

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
RESEARCH TRIANGLE PARK, NC 27711

DEC 30, 2003

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

Ms. Mary A. Gade  
Sonnenshein Nath and Rosenthal LLP  
8000 Sears Tower  
238 South Wacker Drive  
Chicago, IL 60606

Dear Ms. Gade:

Thank you for your letter of December 10, 2003 to Ms. Walker Smith, the Director of Office of Regulatory Enforcement (ORE), concerning the use of volatile organic compound (VOC) measurement methods for the corn wet milling industry. You requested the Environmental Protection Agency's (EPA) position on the status of the draft Midwest Scaling Method (which we now refer to as the Midwest Scaling Protocol, as described below), and also a statement on EPA's policy regarding compliance with permit emissions limits that are based on EPA reference methods and the use of promulgated EPA methods specified in permits.

First and foremost, to comply with the requirements of the New Source Review (NSR) program or the Title V operating permitting program under the Clean Air Act, the owner/operator of an emissions source must calculate the total emissions of criteria and hazardous air pollutants to determine the applicability of these programs. It is the responsibility of the owner/operator of the source to do so and to use a protocol that accurately measures the mass emissions. With regard to VOC's, emissions must be calculated on a total VOC mass basis ("as VOC basis"), not on the basis of a surrogate such as "mass as carbon" or "mass as propane" [see definition of VOC at 40 CFR. 51.100(s)]. One cannot determine the applicability of a regulation under NSR and Title V unless the emissions are reported as VOC(s). In addition, for the purposes of reporting an annual total VOC emissions to the State or local agencies and EPA, the total VOC mass must be identified.

The test methods in 40 CFR 60, Appendix A for measuring VOC emissions (e.g., Method 25/25A) do not directly address the issue of reporting VOC emissions "as VOC." Furthermore, these methods must be modified or an additional method must be added to measure the actual mass of VOC's emitted. Such modifications or alternative methods are allowed as specified in the excerpt of the regulation below:

*Minor changes in the test methods should not necessarily affect the validity of the results and it is recognized that alternative and equivalent methods exist. Section 60.8 provides authority for the Administrator to specify or approve (1) equivalent methods, (2) alternative methods, and (3) minor changes in the methodology of the test methods.*

We developed the draft Midwest Scaling Protocol (MSP)<sup>1</sup> to help members of the ethanol producing industry determine their VOC mass emissions. The draft MSP is a generally acceptable protocol based on data and experience from the ethanol producing industry and contains the steps necessary to convert VOC emissions measured using Method 25 or 25A to “as VOC” mass emissions. It is comprised largely of EPA methods with appropriate modifications in accordance with 40 CFR Part 60, Appendix A. The draft MSP is currently under public review and comment. It is intended to be advisory in nature. Owner/operators of sources for which the draft MSP is applicable may propose to use it when conducting a test for compliance and applicability determinations. Assuming a successful test, EPA will generally accept that the emissions are adequately quantified for regulatory purposes.

There might be other procedures, including scaling methods, that can be used to quantify the total mass of VOCs emitted from your industry that could also be approved by EPA. One example might be Test Method 320, *Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared Spectroscopy (FTIR)* (see 40 CFR 63, Appendix A). This method uses FTIR to measure certain organic compounds on an individual basis. The individually measured organic compounds can then be summed to produce the total VOC mass, assuming that each VOC in the emissions stream can be measured with FTIR within adequate limits of detection. Similarly, EPA Method 18 (40 CFR 60, Appendix A), in which gas chromatography is used to isolate individual organic compounds prior to measuring them, can be used to measure total VOCs if the quality assurance steps are sufficient to quantitatively measure all of the individual organic compounds. As you are aware, we are currently working with the Corn Refiners Association (CRA) to investigate the feasibility of a method for that industry. As we have suggested with the MSP, a facility may also propose to modify existing test methods or develop new test methods as alternatives to existing test methods. If a facility submits an alternative test method request to your office, you should forward the request to the Office of Air Quality Planning Standards for review and approval.

If the owner/operator of a source has used only Methods 25 or 25A to determine the applicability of NSR or Title V without appropriate modifications or use of an additional approved method to determine the “as VOC” mass emissions, then the VOC emissions may be substantially underestimated and the owner/operator may not be in compliance with those programs. Owner/operators who are in this situation should estimate their “as VOC” mass emissions as soon as possible. To the degree that an owner/operator identifies that he or she may

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<sup>1</sup> This procedure, which we originally called the “Midwest Scaling Method,” is now referred to as the Midwest Scaling Protocol (MSP) to avoid confusion some have expressed regarding the term “method.”

not be in compliance with NSR and/or Title V, then contact should be made with EPA's appropriate Regional Office or ORE to resolve any such issues. As of the date of this letter, owners/operators who disclose this information expeditiously will have the same opportunities as are described in the recent settlements with the ethanol producing industry (see, for example, [www.epa.gov/compliance/civil/programs/caa/ethanol](http://www.epa.gov/compliance/civil/programs/caa/ethanol)).

Regarding the existing emission limits in permits related to Federal or State and local standards, as noted in 51.100(s)(2), it is appropriate to base those limits and the compliance method in the permit on the reference method that was used in setting the standard. Title 40 CFR section 51.100(s)(2) states: "For purposes of determining compliance with emission limits, VOC will be measured by the test methods in the approved [SIP] . . . ." For example, if a standard specified that Method 25 or 25A should be used to establish the percent reduction of a control device, it is appropriate to use only Method 25 or 25A as the compliance method in the permit because estimating the total mass of VOC emissions is not necessary to judge compliance with such a standard. If a compliance method was not specified in the standard, then an appropriate one must be developed and approved by the permitting authority during the process of obtaining a permit. In addition, when permit limits are designed to maintain a facility's emissions below an applicable threshold (e.g., NSR), the limits should require the use of methods that quantify the actual mass of VOC's emitted. Where such information is needed for applicability determinations and compliance, and an existing permit requires a test protocol that does not accurately identify mass emissions, the permit-holder should notify the permit authority and request a change in its test protocol.

I appreciate the ongoing work of the CRA with us on investigating alternative methods for that industry. I also appreciate this opportunity to respond to your questions, and I hope this response answers your questions. If you have additional questions on the appropriate use of different test methods, please contact Gary McAlister at (919) 541-1062. For questions related to potential compliance issues with NSR or Title V, please contact Mr. Cary Secrest of ORE at (202) 564-8661.

Sincerely,

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

cc: Walker Smith