be examined, it did not consider one of the most significant variables associated with reducing per capita VMT generation; the mass of urban development. Massive traffic congestion that occurs in these metropolitan areas (many times the magnitude found here) leads to people seeking alternative transportation. If traffic does not reach truly intolerable levels, the private automobile still is the preferred mode for almost all people. The findings of this study are inapplicable to this area. We are unaware of any study that shows the benefits of density to reducing VMT per capita conducted on any area comparable in size and scale to this region. In order for the strategies suggested to work in this region, substantial growth would first need occur that would create the traffic congestion comparable to the metropolitan regions that

[2] We do complement the Plan on reporting the correct intercounty commuting data as reported by the Census rather than other often cited, yet less established data sources.

were studied. Even then it might be questionable that the strategies would have a significant impact based on the examples cited.

Adverse Impacts of Following the APCD Recommendations

The Plan does not include an analysis to determine if the policies recommended would actually reduce air quality relative to existing land use plans and regulations. There are at least two ways that these recommendations could reduce air quality conditions on the south coast: growth and high density sprawl.

Growth

The report does not address the most basic cause of air quality degradation—increased growth. The density standards recommended by the Plan would increase substantially the development envelop of the region, allowing substantially more growth to occur than what would currently be permitted under existing plans and ordinances. The impacts of this additional growth should be analyzed in comparison to existing regulations with and without additional commuting into the region.

High Density Sprawl

While the Plan does recognize that its recommendations should not be applied in inappropriate circumstances, the thrust of the policies is to promote densification in almost all urban or suburban locations. All that seems to be required is a "transit route" irrespective of existing or planned head-ways and connectivity to jobs and commercial areas.

This includes many areas where commercial services and jobs are not likely to be located. If new development occurs at the densities recommended the residents of these developments would still need to travel significant distances to these services. Since the higher density would result in a larger numer of people traveling to these services, there will be more travel than there would be with a lower density development at such sites.

For people not to use their cars, even in high density environments, transit use must be more attractive for the trip than the car. The Plan makes no assessment of whether transit services would be financed to provide the high level of service that would be required to achieve the objectives sought if the desired densities were achieved. Even with much more extensive transit services available, it would still be questionable whether the benefits of such service would cause people to choose transit over their car in our area or similar areas.

PARKING

Section 7.4.3 advocates a severe restriction in the amount of parking that may be allowed in new development. Although a clear rationale for such an aggressive measure is not expressed in the chapter, it appears to be related to the belief that curtailing parking opportunities would stimulate transit use; e.g. if you cannot park your car you will ride the bus. This at very best -- is a gamble. If not successful this strategy will result in many problems. In residential areas, parking problems will overflow into adjacent areas detracting from neighborhood quality. In commercial areas, minimal parking tends to exacerbate traffic congestion (and related air pollution) as people search for parking and may ultimately result in a loss of business.

There are numerous areas where second units and overcrowding have created a lack of parking in the City of Goleta. There is no evidence that increased transit use has been a result, but problems associated with parking have been. In commercial areas, this policy will hinder the viability of commercial uses and could result in large public expenditures to mitigate the problems associated with inadequate parking.

CONCLUSION

There are important air quality impacts associated with development patterns. The most significant of these impacts is from growth itself. Unless this aspect of land use is addressed, polices advocating densification and restrictive parking will have little if any impact on overall air quality. "Transportation –Related Land Use Strategies to Minimize Motor Vehicle Emissions: an Indirect Source Research Project," gives many examples of communities that have relatively low vehicle miles traveled per capita. While this may or may not be due to density, we would not want to trade our quality of life for the quality of life in any of those communities or for that matter our air quality.

Thank you for the opportunity to review your Air Quality Management Plan. Please contact us if you have any questions.

