

REGIONAL AIR QUALITY COUNCIL'S REBUTTAL STATEMENT

IN THE MATTER OF THE RULEMAKING HEARING TO CONSIDER REVISIONS TO THE AMBIENT AIR QUALITY STANDARDS REGULATION, DENVER & LONGMONT CARBON MONOXIDE MAINTENANCE PLANS, DENVER PM10 MAINTENANCE PLAN, REGULATION NO. 13: OXYGENATED FUELS PROGRAM, AND REGULATION NO. 11: VEHICLE EMISSION INSPECTION PROGRAM

A. Emission Budget Trading Criteria and Formulae – Proposed PM-10 Maintenance Plan Revision

In the Prehearing Order dated November 23, 2005, the Regional Air Quality Council (RAQC) was granted the opportunity to present substitute language to address PM-10 and NOx emission budget trading in the PM-10 Maintenance Plan, upon mutual agreement with the Division and the Denver Regional Council of Governments (DRCOG).

Staff from the RAQC, DRCOG and the Division met on November 22 to discuss the procedures and criteria for emission budget trading contained in the RAQC's alternative proposal submitted with its Prehearing Statement on November 15 (Section 4.D.6 Emissions Budget Trading of NOx and PM -- noted as Exhibit G). After discussion, staff from the three agencies agrees on how the process should work and agreed the language needs no revision.

Subsequent to this meeting, EPA Region 8 suggested one minor change to the language in the SIP document – adding a Chart 2 to show the curve for emission budget trading in the year 2015 for consistency purposes (a similar chart for 2022 was already included). RAQC staff consulted with Division and DRCOG staff on this change and they raised no objections.

Therefore, a new **Section 4.D.6 Emissions Budget Trading of NOx and PM-10** reflecting this change is attached to this Rebuttal Statement as Exhibit H. The language in the Proposed Revisions to the “Ambient Air Quality Standards” Regulation, submitted by the Division at the Prehearing Conference on November 18, is not changed by this action.

B. Construction-Related Emissions – Proposed PM-10 Maintenance Plan Revision

During the Prehearing Conference on November 18, RAQC staff indicated EPA staff in Ann Arbor had raised some concerns on the language in Section 4.D.7 Construction-Related Emissions and the Agency was still reviewing the language. The Prehearing Order granted the RAQC the opportunity to present substitute language to address EPA's concerns, upon mutual agreement with the Division and DRCOG.

On November 22 staff from RAQC, the Division and DRCOG met via teleconference with the EPA Region 8 staff to review changes to the language proposed by EPA. Even though the language included in the proposed maintenance plan revision is exactly the same as the language approved by EPA in the original maintenance plan and redesignation request, closer review by EPA-Ann Arbor staff raised some concerns that needed to be addressed. It appears EPA's main concern is that the surrogate procedure for considering transportation construction-related emissions (i.e., the total roadway lane miles constructed in a new or amended plan are less than the total roadway miles included in the 2030 Transportation Plan) may not be appropriate in all circumstances. EPA suggested removing the language outlining this surrogate measure from the SIP and leaving the consideration of construction-related emissions in each conformity determination to the normal interagency consultation process.

RAQC, Division and DRCOG staff reviewed EPA's suggested language and agreed to these changes. Therefore, the RAQC attaches proposed changes to **Section 4.D.7 Construction-Related Emissions** to this Rebuttal Statement as Exhibit I.

C. Response to Issues Raised by Ethanol Management Company and Colorado Corn Growers Association – Proposed Carbon Maintenance Plan Revision

In their Prehearing Statement filed on December 15, 2005 Ethanol Management Company (EMC) and Colorado Corn Growers Association (CCGA) raise many tangential issues related to the oxygenated gasoline program in Colorado. Issues are raised concerning health benefits beyond the federal ambient air quality standard; the impact of oxygenated gasoline on other pollutants, including a future PM2.5 standard, air toxics, and greenhouse gases; the economic benefit to consumers and the agricultural economy; actions by other states to remove the oxygenated gasoline requirement; consistency with the federal Energy Policy Act of 2005; and consistency with *proposed* state legislation.

While these issues may be appropriate to discuss when considering repeal of Regulation No. 13 as a state-only requirement, they are not relevant to a decision to remove Regulation No. 13 from the State Implementation Plan. Under both federal and state law, the purpose of the State Implementation Plan is to attain the established national air quality standards, plain and simple. If the oxygenated gasoline program is not needed to attain the carbon monoxide or any other current NAAQS, then the program does not need to be contained in the State Implementation Plan and subject to federal enforceability. All the economic, energy policy and hypothetical air quality arguments make for an interesting state policy discussion, but they should not be considered when deciding to remove Regulation No. 13 from the SIP.

