California Environmental Protection Agency

Air Resources Board

Final Statement of Reasons for Rulemaking

Including Summary of Comments and Agency Responses

PUBLIC HEARING TO CONSIDER
THE PROPOSED AMENDMENTS TO THE OZONE TRANSPORT MITIGATION REGULATIONS

Public Hearing Date: May 22, 2003
Agenda Item No.: 03-4-5

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State of California
AIR RESOURCES BOARD

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I. GENERAL

On May 22, 2003, the Air Resources Board (ARB or Board) conducted a public hearing to consider amendments to the ozone transport mitigation regulations, contained in sections 70600 and 70601, title 17, California Code of Regulations (CCR). These amendments would add two new requirements applicable to upwind districts. Upwind districts are those air pollution control or air quality management districts (districts) that are located in areas that the Board has identified as the origin of transported emissions of ozone or ozone precursors. The amendments define, and would require upwind districts to adopt, "all feasible measures" as expeditiously as possible, regardless of the district's attainment status for the State ozone standard. The amendments would also require some upwind districts to modify their stationary source permitting programs to require offset thresholds applicable to new and modified sources to be as stringent as those of their downwind transport recipients. These amendments were needed to ensure that upwind districts are taking appropriate actions to mitigate their transport impacts on downwind districts.

An Initial Statement of Reasons for Rulemaking (ISOR or Staff Report) was made available to the public beginning April 4, 2003. The ISOR, which is incorporated by reference herein, contained a description of the rationale for the proposed amendments. This Final Statement of Reasons for Rulemaking (FSOR) updates the ISOR by identifying and explaining the modifications that were made to the original proposal as a result of public comment and staff analysis after the ISOR was issued. The FSOR also summarizes written and oral comments received during the 45-day comment period preceding the May 22, 2003 public hearing, the hearing itself, and the 15-day comment period for proposed modifications, and the ARB's responses to those comments.

At the public hearing, the Board adopted Resolution 03-9, in which it approved the originally proposed amendments with several modifications. The modifications were suggested by the ARB staff and were distributed to the public during the May 22, 2003 Board hearing in a document titled, "*Staff's Proposed Changes to Proposed Regulation Order: Ozone Transport Mitigation Regulations*." The modifications to the original proposal are summarized in section II of this FSOR.

In accordance with section 11346.8 of the Government Code, the Board's Resolution directed the Executive Officer to make the text of the modified amendments, with any appropriate additional conforming modifications, available to the public for a supplemental written comment period of at least 15 days. The Executive Officer was then directed either to adopt the amendments with such additional modifications as may be appropriate in the light of comments received, or to present the regulations to the Board for further consideration if warranted. In preparing the modified regulatory language after the hearing, the staff did not identify any additional modifications that were warranted or appropriate to reflect the intent of the Board. Therefore, all of the modifications made to the original proposal were those that were specifically approved at the hearing.

A "Notice of Public Availability of Modified Text," along with the full text of the proposed modifications to the regulatory text in underline/strikeout format, and a copy of Resolution 03-9 was mailed on July 24, 2003 to each of the individuals who provided written or oral comments during the 45-day public comment period, or at the May 22, 2003 public hearing, as well as other parties, including persons identified in section 44(a), title 1, CCR. In addition, the notice was posted on the ARB webpage. One comment letter was received. After considering the comments received during this supplemental public comment period, the Executive Officer adopted the amendments as approved by the Board.

A. Fiscal Impacts

The ARB has determined that the adoption of the proposed amendments will not impose a mandate upon or create costs or savings, as defined in Government Code section 11346.5(a)(6), to any local school district. However, the ARB has determined that the adopted regulatory action will impose a mandate upon, and create costs to, local agencies (i.e., the local air pollution control districts and air quality management districts; the "districts"). The cost to the districts can be fully recovered by fees that are within the districts' authority to assess under Health and Safety Code (H&SC) sections 42311 and 40510; thus, the districts have the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service within the meaning of section 17556 of the Government Code.

Therefore, the Executive Officer has determined that the adoption of this regulatory action imposes no costs on local agencies that are required to be reimbursed by the State pursuant to part 7 (commencing with section 17500), division 4, title 2, of the Government Code, and does not impose a mandate on local agencies that is required to be reimbursed pursuant to section 6 of article XIII B of the California Constitution.

B. Consideration of Alternatives

A discussion of alternatives to the initial regulatory proposal is found in Chapter V of the ISOR. These included the “no action” alternative and an option to lower new source review "best available control technology" thresholds, i.e. the levels at which new and modified stationary sources would need to impose stringent control technology on their facilities. Taking no action was rejected because the ozone transport mitigation regulations have not been reviewed for 10 years and needed to be updated. The proposed amendments more accurately reflect the current economic and technical pollution control capabilities in California and give the districts the opportunity to work together to select feasible, effective, and acceptable controls. The alternative to lower “best available control technology” thresholds was rejected because it had the potential to significantly affect the creation and expansion of businesses, including small businesses, in California.

After analyzing the alternatives to the regulatory proposal, the Board determined that no reasonable alternative considered by the agency or otherwise identified and brought to the attention of the agency would be more effective in carrying out the purpose of public health protection for which the action is proposed or which would be as effective and less burdensome to affected private persons or businesses, than the action taken by the Board.

II. MODIFICATIONS TO THE ORIGINAL PROPOSAL

At the public hearing, the staff presented, and the Board approved, modifications proposed to the original proposal. This section describes the modifications to the original proposal that were made to address comments received during the 45-day public comment period and to clarify the regulatory language. These modifications were explained in detail in the Notice of Public Availability of Modified Text incorporated by reference herein.

Responses to comments made during the 15-day comment period for these modifications are presented in Section IV of this FSOR. After the close of the 15-day comment period, the Board's Executive Officer determined that no additional modifications should be made to the proposed amendments. The Executive Officer subsequently issued Executive Order **G-03-061**, adopting the amendments to the ozone transport mitigation regulations.

A. Section 70600. Emission Control Requirements

Definitions

1. Clarified that cost-effectiveness is included in the definition of "all feasible measures."

The ARB staff made a minor change to the “all feasible measures” definition to clarify that cost-effectiveness is part of the economic factors that upwind districts would consider when implementing the “all feasible measures” requirement. Cost-effectiveness of potential measures is considered by districts as part of their ongoing implementation of the California Clean Air Act, as required by section 40926 of the H&SC.

