

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

02 MAR 1989

MEMORANDUM

SUBJECT: Reasonably Available Control Technology (RACT) for New Automobile Assembly Plants

FROM: G.T. Helms, Chief Ozone/Carbon Monoxide Programs Branch (MD-15)

TO: Steve Rothblatt, Chief Air and Radiation Branch (5AR-26)

This is in response to your memorandum of November 21, 1988, concerning the applicability of reasonably available control technology (RACT) to new or modified automobile assembly plants in ozone nonattainment areas. Your memorandum explained that about eight assembly plants in Michigan which were constructed or modified after July 1, 1979, but before the end of 1986, are not subject to the RACT regulation in the Michigan State implementation plan (SIP). These facilities are rather subject to the new source performance standards (NSPS) and in some cases lowest achievable emission rate (LAER) which was set equal to the NSPS.

As noted in Jerry Emison's December 1, 1988, response (copy attached) to a similar question from Art Spratlin in Region VII, we agree that automobile assembly plants in ozone nonattainment areas should have volatile organic compound (VOC) emission requirements that are at least as stringent as RACT-(footnote-1). The NSPS and LAER requirements for the plants you identified in Michigan may not be as stringent as RACT. Therefore, we agree with your recommendation that Michigan be directed to institute (or reinstitute) RACT requirements for these facilities. See Section 172(b)(2)]. The State should also examine whether it would be possible in the future for an existing source which becomes subject to the NSPS through modification or reconstruction, but does not at the same time become subject to LAER, to no longer be subject to RACT. If this is a possibility, then the SIP should be amended, perhaps through adoption of a generic RACT rule for automobile coating, to ensure that all sources will at a minimum be subject to RACT.

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(footnote-1)-For this discussion, RACT for topcoat means an appropriate emission limit for which compliance is demonstrated on a daily basis using the automobile topcoat protocol. The most recent version of the protocol was published in December 1988 as document number EPA 450/3-88-018. For surfacer, the RACT requirement should also specify daily compliance and actual transfer efficiency.

We also recommend that you again strongly urge Michigan to modify its SIP to specify the automobile topcoat protocol as the compliance determination procedure for all of the automobile topcoat RACT requirements. This is consistent with Agency guidance on automobile topcoat RACT compliance determination procedures and averaging time. The necessary changes are described in Jerry Emison's June 21, 1988, memorandum (copy attached) which transmitted the protocol to the Regional Offices. Adoption of the protocol in Michigan is particularly critical since that State has the most assembly plants.

Should you have any questions concerning this matter, please contact Bill Polglase (FTS 629-5246) or Dave Salman (FTS 629-5417).

Attachment

cc: J. Berry  
J. Calcagni  
R. Campbell  
D. Crumpler  
G. McCutchen  
R. Ossias  
B. Polglase  
S. Rosenthal  
D. Salman  
J. Silvasi  
Director, Air Management Div., Regions I, III, V, IX  
Director, Air and Waste Management Division, Region II  
Director, Air, Pesticides, and Toxics Division, Regions IV, VI  
Director, Air and Toxics Division, Regions VII, VIII, X  
Chief, Air Branch, Regions I, II, III, IV, VI, X  
Chief, Air Compliance Branch, Regions IV, V  
Chief, Air Enforcement Branch, Region III  
Chief, Air Operations Branch, Region IX

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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01 DEC 1988

MEMORANDUM

SUBJECT: RACT Requirements in Ozone Nonattainment Areas

FROM: Gerald A. Emison, Director Office of Air Quality Planning and Standards (MD-10)

TO: William A. Spratlin, Director Air and Toxics Division, Region VII

This is in response to your memorandum of October 12, 1988 concerning reasonably available control technology (RACT) requirements for automobile assembly plants in ozone nonattainment areas.

We agree that automobile assembly plants in ozone nonattainment areas should have volatile organic compound emission requirements that are at least as stringent as RACT. As described below, the requirements for new source performance standards (NSPS) or lowest available emission rate (LAER) (as determined at the time of permit issuance) for two plants in the St. Louis area may not be as stringent as RACT. Therefore, the St. Louis State implementation plan should contain RACT requirements for these plants.

There are important differences in the format and compliance demonstration methodology for automobile coating RACT and NSPS. Topcoat and surfacer RACT require daily averaging and actual transfer efficiency, while the NSPS allows monthly averaging and table transfer efficiency values. These differences may result in RACT being more stringent than NSPS. The OAQPS recommends that the June 1988 protocol be used as the basis for determining compliance with the RACT limit.

