



Environmental Quality Board

p.o. box 8477 - harrisburg, pa. 17105-8477 • (717) 787-4526

October 31, 1997

RECEIVED
97 NOV 4 PM 3:35
INDEPENDENT REGULATORY
REVIEW COMMISSION

Original: 1878
cc: Jewett
Sandusky
Wyatte
Bereschak

Mr. Robert E. Nyce, Executive Director
Independent Regulatory Review Commission
14th Floor, Harristown #2
333 Market Street
Harrisburg, PA 17120

Re: Proposed Rulemaking - Equivalency Determinations and Aerospace Manufacturing
(#7-236)

Dear Mr. Nyce:

The Environmental Quality Board has received comments regarding the above referenced proposed rulemaking from the following:

1. Mr. Pat Henry Unrath, Avogadro Env. Corp.
2. David L. Arnold, U.S. Environmental Protection Agency

These comments are enclosed for your review. Copies have also been forwarded to the Senate and House Environmental Resources and Energy Committees. Please contact me if you have any questions.

Sincerely,

Sharon K. Freeman
Regulatory Coordinator

Enclosure

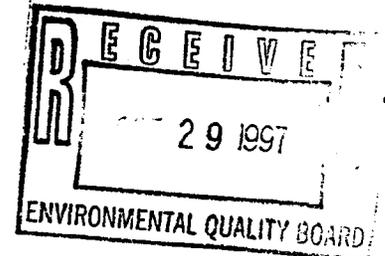


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

Original: 1878
cc: Jewett
Sandusky
Wyatte
Bereschak

October 28, 1997

Mr. James M. Salvaggio, Director
Bureau of Air Quality
Pennsylvania Department of Environmental Protection
P.O. Box 8468
Harrisburg, Pennsylvania 17105-8468



Dear Mr. Salvaggio: *JJM*

On September 17, 1997, Mr. Terry Black, of your staff, called to ask that EPA review Pennsylvania's proposed aerospace RACT regulations and changes to the general equivalency provision. The proposal was obtained from the Pennsylvania web page. In response to that request, EPA reviewed the Pennsylvania aerospace RACT regulations, Chapter 129.73, and general equivalency provisions for VOC sources, Chapter 129.51, that were proposed on August 23, 1997 in the Pennsylvania Bulletin and prepared the following comments listed in the enclosure. In general, Pennsylvania's proposed aerospace regulation is consistent with the aerospace draft Control Technique Guideline (CTG) and the aerospace maximum achievable control technology (MACT) requirements. However, there are several areas where Pennsylvania's proposal differs, making its proposal unclear or less stringent. The changes proposed to the general equivalency provision are not approvable by EPA because it provides for future changes to the Pennsylvania State Implementation Plan without EPA approval. Our comments explain the issues in more detail.

Thank you for the opportunity to comment on your proposal. If you have any questions or wish to discuss these comments, please contact me or have your staff contact Cynthia Stahl at (215) 566-2180.

Sincerely,

David L. Arnold, Chief
Ozone/CO & Mobile Sources Section

Enclosure

cc: Terry Black, PADEP

Enclosure

**Region III Comments to the Proposed Pennsylvania Aerospace Regulation, Chapter 129.73,
and the Proposed Changes to the General Equivalency Provision, Chapter 129.51**

Chapter 129.51

1. Pennsylvania has proposed to remove the current requirement for EPA approval of alternative compliance methods and to have alternative methods approved, instead, by the Department and implemented through the operating permit program. EPA cannot allow the use of director's discretion where such discretion could fundamentally change the approved SIP requirements. Although Pennsylvania has proposed that the resulting emissions must be equal to or less than those emission discharged by complying with the applicable emission limitation, there are no specific criteria listed that would have to be met in order for such an equivalency to be made. Furthermore, SIP requirements consist not only of emission limitations but other applicable requirements such as the test method used to determine compliance with the appropriate emission limitation. Changes in test methods could effectively result in a practical change of the SIP emission limitation requirement. The Clean Air Act at section 110(l) requires that EPA approve SIP revisions only if the revision would not "interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement..." Relaxation of the current Pennsylvania SIP when there are still nonattainment areas cannot be done with an adequate demonstration that attainment and reasonable further progress will not be adversely affected.

} *
- This
- will be
- a major
- change

2. Pennsylvania is proposing that EPA be allowed to review alternative methods that would be approved by DEP through plan approvals or operating permits. The current Pennsylvania SIP requires that EPA approve such changes. As stated above, EPA cannot allow the use of director's discretion to approve alternative methods.

3. Pennsylvania also proposes that capture efficiency testing be conducted in accordance with methods approved by EPA. EPA has developed specific methodology for the testing of capture efficiency that Pennsylvania has not yet incorporated into its regulations. If Pennsylvania is choosing now to include the EPA capture efficiency protocols, it should cite April 19, 1995 capture efficiency protocol. EPA did not conduct rulemaking on the capture efficiency protocols because it expected that states would do so when these methods were adopted. Therefore, Pennsylvania cannot simply state that capture efficiency testing is to be conducted in accordance with methods approved by EPA.

