

APPENDIX "B"

Test Methods and Compliance Procedures:

Determining the Volatile Organic Compound (VOC) Content of Coatings and Inks.

- a. Sampling procedures shall follow the guidelines presented in "Standard Procedure for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010.
- b. The analytical methods and procedures specified below shall be used to determine the VOC content of each coating, as applied:
 1.
 - i. Method 24 of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used to determine total volatile content, water content, and density of coatings. For determining total volatile content, all samples shall be oven-dried at 110°C for 1 hour.
 - ii. To determine the total volatile content, water content, and density of multicomponent coatings, the following procedures shall be used in addition to Method 24 of 40 CFR Part 60, **Appendix A** (July 1, 1992):
 - A. The components shall be mixed in a storage container in the same proportions as those in the coating, as applied. The mixing shall be accomplished by weighing the components in the proper proportion into a container that is closed between additions and during mixing. About 100 milliliters (ml) of coating shall be prepared in a container just large enough to hold the mixture prior to withdrawing a sample.
 - B. For determining volatile content, a sample shall be withdrawn from the mixed coating and then transferred to a dish where the sample shall stand for at least 1 hour, but no more than 24 hours, prior to being oven-dried at 110°C for 1 hour.
 - C. For determining the water content and density of multicomponent coatings, samples shall be taken from the same 100-ml mixture of coating and shall be analyzed by the appropriate ASTM methods referenced in Method 24 of 40 CFR, Part 60,

Appendix A (July 1, 1992).

2. Method 24 of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used in determining total volatile content, water content, and density of any flexographic or packaging rotogravure printing ink and related coatings. Alternatively, Method 24A of 40 CFR Part 60, **Appendix A** (July 1, 1992), may be used.
 3. Method 24A of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used in determining total volatile content, water content, and density of any publication rotogravure printing ink and related coatings.
 4. The following additional procedure shall be used in analyzing a coating sample: "Standard Procedure for Analysis of Coating and Ink Samples," EPA-340/1-91-011.
- c. Use of adaptations to test methods. Use of an adaptation to any of the analytical methods specified in paragraph (b) of this Section shall be approved by the Department on a case-by-case basis. An owner or operator shall submit sufficient documentation for the Department to find that the analytical methods specified in paragraphs (b)(1), (b)(2), and (b)(3) will yield inaccurate results and that the proposed adaptation is appropriate.
- d. Each sample collected for analysis shall meet the following criteria:
1. Each sample shall be at least 250 ml (8 fluid ounces [oz]) taken into a 250-ml (8-oz) container at a location and time such that the sample will be representative of the coating or ink, as applied (i.e., the sample shall include any dilution solvent or VOC added during the manufacturing process).
 2. If a sample larger than 250 ml (8 oz) is obtained, the sample container shall be of a size such that the sample completely fills the container.
 3. The container shall be tightly sealed immediately after the sample is taken.
 4. Any solvent or other VOC added after the sample is taken shall be measured and accounted for in the calculations in paragraph (c) of this Section.
 5. For multicomponent coatings, separate samples of each component shall be obtained.
- e. Calculations for determining the VOC content of coatings and inks from data as determined by Method 24 or 24A of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall follow the guidance provided in the following documents:

1. "A Guideline for Surface Coating Calculations," EPA-340/1-86-016.
2. "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink and Other Coatings," (Revised June 1986) EPA-450/3-84-019.