The Ford Hazelwood plant is subject to NSPS and RACT. The State has proposed to delete the RACT requirements for Ford Hazelwood on the basis that the NSPS is more stringent. This claim is not correct. Therefore, the RACT requirements for Ford Hazelwood should not be deleted, rather they should be maintained and the June 1988 protocol adopted as the

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(footnote-1)-For this discussion, RACT for topcoat means an appropriate emission limit for which compliance is demonstrated on a daily basis using the June 1988 protocol. For surfacer, the RACT requirements should also specify daily compliance and actual transfer efficiency.

compliance determination procedure.

The GM Wentzville plant was permitted as a new source in the early 1980's. This source is subject to NSPS and LAER, which was set equal to NSPS for topcoat and surfacer. Since the St. Louis RACT requirements for automobile coating were source specific and the GM Wentzville plant did not exist when the RACT requirements were first adopted, there are currently no RACT requirements for this plant. The NSPS and LAER requirements for this plant may not be as stringent as RACT. Therefore, RACT requirements should be adopted for GM Wentzville.

Thank you for bringing this situation to our attention. Questions concerning this matter should be addressed to Bill Polglase (629-5246) or Dave Salman (629-5417).

cc: J. Calcagni  
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Director, Air, Pesticides, and Toxics Division, Regions IV, VI  
Director, Air and Toxics Division, Regions VII, VIII, X  
Chief, Air Branch, Regions IX  
Chief, Air Compliance Branch, Regions IV, V  
Chief, Air Enforcement Branch, Region III  
Chief, Air Operations Branch, Region IX

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

JUN 21 1988

MEMORANDUM

SUBJECT: Transmittal of Automobile Topcoat Protocol

FROM: Gerald A. Emison, Director Office of Air Quality Planning and Standards (MD-10)

TO: Air Management Division Directors Regions I, III, and IX  
Air and Waste Management Divisions Director Region II  
Air, Pesticides, and Toxics Managements Division Directors Regions IV and VI  
Air and Radiation Division Director Region V  
Air and Toxics Division Directors Regions VII, VIII, and X

Attached are copies of the "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations." This protocol was referenced on page 2-22 of the May 25, 1988, guidance on VOC issues ("Issues Relating to VOC Regulation Cutpoints, Deficiencies and Deviations"). The EPA developed this protocol with the Motor Vehicle Manufacturers Association (MVMA) and its member companies, with additional input from other automobile manufacturers, coating suppliers, and State and local agencies.

The purpose of the protocol is to provide a uniform procedure for calculating daily compliance of topcoat operations when transfer efficiency is being employed as one of the emission reduction techniques permitted under the relevant ozone SIP regulation. The protocol should also be used as the compliance demonstrations which require daily compliance demonstrations and actual transfer efficiency values, but do not specify all the necessary test methods and procedure.

The SIP's should be revised to require owner/operator use of the protocol to demonstrate compliance with automobile and light-duty truck topcoat RACT regulations. In order to be amenable to use of the protocol, a SIP must: (1) state the topcoat emission limit in units of pounds of VOC per gallon of solids deposited, (2) require that compliance be demonstrated for each day, and (3) treat the entire topcoat operation (all topcoat spray booths, flash-off areas, and bake ovens) as a single entity. Each SIP must also include provisions for retaining records, completing calculations in a timely manner, and reporting results consistent with proper implementation of the protocol and applicable EPA policies and guidelines. The owner/operator should generally be capable of completing the emission calculations for each day in a month by the end of the following month. Proper adoption and use of the protocol should eliminate disputes about averaging, transfer efficiency and bake oven exhaust control "credits," and the VOC and volume solids content of coatings.

It may require as much as 18 to 24 months to amend existing regulations and obtain final Federal approval of the SIP revisions. Until final EPA approval of SIP revisions is obtained, the current regulations remain applicable and are to be interpreted in accordance with letters to the MVMA from Craig Potter on November 20, 1986. Copies of these letters are attached.

Please forward a copy of the protocol to your State air directors as an addendum to your recent follow-up letters on VOC deficiencies and deviations. We will be providing additional information and support in the near future to enable States to effectively implement the protocol. Questions about the protocol should be directed to Dave Salman at FTS 629-5417.

### 3 Attachments

cc: Mike Alushin (LE-134A)  
John Calcagni (MD-15)  
Alan Eckert (LE-132A)  
Jack Farmer (MD-13)  
John Seitz (EN-341)