The Regional Air Quality Council considered the issues raised by EMC during its deliberations on whether to recommend repealing Regulation No. 13 as part of this regulatory hearing. The RAQC concluded that these issues deserve more evaluation and discussion, so the Council recommended addressing these issues in a separate process within the next two years and deciding then whether to repeal Regulation No. 13 as a state-only requirement. Regulation No. 13 will remain part of the SIP until December 31, 2007 and until EPA approves its removal, so the interested parties have more time to consider these issues before a final decision is made.

D. Exhibits

The Regional Air Quality Council hereby includes the following exhibits as part of its Rebuttal Statement:

- **Exhibit H -- *Revised Alternative Proposal*:** Revision to Proposed PM-10 Maintenance Plan, Section 4.D.6 Emissions Budget Trading of NOx and PM-10
- **Exhibit I -- *Alternative Proposal*:** Revision to Proposed PM-10 Maintenance Plan, Section 4.D.7 Construction-Related Emissions.

Submitted this 29th day of November, 2005 in Denver, Colorado

Kenneth H. Lloyd, Executive Director

Exhibit H

**Revised Alternative Proposal: Revision to Proposed PM-10 Maintenance Plan,
Section 4.D.6 Emissions Budget Trading of NO_x and PM₁₀**

6. Emissions Budget Trading of NO_x and PM₁₀

Motor vehicle emissions budgets are specific numbers for a specific year, and once established in an approved SIP remain in existence for long periods of time or until they are revised through a SIP revision. The mobile source and transportation models used to estimate motor vehicle emissions have changed and will continue to change over time. Recent experience with changing models has necessitated SIP revisions to facilitate the conformity process.

This maintenance plan establishes an emission budget trading protocol for trading between emissions budgets for primary PM₁₀ and the PM₁₀ precursor, NO_x, based on the technical analysis in this plan. Trading allows for the establishment of many sets of pairs of PM₁₀ and NO_x emissions budgets in TPD, which are equivalent to the same total PM₁₀ concentration. Emissions trading (PM₁₀ for NO_x or NO_x for PM₁₀) allows the region initially to establish a reasonable, specific set of PM₁₀ and NO_x emissions budgets while still allowing for adjustments to the budget as future circumstances change.

The technical analysis in this plan has established relationships between primary PM₁₀ and the PM₁₀ precursor, NO_x, as shown in Section D.4. and as follows:

- $1 \text{ ug/m}^3 \text{ PM}_{10} = 12.3 \text{ TPD NO}_x = 0.9 \text{ TPD PM}_{10}$

which is further equated in terms of tons per day as follows:

- $1.0 \text{ TPD PM}_{10} = 13.6 \text{ TPD NO}_x$

EPA has required that a 10% safety factor be applied to reflect uncertainties in the modeling. Therefore, when trading NO_x for PM₁₀ the trading ratio will be 15 TPD NO_x ($1.1 * 13.6$) = 1.0 TPD PM₁₀, and when trading PM₁₀ for NO_x, the trading ratio will be 1.0 TPD PM₁₀ = 12 TPD NO_x ($0.9 * 13.6$).

The Metropolitan Planning Organization (MPO) responsible for demonstrating transportation conformity is authorized, as necessary to supplement the PM₁₀ and NO_x emission budgets using the following procedures for a given transportation conformity determination:

- Initially, a demonstration of consistency or lack thereof shall be made with the specific PM₁₀ and NO_x motor vehicle emissions budgets for 2015 and for 2022, which have been established in this maintenance plan and are listed in Tables 4.6 and 4.8 above.
- Prior to any emissions trading, the MPO shall consider all reasonably available local control measures to meet the specific established budgets. If the budgets cannot be met, the MPO shall demonstrate the need for trading through the normal interagency consultation and review process described in Air Quality Regulation No. 10, which includes regional, state and federal air quality and transportation agencies.

- Trading of NO_x for PM₁₀ or PM₁₀ for NO_x to adjust emission budgets for purposes of demonstrating transportation conformity shall be allowed using the emission trading formulae as follows:
 - For any trades necessary to increase a primary PM₁₀ budget, 15.0 TPD of NO_x will be taken from the NO_x budget to increase the primary PM₁₀ budget by 1.0 TPD, a ratio of 15 to 1.
 - For trades necessary to increase a NO_x budget, 1.0 TPD of primary PM₁₀ will be taken from the primary PM₁₀ budget to increase the NO_x budget by 12.0 TPD, a ratio of 1 to 12.