2. Clarified intent that districts apply “all feasible measures” to all source categories.

The ARB staff substituted the term source categories for the term sources in the “all feasible measures” definition. The reason for this was to clarify the intent that the originally proposed terminology “all air pollution sources under a district’s authority” be interpreted as to require a district's evaluation of source categories, not every source within a particular category.

Specific Requirements

1. Clarified that the measures to be adopted by the upwind districts are to be commensurate with the level of contribution, and clarify that mitigation measures must be implemented regardless of an upwind district's attainment status.

The term "commensurate with level of contribution" was added to section 70600(b) for consistency with section 39610 of the H&SC, which directs the ARB to establish mitigation requirements commensurate with the degree of contribution from the upwind district.

In addition, clarifying language was added to specify that upwind districts are subject to the mitigation requirements regardless of their ozone attainment status. State law specifically requires upwind districts to plan for attainment in both their own district and that of the downwind districts, and, at a minimum, to include in their attainment plans all of the mitigation measures required by the ARB pursuant to H&SC section 39610(c). The new language, "attainment/transport mitigation plans," clarifies that upwind districts, regardless of their own attainment status, are responsible for compliance with transport mitigation requirements in their triennial update to attainment plans to improve air quality downwind.

Implementation

1. Removed annual review requirements for “all feasible measures” and aligned implementation with triennial planning process.

Due to district and industry concerns about the annual review requirements that staff initially proposed for the implementation of "all feasible measures,” the ARB staff modified the proposal by removing the annual review requirements and added language that aligns adoption and implementation with the triennial plan review process. This is expected to conserve the districts' and the ARB's resources, while accomplishing the same objective of the originally proposed annual review. The review of “all feasible measures” from a transport perspective will be incorporated into the triennial review of district attainment plans.

B. Section 70601. Procedure for Limiting the Application of “all feasible measures” and Best Available Retrofit Control Technology

Language was added to subsection (c) of the exception procedure set forth in section 70601. This language was added to clarify that the procedure that allows a district to demonstrate that an equally effective emissions reduction strategy may substitute as an alternative to “all feasible measures” must be based upon the best available scientific information, including air quality modeling. This language clarifies that the use of air quality models is allowed. Previous language implied that the use of air quality modeling analyses was allowed, but was not explicitly stated.

III. SUMMARY OF COMMENTS RECEIVED DURING THE 45 DAY COMMENT PERIOD AND AGENCY RESPONSES

This section summarizes the written and oral comments received during the 45-day comment period that preceded the May 22, 2003 public hearing and the hearing itself, and contains the ARB's responses to those comments. Eight people representing six public or private organizations provided written or oral comments. Below those persons and organizations that submitted comments are listed. Comments received during the supplemental 15-day comment period are summarized in section IV of this FSOR.

Comments Received During the 45-day Public Comment Period and Board Hearing

Abbreviation	Organization and Person Providing Comments
BAAQMD	William C. Norton, Air Pollution Control Officer Tom Addison, Advanced Project Advisor Bay Area Air Quality Management District Written testimony: May 19, 2003 Oral testimony: May 22, 2003
CAPCOA	Douglas Quetin, President California Air Pollution Control Officers Association Written testimony: May 7, 2003 Oral testimony: May 22, 2003
CCEEB	Cindy Tuck, General Counsel California Council for Environmental and Economic Balance Oral testimony: May 22, 2003
SC	Reagan M. Wilson, Chief Executive Officer Stanislaus County Written testimony: May 19, 2003
SMAQMD	Norm Covell, Air Pollution Control Officer Bridgette Tollstrup, Division Manager Sacramento Metropolitan Air Quality Management District Written testimony: May 22, 2003 Oral testimony: May 22, 2003
YSAQMD	Larry Green, Air Pollution Control Officer Yolo-Solano Air Quality Management District Oral testimony: May 22, 2003

There were several organizations that supported the adoption of the regulations. This included Stanislaus County, the California Council for Environmental and Economic Balance, the Bay Area Air Quality Management District, and the California Air Pollution Control Officers Association. In general, ARB was urged to adopt the regulations and support was expressed for either or both of the main provisions (new source review and "all feasible measures"). These support comments are for the most part not included in the comments that are summarized below.

The comments that are summarized below are divided into three subsections: (A) General Comments, (B) Comments Related to the "all feasible measures" Provision, and (C) Comments Related to Future ARB actions. Comments summarized in (A) and (B) address issues or concerns with the proposed amendments or recommendations for modifications, and the comments in subsection (C) are focused on future ARB actions that are not relevant to this rulemaking.

The majority of comments received focused on future ARB actions, and are therefore included in subsection (C). This included requests that ARB develop better tools to use in the future to evaluate transport, include assessment and mitigation of particulate matter (PM) in future activities, expand the Stakeholder consultation process for the upcoming triennial transport assessments, among other suggestions. Although they are clearly outside the scope of the amendments, ARB has responded to the many suggestions provided.

A. General Comments

1. Comment: The staff proposal relies on science to figure out what is happening with transport. The use of good scientific tools is the right approach. (BAAQMD)

   Agency Response: Thank you for your comment. This comment refers to the language added to section 70601(c) that clarifies that the best science, including air quality modeling, will be used in determining whether an exception to the requirements specified in section 70600 is appropriate. In addition to the provision being referenced in this comment, the use of the best science underlies the entire regulation. Section 70600 relies on the identification of transport couples (title 17, section 70500) which is based on an in-depth assessment of transport relationships using the best available scientific tools and analysis procedures.

2. Comment: We need every emission reduction possible to meet State and federal standards, including those from upwind districts. The amended regulation provides few emission reductions and therefore does little to assist in attaining these standards. For example, the new source review provision provides reductions of only 0.01% of the Bay Area's precursor ozone inventory. The "all feasible measure" provision does not have any emission benefits since it does not identify specific control measures that must be adopted by upwind districts to mitigate transport. (SMAQMD)

   Agency Response: The ARB staff agrees that the Sacramento region needs significant emission reductions, including those from upwind districts, to attain State and federal standards. We disagree, however, that the amended regulation does not provide substantial benefits to the Sacramento region and other downwind areas in attaining these standards.