Sincerely,

Patrick L. Dugan
General Plan Manager

Cc: Frederick C. Stouder
City Manager

CITY OF GOLETA 130 Cremona Drive, Suite B, Goleta, CA 93117 P 805.961.7500 F 805.685.2635 www.cityofgoleta.org

TMM

CONFIDENTIAL IF CHECKED ☐

LAW OFFICE OF MARC CHYTILO

FACSIMILE TRANSMITTAL SHEET

TO: Terry Dressler Ron Tan	FROM: Marc Chytilo
FAX NUMBER: 961-8801	DATE: October 12, 2004
COMPANY: SBC APCD	TOTAL NO. OF PAGES INCLUDING COVER: 5
RE: CAP CEQA Comments	

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

If you receive this communication in error, please notify us immediately by telephone (call collect) and return the original message to the address above via regular U.S. Mail. You will be reimbursed for any expenses in returning this communication.

If document is not received in good condition
or if pages are missing, please call (805) 682-0585 as soon as possible.

RECEIVED
2004 OCT 12 PM 3:27
SANTA BARBARA COUNTY
AIR POLLUTION CONTROL

POST OFFICE BOX 92233 • SANTA BARBARA, CA 93190
PHONE: 805.682.0585 • FAX: 805.682-2379
AIRLAW5@COX.NET

LAW OFFICE OF MARC CHYTILO

ENVIRONMENTAL LAW

October 12, 2004

Mr. Terry Dressler, Control Officer
Air Pollution Control District
260 N San Antonio Road, Suite A
Santa Barbara, California 93110

BY FAX 961-8801
AND US MAIL

RE: Comments to 2004 CAP DEIR

Please accept these comments on behalf of Our Children's Earth Foundation, an organization committed to improving air quality throughout California to meet the needs of all of our community, and in particular, the needs of children and other persons that are particularly sensitive to exposure to air pollution.

CEQA requires the District to identify and disclose all potentially significant impacts of its actions. Unavoidable adverse impacts should also be identified.

1. CHANGED BASELINE

The environmental setting is one of the most important elements of the CEQA environmental review process. The 2004 CAP contains significant new information concerning the environmental baseline for the CAP – its emissions inventory. The CAP discloses that current and projected marine shipping emissions substantially exceed previous estimates and threaten to defeat the CAP's effectiveness.

Specifically, projected increases in marine shipping emissions promise to overwhelm onshore emissions reductions and cause a more prolonged period of unhealthful air quality in Santa Barbara County and other coastal Air Pollution Control Districts.

This issue was identified in the 2001 CAP, but new information indicates that this source category may be even larger and more significant in the future than previously expected.

Just as a landowner would be expected to report new discovery of wetlands on their lands during a permit process or changes in use of an adjacent parcel that altered the project setting, the District must identify this new information and review its consequence in the DEIR. See *Mira Monte Homeowner's Association v. County of Ventura* (1985) 165 Cal.App.3d 357, 364-366. The magnitude of marine shipping emissions is enormous in the context of the Santa Barbara County emissions inventory. The purpose of the CAP is to reduce emissions and improve air quality. The effect of the CAP's implementation will be reductions in emissions and progress towards attainment of the health-based California Ambient Air Quality Standard for ozone. This

MARC CHYTILO
P.O. Box 92233 • Santa Barbara, California 93190
Phone: (805) 682-0585 • Fax: (805) 682-2379
Email: airlaw5@cox.net

new information is highly relevant to the CAP's effectiveness and the environmental benefit of improved air quality. Compared to the baseline expectation of the CAP's positive impacts to regional air quality prior to the discovery of this information, it is now evident that air quality improvements from implementation will be far less significant than anticipated. Stated another way, this information discloses that the residents of Santa Barbara County will be exposed to unhealthful air quality for a much longer period (or more frequently) than was the baseline without this information.

Further, because the CAP reflects new information concerning sources that will cause or contribute to a violation of the California Ambient Air Quality Standards, its impact is significant.

The fact that the District may lack jurisdiction to directly control this source, and thus that the impact cannot be avoided, is irrelevant to the disclosure of critically relevant to the decisionmaker's consideration of the CAP and the public's consideration of its impacts. There may, of course, be mitigation measures that could lessen the significance of this impact which should be considered.