Chapter 121

1. Some of the associated definitions to this rule in Chapter 121 are unclear or inconsistent with EPA guidance and should be changed. These definitions include those for aircraft transparencies, aqueous solvents, chemical milling maskants, silicone insulation material, and waterborne coating.

The Pennsylvania proposed aqueous solvent definition is consistent with the draft aerospace CTG but inconsistent with the aerospace MACT (60 FR 45961). EPA is currently making changes to the draft aerospace CTG to ensure that the definition of aqueous solvent is the same as that found for the aerospace MACT that includes additional flash point and water miscibility requirements. Therefore, Pennsylvania should also make this consistency change.

The Pennsylvania proposed definition for chemical milling maskants is consistent with the draft aerospace CTG but EPA is also planning to clarify this definition. We recommend that Pennsylvania modify its chemical milling maskant definition to separate Type I and Type II maskants as follows:

Type I chemical milling maskant means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I etchant.

Type II chemical milling maskant means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type II etchant.

Type I etchant means a chemical milling etchant that contains varying amount of dissolved sulfur and does not contain amines.

Type II etchant means a chemical milling etchant that is a strong sodium hydroxide solution containing amines.

Note that the suggested modifications require having definitions for Type I and Type II etchants, which Pennsylvania has already proposed.

The Pennsylvania proposed definition for silicone insulation material includes an explanatory sentence to distinguish ablative coatings from silicone insulation material coatings. The word "sacrificial" is used, leaving the relevance of this term unclear as pertains to the silicone insulation material coatings. Consequently, Pennsylvania should modify the last sentence in the silicone insulation material definition as follows: "These materials differ from ablative coatings in that they are not designed to be purposefully exposed to open flame or extreme heat and charred."

A grammatical change to clarify the intent of the waterborne coating definition is suggested: "A coating that contains" A similar change is suggested for the definition of aircraft transparencies: "....and other components that are constructed of transparency materials."

2. In addition, the proposed Pennsylvania list of definitions for the aerospace regulations do not include the terms leak, research and development, and touch-up and repair coating. Each of these terms are contained in the draft CTG and are reiterated here:

Leak means any visible leakage, including misting and clouding.

Research and Development means an operation whose primary purpose is for research and development of new processes and products and that is conducted under the close supervision of technically trained personnel and is not involved in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

Touch-up and repair coating means a coating used to cover minor coating imperfections appearing after the main coating operation.

3. The current Pennsylvania VOC definition is not being proposed for change. However, in order to clarify the compliance requirements pertaining to what is considered a VOC, we recommend that Pennsylvania modify its VOC definition in order to make it consistent with that found in the aerospace CTG and MACT. This definition is as follows:

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100. This includes any organic compound other than those determined by the EPA to be an exempt solvent. For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds that are exempt solvent, an owner or operator may exclude these exempt solvents when determining compliance with an emission standard.

4. Since EPA downloaded the proposed Pennsylvania aerospace regulations from the Pennsylvania web page, formulas included in the proposed regulations did not print. As such, Pennsylvania should ensure that its formula for determining VOC composite vapor pressure is consistent with the CTG and the MACT. The definition and formula are reiterated here:

VOC composite vapor pressure means the sum of the partial pressures of the compounds defined as VOC's and is determined by the following calculation:

$$PP_c = \sum_{i=1}^n \frac{\frac{W_i}{MW_i} \times VP_i}{\frac{W_w}{MW_w} + \frac{\sum_{i=1}^n W_c}{MW_c} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

- W_i = Weight of the "i"th VOC compound, grams.
 W_w = Weight of water, grams.
 W_c = Weight of non-HAP, nonVOC compound, grams.
 MW_i = Molecular weight of the "i"th VOC compound, g/g-mole.
 MW_w = Molecular weight of water, g/g-mole.
 MW_c = Molecular weight of exempt compound, g/g-mole.

PP_c = VOC composite partial pressure at 20°, mm Hg.

VP_i = Vapor pressure of the "i"th VOC compound at 20°, mm Hg.