   Although the new source review provision only provides small emission benefits, the objective of this provision is to ensure that upwind districts take actions comparable to their downwind neighbors. Currently, businesses in the Bay Area (upwind of the Sacramento region) are subject to less stringent offset provisions than those businesses located in the Sacramento region. By ensuring comparable programs, the regulation minimizes any emission increases that would result in the future from new or expanding businesses in upwind areas. By minimizing future emissions, this provision contributes to progress towards attainment in downwind areas.

   The "all feasible measure" provision does not identify specific control measures for each upwind district; however, the ARB staff believes that it will result in substantial emission reductions that will be incorporated into future air quality plans. First, it goes beyond what is already required for nonattainment areas under the CCAA by requiring upwind areas to continue to adopt "all feasible

measures" to mitigate their emission impacts, even if they attain the federal and State ozone standards in their own district. Second, as discussed on page 11 of the ISOR, it builds upon the current best available retrofit control technology (BARCT) requirement in the mitigation regulations. Upwind districts must now consider all source categories under their jurisdiction, not just stationary source retrofit rules. Finally, the implementation process in the regulation is designed to ensure that upwind districts adopt and implement the most effective measures as soon as possible, so that benefits can be reaped in the downwind area.

The ARB staff considered requiring specific measures for each upwind district, but rejected this approach as being less effective, for reasons discussed in response to Comment #9.

3. Comment: Because the ARB has not identified any new mitigation requirements in the proposal than are already required under State law, there is no basis for asserting that the State process (mitigation regulations) has substantively addressed transport under either State or federal law. (SMAQMD)

Agency Response: The ARB staff disagrees with the statement that the amendments do not include any requirements beyond those already established in State law. In fact, the amendments add two new mitigation requirements. Both the new source review and the "all feasible measure" provisions go beyond what is required under State law. Because the regulations have expanded the scope of requirements applicable to upwind districts, and have included ARB oversight over upwind districts, the regulations have, in fact, substantively addressed transport.

The new source review offset thresholds applicable to districts under the CCAA are specified by their ozone nonattainment classification. Section 70600 of the mitigation regulations, however, requires more stringent offset thresholds for some upwind districts. The "all feasible measure" provision includes additional requirements that go beyond minimum requirements specified in the CCAA. The "all feasible measure" provision requires: (1) consultation with downwind districts, (2) an implementation process that will require upwind districts to take into account the needs of downwind districts when prioritizing rules for adoption, (3) and the requirement that upwind districts continue adopting rules even if they attain the standard in their own district.

The regulations establish a process, in which the upwind districts, in consultation with downwind districts, must implement as expeditiously as possible, "all feasible measures" and provide oversight by ARB to ensure that districts are complying with their mitigation responsibilities. The California Air Pollution Control Officers Association (CAPCOA) testified at the May 22, 2003 public hearing that they have initiated an inter-district process to address "all feasible measures" and the ARB staff looks forward to working with CAPCOA on early identification and implementation of "all feasible measures." The CAPCOA

initiative will greatly support the implementation of the "all feasible measure" provision of the amendments.

The District also feels that the regulations should have identified specific control measures for the upwind districts to adopt, and that because specific measures were not required, the ARB has not substantively addressed transport. The ARB considered the option of adding specific control measures for each upwind district in the regulation. This approach was rejected because it is less effective than the one adopted by the Board. Please see response to Comment #9 for a discussion as to why the mitigation regulations did not identify specific measures for each upwind district.

4. Comment: There are a lot of sources that contribute to transport statewide. The District is limited on what emissions it can mitigate based on its share of the inventory and the sources that are under District control. There is no way for the District to deal with transport emissions without looking at land use. (BAAQMD)

   Agency Response: The ARB staff agrees that there are many sources that contribute to transport. However, there are many sources under a district's jurisdiction that they can mitigate. As discussed on page 11 of the ISOR, districts have broad authority over a large number of non-vehicular source categories that can reduce transport impacts. In addition, districts are authorized under the CCAA to include provisions in their attainment plans to develop programs to reduce motor vehicle emissions through reasonably available transportation control measures and indirect source control programs. Regarding land use, there is nothing in the amendments that preclude an upwind district from implementing measures to reduce the impact from local land use decisions.

5. Comment: The regulations should give more direction about what the districts should do beyond stationary sources. (YSAQMD)

   Agency Response: The ARB staff does not feel that it is necessary to restate the district's rulemaking authority. The H&SC authorizes districts to adopt rules as necessary to attain State and federal standards. As discussed in the response to Comment #4, districts have broad authority to reduce emissions from non-vehicular sources. In addition, the districts can implement programs to reduce motor vehicle emissions through reasonably available transportation control measures and indirect source control programs.

   Specifically, the definition of "all feasible measures" includes "all air pollution source categories under a districts authority," and does not limit the requirement to stationary sources. In addition, the ISOR on pages 11-12 gives specific examples of rules that districts can adopt that are not stationary source rules (e.g., fleet rules, truck idling rules).

B. Comments Related to the "All Feasible Measures" Provision

6. Comment: Annual district reporting requirements for "all feasible measures" are infeasible, because it would be too time consuming. (SMAQMD)

   Agency Response: The regulation was amended to incorporate this comment. Several participants also expressed this concern during the public workshop process. The districts felt that they would be in a continuous "planning cycle" if they were required to report annually on the implementation of "all feasible measures." The annual reporting requirement for "all feasible measures" was removed and implementation was aligned with the triennial plan revision process specified under the CCAA.

7. Comment: The existing process for implementing "all feasible measures" within the CCAA is flawed because it does not address federal deadlines. Assessment of the mitigation requirements must be done in the context of federal standards. (SMAQMD)

   Agency Response: This comment relates to the compliance option under the CCAA for districts to implement an "all feasible measures" strategy in lieu of an attainment demonstration or achieving 5% annual emission reductions. The District is correct that the "all feasible measures" compliance option under the CCAA does not specifically address federal deadlines or upwind district transport mitigation responsibilities. However, the CCAA is not flawed. The CCAA does address transport by requiring the Board to adopt transport mitigation requirements designed to meet State standards that are more stringent than federal standards are. So in essence we do address federal standards.

