State of California
AIR RESOURCES BOARD

Resolution 03-9

May 22, 2003

Agenda Item No.: 03-4-5

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the Board) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, the Legislature enacted the California Clean Air Act of 1988 (the Act; Stats. 1988, ch. 1568) declaring that it is necessary that the State ambient air quality standards be attained by the earliest practical date to protect the public health, and that air pollution control and air quality management districts (districts) shall consider the full spectrum of emission sources in developing attainment plans and regulations;

WHEREAS, the Act, in Health and Safety Code sections 40910 et seq., mandates a comprehensive program of emission reduction measures and planning requirements in areas where the standards for ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide are not attained;

WHEREAS, in adopting the Act, the Legislature recognized that transport of ozone precursors from upwind areas contributes to violations of the State ozone standard in downwind areas, and that districts would not be able to meet their primary obligation to attain the State ozone standard without mitigating transport impacts;

WHEREAS, sections 40911 and 40912 of the Health and Safety Code requires each district that is not attaining the State standards to prepare and periodically update an air quality plan designed to attain and maintain those standards in both upwind and downwind districts;

WHEREAS, section 39610(a) of the Health and Safety Code requires the Board to identify each district in which transported air pollutants from upwind areas outside the district cause or contribute to a violation of the State ambient air quality standard for ozone and to identify the air basin of origin based upon the preponderance of available evidence;

WHEREAS, section 39610(b) of the Health and Safety Code requires the Board, in cooperation with the districts, to assess the relative contribution of upwind emissions to downwind ambient ozone pollutant levels to the extent permitted by available data and to establish mitigation requirements for upwind districts that contribute to downwind

ozone concentrations, commensurate with the level of contribution of transported emissions;

WHEREAS, section 40914 of the Health and Safety Code requires each district's air quality plan to include measures sufficient to achieve at least a five-percent annual reduction in district-wide emissions of each nonattainment pollutant or its precursors; or, if the district cannot achieve the five-percent annual reduction, and the Board concurs, the attainment plan may be approved if it includes "all feasible measures";

WHEREAS, on December 14, 1989, the Board adopted, and on the basis of new information, has subsequently amended, section 70500 of title 17, California Code of Regulations (CCR), which identifies the areas affected by transported air pollutants from upwind areas and the areas of origin of the transported pollutants;

WHEREAS, on August 10, 1990, the Board approved, and has subsequently updated based on the most recent information, a qualitative assessment of the relative contributions of upwind emissions to downwind ozone concentrations, and, in that assessment, described the relative contributions for specified geographical areas as "overwhelming," significant," or "inconsequential";

WHEREAS, on August 10, 1990, the Board approved sections 70600 and 70601 of title 17, CCR, which were amended in 1993, to establish mitigation requirements for districts located within the areas of origin of transported air pollutants;

WHEREAS, 17 CCR section 70600 requires districts located within the Broader Sacramento Area, the San Francisco Bay Area Air Basin, the San Joaquin Valley Air Basin, the South Coast Air Basin, and the South Central Coast Air Basin south of the Santa Barbara-San Luis Obispo County boundary (affected districts) to contain sufficient measures in their air quality plans to mitigate the impact of pollution sources within their jurisdictions on ozone concentrations in downwind areas, including episodes of overwhelming transport, consistent with the requirements of section 40912 of the Act;

WHEREAS, 17 CCR section 70600 also requires the affected districts to adopt best available retrofit control technology (BARCT) requirements for all existing stationary sources in their jurisdictions and, at a minimum, to adopt by January 1, 1994, BARCT for the source categories that comprise 75% of the permitted stationary source emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x);

WHEREAS, 17 CCR section 70601 provides a procedure to limit the application of BARCT by allowing a district to demonstrate, as a part of its attainment plan, that BARCT mitigation requirements for one or more sources are unnecessary for the expeditious attainment of the ozone standard in the upwind and downwind districts;

WHEREAS, in April 2001, the Board directed staff to initiate a review of the transport mitigation requirements and to return with recommendations to ensure that districts located in upwind areas continue to meet their responsibilities to mitigate transport;

WHEREAS, the staff, in July 2001, presented to the Board broad transport mitigation concepts and made them available in a Status Report; subsequently, the Board directed staff to develop amendments to the transport mitigation regulations for the Board's consideration;