Additionally, the anticipated future emissions reduction shortfall created by this new information indicates that other forms of air pollution control will be necessary in the future to overcome the increased emissions. To the extent such future control strategies are foreseeable, the District has an obligation to attempt to describe them.

Reliance on the previous environmental review documents does not address this concern. To the commenter's knowledge, there is no articulation of this as a potentially significant impact in the 2001 maintenance plan, and even if there were, the significance of the impact has increased due to new emissions inventory numbers showing marine shipping to be a larger problem than previously understood.

2. SUPPLEMENTAL EIR INAPPROPRIATE

A supplemental EIR is appropriate only when ""[o]nly minor additions or changes would be necessary to make the previous EIR adequately apply to make the previous EIR apply to the changed situation." Guidelines § 15163(a). In this case, marine shipping is an enormous new factor that, for the first time, is recognized as potentially rendering the entire air pollution control regulatory and planning process ineffective due to newly discovered emissions. A Subsequent EIR is required, at the least, to articulate this important changed circumstance and examine the effectiveness of the CAP to achieve its statutory goals and adequately protect public health. If the CAP cannot achieve that, this is another significant impact that must be disclosed.

3. **FAILURE TO PROPERLY DESCRIBE SETTING**

The CAP recites that Santa Barbara County attains the federal one hour ozone standard, but that it "continues to violate" the California Ambient Air Quality Standard for ozone. This vague description of the current environmental setting fails to properly inform decisionmakers and the public of the consequence of the CAP.

The environmental setting should include a description of the number and locations of exceedences and violations, current ambient air quality trends and emissions inventory trends (including the marine shipping emissions projections), the region's progress towards meeting the health-based California Ambient Air Quality Standard and the public health consequences of our failure to attain the standard by the statutory deadline.

4. **FAILURE TO INCLUDE TRANSPORTATION SOURCES PLAN**

The District and Santa Barbara County Association of Governments are required to adopt a transportation sources plan through the process identified at Health and Safety Code § 40717. The transportation sources plan would identify Transportation Control Measures to meet the California Clean Air Act's expressed purposes and objectives of CAPs to "focus particular attention on reducing emissions from transportation sources . . ." Health and Safety Code § 40910. Significantly, the Santa Barbara County CAP is required by the Act to adopt:

> Reasonably available transportation control measures sufficient to substantially reduce the rate of increase in passenger vehicle trips and miles traveled per trip if the district contains an urbanized area with a population of 50,000 or more."

Health and Safety Code § 40918(a)(3).

The CAP fails to address, much less achieve this statutory requirement, resulting in a myriad of significant adverse environmental impacts – jobs-housing imbalance, excessive long distance commuting, deprivation of adequate public transit services to residents, including low income populations, unhealthful air quality, exposure of sensitive populations to unhealthful air quality, sprawling land use patterns, conversion and loss of agricultural lands, and expanded roadways and roadway infrastructure, causing impacts to wetlands, water quality, native American cultural resources, etc.

We implore the District to revise the 2004 CAP to meet the minimum statutory requirements, or revise the environmental review document to acknowledge the significant adverse environmental impacts of its decision to do so.

Sincerely,

Marc Chytilo

CC: Our Children's Earth

#3

Date: 19 October 2004

To: SBAPCD, SBCAG, County of Santa Barbara Board of Supervisors
Fm: Dr. Edward McGowan representing the Citizens Planning Association's Land Use Committee
Re: Synergistic adverse effects of road dust, impacts on human health. Is looking at ozone enough?

The Santa Barbara News Press was thoughtful enough to run an article by Terry Dressler discussing clean air. In that article, and its referenced documents, there is mention of the adverse impact of ozone on lung tissue and the respiratory system, hence health. Dr. Dressler also invited his readers to review the draft of the 2004 Air Quality Plan and its accompanying EIR.