- The MPO shall include the following information in the transportation conformity determination:
 - The budget for primary PM₁₀ and NO_x for each required year of the conformity demonstration, before trading allowed by this maintenance plan has been employed;
 - The portion of the primary PM₁₀ budget that will be used to supplement the NO_x budget, or, in the alternative, the portion of the NO_x budget that will be used to supplement the primary PM₁₀ budget, in tons per day, for each required year of the conformity demonstration;
 - The increase in the NO_x budget or primary PM₁₀ budget that results from use of the applicable formula specified above, along with relevant calculations;
 - The resulting primary PM₁₀ and NO_x budgets, in tons per year, for each required year of the conformity demonstration, after the trading allowed by this maintenance plan has been employed;

- To demonstrate conformity, the MPO shall then compare projected emissions to the adjusted PM₁₀ and NO_x motor vehicle emissions budgets.

Trades in either direction would be made on a case-by-case basis, decided for each plan/TIP conformity determination.

The trading formulae applied to the 2022 and 2015 budgets are presented as a curve in the following charts:

Chart 1: NO_x / PM₁₀ Trading Curve Using 2022 Emissions Budgets

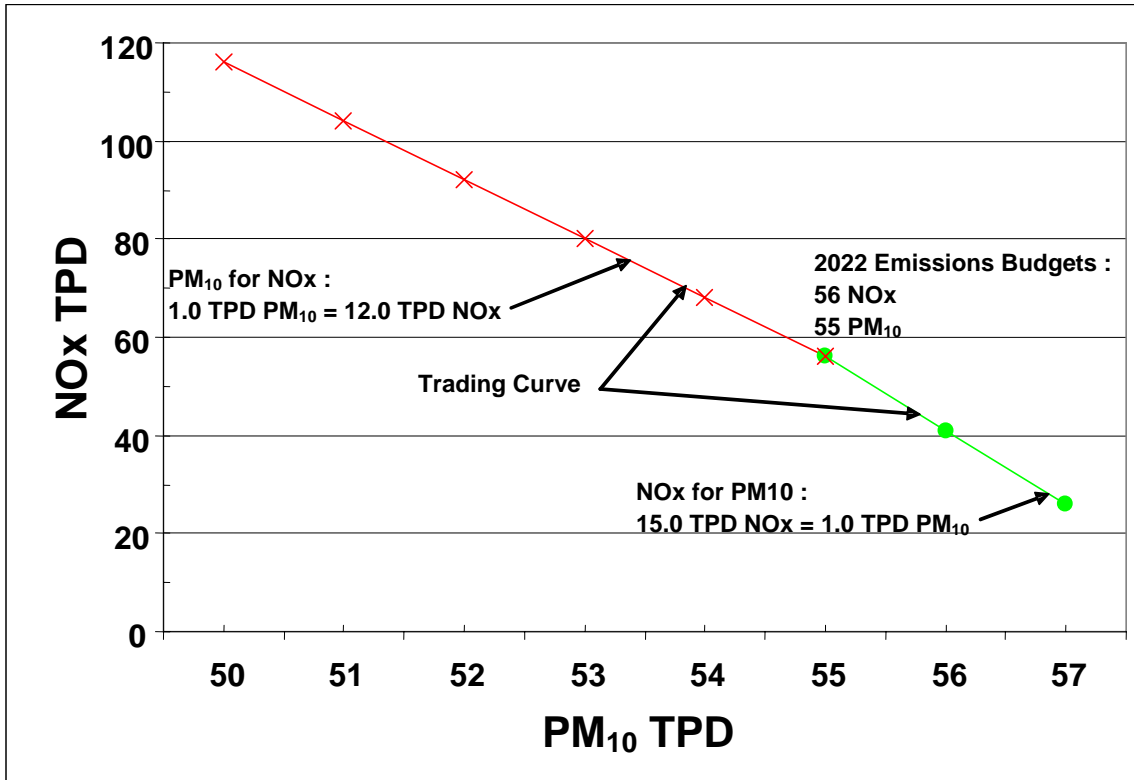


Chart 2: NO_x / PM₁₀ Trading Curve Using 2015 Emissions Budgets

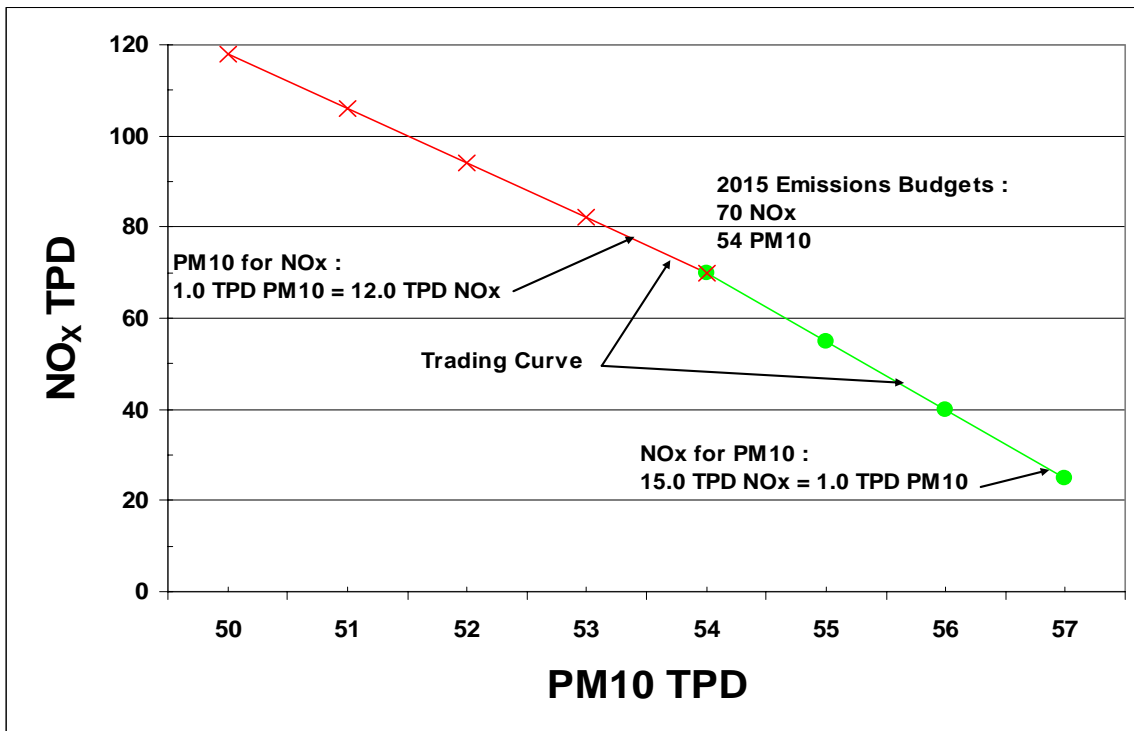


Exhibit I

Alternative Proposal: Revision to Denver, Colorado PM10 Maintenance Plan

Chapter 4, Section D. 7. Construction-Related Emissions

7. Construction-Related Emissions

EPA's transportation conformity regulation 40 CFR 93.122(d) requires all PM10 nonattainment and maintenance areas to include highway and transit construction-related PM10 emissions in their regional conformity analysis if their PM10 SIP identifies construction as a contributor to the PM10 problem. The regulation does not require areas to specifically identify highway and transit project construction as a source of PM10 in the SIP.