   It should be understood that the "all feasible measures" compliance option under the CCAA is intended to ensure that districts continue to make progress in their own district toward attaining the more health protective State standard. All actions taken toward attaining the State standard will expedite attainment of federal standards.

   The purpose of the amendments is to clarify and expand the implementation of "all feasible measures" to address transport mitigation regardless of the upwind district's attainment status of either State or federal ozone standards. The amendments specify what actions upwind districts need to take to adopt and implement "all feasible measures" related to their mitigation responsibilities. The amendments address both State and federal standards because the benefits of these measures will be included in downwind districts' State and federal air quality plans.

8. Comment: Although we support inter-district cooperation in evaluating feasible measures, ARB should play a more proactive approach as required by State law.

We believe that the Legislature requires the ARB to intervene and to identify specific feasible measures to be adopted by the upwind districts. (SMAQMD)

Agency Response: The District is expressing support in this comment for the district consultation process. However, the District feels ARB should play a more proactive role in the process and should have established specific measures that each upwind district should adopt. Please refer to Comment #9 as to why the regulations do not identify specific control measures that each upwind district should adopt.

The regulations do include a proactive role for ARB. In fact, the ARB has a critical oversight role. If ARB finds that the upwind district is not complying with the "all feasible measures" provision, then ARB has the responsibility and authority to require that any deficiencies be corrected. This includes requiring an upwind district to include a measure in their plan and requiring the upwind district to implement the measure. ARB can, and has, required districts to amend attainment plans that do not meet all applicable legal requirements. In addition, ARB has authority under State law to take over a district's power and adopt a rule for them, should a district refuse to carry out their legal responsibilities.

9. Comment: Some downwind districts may disagree that an upwind district's plan meets "all feasible measures" due to the upwind district's interpretation of what is "feasible." One solution is for the ARB to establish a process to identify where emissions standards and exemption levels in upwind areas must be at least equivalent to those in the significantly or overwhelmingly impacted downwind neighbors. (SMAQMD)

Agency Response: The District feels that the regulations should have identified specific measures for each upwind district to adopt, or identify a set of rules and exemption levels applicable to all upwind districts. The ARB considered requiring all rules in upwind districts to have equivalent emission standards and exemption levels as those in downwind districts. This is a less effective approach than the one adopted by the Board. Instead, the regulations establish a process by which each upwind district's plan is required to include "all feasible measures." This process includes district consultation, public review, and ARB oversight and is discussed in the response to Comment #3.

There are four reasons why requiring specific rules, standards, and exemption levels in the mitigation regulations are not as effective as the approach the Board adopted. In some cases, downwind districts have less stringent rules than upwind districts, and requiring upwind district's to have equivalent rules as their downwind neighbors could have resulted in less stringent rules being adopted by upwind districts. Second, the type, number, and size of sources differ from district to district and the physical configuration of similar equipment varies from facility to facility such that a rule prescribing precise cut-off levels and emission limits may not be practical or work in all applications, and may be cost-prohibitive

in certain cases. Third, because this provision is intended to capture new and emerging technologies, prescribing specific rules could have the effect of limiting the scope of measures in the future that would be adopted by upwind districts. Finally, if the ARB required precise rules or the types of rules that an upwind district should adopt, we would have precluded the detailed and case specific analysis that is necessary during the district rulemaking process.

This detailed and case specific analysis is a core and fundamental element of the district rulemaking process. Districts are required, as part of their rulemaking process, to take into account a number of factors including, but not limited too, local sources, district resources, cost-effectiveness, public health benefits, and technological and social factors. We would have unduly hindered the ability of an upwind district to conduct such an evaluation by prescribing specific rules or exemption levels.

10. Comment: The ARB should require the BAAQMD to amend their rules to ensure "all feasible measures" are in place. (SMAQMD)

Agency Response: This is the objective of the amendments. All upwind districts will be required to implement "all feasible measures," even if they attain the State or federal ozone standard. ARB will review each upwind district's rules during the triennial plan review process to determine whether the district is in fact complying with this requirement. ARB will use its oversight responsibility to ensure that any rule deficiencies are corrected.

11. Comment: We provided ARB staff with suggested rules that the BAAQMD should adopt to reduce transport impacts. The suggested rules were not proposed in the amendments and the Staff Report failed to discuss the feasibility of these rules. We specifically requested that the ARB require the following actions of the BAAQMD:

    1) Reduce the exemption levels for boilers, steam generators, process heaters, space heaters, internal combustion engines and gas turbines. Require such equipment to meet both local permit requirements and emissions standards at least as stringent as those required in the Sacramento area.

    2) Establish cleanup solvent requirements for architectural coatings users; including low volatile organic compound (VOC) materials and work practice standards.

    3) Reduce the VOC limit for contact adhesives.
    (SMAQMD)

Agency Response: As discussed in the response to Comment #9, the ARB staff believes that it is inappropriate to identify specific emission limits or permit requirements in the regulations. It is more appropriate to address emission standards and permit requirements during the implementation process established as part of the regulations. The ARB staff recognizes that it is very important to have comparable regulations and this is what the amendments accomplish.

As a follow-up to the public hearing, ARB has convened a smaller working group composed of representatives from districts in the Broader Sacramento, Bay Area, and San Joaquin Valley. This group is intended to establish a coordinated effort to address Bay Area and Central Valley air pollution control issues, including concerns related to rule equivalency. This group is now evaluating their rules and comparing these rules to the most stringent in the State for ten source categories where concerns have been raised. Where there are significant differences are found to exist, the goal is to identify a list of rule changes that each district would make. In addition to this group, CAPCOA testified that they are in the process of developing consensus recommendations related to transport. The ARB looks forward to working with CAPCOA once they have completed their recommendations.

C. Comments Related to Future ARB Actions

12. Comment: The ARB staff should work with CAPCOA to achieve consensus in regard to transport issues and report back to the Board in three months, six months, and as appropriate thereafter. (CAPCOA)

Agency Response: We look forward to continuing to work with CAPCOA on transport issues and are very encouraged with CAPCOA's efforts to achieve consensus among districts on transport issues. CAPCOA worked closely with ARB staff during the regulatory development process for these amendments and provided invaluable support. Consistent with Board direction, ARB staff plans to report back to the Board next year on transport issues.