WHEREAS, staff has consulted with both upwind and downwind districts, industry, and the public in developing the proposed amendments, has provided opportunities for public comment, and has considered such comments before proposing regulatory actions to the Board;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project which may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts; and

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code and the Board has considered the testimony presented by interested persons and the staff;

WHEREAS, the Board finds that:

1. "Significant" and "overwhelming" transport to downwind areas must be mitigated in order for those downwind areas to achieve the State ambient air quality standards for ozone by the earliest practicable date;

2. The relative contribution of upwind emissions to downwind ambient pollutant levels has been assessed to the extent permitted by available data;

3. The transport assessments reveal that the transport of upwind emissions to downwind areas significantly contributes to, and, in some instances, is the cause of, violations of the State ambient air quality standard for ozone in the downwind area;

4. Upwind districts that are responsible for causing "overwhelming" or "significant" impacts on downwind districts should adopt control measures sufficient to completely mitigate these impacts;

5. Upwind districts should adopt, implement, and enforce control measures and other requirements that are at least as effective as comparable measures in downwind districts;

6. The adoption and implementation of "all feasible measures" is the primary mechanism by which districts have complied with the Act’s requirements to attain the ozone standard as expeditiously as practicable in their own district;

7. The adoption and implementation of "all feasible measures" in the upwind districts provides benefits to downwind districts through reduced transport of ozone and ozone precursor emissions;

8. It is necessary and appropriate that upwind districts continue to adopt and implement "all feasible measures" as expeditiously as practicable to mitigate the impacts of transported emissions as they approach or attain the ozone standard in their own districts;

9. Upwind districts should work cooperatively with downwind districts and the public to identify "all feasible measures," and should take into account the needs of the downwind districts when developing their attainment plans and prioritizing their rule adoption schedules;

10. Because requirements for the New Source Review (NSR) permitting programs under the Act are based on a district's State ozone nonattainment classification, some upwind districts have less stringent NSR "no net increase" thresholds for new and modified stationary sources than the downwind districts that they affect;

11. More stringent “no net increase” thresholds in upwind districts will achieve emission reductions that will benefit both the upwind districts and their downwind neighbors;

12. A requirement that “no net increase” thresholds in upwind districts’ permitting programs be at least as stringent as those in downwind districts would ensure that both upwind and downwind districts are taking comparable actions to mitigate emissions from new and expanding stationary sources;

13. Although the South Coast Air Basin (South Coast) is classified as “extreme” under the Act, and has a “no net increase” threshold of zero emissions, districts upwind of the South Coast should not be required to adopt permitting program thresholds equal to those in the South Coast because of the unique status of the South Coast and the localized nature of transport impacts from these upwind districts;

14. The requirements that BARCT be applied to source categories that comprise 75% of the permitted stationary source emissions of ROG and NOx by 1994 has been complied with by the affected districts and this provision is no longer required; and

15. It is appropriate to expand the existing provision in 17 CCR section 70601 that allows a limitation on the application of BARCT if specified criteria are met to apply also to “all feasible measures” and to take into account updated transport assessments.

WHEREAS, the Board further finds that:

1. The regulatory actions proposed by the staff as modified by the Board fulfill the requirements of Health and Safety Code section 39610;

2. The proposed amendments should be revisited periodically and amended as appropriate to reflect additional information on the contribution of transported pollutants to downwind ambient ozone concentrations;

3. The regulatory actions proposed will not adversely affect the creation of new businesses or the elimination of existing businesses within California and are not anticipated to affect the creation or elimination of jobs within the State of California;

4. The implementation of the required mitigation measures in upwind areas would have positive environmental impacts in the downwind areas and in most of the upwind areas; and

5. The implementation of the regulatory actions will reduce upwind emissions of NOx as an ozone precursor, and, since NOx is a precursor in the formation of particulate matter (PM), the proposed transport mitigation regulations are anticipated to support efforts to achieve PM standards in California.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the amendments to sections 70600 and 70601, title 17, CCR, as set forth in Attachment A.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to adopt the regulations set forth in Attachment A, in accordance with the Board's direction, and to make such conforming modifications as may be appropriate, after making the modified regulatory language and any additional supporting documents and information available to the public for comment for a period of 15 days; provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if she determines that this is warranted.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to work closely with the districts, industry, and the public to pursue scientific approaches to improve ozone transport assessments and to develop methods to assess transport of PM and its precursors.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to continue to work with California Air Pollution Control Officers Association on transport issues and to report back to the Board on implementation of the ozone transport mitigation regulations within a year.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to include an evaluation of the effectiveness of the ozone transport mitigation regulations in conjunction with the triennial ozone transport assessments.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to continue working closely with the districts to address the availability of offsets.

