RULE 67.16
GRAPHIC ARTS OPERATIONS

WORKSHOP REPORT

A workshop notice was mailed to each company known to be involved in graphic arts operations in San Diego County. Notices were also mailed to all economic development corporations and chambers of commerce in San Diego County, solvent manufacturers, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB) and other interested parties.

The workshop was held on February 28, 1991 and was attended by 13 people. Written comments were also received. The following are the comments and District responses:

WORKSHOP COMMENT.

There is no need to specify in the applicability section that coating of flexible packaging materials for food or health care products are subject to this rule. These operations are subject to the rule by definition.

DISTRICT RESPONSE.

The coating of flexible packaging materials for food or health care products is specifically exempt from District Rule 67.5. The EPA comments on that rule required the District to include this process in another applicable regulation. However, based on comments received at this workshop and for consistency and clarity, Rule 67.16 has been modified to include the coating of flexible packaging materials for food or health care products in the definition of graphic arts rather than in the applicability section.

WORKSHOP COMMENT.

The District needs to specify what records are needed to justify the small user exemption.

DISTRICT RESPONSE

Section (b) has been modified to refer to the recordkeeping procedure specified in the rule.

WORKSHOP COMMENT.

Blanket repair material used in containers of 4 ounces or less should be exempt, since this material is sprayed from non-refillable aerosol containers and is used in very small amounts.

DISTRICT RESPONSE.

This exemption has been added to the rule.

WORKSHOP COMMENT

Sterilization indicating inks should also be exempted.

DISTRICT RESPONSE.

The District has no information on the usage of sterilization indicating inks and the need for such an exemption in San Diego County. When this information is submitted, the exemption of this material will be considered.

WORKSHOP COMMENT

The definition of coating should be modified to specify that it applies to graphic arts industry. Words "in the graphic arts" should be included.

DISTRICT RESPONSE

The definition of coating has been modified as suggested.

WORKSHOP COMMENT

Equipment cleaning processes should not be included in the definition of graphic arts.

DISTRICT RESPONSE

The definition of graphic arts has been modified to delete equipment cleaning processes.

WORKSHOP COMMENT

The definition of gravure printing should be modified to make it consistent with the the term used in industry and the definition contained in graphic arts rules of other districts.

DISTRICT RESPONSE

The definition of gravure printing has been modified as suggested.

WORKSHOP COMMENT

The definition of lithographic printing should be modified to clarify the process.

DISTRICT RESPONSE

The definition of lithographic printing has been changed as suggested.

WORKSHOP COMMENT

Heatset inks should have an allowable VOC content of 450 grams per liter.

DISTRICT RESPONSE.

The VOC limits for inks are consistent with the EPA Control Technique Guidelines and cannot be changed. The existing rule, in effect since 1988, contains the limit of 300 grams per liter and there are complying inks in use by the industry in San Diego County.

WORKSHOP COMMENT

Subsection (d)(4) specifies that the container should display the content of some presently exempt materials such as methylene chloride and CFC's. Perhaps the statement should also specify the manner in which this content be displayed (percentage, grams per liter).

DISTRICT RESPONSE

The content of specified materials can be displayed in any units consistent with the units used for the VOC content of a graphic art material.

WORKSHOP COMMENT

Subsection (e)(1)(i) requires an overall collection efficiency to be at least 95 percent. Such collection efficiency cannot be achieved if the cleaning processes are also to be controlled.

DISTRICT RESPONSE

Section(e) of the rule refers only to graphic arts processes and does not include cleaning operations. The stated collection efficiency is achievable for graphic arts operations as they are defined in the rule.

WORKSHOP COMMENTS

Subsection (e)(1)(ii) requires an overall control efficiency of 95 percent. Such control efficiency is not achievable without being cost prohibitive.

DISTRICT RESPONSE

The overall control efficiency required by Section (e) of the rule is 85 percent (a combination of 95 % collection efficiency and 90% reduction efficiency by the control device). This reduction efficiency is achievable by a variety of control devices.

WORKSHOP COMMENTS

The term "collection efficiency" should be replaced by "capture efficiency", as it is specified in Section (g) in order to avoid confusion.

DISTRICT RESPONSE

The suggested rewording has been made.

WORKSHOP COMMENT

There should be no daily record keeping requirements for sources that are far below the exemption level of 15 lbs per day. Small businesses emitting less than 5-6 lbs per day of VOC do not have the ability to keep daily records. Perhaps, purchase records for VOC containing materials will be sufficient to justify the exemption.