Having read the noted documents, I would like to comment for the record. This comment memo opens with a summary and then supplies the interested reader with background information, thus allowing for further inquiry. I would be happy to assist any agency with a more advanced analysis or search for data. I also have large files that are available for the asking.

SUMMARY

While the engine emissions from certain vehicles may be going down, and this is good, the total number of vehicles is going up as well as the number of trips. Along with the increased trip volume will be increased tire dust. Entrained road dust acts synergistically with ozone. Thus while there may be attainment of ozone standards, this ignores the synergistic impacts between ozone and other materials. Accordingly, reaching a specified ozone level may have an insufficient beneficial impact on health. As these other synergistic constituents (some of which seem not to be considered) gain greater importance in human health, it may take less and less ozone to augment an acute or chronic impact on health. These impacts are potentially significantly adverse. Thus the EIR should provide a broader review of this synergistic interaction on health.

Within this entrained road dust are numerous constituents that may be considered as carcinogenic. Others are irritants. Then there are the various pathogens (bacteria, viruses, fungi, and protozoa) many of which may contain and thus could transfer antibiotic resistance. Other constituents of road dust also adversely affect the functioning of the respiratory system through allergic reactions. That the respiratory tissues are irritated merely opens those surfaces to increased risk from pathogens. The process here is cyclic.

Within the heading of road dust one finds, as mentioned above, tire dust. This is material that is removed from the tires as they contact the road. The average amount of tire dust lost annually through wear has been estimated at 2.5 pounds. Thus a 4-wheel vehicle will lose about 10 pounds of rubber per year. Estimates from Los Angeles put the aerosol load from tire dust at about 10,000 pounds *per day*. This is divided into microscopic latex particles, many of which will stay suspended for hours as they waif around and then move down wind. Many will reach the smallest recesses of the lung.

Much of this rubber dust is composed of latex and falls within the PM-10 to PM-2.5 or smaller range. These particles reach the deepest recesses of the lung and this exacerbates allergic reactions as well as asthma. The current medical literature indicates that this type of dust may actually be **initiating asthma** as well as exacerbating that condition. Asthma is a growing national health crisis. There is also, within the European medical literature, a sufficient number of papers to suggest that this type of dust becomes statically charged by exposure to the corona effect surrounding large power lines, lines that often parallel roadways. This remaining charge on dust particles causes them to preferentially adhere to moist lung tissue. Those living along transport corridors are subjected to heavy loads of this type of air pollution. Those affected most are children who, per body mass and metabolism, breathe about twice as much as adults. In addition the elderly are also amongst those most adversely impacted.

Of the school-aged children, those with asthma are at a significant adverse disadvantage academically. There are numerous studies in the medical and scientific literature to demonstrate this situation. Asthma affects their school performance and their behavior. These children are affected intellectually, emotionally, and physically, hence their academic accomplishments are diminished. If these children are atopic (prone to

allergic reactions) and then placed on the less expensive but more common first generation antihistamine medications, this merely adds to their inability to effectively compete in school because of drowsiness. Other medications taken by allergic and asthmatic children have similar impacts.

There is also a tendency to place low income--low cost housing along transport corridors because of the reduced property cost. Thus, the section of society that might most often utilize this type of housing may also overlap with that portion of society that relies heavily on publicly subsidized medical care. This would also include sections of society that lack insurance for medical coverage. This broad group of people, out of necessity, will often let a medical condition go until it reaches a crisis state, a state that is much more costly to treat and may leave lingering damage. **Thus, the impact is also one that should be of interest to land use planners and transportation planners.**

Here, I would also like to argue that transport corridors themselves are actually stationary sources, and thus could come under the purview of APCD. What, logically, makes a source stationary---versus mobile? A factory smokestack puffs out a pollutant, thus comes under scrutiny. The smokestack itself, if nothing is supplied to produce a pollutant, is merely an inert stack of brick and concrete. It is the material brought into the factory and combined within that factory that makes the smokestack an issue. The same logic can be applied to asphalt and concrete roadways. Asphalt itself is composed of rubber material, hence its wearing releases rubber as well as other materials that adversely impact health. Rubber is a complex mixture of toxins, reactive proteins and allergins. Other materials brought into the corridor contribute to the increased air risk.