As a result of the public hearing on these amendments, ARB has initiated a series of meetings with representatives from the governing boards of the Sacramento, Yolo-Solano, San Joaquin Valley and Bay Area districts to discuss and resolve outstanding concerns related to transport. In addition, considerable technical work is now being conducted, in partnership with districts, to develop and use state of the art modeling tools. Because of the ongoing work, the Board did not feel it necessary to have ARB staff provide an update every three months.

13. Comment: The ARB should develop a statewide Transport Working Group, which would be advisory to ARB staff in carrying out its responsibilities for periodic assessments. (CAPCOA, SMAQMD)

The Working Group would include a representative from each air basin that potentially is part of a transport couple for ozone or particulate matter. The Working Group could share ideas about transport assessment methods and peer review the final transport assessments. (CAPCOA)

Agency Response: Under State law, ARB is required to periodically update the assessment of transport couples to incorporate new information. As warranted by new information, ARB staff proposes amendments to the existing transport identification regulation (title 17, California Code of Regulations, section 70500).

As part of the transport assessment process, ARB works closely with CAPCOA, districts, other stakeholders, and the public. In addition, ARB is part of advisory groups that cover the development and use of two advanced air quality models that are discussed in greater detail in the response to Comments#16 and 17. As appropriate, results from this model will be used in the 2004 update to the transport assessments. In addition, CAPCOA testified that they are now in the process of developing consensus recommendations related to transport assessment as well as mitigation. Because there is a stakeholder process already in place for the development and application of modeling tools and CAPCOA has not completed their recommendations related to transport, the ARB does not feel the need to establish a separate advisory group at this time. However, we will reevaluate the need once CAPCOA completes their recommendations.

14. Comment: ARB should undertake efforts to define transport relationships for particulate matter (PM), in addition to ozone. (CAPCOA)

At present, the CCAA does not require mitigation of PM transport. This should be a higher priority than ozone transport because of the greater health and economic impacts of PM. We suggest than in the near future the ARB take whatever action within its authority to analyze PM transport patterns and develop mitigation requirements. (BAAQMD)

We also request that ARB work with the air districts and Legislature to support a legislative remedy to bring PM into the State process for planning, transport analysis, and mitigation of health impacts. (BAAQMD)

Agency Response: Section 39610 of the H&SC clearly defines ozone transport as our priority, and directs ARB and districts to take specific actions related to ozone transport. However, this issue was brought up and discussed at length at two public workshops, and as well, in the ISOR (pages 18-19). The ARB staff agrees that there is a need to understand and ultimately address PM transport. As discussed in the ISOR, our ability to conduct in-depth assessments of PM transport is limited at this time.

ARB is actively supporting development and demonstration of models that have the potential in the future to provide information that could contribute to the identification of PM transport relationships. These include aerosol models, and the large multi-agency field and modeling study covering the Central Valley, known as the California Regional Particulate Matter Air Quality Study (CRPAQS). The objectives of CRPAQS include expanding our understanding of PM sources and emissions and to develop methods to identify the most efficient and cost-effective control measures. We will also be assessing transport relationships with the tools that are developed through CRPAQS. These tools will also eventually allow us to assess PM transport in other areas of the State.

Because ozone and PM pollution are caused by many of the same sources, the control strategies set forth in the ozone transport mitigation regulations-particularly NOx controls-provides dual benefits for public health by reducing not just ozone concentrations but PM as well.

Finally, the Legislature recently passed Senate Bill 655. Senate Bill 656 would require ARB and the air districts to adopt and implement control measures towards attaining the State and federal PM10 and PM2.5 standards. The most readily available, feasible, and cost-effective measures would be required to be identified by January 1, 2005, with implementation schedules to be adopted by July 31, 2005.

15. Comment: The ARB should undertake research to assist in identifying tools needed to quantify transport of PM and to define PM transport relationships. (CAPCOA)

Agency Response: Please refer to response to Comment #14 for a discussion of the advanced modeling tools now under development.

16. Comment: The ARB should undertake research to assist in identifying tools needed to quantify transport of ozone. (CAPCOA)

Agency Response: ARB is supporting two major research studies that will include the development of tools that have the potential to greatly improve our understanding of ozone transport. These were discussed in the ISOR (pages 4-5) and at the public hearing on these amendments. Both include a comprehensive field study and development and application of state of the art air quality modeling tools and will provide critical information necessary to better assess transport. The Central California Ozone Study (CCOS) covers northern and central California. The Southern California Ozone Study (SCOS) covers southern California. The discussion of quantification of transport is discussed in response to Comment #18.

17. Comment: ARB should use the best science and modeling tools as they become available to quantify the extent of transport between districts and to identify the

most effective mitigation strategies, including modeling results from the Central California Ozone Study. These tools should be used in the 2004 transport assessments. (BAAQMD, SMAQMD)

Agency Response: As discussed in response to Comment #16, ARB is supporting the development of advanced modeling tools that will enhance our understanding of transport. The models are the Central California Ozone Study (CCOS) and the Southern California Ozone Study (SCOS).

The first phase is to use the models to develop attainment demonstrations for federal air quality plans. These modeling episodes used for the attainment plans have a transport component. The large size of the modeling area, as compared to previous efforts, is expected to allow us to better evaluate the impact of overall control strategies (including mitigation strategies) in both upwind and downwind areas.

As requested, the modeling results will also be incorporated, as appropriate, in the 2004 transport assessments. The issue of quantifying the extent of transport between districts is discussed in the response to Comment #18.

18. Comment: The ARB should require ozone precursor targets of tons per day to ensure that emission reductions are equitable from one district to another. Similar targets would be needed in the future for PM. Emission reductions must be equitable among responsible districts. (CAPCOA)

Agency Response: The ARB staff agrees that the best science should be used to quantify the extent of transport between districts and the level of mitigation required. However, in the absence of modeled attainment demonstrations for the State standard, we currently lack the ability to develop ozone precursor targets for upwind districts. The modeling tools now being developed, and discussed in response to Comments #16, and 17 should enhance our ability to develop such emission targets in the future.