I hereby certify that the above is a true and correct copy of Resolution 03-9, as adopted by the Air Resources Board.

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Stacey Dorais, Clerk of the Board

Resolution 03-9

May 22, 2003

Identification of Attachments to the Board Resolution

Attachment A: Proposed amendments to the Regulations for Mitigating Upwind Emissions on Downwind Ozone Concentrations: sections 70600, title 17, California Code of Regulations.

ATTACHMENT A

PROPOSED AMENDMENTS TO THE OZONE TRANSPORT MITIGATION REGULATIONS

The staff proposes to amend subchapter 1.5, article 6, section 70600 and 70601, title 17, California Code of Regulations, to read as follows (proposed additions are underlined, proposed deletions are struck out):

ARTICLE 6. Transport Mitigation

70600. Emission Control Requirements

(a) Definitions

For the purpose of sections 70600 and 70601, the following definitions shall apply:

(1) "all feasible measures" means air pollution control measures, including but not limited to emissions standards and limitations, applicable to all air pollution source categories under a district's authority that are based on the maximum degree of reductions achievable for emissions of ozone precursors, taking into account technological, social, environmental, energy and economic factors, including cost-effectiveness.

(2) "ozone precursors" means oxides of nitrogen and reactive organic gases.

(b) Specific Requirements

Districts within the areas of origin of transported air pollutants, as identified in section 70500(c), shall include sufficient emission control measures in their attainment plans for ozone adopted pursuant to part 3, ~~C~~chapter 10 (commencing with section 40910) of division 26 of the Health and Safety Code, ~~Part 3, Division 26~~, beginning with section 40910, to mitigate the impact of pollution sources within their jurisdictions on ozone concentrations in downwind areas commensurate with the level of contribution. An upwind district shall comply with the transport mitigation planning and implementation requirements set forth in this section regardless of its attainment status, unless the upwind district complies with the requirements of section 70601. At a minimum, the attainment/transport mitigation plans for districts within the air basins or areas specified below shall conform to the following requirements:

~~(a)~~(1) Broader Sacramento Area (as defined in section 70500(b)(3)) shall:

(A) require the adoption and implementation of all feasible measures as expeditiously as practicable.

~~(1)~~(B) require the adoption and implementation of best available retrofit control technology, as defined in Health and Safety Code section 40406, on all existing stationary sources of ozone precursor emissions as expeditiously as practicable. ~~At a minimum, the plan shall provide for the adoption of rules that represent best available retrofit control technology for source categories that collectively amount to 75 percent of the 1987 actual reactive hydrocarbon emissions inventory for permitted stationary sources, and 75 percent of the 1987 actual nitrogen oxides emissions inventory for permitted stationary sources, no later than January 1, 1994.~~

(C) require the implementation, by December 31, 2004, of a stationary source permitting program designed to achieve no net increase in the emissions of ozone precursors from new or modified stationary sources that emit or have the potential to emit 10 tons or greater per year of an ozone precursor.

~~(2)~~(D) include measures sufficient to attain the state ambient air quality standard for ozone by the earliest practicable date within the Upper Sacramento Valley and that portion of the Mountain Counties Air Basin north of the Calaveras-Tuolumne County border and south of the Sierra-Plumas County border, except as provided in Health and Safety Code section 41503(d), during air pollution episodes which the state board has determined meet the following conditions:

~~(A)~~(i) are likely to produce a violation of the state ozone standard in the Upper Sacramento Valley or that portion of the Mountain Counties Air Basin north of the Calaveras-Tuolumne County border and south of the Sierra-Plumas County border; and

~~(B)~~(ii) are dominated by overwhelming pollutant transport from the Broader Sacramento Area; and

~~(c)~~(iii) are not measurably affected by emissions of ozone precursors from sources located within the Upper Sacramento Valley or that portion of the Mountain Counties Air Basin north of the Calaveras-Tuolumne County border and south of the Sierra-Plumas County border.