Chapter 129.73

1. Under Chapter 129.73(a)(1), Pennsylvania is proposing to exempt certain operations from the cleaning and coating of aerospace component and vehicle requirements. It includes three exemptions (Chapter 129.73(a)(1)(v), (vi), and (vii)) that EPA is only permitting as exemptions from the VOC coating limits. Pennsylvania should remove these exemptions from this section and clearly establish that the touch up, aerosol, DOD classified coatings, space vehicle coating operations, and small volume coatings are only exempt from VOC coating limit requirements, not from other requirements in the aerospace rule.
2. Pennsylvania proposes to include, in addition to the VOC coating limits for specialty coatings, general VOC coating limits for primers, topcoats, and chemical milling maskants. These general VOC coating limits are consistent with the aerospace MACT. The applicability of these general coating limits versus the specialty coating limits could be confusing as many of the specialty coatings are also primers, topcoats, and chemical milling maskants. As such, if it is Pennsylvania's intent to first regulate the specialty coatings using the limits proposed in Table II, and then regulate all other coatings not covered by the specialty coating limits with the general coating limits, Pennsylvania should make the following changes to its regulation. The terms used in the general coating limits should be changed to "aerospace primers" and "aerospace topcoats" since those terms are already proposed by Pennsylvania but never used within the proposed regulation. An additional sentence at the beginning of Table II should be added as follows: "Aerospace coatings that meet the definitions of the specific coatings listed in this Table must meet those allowable VOC coating limits. All other aerospace primers, topcoats and chemical milling maskants are subject to the general VOC coating limits at the end of this Table."
3. The proposed instruction at the end of Table II should be modified as follows to clarify that the equation is to be performed for each coating. "The mass of VOC per combined volume of VOC and coating solids for each coating, less water and exempt compounds shall be calculated...."
4. The proposed application equipment requirement includes a provision to allow for other coating application methods that achieve emission reductions equivalent to HVLP or electrostatic spray application methods. Pennsylvania is not proposing any methods to determine such an equivalency. The methods would include the establishment of transfer efficiency for the proposed alternative or a side-by-side comparison of HVLP in actual production circumstances with the alternative method. The use of transfer efficiency equivalencies will require EPA review and approval. Therefore, if Pennsylvania chooses to allow equivalent methods established using transfer efficiency, Pennsylvania must clearly indicate in its regulation that EPA approval is required. The following additional language is suggested. "...other coating application methods achieve emission reductions equivalent to HVLP or electrostatic spray application methods, as

determined by the Department and EPA.” Alternatively, if Pennsylvania chooses to require the side-by-side comparison of HVLP and the alternative methods (in actual production runs), Pennsylvania must reference 40 CFR Part 63.750 (test methods and procedures) and 40 CFR Part 63.750 (I) pertaining to alternative methods.

5. Pennsylvania is proposing an exemption from the application equipment requirement that is not consistent with the draft CTG ((5)(i)). Pennsylvania should make the following change in order to ensure consistency. “Any situation that normally requires the use of an airbrush or an extension on the spray gun to properly apply coatings to limited access spaces.”

6. Under the hand-wipe cleaning requirement, Pennsylvania proposes requiring that all hand-wipe solvents meet the definition of aqueous solvent or a vapor pressure restriction. This is generally consistent with aerospace MACT except that Pennsylvania did not include an additional requirement that hand-wipe solvents can be hydrocarbon based but only under the following restriction: cleaner that is composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and has a maximum vapor pressure of 7 mm Hg at 20°C (3.75 in. water at 68 °F) and contain no hazardous air pollutants or ozone depleting compounds.

7. Pennsylvania proposes, like the draft CTG, to exempt cotton-tipped swabs that are used for “very small cleaning operations” from the housekeeping requirement to store all cleaning materials in closed containers ((10)(ii)). The language in the draft CTG is currently being reconsidered in order to clarify what is meant by “very small cleaning operations.” We suggest that Pennsylvania modify its proposal to define these operations as those areas limited to a few square inches or crevices.

8. In the control equipment and monitoring section, the proposed regulation specifies that any monitoring devices be installed, calibrated, operated and maintained in accordance with the manufacturer’s specifications and Department approval. EPA has grappled with this issue since, although we understand the need for flexibility here, fundamentally, we cannot accept changes made to SIP requirements by a third party, i.e. the manufacturer. See 62 FR 43134. In order to resolve this issue, we suggest the following addition to this provision. “The monitoring device shall be installed, calibrated, operated and maintained in accordance with manufacturer’s specifications, good air pollution control practices that minimize VOC emissions and Department approval. Similar changes are currently being made in the draft aerospace CTG.

Original: 1878
cc: Jewett
Sandusky
Wyatte
Bereschak



I N T E R O F F I C E M E M O R A N D U M

Date: 27-Oct-1997 06:30pm EST
From: Patricia Henry Unrath
phunrath@classic.msn.com@PMDF@
Dept:
Tel No:

TO: Regcomments (Regcomments@a1.dep.state.pa.us@PMDF@
CC: phunrath (phunrath@msn.com@PMDF@DER003)

Subject: COMMENT:Proposed Changes to 25 Pa. Code Chapters 121 and 129

FROM: Pat Henry Unrath, PE; Avogadro Env. Corp.; 110 N. State Road; Upper Darby, PA 19082-1613 (e-mail address phunrath@msn.com)

COMMENT: Proposed 129.73, paragraph (A), and change to definition of "miscellaneous metal parts" in 121 ultimately provides no VOC standards for aerospace facilities that are NOT major sources of VOC emissions. Recommend allowing all aerospace facilities with surface coating emissions in excess of 15 lb/day or 2.7 tpy to comply with the limits specified in Table II of proposed 129.73. Thank you for your consideration.