The use of the best available science underlies the ozone transport mitigation regulations. Section 70600 of the mitigation regulation relies on the identification of transport couples (title 17, section 70500) which is based on an in-depth evaluation of transport relationships using the best information and scientific tools available. Based on available science, transport is characterized as overwhelming, significant, or inconsequential, according to State law. Unfortunately, the science on which to base specific emission reduction targets applicable to each upwind district is still emerging.

Finally, the exception option in section 70601 provides flexibility by allowing an upwind district to incorporate the latest scientific information as part of their implementation of the “all feasible measures” requirement. This option allows an

upwind district to evaluate, based on air quality modeling, whether an alternate approach to that specified in section 70600 is justified.

19. Comment: An updated transport assessment of the San Francisco Bay Area to Broader Sacramento Area ozone transport couple should be done because the last evaluation of this couple was made in 1996. In addition, we request that the following information be used when evaluating the San Francisco Bay Area to Broader Sacramento Area ozone transport couple:

    (1) SARMAP Modeling results performed by ARB staff for assessments of the BAAQMD Refinery Rule.

    (2) Meteorological data from profilers installed following the 1996 assessment at Bruceville Road in Elk Grove, Travis Air Force Base, and most recently in San Francisco Bay delta region.

    (3) Walnut Grove Tower ozone and meteorological data. (SMAQMD)

    Agency Response: Under State law, ARB is required to periodically update section 70500 (transport identification regulation) to incorporate new information. The ARB has identified 25 transport couples, and only conducts an in-depth review of a transport couple if new information becomes available. In 2001, the modeling tools on which to base an in-depth analysis of this couple from what was previously done were not available. However, the CCOS model discussed in response to Comments #15 and 16 is expected to provide significant information for this and related transport couples, and will be incorporated in the 2004 transport assessments. The ARB will also consider the information sources suggested in this comment by the District.

    It should be noted, however, that this transport couple already has a significant and overwhelming classification. Therefore, the fact that an in-depth evaluation was not conducted in 2001 does affect the fact that the Bay Area district is already required to mitigate their emissions impact on the Broader Sacramento Area.

20. Comment: The ARB should work with the Governor's office to require all State agencies to use only those vendors that meet specific emission levels for vehicles and equipment when contracting for goods and services. The ARB has the authority to implement this within the ARB contracting process (SMAQMD).

    The ARB should work with the Governor’s office to require State construction equipment, or construction equipment used under State contracts, to meet a fleet average emission rate that is 20% below the inventory fleet average for NOx and 45% below the inventory fleet average for PM. The ARB has the authority to implement this within the ARB contracting process. (SMAQMD)

Agency Response: The ARB does not have regulatory authority under State law to establish contracting requirements applicable to other State agencies. Any contracting requirements would need to be established by the Department of General Services. However, as discussed at the public hearing, ARB staff has been working with CalTrans to discuss ways to encourage the use of low emission equipment in the contracts that they issue. We are hopeful that this will be a successful effort, and will continue our efforts to encourage the use of low emission motor vehicles and equipment among State agencies.

21. Comment: The ARB must recognize that mitigation is a shared responsibility among federal, State, and local air agencies. (CAPCOA)

The ARB should mitigate those emissions under its jurisdiction. The ARB needs to look beyond stationary sources and local district actions and mitigate transported emissions from mobile sources, which dominate the ozone air quality problems. Not only are emission reductions from consumer products and mobile sources important for the big picture of reducing emissions, they are also important for reducing the affects of transport. (BAAQMD, SMAQMD)

Agency Response: This issue was discussed at length at the two public workshops and also in the ISOR (page 19). The ARB does recognize that mitigation is a shared responsibility among air agencies. However, the transport mitigation regulations are the mechanism under State law by which mitigation requirements for districts are established. State law gives ARB an oversight role in ensuring that districts fulfill their legal responsibilities to mitigate their transport impacts.

Independent of this regulation, State law also directs ARB to achieve the maximum emission reductions possible from motor vehicles and consumer products. The ARB meets these overarching obligations through the adoption of statewide control measures that are incorporated into upwind and downwind district attainment plans. Additionally, the benefits of emission reduction programs implemented by the U.S. EPA for sources exempted from ARB or district control are also included in district air quality plans.

22. Comment: The ARB should develop land use guidelines for both State agencies and local governments. We provided ARB with a list of 50 mitigation measures that could be included in these guidelines. The ARB needs to take action now to support attainment of the federal ozone standard in Sacramento by 2005. (SMAQMD)

Agency Response: The ARB has issued guidance to districts related to transportation and land use strategies. This guidance was focused on meeting provisions of the CCAA that required districts that are nonattainment for the State

ozone standard to include provisions in their plans for indirect source control programs and reasonably available transportation control measure.

In 1990, the ARB released a technical support guidance document titled, "California Clean Air Act Guidance on the Development of Indirect Source Control Programs." This document provided information in regard to districts' authority in developing indirect source control programs as part of the attainment plans. The guidance document identifies the statutory requirements of air quality law for indirect source control programs, and outlines the processes in which to determine the effectiveness of best available mitigation measures related to transportation-related land use planning.

In June 1995, the ARB released a report titled, "Transportation-Related Land Use Strategies to Minimize Motor Vehicle Emissions: An Indirect Source Research Study," that evaluated several transportation-related land use strategies to determine the potential quantitative benefits of land use planning in conjunction with multi-modal transportation facilities that provide alternatives to personal vehicle travel. This document is available on the ARB's website at: http://arb.ca.gov/research/apr/past/92-348a.pdf

However, as discussed in the ISOR, it is not appropriate to include specific land use and transportation measures in the mitigation regulations. State law directs the ARB to establish mitigation requirements applicable to upwind districts and to exercise its oversight role in ensuring that districts meet their responsibilities to mitigate their transport impacts. The ARB does not have direct authority over local transportation and land use planning agencies. Because the most effective strategies are based on local conditions that vary significantly from one region to another, and often involve partnership with local agencies with different areas of responsibilities, there is no consistent approach that would work for all areas of the State. Please also refer to the response to Comment #23.