This maintenance plan includes PM10 emission estimates for construction activities in general. All types of construction, including highway and transit construction, are assumed to be included in this analysis.

The construction emissions inventory in this maintenance plan was developed using the same economic activity factors that DRCOG used to develop its most recent 2030 Transportation Plan and 2005-2010 TIP, upon which this maintenance plan is also based. ~~Therefore, the 2030 Transportation Plan and the current and subsequent TIPs are presumed to be consistent with this maintenance plan for purposes of considering PM10 construction-related emissions in future conformity determinations. Thus, the construction-related emissions from the 2030 Transportation Plan and current and subsequent TIPs are accounted for in the maintenance demonstration, as are any new or revised transportation plans or improvement programs with construction-related emissions equal to, or less than, the construction-related emissions from the 2030 Transportation Plan and 2005-2010 TIP.~~

~~DRCOG may presume that any future plan or program, or amendment to a plan or program, will have construction-related emissions less than, or equal to, the 2030 Transportation Plan and 2005-2010 TIP if the number of lane miles to be constructed, on an annualized basis, in such new or amended plan or program are less than or equal to the maximum number of lane-miles to be constructed, on an annualized basis, pursuant to the 2030 Transportation Plan and 2005-2010 TIP. For purposes of making this determination, the term "lane-miles" shall mean one mile of a transit line or one mile of a lane on a roadway on the regional plan. If the number of lane miles to be constructed in a new or amended plan or program exceed the number of lane miles to be constructed pursuant to the 2030 Transportation Plan and 2005-2010 TIP, the existing interagency consultation process will be used to determine how the additional construction-related emissions, if any, will be analyzed or mitigated for purposes of the regional emissions analysis.~~