

DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION MANAGEMENT ADMINISTRATION

RESPONSE TO COMMENTS

for the

PUBLIC HEARING held on July 11, 2011
in BALTIMORE, MD

related to amendments to Regulation .11 under chapter COMAR 26.11.19

Purpose of Hearing: The purpose of the public hearing was to allow for public comment on the Department's proposal to amend Regulation .11 under chapter COMAR 26.11.19 Volatile Organic Compounds (VOC) from Specific Processes.

The proposed amended regulation adopts the requirements of the Environmental Protection Agency Control Techniques Guidelines (CTG) EPA-453/R-06-002, September 2006, for offset lithographic and letter press printing operations.

Date and Location: The public hearing was held on July 11, 2011 at 10 a.m. at the Department of the Environment, 1800 Washington Boulevard, 1st Floor Aeris Conference Room, Baltimore, Maryland 21230.

Attendance: Deborah Rabin, Regulations Coordinator, Air and Radiation Management Administration, served as Hearing Officer. Mr. Paul Foster, Vice President, Printing & Graphics Association Mid-Atlantic (PGAMA).

Statement: The Department's statement was read by Husain Waheed, Senior Regulatory and Compliance Engineer of the Regulation Development Division of the Air and Radiation Management Administration, Department of the Environment.

Comments and Responses: Comments were received from PGAMA. The written comments received, in some instances, have been summarized and the Department's response given below.

Comparison to Federal Standards

1. COMMENT: MDE states that the proposed action is not more restrictive or stringent compared to federal standards. The commenter states that there are multiple instances where the rule is more stringent than the 2006 CTG. In particular, the proposed rule does not allow for the use of alcohol substitutes in fountain solution for sheetfed presses and does not allow for the use of alcohol in fountain solution for heatset web offset presses, as allowed by the 2006 CTG.

RESPONSE: Maryland has had existing requirements for lithographic printers since 1991. These existing regulations have been adopted into Maryland's State Implementation Plan.

Section 172(e) of the Clean Air Act (CAA), states that regulations which have been adopted into the State Implementation Plan cannot be amended to be less stringent than the existing requirements. As a result, Maryland has had to incorporate new requirements from the 2006 CTG into the existing regulation. Some of the requirements in Maryland's existing regulations may be more restrictive than the 2006 CTG.

Therefore, the Department is required to incorporate the 2006 CTG requirements into Maryland's existing law, without weakening any provision which may currently be more stringent than the 2006 CTG. As such, the Department has incorporated the 2006 CTG requirements into the existing Maryland regulation. The newly incorporated requirements are no more restrictive than those in the 2006 CTG.

COMAR 26.11.19.11 A - Definitions

2. COMMENT: The definition for composite partial vapor pressure should be added to §A. MDE stated that a revision of COMAR 26.11.19.02 will include this definition. The definition is critical to this regulation and it should be included in COMAR 26.11.19.11.

RESPONSE: The method of calculating composite partial vapor pressure is needed not just for COMAR 26.11.19.11, but for other regulations in COMAR 26.11.19, as well. Therefore, the Department plans to place the definition in COMAR 26.11.19.02 Applicability, Determining Compliance, Reporting, and General Requirements, which generally applies to all the regulations under Chapter 19.

3. COMMENT: "Infrared curing units" should be included in the definition of "heatset".

RESPONSE: Under the proposed definition of "heatset" both ultraviolet and electron beam methods of curing are excluded. The Department will continue to work with the EPA to make determinations with regards to the exclusion of "infrared dryers" from the definition of "heatset". To date, EPA has not found unequivocal evidence that infrared dryers do not cause evaporation losses.

COMAR 26.11.19.11 B - Applicability and Exemptions

4. COMMENT: Section B(2) contains an exemption for heatset web presses used for printing books. It should include the term web.

RESPONSE: All heatset presses are considered to be web presses, therefore, the term "web" was not used.

5. COMMENT: The current draft does not contain the requested 3 ton per year overall applicability threshold. PGAMA requests a 3 ton per year threshold as per the USEPA

CTG to be used for §C and §F of the regulation. This requirement is more stringent than the already existing 18 inch cylinder width exemption currently allowed.

RESPONSE: The comment to change the applicability threshold to 3 tons per year would constitute an impermissible relaxation of the regulation. Under Section 172(e) of the Clean Air Act (CAA), regulations that have been adopted into the State Implementation Plan cannot be amended to be less stringent than the existing requirements. Maryland's existing regulation for lithographic printing, COMAR 26.11.19.11, does not have a general applicability threshold for § C-F. The only applicability threshold in the regulation applies to a person who owns or operates lithographic web printing presses at a premises with actual emissions of 100 pounds or more per day after January 1, 1990.