~~(b)~~(2) San Francisco Bay Area Air Basin shall:

(A) require the adoption and implementation of all feasible measures as expeditiously as practicable.

~~(1)~~(B) require the adoption and implementation of best available retrofit control technology, as defined in Health and Safety Code section 40406, on all existing stationary sources of ozone precursor emissions as expeditiously as practicable. ~~At a minimum, the plan shall provide for the adoption of rules that represent best available retrofit control technology for source categories that collectively amount to 75 percent of the 1987 actual reactive hydrocarbon emissions inventory for permitted stationary sources, and 75 percent of the 1987 actual nitrogen oxides emissions inventory for permitted stationary sources, no later than January 1, 1994.~~

(C) require the implementation, by December 31, 2004, of a stationary source permitting program designed to achieve no net increase in the emissions of ozone precursors from new or modified stationary sources that emit or have the potential to emit 10 tons or greater per year of an ozone precursor.

~~(2)~~(D) include measures sufficient to attain the state ambient air quality standard for ozone by the earliest practicable date within the North Central Coast Air Basin, that portion of Solano County within the Broader Sacramento Area, that portion of Sonoma County within the North Coast Air Basin, and that portion of Stanislaus County west of Highway 33, except as provided in the Health and Safety Code section 41503(d), during air pollution episodes which the state board has determined meet the following conditions:

~~(A)~~(i) are likely to produce a violation of the state ozone standard in the North Central Coast Air Basin, or that portion of Solano County within the Broader Sacramento Area, or that portion of Sonoma County within the North Coast Air Basin, or that portion of Stanislaus County west of Highway 33; and

~~(B)~~(ii) are dominated by overwhelming pollutant transport from the San Francisco Bay Air Basin; and

~~(C)~~(iii) are not measurably affected by emissions of ozone precursors from sources located within the North Central Coast Air Basin, or that portion of Solano County within the Broader Sacramento Area, or that portion of Sonoma County

within the North Coast Air Basin, or that portion of Stanislaus County west of Highway 33.

~~(c)~~(3) San Joaquin Valley Air Basin shall:

(A) require the adoption and implementation of all feasible measures as expeditiously as practicable.

~~(1)~~(B) require the adoption and implementation of best available retrofit control technology, as defined in Health and Safety Code section 40406, on all existing stationary sources of ozone precursor emissions as expeditiously as practicable. ~~At a minimum, the plan shall provide for the adoption of rules that represent best available retrofit control technology for source categories that collectively amount to 75 percent of the 1987 actual reactive hydrocarbon emissions inventory for permitted stationary sources, and 75 percent of the 1987 actual nitrogen oxides emissions inventory for permitted stationary sources, no later than January 1, 1994.~~

~~(2)~~(C) include measures sufficient to attain the state ambient air quality standard for ozone by the earliest practicable date within the Mojave Desert Air Basin, the Great Basin Valleys Air Basin, and that portion of the Mountain Counties Air Basin south of the Amador-El Dorado County border, except as provided in Health and Safety Code section 41503(d), during air pollution episodes which the state board has determined meet the following conditions:

~~(A)~~(i) are likely to produce a violation of the state ozone standard in the Mojave Desert Air Basin, or the Great Basin Valleys Air Basin, or that portion of the Mountain Counties Air Basin south of the Amador-El Dorado County border; and

~~(B)~~(ii) are dominated by overwhelming pollutant transport from the San Joaquin Valley Air Basin; and

~~(C)~~(iii) are not measurably affected by emissions of ozone precursors from sources located within the Mojave Desert Air Basin or the Great Basin Valleys Air Basin, or that portion of the Mountain Counties Air Basin south of the Amador-El Dorado County border.

~~(d)~~(4) South Central Coast Air Basin south of the Santa Barbara-San Luis Obispo County border shall, for sources located in that portion of the Basin:

(A) require the adoption and implementation of all feasible measures as expeditiously as practicable.

