

10/12/1983

VOC261012831

Category: 26 – Bubbling

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

October 12, 1983

SUBJECT: Averaging Times for Compliance with VOC Emission Limits

FROM: Darryl D. Tyler, Director
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TO: B.J. Steigerwald, Acting Director
Office of Air Quality Planning and Standards (MD-10)

Introduction

Several requests for SIP revisions which allow for compliance by "time bubbling" emissions of volatile organic compounds (VOC's) have been submitted that include greater than 24-hour averaging times for determining compliance (see list attached). The national ambient air quality standard (NAAQS) for ozone is based on a one-hour average. Emissions of VOC which are precursors to the formation of ozone have traditionally been limited on a short-term basis to reduce the impact on ozone concentrations. Therefore, a decision is needed on what criteria should be met before approving more bubbles with averaging times greater than 24 hours.

Background

The Control Technique Guidelines (CTG's) for VOC sources issued to aid in the preparation of ozone nonattainment area plans did not specify averaging times for compliance. EPA published a "Notice of Policy Memorandum" in the Federal Register December 8, 1980, encouraging States to interpret VOC limits on can coating operations as daily weighted averages rather than limits for individual coating lines.

Subsequently, several new source performance standards (NSPS) have been promulgated requiring compliance only on a monthly average (i.e., publication rotogravure, coating of appliances, metal furniture, automobiles, cans and coils). These NSPS were set considering that control covers only new sources of emissions (not averaged across lines) and that they do not directly relate to the attainment of the O3 NAAQS.

In the SIP program, other compliance times greater than 24 hours have been allowed where a specific need has been shown. Examples are:

1. 3M Company - Ovens blanketed with inert gas to prevent explosive mixtures of hydrocarbons emit large amounts of VOC when purged. A 30-day average was allowed to mitigate this peak emission.

2. Alabama Rubber Tire - Tire manufacturers argued they could not measure daily usage rates of raw materials. Originally, the regulation was submitted as an annual average but they agreed, after extensive negotiations, to a 30-day average.

3. If so, should we require compliance with "Sydnor" memo?
- a. Rigorous?
 - b. As guidelines?

Options/Approaches:

- 1. Require sources/States/Regions to rigorously comply with memo.
- 2. Ask for compliance with memo; however, any "noncompliance" will be discussed in Federal Register proposal for public reaction. EPA would use public reaction as input to final decision.
- 3. Develop more explicit criteria for granting extended averaging ("Sydnor" memo is basically subjective). Criteria would probably be arbitrary.
- 4. Allow up to 30 days averaging without specific justification.
- 5. Adhere to 24-hour averaging but allow for case-by-case RACT for individual sources where compliance with the 24-hour requirement is a real problem. Case-by-case RACT would obviate the need for long-term averaging.

As we have a number of SIP actions pending resolution of this issue, we would like to discuss it at your earliest convenience. Please call Brock Nicholson should you have any questions.

Attachments

cc: Bob Ajax
Rich Biondi
Jack Farmer
Tom Helms
Mike Levin
Brock Nicholson
Susan Wyatt
Chief, Air Branch, Regions I, III, IV, V