Moreover, the daily emissions level is important for ozone standard attainment as they have a significant role in the formation of ozone. A yearly limit could result in higher emission levels on a daily basis. Higher daily emissions during the ozone season could have a negative impact on air quality.

COMAR 26.11.19.11 C -Requirements for Sheet-Fed Letter Press or Sheet-Fed Lithographic Press

6. COMMENT: Proposed §C specifies limitations only for alcohol used in fountain solutions for sheetfed presses. This section needs to include options for the use of alcohol substitute and combinations of alcohol and alcohol substitute. To be consistent with the CTG, alcohol substitute limitations should be established such that alcohol substitutes used in a concentration of 5% or less by weight do not require refrigeration.

RESPONSE: The Department believes there is no need to alter the proposed language. The proposed standards are applicable to alcohol, alcohol substitutes, and any combination of the two. As long as the standards are met, sources can have any combination in the fountain solution. This approach is already in practice through Maryland's existing regulations.

The express purpose of the standards is to deter the use of alcohol in fountain solutions, thus lowering emissions of VOCs. Most affected facilities in Maryland currently use alcohol substitutes in their fountain solution, as well as refrigerating the fountain solution. Sources in Maryland prefer the results that alcohol and alcohol substitutes at lower temperatures provide and further declare that this practice helps operate the equipment efficiently.

COMAR 26.11.19.11 D -Requirements for Lithographic Web Printing

7. COMMENT: There are two sets of requirements for lithographic web printing, a 100 lb/day of actual emissions applicability level with separate requirements for above and below this level. In Section E the applicability for controls is at equal to or above 25 tons

of potential emissions. This is confusing and difficult to implement in practice. A better approach would be to have a monthly applicability level.

RESPONSE: MDE acknowledges that there are separate, and potentially overlapping, sets of requirements for lithographic web printing operations.

Maryland's existing regulations: 1) prohibit the use of isopropyl alcohol in any fountain solution used in all lithographic web printing operations; and 2) require the use of a control device which has an overall control efficiency of at least 90 percent for all lithographic web printing operations with actual premises wide emissions of 100 pounds/day or more. To the best of the Department's knowledge, compliance with the 100 lb/day applicability level has not presented any difficulty to the affected sources in Maryland. These existing requirements are retained in the amended regulation, in accordance with Section 172(e) of the Clean Air Act (CAA).

Section E of the proposed regulation establishes additional requirements for heatset lithographic press or heatset letter press operations that have the potential to emit 25 tons of VOC or more per year prior to controls. This applicability threshold is separate and apart from the 100 lb/day (or more) actual emission applicability threshold of Section D. Moreover, the 25 ton/year applicability threshold comes from the CTG and MDE is required to adopt this applicability level to meet the requirements of the CTG.

MDE recognizes that certain sources may be regulated by both of these separate and independent regulations. However, MDE is confident industry can comply with the regulations, despite their seemingly complex nature.

8. COMMENT: The 100 pounds per day applicability threshold for heatset web presses needs to be expressed as an EPA acceptable equivalent monthly actual emissions limit of 1.52 tons per month. This change does not affect allowable emissions or emission rates. The requested change affects the recordkeeping period to determine a threshold for meeting requirements. The daily emission rate threshold forces all subject facilities to develop and maintain hourly or daily material consumption records in order to determine applicability, which is infeasible.

RESPONSE: The 100 lb/day limit is an existing requirement and is necessary for Maryland's ozone standard attainment purposes as it provides restrictions on VOC emissions on a daily basis. COMAR 26.11.19.02(A)(5) currently provides, "In determining the applicability of any requirements in this chapter that specify an applicability threshold in terms of actual emissions, the emissions on any day since January 1, 1990, shall be considered." To the best of the Department's knowledge, compliance with the 100 lb/day applicability level has not presented any difficulty to the affected sources in Maryland.

The monthly average would not provide an equivalent level of VOC emissions control. Under monthly averaging, a source could potentially have high VOC emissions during the ozone season. In such cases, the benefits of the regulation could be minimized when

they are needed the most. In accordance with Section 172(e) of the CAA, regulations that have been adopted into the State Implementation Plan cannot be amended to be less stringent than the existing requirements.

COMAR 26.11.19.11 E - Controls for Heatset Web Offset Presses

9. COMMENT: The proposed §E should be revised to clarify that the 25 ton per year threshold for VOC applies only to ink oils and not VOC. This is consistent with the CTG as ink oil is the predominant VOC in the dryer exhaust and was used as the basis for the cost effectiveness of add-on control devices. This requirement is new, so the basis of applicability determination can be for ink oils.

