UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAY 30 2007

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Emission Reduction Credit for Three Federal Rules for Categories of Consumer and Commercial Products under Section 183(e) of the Clean Air Act

FROM: Stephen D. Page, Director
Office of Air Quality Planning and Standards

TO: Air Division Directors, Regions I through X

The phase II 8-hour ozone implementation rule requires States to submit their modeled attainment demonstration and reasonable further progress (RFP) elements of their State implementation plans (SIPs) for most ozone nonattainment areas by June 15, 2007, (November 29, 2005 (70 FR 71612); 40 CFR 51.908).[a] In the development of these plans, States will be considering measures to reduce volatile organic compound (VOC) emissions (as well as nitrogen oxide (NOx) emissions) in and around those nonattainment areas.

This memorandum is in follow-up to the Consumer Products Sector Government Summit teleconference (Summit) convened by the Office of Air Quality Planning and Standards (OAQPS) on April 10, 2007, and attended by representatives from nearly every Regional Office, 28 State and local agencies, and several multi-jurisdictional organizations. The purpose of this memorandum is to provide guidance concerning credit that States can take for reductions associated with three Federal rules being promulgated this calendar year under authority of section 183(e) of the Clean Air Act. These rules, which are discussed separately below, will establish or amend VOC content limits for (1) aerosol coatings (new rule), (2) architectural and industrial maintenance (AIM) coatings (amendments), and (3) household and institutional consumer products (amendments). OAQPS is working to finalize these national consumer and commercial products rules as soon as possible so that fully creditable emission reductions will be achieved by January 1, 2009. Since some States have nonattainment areas that must achieve reductions prior to 2009, this memorandum also includes provisions for taking partial credit for early reductions achieved prior to 2009.

[a]The system of classifications of nonattainment areas was established under the phase 1 8-hour ozone implementation rule; the classification of an area affects the SIP requirements that apply to the area. (April 30, 2004 (69 FR 23951)). However, on December 22, 2006, the D.C. Circuit Court of Appeals in *South Coast v. EPA* vacated the phase 1 rule, leaving in doubt the classification of areas and thus which requirements apply. EPA has requested rehearing and clarification of the Court's ruling. Until the Court responds to that request, EPA's advice to States concerning SIP requirements and the June 15, 2007 submission data is contained in a March 19, 2007 memorandum from William L. Wehrum, "Impacts of the Court Decision on the Phase 1 Ozone Implementation Rule."

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Aerosol Coatings Rule

The aerosol coatings category is included in Group III of the section 183(e) list and schedule for regulation, as modified on May 16, 2006 (71 FR 28320). Pursuant to court order, EPA is required to promulgate a final rule for this category no later than September 30, 2007. We are currently developing a new Federal rule, to be codified as 40 CFR 59 subpart E, based on California's reactivity-based aerosol coatings rule. We have determined that the reactivity scale used by California is suitable for use nationwide, and we discuss this issue in detail in the preamble of the proposed aerosol coatings rule. Our aerosol coatings reactivity rule will establish product-weighted reactivity limits on the ingredient content of aerosol coatings, which will, in turn, limit the ozone formed by the products. Consequently, there may or may not be a reduction in the mass of VOC emitted from the products, although ozone formation is reduced. Compliance will be required by January 1, 2009.

To estimate equivalent VOC mass reductions for credit purposes, we calculated the VOC reductions that would have been achieved by a mass-based rule equivalent in ozone formation reduction to our reactivity-based rule. We based this calculation on work done by the California Air Resources Board (ARB). The ARB had previously developed a mass-based aerosol coatings rule whose limits were later determined to be technologically infeasible for certain product categories. The California reactivity-based rule was developed by ARB as an equivalent replacement for the mass-based rule's VOC limits. We agree with ARB's determination that the ozone formation reduction achieved by their reactivity-based rule is equivalent to ozone reductions that may have been achieved from their earlier mass-based rule.[b] As a result, we have estimated that our aerosol coatings reactivity rule will achieve the equivalent of a 19 percent reduction in mass VOC emissions from the 1990 baseline. The year 1990 represents the baseline, since there has been no previous Federal rulemaking for aerosol coatings. The creditable reduction that may be claimed is 0.114 pound per capita in previously unregulated areas.

AIM Coatings Rule

We are in the process of amending our 1998 AIM rule, 40 CFR 59 subpart D. The amended rule generally follows the 2001 Ozone Transport Commission (OTC) Phase I model rule, which is based on the California Suggested Control Measure published in 2000. The amendments will be proposed in June 2007, followed by promulgation in December 2007. The compliance date will be January 1, 2009.

There have been issues raised in the past associated with baseline emission factors and how to calculate VOC reductions for AIM coatings rules. On August 31, 2005 (70 FR 51694), EPA published an advance notice of proposed rulemaking (ANPR) to discuss the AIM baseline issue and solicit comments on how to calculate the VOC reductions achieved in ozone

[b]Revisions to the California State Implementation Plan and Revision to the Definition Of Volatile Organic Compounds (VOC) - Removal of VOC Exemptions for California's Aerosol Coating Products Reactivity-based Regulation (September 13, 2005 (70 FR 53930)).

nonattainment areas from AIM coating rules. We plan to address the issues raised in the ANPR in the preambles of the proposed and final notices for the AIM amendments. However, the following is our best advice at this time to assist States in calculating their creditable reductions in their June 2007, SIP submissions.