23. Comment: The ARB needs to improve and clarify the authority that districts and the ARB have in regard to land use planning. There is a need for good land use planning and transportation management. (YSAQMD)

Agency Response: The ARB staff discussed this issue in detail during the workshop process. Districts have authority to adopt programs designed to minimize impacts from land use decisions, including indirect source control programs. Sections 40918-40920 of the H&SC directs districts that are nonattainment for the State ozone standard to include provisions in their air quality plans to develop indirect source control programs. The ARB has worked closely with districts and provided guidance to districts on this issue. For example, ARB published guidance for districts interested in establishing indirect source control programs in 1990. (An indirect source is a facility, building, etc, that has the potential to attract mobile sources and thus result in increased emissions). Refer to response to Comment #22 for greater detail.

Because land use decisions potentially include many different local and regional agencies with differing jurisdictions, any expansion of district authority (improvement) would need to be done through the Legislature, not through ARB regulations. Please also see response to Comment #22.

24. Comment: We need to exchange and disseminate best practices. There are a lot of good ideas across the State and ARB should work with the districts and CAPCOA to support the process. (YSAQMD)

Agency Response: This comment is related to exchange of information related to "best practices" for land use and transportation strategies. The ARB staff agrees that the exchange of information and ideas across the State should be supported. The ARB staff looks forward to continue its close working relationship with CAPCOA and the districts. The ARB staff participates on numerous CAPCOA subcommittees, and as well, there are numerous examples in which ARB facilitates the sharing of information. One example is the "BACT" Clearinghouse, which serves as a central information source statewide for district BACT determinations.

In response to the comment to share ideas about land use and transportation issues, the ARB has developed a draft Air Quality Handbook on Land Use, as part of its Community Health program. The draft Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The draft Handbook is an informational document that describes tools that can be used to support land use decision-makers in addressing the potential for cumulative emissions, exposure, and health risk. The draft Handbook is available on ARB's website at http//www.arb.ca.gov./ch/aghandbook.htm for review and comment. Finally, the ARB is also developing related information and technical evaluation tools for addressing cumulative impacts, which are expected to be available through the ARB's Internet site in the future

25. Comment: The ARB should exercise its existing authority under the CCAA when evaluating district plans and should require regions to establish measures to mitigate transportation and land use impact. Many regions have not invested in mass transit and transportation control measures needed to mitigate motor vehicle emissions. The ARB needs to ensure that downwind districts meet all requirements of the CCAA. (BAAQMD)

Agency Response: The ARB agrees that downwind and upwind districts need to meet all the requirements of the CCAA. As part of ARB review and approval of district plans, ARB determines whether each plan meets the requirements of the CCAA. The Board can, and has, required districts to amend plans found to be insufficient. Please also refer to response to Comment #22 and #23 regarding district land use and transportation control strategies.

26. Comment: The ARB and the districts need to find better evaluation tools to be used by the districts, the land use planners, and the developers to determine specific impacts of facilities. (YSAQMD)

Agency Response: The ARB staff agrees that ARB and districts need better evaluation tools. The ARB looks forward to working with CAPCOA and districts to develop such tools.

27. Comment: The ARB staff needs to incorporate evaluation of rule consistency from a transport perspective when exercising its oversight responsibilities during the district rulemaking process. Planning requirements don't equate into consistent rules since planning commitments are preliminary assessments of control strategies. (SMAQMD)

Agency Response: As part of the all feasible measure provision, ARB added a consultation process with downwind districts. The goal of this consultation requirement was to ensure that upwind districts include specific measures in their attainment plans as early as possible. Once a commitment to adopt the rule is in the plan, then the upwind district begins a rulemaking process to develop the rule. The concern being expressed in this comment is that ARB needs to ensure that the rule that is finally adopted by the upwind district meets all the requirements of being an all feasible measure.

The ARB agrees that it is very important to evaluate rules during the district rulemaking process. The ARB reviews district rules during the rulemaking process and can require districts to amend rules found to be deficient. This is part of our oversight responsibility over districts. Consistent with the adopted amendments, ARB will include evaluation of “all feasible measures” from a transport perspective as part of our evaluation of district rules.

IV SUMMARY OF COMMENTS RECEIVED DURING THE SUPPLEMENTAL 15-DAY COMMENT PERIOD AND AGENCY RESPONSES

This section summarizes the comments that were received as a result of the supplemental 15-day notice. The purpose of this notice was to provide the opportunity for comment on modifications that the Board made to the proposed regulations at the May 22, 2003 public hearing. The Notice of Public Availability of Modified Text was released on July 24, 2003, and the deadline for public comment was August 8, 2003. One comment letter was received from the Law Office of Marc Chytilo, representing the organization Transportation Solutions Defense and Education Fund.

28. Comment: We support the expansion of the definition of "all feasible measures" in section 70600(a) to include transportation control measures as one category that should be examined by upwind districts. Transportation control measures have considerable emissions benefit in limiting emissions growth, particularly as areas develop and implement regional transportation measures that promote smart growth and reduce single occupancy vehicle usage. (Chytilo)

    Agency Response: It is implied in the above comment that the substitution of the term "source categories" for the term "sources" in the definition of "all feasible measures" has expanded the definition to specifically include transportation control measures. This is incorrect. This change was made to clarify the ARB staff's original intent, as discussed in the ISOR, that an upwind district is responsible for evaluating all source categories under a district's jurisdiction, not necessarily every single source that is located in an upwind district.

    The amendments do not preclude the adoption and implementation of transportation control measures by an upwind district. In fact, the regulations have always allowed the use of transportation control measures that are under district authority. The inclusion of the definition of "all feasible measures" in the ISOR, and the clarifying changes in the 15-day notice, does not change this authority. However, the regulations do not require the adoption and implementation of specific local transportation control measures for reasons discussed on page 19 of the ISOR.

29. Comment: We question the inclusion of the vague language "taking into account" various factors such as technological, social, environmental factors that is included in the definition of "all feasible measures." We think that this permits the arbitrary application of exclusionary factors in the determination of "all feasible measures." (Chytilo)

    Agency Response: This comment is outside the scope of the 15 day notice because it is related to the definition of "all feasible measures" that was part of the original staff proposal. Only minor modifications were made to the originally proposed definition of "all feasible measures." These modifications were intended to clarify that economic considerations that upwind districts must

consider include the cost-effectiveness of a proposed measure. The evaluation of cost-effectiveness during the district rulemaking process is a fundamental and core component of district responsibilities and is specifically required under section 40926 of the H&SC.