RESPONSE: Existing regulations do not have the applicability level limited to ink oils and incorporating this limitation would be a relaxation. Section 172(e) of the CAA does not allow amendments of regulations that have been adopted into the State Implementation Plan to be less stringent than the existing requirements.

Moreover, the comment is inconsistent with the CTG to be implemented. The CTG states that the **control of a press that is above the 25 tpy threshold will generally be cost effective**. The regulations can be effective only if the basis for estimating emissions remains the same.

10. COMMENT: Proposed §E (2) (b) (i) and (ii) each specify July 1, 2011 as the date by which the VOC control efficiency for existing and new control devices, respectively, apply. A year should be given from the date the regulations become effective to install the required add-on control devices.

RESPONSE: The date for compliance with the control efficiency requirements will be changed to January 1, 2012. To the best of the Department's knowledge, Maryland sources with heatset lithographic or letterpresses with a potential to emit of 25 tons of VOC or more per year already have air pollution control devices installed that can meet the requirements of § E(2)(b). The change in effective date should not substantially impact Maryland sources subject to the regulation.

Moreover, moving the installation date from July 1, 2011 to January 1, 2012 will not adversely impact the general public because, as discussed above, Maryland sources subject to the regulation already utilize air pollution control devices which meet the requirements of § E(2)(b). The change in effective date is being made to provide time for the regulation to move through the adoption process before the requirement dates are effective.

COMAR 26.11.19.11 F - Requirements for Cleaning Materials

11. COMMENT: The proposed applicability for the standard is not limited to facilities with emissions greater than 3 tons per 12 month rolling period as stated in the CTG.

RESPONSE: The existing regulation COMAR 26.11.19.11(E) requires lithographic printers to test low-VOC materials used to clean printing equipment where the Department requests them to do so. Pursuant to this requirement, large sources in Maryland have explored and tested low-VOC cleaning materials where such materials were determined by the Department to be available and appropriate. Based on the experiences of the sources who participated in testing under the existing regulation, Maryland sources subject to § F of the proposed regulation should be able to meet the standards of the CTG.

COMAR 26.11.19.11 G -Control Device Testing

12. COMMENT: Proposed section §G (1) specifies that testing shall be in accordance with COMAR 26.11.19.02. Since USEPA recognized the unique technical difficulties associated with compliance testing of heatset web-fed printing presses, it included provisions to address these concerns regarding test methods, operating conditions and dryer air flow monitoring. The best approach to address these unique requirements would be to include them in this rule.

RESPONSE: The Department believes that current compliance practices for control device testing, in accordance with the requirements of COMAR 26.11.19.02, are sufficient to address the technical difficulties associated with compliance testing. Testing specifications should be detailed in a protocol document that is required to be submitted to the MDE Compliance Program prior to control device testing. The Department prefers the existing approach of including all testing specifics in an approved protocol that is agreed upon before the commencement of testing.

Additional sections to be included in COMAR 26.11.19.11

13. COMMENT: The draft rule does not address key emission and retention factors that are specific to the lithographic printing industry and are necessary to perform accurate emission determinations. In order to ensure that the proper emission and retention factors are applied for purposes of determining applicability and compliance, the appropriate factors need to be included in the revisions to the rule. The recommended section will clarify the methodology for estimating actual emissions in the lithographic printing industry, saving administrative time and costs for both the MDE and the printing industry.

RESPONSE: This issue is better addressed through the permitting process. State and federal operating permits may include terms and conditions to ensure continuous compliance with emissions requirements. The emission and retention factors that are specific to the lithographic printing industry, and are used by permits and compliance programs, are based on information derived from tests and have been used for existing regulations. Utilizing the permitting process is preferable because it will allow the Department to incorporate the appropriate emission and retention factors, taking into account the unique equipment and operating conditions of each source. The knowledge and expertise necessary to facilitate inclusion of the proper emission and retention factors

are better employed by the permitting and compliance programs in the operating and compliance requirements of individual operating permits.

14. COMMENT: The proposed rule does not provide a material use alternative for facilities to determine applicability. A provision in the rule would provide the legal basis for the material use alternative.

RESPONSE: Material use alternatives are better addressed through the permitting process. Determinations regarding the appropriateness of alternative material use are better made on a case-by-case basis. The Department's permit writers have the background, knowledge, and expertise required to make such determinations, in consideration of the unique equipment and operating conditions of the source in question. Material use alternatives have been previously authorized in permits for sources regulated by COMAR 26.11.19.11, as currently enacted. The same process could be utilized under the proposed amendments.