For example, under the greening of government, the mandated procurement of composted biosolids (sewer sludge) for roadway maintenance and erosion control brings in large quantities of pathogens (many of which are antibiotic resistant) and respiratory irritants in the form of lipopolysaccharides (the cell wall of Gram negative bacteria which cause violent immune reactions and are a major portion of biosolids) and liming chemicals. Additionally, for areas irrigated with reclaimed sewer water, there is enough evidence in the scientific literature to raise questions about pathogen release and down-wind aerosols. These released pathogens, often containing resistant genes, can pass this genetic information to soil microbes. These soil microbes then become lending libraries for this genetic information. These become part of the road dust and are entrained to move down wind into adjacent areas.

Then there are the deposits from the vehicles themselves, tire wear, engine derived materials, dust from breaks, clutches, belt wear, and action of tires on the road surface. Added to this are the materials from the area that fall out as dust, bacterial and fungal spores or materials washed onto roadways, including right-of-way maintenance materials such as pesticides.

All these materials, which form a complex of irritants, are re-entrained daily. Thus this mix, which is unique to roadways, constitutes a stationary source of air pollution. Who is responsible for an evaluation of this source, and to whom does the regulatory responsibility fall? **This question should be answered within the EIR**—who is responsible and are there adequate safeguards, or is this something falling between the cracks?

As is noted above, the impacts from a variety of sources as well as their combination with ozone constitute air pollution and have adverse influences on health. What, if any, are the limits on the discussion of such combinations within the EIR? If the EIR is not able to discuss these issues, where is the forum?

SPECIFICS

Because of my limited time and resources, the specifics will be desegregated and merely supply the interested reader with some indicators of where additional information might be found. I would be most pleased to assist agency staff look deeper into these areas.

I'm working on the greening of government issue (see below) of selling composted biosolids as bagged potting soil and similar issues where government agencies will be forced to purchase it.

The State of California is a major user of composted materials for roadway maintenance and erosion control. This then ties back to the air quality issues of road dust interacting with ozone and tire dust which contains a large percentage of latex rubber dust, a dust in particulate sizes that can enter the inner-most portions of the lung tissue (PM-2.5). This borrows on David Lewis' theory of chemical irritants synergizing the adverse effect of pathogens. If the radioactive material from certain areas is also added, (refer to Hugh Kaufman's testimony) then the impact on lung tissue may see a rise in lung cancers--ozone already causes this, thus it is at least additive, if not synergistic. The fungi that are pathogens and are now developing increased resistance to antimicrobials are also another issue in this. Additionally, latex is a major allergin and causes both asthma (growing crisis in the U.S.) and exacerbates asthma. Tire dust is mainly PM-10 to PM-2.5 latex particles. Thus the synergistic effect of ozone, other exhaust gasses, latex, and pathogens and possibly radioactive materials will increase once sewer sludge is added to the roadway maintenance. Thus in cases of erosion control (this is done to help reduce water from getting on the roadway and causing cars to hydro plane as well washing out roadways) the use of sludge compost may see this material aerosolized and thus affect health of not only the transport corridor users but also those fall-out areas adjacent to the corridor.

This action may potentially affect those ``procuring agencies"--a term defined in RCRA section 1004(17)--that purchase the following: composts made from manure or biosolids and fertilizers made from recovered organic materials. For purposes of RCRA section 6002, procuring agencies include the following: (1) Any federal agency; (2) any state or local agencies using appropriated federal funds for a procurement; or (3) any contractors with these agencies (with respect to work performed under the contract). The requirements of section 6002 apply to such procuring agencies only when procuring designated items where the price of the item exceeds $10,000 or the quantity of the item purchased in the previous year exceeded $10,000. Potential regulated entities for this rule are shown in Table 1.