30. Comment: The H&SC clearly directs the Board to establish mitigation requirements commensurate with the level of contribution. The addition of the term "commensurate with contribution" is an improvement to the regulations. However, the rulemaking fails to articulate how this concept is to be addressed, and through what procedure. We also believe that the rulemaking fails to formalize a graduated or incremental control requirement commensurate with greater levels of contribution. Additional rulemaking is needed to address this issue. Section 70600(c), as amended, is the logical place to address this issue (Chytilo)

Agency Response: It is correct that the H&SC requires ARB to establish mitigation requirements commensurate with the level of contribution. The term "commensurate with the level of contribution" was added to section 70600(b) for consistency with State law. This is the section of the regulations that address the upwind district's overarching responsibility to mitigate their emission impact on the downwind districts.

It is also stated in this comment +that while the addition of this language is good, it falls short because it fails to articulate how the concept is to be implemented. Quantified emission reductions targets would be needed for each upwind district in order to implement this concept. At this time, we lack the scientific tools that would enable us to quantify emission reduction targets. In order to quantify and assign emission reduction targets to each upwind district, we would need modeled attainment demonstrations for the State standard. As discussed at the public hearing, in the ISOR on page 7, and in the response to Comment #18, modeled attainment demonstrations for the State ozone standard are not yet available. We are working on the development and application of advanced modeling tools that will enable us in the future to develop specific emission reduction targets. Please see response to Comments #16 and 17 for discussion of the technical tools that are now under development that are expected to enable us to quantify emission reduction targets in the future.

Another concern expressed in this comment is that the mitigation regulations do not include graduated or incremental requirements. The comment also appears to imply that the regulations should have contained a list of emission control measures tailored to each upwind district. The ARB considered identifying specific rules that each upwind district should adopt or requiring all rules in upwind districts to have equivalent emission standards and exemption levels as those in downwind districts. This is a less effective approach than the one adopted by the Board, for reasons discussed in response to Comment #9.

However, the statement that the regulations fail to identify a graduated control strategy is incorrect. In fact, this is exactly what the regulations accomplish. Until such time as the scope of sufficient measures can be identified (when emission reduction targets are quantified), the regulations identify specific requirements for upwind districts. These include the adoption of BARCT and "all feasible measures," and the new source review requirements applicable to some upwind districts.

31. Comment: Little detail is provided on what must be contained in the transport mitigation element that is now required for attainment plans. In addition, the regulations are silent on what should be included in the transport element of maintenance plans for attainment areas. The ARB needs to define in greater detail the required element of transport mitigation plans to ensure the even application of the law to all upwind districts and to overcome differences in district approaches to transport issues. The ARB should also adopt further regulations that clearly define how transport mitigation plans, and the processes that lead to their adoption, substantively address the issue of levels of contribution. (Cytilo)

Agency Response: The ARB staff disagrees with the assertion that the transport mitigation element of attainment plans is a new requirement. There has always been a mitigation element required for State ozone attainment plans. The CCAA specifically requires in section 40912 of the H&SC that an upwind district's attainment plans include-- at a minimum-- all mitigation requirements established by the Board. Since 1990, the regulations have specified that all emission control requirements set forth in section 70600 must be included in the upwind district's attainment plan. This also includes any demonstration under section 70601 that allows an upwind district to pursue an alternative strategy to that specified in section 70600.

However, there was a need to specify what an upwind district needed to do once they reached attainment in their own district. For this reason, the ARB staff added additional language ("transport mitigation plans") to clarify that once an upwind district reaches attainment the State ozone standard in their own district, they still retain their fundamental obligation to prepare a transport mitigation plan. This plan, similar to the transport element of upwind district's attainment plan, simply needs to outline their compliance with the transport mitigation regulations. Since the inclusion of the mitigation requirements in ozone attainment plans is a longstanding requirement, the need for additional rulemaking at this time has not been established.

32. Comment: Section 70600(c) is silent on whether modeling should be used, how multi-district contributions are assessed and apportioned, and the consequences for areas maintaining a single pollutant strategy, such as the Bay Area. (Chytilo)

Agency Response: It is correct that section 70600(c) is silent on whether modeling should be used as part of the implementation of the mitigation requirements. Section 70600(c) addresses the implementation of the transport mitigation regulations. Upwind districts must make a finding, based on the best available science and subject to public review and comment. It may include air quality modeling, but it must address ozone. It does address mult-district contribution because the focus is on an overall plan to achieve the standard in the upwind district as well as mitigate their impacts on a downwind area. As discussed in the response to Comment #18, we do not yet have the technical tools that enable use to quantify emission reduction targets for each upwind district.

33. Comment: The changes to section 70601(c) are beneficial that specify that modeling is required in order to justify the exclusion of otherwise feasible measures. However, ARB must amend 70601(b) to require a determination that such an exclusion will not interfere with an area's ability to maintain the standard as well as attain it. (Chytilo)

Agency Response: The changes made to section 70601(c) do not require the use of air quality modeling. Rather, they clarify that the use of air quality modeling is allowed. This language was added to clarify that the procedure that allows a district to demonstrate that an equally effective emissions reduction strategy may substitute as an alternative to "all feasible measures" must be based upon the best available scientific information, including air quality modeling. Previous language implied that the use of air quality modeling analyses was allowed, but was not explicitly stated.

There is no need to amend section 70601(b) to require that any exception granted will not interfere with a downwind area's ability to attain or maintain the State ozone standard. This is implied in section 70601. The regulatory language states that an exception to the requirements of section 70600 will only be granted if it can be demonstrated that the emissions from a source do not contribute to ozone violations, or that the emission reductions are not needed to attain the standard, or that an alternative emission reduction strategy will be equally effective as the requirements specified in section 70600.

V. NON-SUBSTANTIAL OR SOLELY GRAMMATICAL MODIFICATIONS MADE AFTER THE CLOSE OF THE SUPPLEMENTAL 15-DAY COMMENT PERIOD

After reviewing the regulatory language after the close of the supplemental 15-day public comment period, the ARB has not identified any additional modifications that are warranted. Therefore, all of the modifications made to the original proposal were those that were specifically approved at the May 22, 2003 public hearing.