



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

March 20, 1992

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

**MEMORANDUM**

SUBJECT: Reanalysis of Capture Efficiency (CE) Guidance

FROM: John S. Seitz, Director  
Office of Air Quality Planning and Standards (MD-10)

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

The purpose of this memorandum is to provide you with interim guidance on implementation of the Environmental Protection Agency's (EPA's) CE protocols. As you know, the measurement of CE is critical to determining the effectiveness of air pollution control. Our current test methods are products of extended investigation by EPA over the past 7 years in response to the need identified a number of years ago by the EPA Regional Offices (RO's) as being essential to compliance determination efforts.

We have received a number of comments from industry, States, RO's, and others expressing concern about the cost of using our recommended gas-gas and liquid-gas methods that specify a temporary total enclosure (TTE) to measure CE. In light of the President's recent instructions to review Federal regulations for ways to minimize their cost to industry, we are attempting to identify less costly means of determining CE. To that end, the Office of Air Quality Planning and Standards is undertaking a 12 month study to develop and review possible alternatives and the effect that their approval would have on programs to assure volatile organic compounds emissions reductions. Clearly, we do not know of less costly methods that can achieve the measurement capabilities of those that use the TTE. Our study will evaluate the cost and technical aspects of any alternative that is investigated, and will compare its accuracy and precision with that of the current reference method. We will also reexplore the consequences of other alternatives that do not require measurements, such as engineering, scientific, or policy judgments.

In addition, we will explore less expensive ways of using the current method. For example, in a plant with multiple lines, perhaps engineering judgment could be used to select what appears to be the least effective capture system for testing. If that system proves acceptable by using the TTE

method, other lines within the plant would not require testing. If you have any suggestions as to what should be included in this 12-month study, please contact Gil Wood in the Technical Support Division as soon as possible at FTS 629-5544.

In the meantime, where States have not yet adopted CE regulations and wish to defer adoption until after this study, they should be allowed to do so. In the interim, State implementation plans (SIP's) should not be disapproved for failure to adopt any or all CE test requirements. This would include States that have committed to adopt rules for CE testing but have not yet included test methods or protocols in their regulations.

Some States have already adopted the recommended TTE methods into their SIP's [including the Chicago Federal implementation plan (FIP)]. Where noncompliance is suspected, EPA's recommended method is valid and enforceable and should be used to determine CE. You should, however, apprise States that have adopted the recommended TTE methods of EPA's plans for further study. The EPA intends to revise the Chicago FIP to suspend the date for initial compliance certification until July 1, 1993 for sources subject to CE testing that use the TTE method (e.g., incinerators). This temporary suspension will not apply to initial compliance determinations where other methods can be used, such as Method 24 testing for VOC content of coatings or the liquid-liquid balance method for carbon adsorbers (test methods that do not require measurement of CE). You should inform States that EPA will be receptive to State action with respect to TTE test requirements, which is similar to the approach EPA will take on the Chicago FIP.

Any SIP questions should be directed to David Cole at FTS 629-5565.

cc: Air Programs Branch Chief, Regions I-X  
Air Compliance Chief, Regions I-X  
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This memorandum has been coordinated with the Stationary Source Compliance Division, and concurrence was given on 3/19/92.