###

APCD Response to Comments

I. Response to Comments from Patrick L. Dugan, City of Goleta:

The SEIR need not analyze the impacts of the land use policies and strategies in Chapter 7 because the APCD does not intend to adopt them as control measures. This chapter was purposely structured in a "how to" fashion to be a resource for local agencies to use as they deem appropriate. Since it is not known which jurisdictions will adopt which of the land use policies and strategies, it would be speculative to analyze the impacts, and therefore, as allowed in CEQA Section 15145 no analysis of these impacts needs to be provided.

II. Response to Comments from Marc Chytilo, Our Children's Earth Foundation:

1. Changed Baseline: As stated in the 2004 CAP, page 3-15, "the method used for determining emissions from marine shipping was updated since the completion of the 2001 CAP. "The significant increase in marine shipping emissions from 1999 to 2000 is a direct result of our updated calculation methodology as opposed to an increase in the level of marine shipping activity or the number of vessels transits off our coast". Therefore, the projected increases in marine shipping do not constitute a change in the baseline emissions. The 2004 CAP addresses the State Clean Air Act requirements and shows progress towards attainment of the health-based CAAQS for ozone as evidence by the trend towards reduction in the number of days exceeding the State Ozone standard (Figure 2-2a).

2. Supplemental EIR Inappropriate: The 2004 CAP does not contain substantial changes to the control measures proposed. No substantial changes have occurred with respect to the circumstance under which the CAP will be implemented because, as explained above, the change in marine shipping emissions does not constitute "newly discovered" information of substantial importance, which was not known when the 2001 CAP EIR was certified. None of the conditions specifed in CEQA Section 15162 are triggered and therefore, pursuant to CEQA Section 15163, a Supplemental EIR is the appropriate document.

3. Failure to Properly Describe Setting: The Final EIR has been amended to summarize the air quality setting described in the 2004 CAP and to incorporate it by reference. Chapter 2 of the 2004 CAP provides the air quality setting for the 2004 SEIR by presenting an overview of the climate of Santa Barbara County, an assessment of local air quality trends using ARB-specified indicators and a discussion of the impacts our air quality has on neighboring air districts. Chapter 3 describes the baseline emission inventory used in the development of the 2004 CAP. The emission inventory accounts for the types and amounts of pollutants emitted from a wide variety of sources, including on-road motor vehicles and other mobile sources, fuel combustion at industrial facilities, solvent and surface coating usage, consumer product usage, and emissions from natural sources.

The commenter requests a discussion of the public health consequences of our failure to attain the standard by the statutory deadline. The State Clean Air Act does not set a deadline for the attainment of the standard.

4. Failure to Include Transportation Sources Plan: The commenter implores the APCD to revise the 2004 CAP to address the requirements of H&SC Sections 40910 and 40918(a)(3) and revise the environmental review document. The comment addresses amendments to the 2004 CAP and not the SEIR which was based on the project description in the 2004 CAP. If and when the CAP is revised the SEIR will be revised as necessary.

Response to Comments from Dr. Edward McGowan, Individual

Dr. McGowan expresses a concern that the SEIR did not assess the synergistic health impacts between ozone and other materials. In particular, he states that within entrained road dust, there are numerous constituents that may be considered carcinogenic while others are irritants and pathogens. As these other synergistic constituents gain greater importance in human health, it may take less and ozone to augment an acute or chronic impact on health. He believe that transportation corridors are themselves actually stationary sources and thus could come under the purview of the APCD.

The APCD agrees with Dr. McGowan that there can be synergistic effects when ozone and other constituents of road dust are inhaled. However, neither the U.S. Environmental Protection Agency nor the California Air Resources Board have promulgated ambient air quality standards which specifically address the synergistic health concerns he raises. Additionally the mandated purpose of this 2004 Plan is to specifically addresses measures necessary to attain the state one-hour ozone. Consequently, the APCD believes that neither the 2004 Plan not this SEIR are the proper venue to address his concerns.