~~(1)~~(B) require the adoption and implementation of best available retrofit control technology, as defined in Health and Safety Code section 40406, on all existing stationary sources of ozone precursor emissions as expeditiously as practicable. ~~At a minimum, the plan shall provide for the adoption of rules that represent best available retrofit control technology for source categories that collectively amount to 75 percent of the 1987 actual reactive hydrocarbon emissions inventory for permitted stationary sources, and 75 percent of the 1987 actual nitrogen oxides emissions inventory for permitted stationary sources, no later than January 1, 1994.~~

~~(e)~~(5) South Coast Air Basin shall:

(A) require the adoption and implementation of all feasible measures as expeditiously as practicable.

~~(1)~~(B) require the adoption and implementation of best available retrofit control technology, as defined in Health and Safety Code section 40406, on all existing stationary sources of ozone precursor emissions as expeditiously as practicable. ~~At a minimum, the plan shall provide for the adoption of rules that represent best available retrofit control technology for source categories that collectively amount to 75 percent of the 1987 actual reactive hydrocarbon emissions inventory for permitted stationary sources, and 75 percent of the 1987 actual nitrogen oxides emissions inventory for permitted stationary sources, no later than January 1, 1994.~~

~~(2)~~(C) include measures sufficient to attain the state ambient air quality standard for ozone by the earliest practicable date within the South Central Coast Air Basin south of the Santa Barbara-San Luis Obispo County border, the San Diego Air Basin, the Mojave Desert Air Basin, and the Salton Sea Air Basin, except as provided in Health and Safety Code section 41503(d), during air pollution episodes which the state board has determined meet the following conditions:

~~(A)~~(i) are likely to produce a violation of the state ozone standard in the South Central Coast Air Basin south of the Santa

Barbara-San Luis Obispo County border, or in the San Diego Air Basin, or in the Mojave Desert Air Basin, or in the Salton Sea Air Basin; and

~~(B)~~(ii) are dominated by overwhelming pollutant transport from the South Coast Air Basin; and

~~(C)~~(iii) are not measurably affected by emissions of ozone precursors from sources located within the South Central Coast Air Basin south of the Santa Barbara-San Luis Obispo County border, or the San Diego Air Basin, or the Mojave Desert Air Basin, or the Salton Sea Air Basin.

(c) Implementation

(1) Prior to revising its attainment/transport mitigation plan pursuant to section 40925 of the Health and Safety Code, each district subject to the requirements set forth in section 70600(b) shall, in consultation with the downwind districts, review the list of control measures in its most recently approved attainment plan and make a finding as to whether the list of control measures meets the requirements of section 70600(b). The district shall include the finding in its proposed triennial plan revision.

(2) If the ARB determines that a district's plan does not satisfy the requirements of section 40912 of the Health and Safety Code and this regulation, the Board and the district shall follow the procedures specified in section 41503.2 of the Health and Safety Code for addressing plan deficiencies.

Note: Authority cited: Sections 39600, 39601 and 39610(b), Health and Safety Code. References: Sections 39610, 40912, 40913, 40921, 40924, 40925, and 41503, Health and Safety Code.

70601. Procedure for Limiting the Application of All Feasible Measures and Best Available Retrofit Control Technology.

A district may exclude one or more sources from the requirement to apply all feasible measures, best available retrofit control technology, or both, as transport mitigation pursuant to section 70600 provided that the district plan prepared pursuant to part 3, chapter 10 (commencing with section 40910) of division 26 of the Health and Safety Code and approved by the Board pursuant to part 4, chapter 1 (commencing with section 41500) of division 26 of the Health and Safety Code demonstrates that:

(a) emissions from the source, because of its location, do not contribute to ozone violations in any downwind area; or

(b) emissions reductions from the source are not needed to attain the ozone standard in any downwind area; or

(c) the district is implementing an alternative emissions reduction strategy pursuant to section 40914 of the Health and Safety Code and demonstrates, based on the best available scientific evidence, including but not limited to air quality modeling analyses, that the strategy will be at least as effective and as expeditious as the transport mitigation requirements specified in section 70600; or

(d) the most recent transport assessment demonstrates that the district's transport impact is inconsequential.

Note: Authority cited: Sections 39600, 39601, 39610(b), Health and Safety Code. References cited: Sections 39610, 40912, 40913, 40921, 40924, 40925, and 41503, Health and Safety Code.