For purposes of determining the base year emission inventory from AIM coating operations for the 8-hour ozone plans, we have determined that an emission factor of 3.6 pounds per capita should be used. When we promulgated the 1998 Federal AIM rule, we used a 4.5 pound per capita pre-rule baseline emission factor. At that time, we advised the States that the 1998 Federal AIM rule would achieve a 20 percent reduction, resulting in a 3.6 pounds per capita post-1998 Federal rule emission factor.

A number of States that are members of the OTC have already adopted State AIM regulations based upon the OTC model rule that are more stringent than the 1998 Federal rule. These States should calculate the amount of VOC reduction credit from the new Federal AIM rule for their 8-hour ozone plans in the same way as those States where only the 1998 Federal AIM rule has applied. This is because the compliance date specified in these States' AIM regulations based upon the OTC model rule is January 1, 2005, and the design values for the areas designated nonattainment for 8-hour ozone were set using monitoring data from years prior to 2005. Therefore, the emissions monitored from operations involving AIM coatings during the years used to determine the design values of the 8-hour ozone nonattainment areas were reflective of compliance levels of the 1998 Federal rule and not the more stringent State regulations. As the design value for an area is the level of nonattainment (or starting point) from which an attainment plan's strategies must reduce emissions to reach ambient air quality levels that meet the NAAQS, it is important to account for, or inventory, the emission levels from each source category that were actually being emitted, and therefore monitored, during the years used to determine that design value. In compiling the emission inventory for SIP planning purposes, a base year is chosen from among the same years for which the monitoring data is used to determine the design value. For the 8-hour ozone SIP, the emission inventory base year is generally 2002. Reductions in emissions that have occurred after the years used to determine the design value and the emission inventory base year are creditable reductions in both progress and attainment plans.

We estimate that the amended Federal AIM rule will achieve a reduction of 31 percent from the post-1998 Federal rule baseline of 3.6 pounds per capita. This is a creditable reduction of 1.1 pounds per capita.

Consumer Products Rule

We are also in the process of amending our 1998 consumer products rule, 40 CFR 59 subpart C. The AIM coatings amendments and consumer products amendments will be proposed in the same action. The amended rule is based on the 2006 revised OTC model rule, which is essentially the same as the California CONS-1 rule. The amended Federal rule will apply to many more product categories and provide for more stringent VOC content limits than the old 1998 Federal rule. We plan to propose the amendments in June 2007, followed by promulgation in December 2007. Compliance will be required by January 1, 2009.

The baseline for calculating reductions from the amended rule will be compliance with the 1998 Federal rule, or about 3.1 pounds per capita. For the same reason explained above for AIM coatings, States who have adopted consumer products rules with compliance dates after the baseline year for determining design values also should use this 3.1 pound per capita baseline. We have calculated that the amended Federal rule will achieve a VOC reduction of approximately 29 percent beyond that achieved by the 1998 Federal rule. This is a creditable reduction of 0.9 pound per capita.

Partial Credit for Early Reductions

The compliance date for the three Federal rules will be January 1, 2009. Consequently, these rules cannot assure creditable VOC reductions prior to that date. During the Summit, we were reminded that some States have areas that must achieve reductions prior to 2009. We are aware that, for aerosol coatings, consumer products, and AIM coatings, nearly all products distributed nationwide are already formulated to comply with one or more State regulations with categories and limits that meet or exceed the requirements of the new Federal rules. As a result, we are confident that a large majority of the reductions that will be assured by the three Federal rules are already being achieved. We believe that a conservative approach to providing assistance to States needing to show reductions before 2009 is to allow an immediate partial credit of 75 percent of the total creditable reduction for each of the three Federal rules in advance of the January 2009 compliance date. If a State, after consulting with industry representatives and with approval of the appropriate Regional Office, provides information that will support a claim of partial credit different than (greater or less than) 75 percent, that State may claim that amount in the interim period preceding January 1, 2009.

Shortfalls

In summary, States may claim credit for the per capita VOC emission reductions from source categories covered by the above rules in the attainment demonstration and RFP elements of their SIP if the emission reductions occur after the baseline year(s) for those plan elements. However, if the EPA rule does not provide the reduction anticipated for a particular area, any State claiming credit from the Federal rule will be responsible for developing measures to make up the shortfall.

Please share this information with the States in your region. Should a State find that specific circumstances or data for a given area indicate that the amount of reduction credits from a VOC control measure be calculated differently from the information provided in this memorandum, that State is urged to work closely with the appropriate Regional Office prior to formally submitting the SIP revision in which they are seeking those emission reduction credits.

For questions concerning the general status of the three Federal rules or the section 183(e) consumer and commercial products program, please contact Bruce Moore of the Sector Policies and Programs Division at (919) 541-5460, *moore.bruce@epa.gov*. For questions regarding attainment demonstrations and RFP plans, contact John Silvasi of the Air Quality Policy Division at (919) 541-5666, *silvasi.john@epa.gov*.

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