DISTRICT RESPONSE

Keeping daily records to justify exemptions from air pollution control regulations is required by the EPA. The District will consult with the EPA on a possible modification of this procedure for very small users but it is likely that the EPA will not accept it.

WORKSHOP COMMENT

How was the exemption limit of 15 lbs per day of VOC emission determined?

DISTRICT RESPONSE

This is the limit allowed by the EPA for small sources exemption. The contribution of emissions from such sources to the total amount of VOC emissions in the country is minimal.

WORKSHOP COMMENT

EPA Method 24 is unsuitable for determination of VOC content of non-heatset inks. Instead BAAQMD Method 30 or SCAQMD definition of reactive diluents should be used.

DISTRICT RESPONSE

After consulting with the EPA and ARB on the possibility of including, as an alternative, BAAQMD Method 30, the District has decided to include it. This is still, however, subject to approval from both agencies.

WORKSHOP COMMENT

The term "mix ratio" should be clarified. It is better to use a "dilution ratio of mixed components".

DISTRICT RESPONSE

The rule has been modified to clarify this term.

WORKSHOP COMMENT

Subsection (d)(3) should refer to a person who supplies coatings rather than applies them.

DISTRICT RESPONSE

This subsection has been modified as suggested.

WORKSHOP COMMENT

Can EPA Test Method 25A be used instead of Method 25?

DISTRICT RESPONSE

Yes. The rule has been modified to include EPA Test Method 25A.

WRITTEN COMMENT

The definition for Volatile Organic Materials includes also a determination of the VOC content in the VOC containing materials. This part should be in a separate definition.

DISTRICT RESPONSE

The VOC definition is consistent with other rules of this District. This language was included for clarity. Therefore the suggested change has not been made.

WRITTEN COMMENT

The exemption of proof presses should be modified to include off-press proofing lines. These computerized proofing systems are equivalent to proofing presses and they represent the technological improvements made in the industry. Their VOC emissions are equivalent to the emissions from proof presses. The definition of proofing systems may be added to the rule to include both proofing presses and new off-press proofing lines.

DISTRICT RESPONSE

The District agrees. The definition of proofing systems has been added to the proposed rule.

ARB COMMENT

Subsection (d)(1)(ii) should specify VOC limits in fountain solutions in terms of weight percent instead of volume percent since determination of the volume of non-volatile material in a sample is a step not included in standard VOC content test methods.

DISTRICT RESPONSE

Specification of VOC limits in fountain solutions in terms of volume percent is consistent with Best Available Retrofit Control Technology (BARCT) determination for graphic arts industry. In addition, fountain solutions do not contain non-volatile materials.

ASTM Test Method E 260-85 has been added to Section (g) for determination of VOC content pursuant to Subsection (d)(1)(ii). This is a gas chromatography procedure and will allow for determination of VOC content in terms of volume percent.

ARB COMMENT

Subsection (g)(2) does not provide for quantifying exempt solvent content in inks. ASTM D4457-85 should be included for this purpose.

DISTRICT RESPONSE

This test method has been added to Subsection (g)(2) of the rule.

ARB COMMENT

In Section (c), the definition of VOC as grams per liter of material used for thinners and cleaning materials should also be applied for fountain solutions.

DISTRICT RESPONSE

The VOC limit for fountain solutions is specified in volume percent. This comment is, therefore, not applicable.

ARB COMMENT

The term "emission reduction efficiency" in Subsection (e)(1)(ii) should be clarified. It is unclear whether it means overall collection and control efficiency or only control device efficiency.

DISTRICT RESPONSE

Subsection (e)(1)(ii) specifies that the "emission reduction efficiency " referred to is that of the "emission control system". Subsection (e)(1)(i) specifies the overall collection efficiency.

ARB COMMENT

The wording in Subsection (e)(2) implies that a person may comply with the VOC standards of Subsection (d)(1) by using control equipment. It is suggested that Subsection (e)(2) be rephrased to read "Any person complying with the rule under Section (e). . . . . ."

DISTRICT RESPONSE

The implication that a person may comply with the provisions of Subsection (d)(1) by using control equipment is, in fact, correct. The recommended phrasing suggests that compliance with the entire rule can be achieved by meeting the standards of Section (e). This is not correct since the standards of Subsection (d)(2), for example, cannot be met by compliance with Section (e).

ARB COMMENT

The inclusion of specialty printing ink limits for metallic and matte finish inks and a 250 grams per liter limit for solubilizers used in screen printing should be considered.

DISTRICT RESPONSE

The District has no information on the need for these special categories by the companies doing business in San Diego County. The VOC content limits are not modifications to the existing rule and industry has complied with these limits previously.