WAC 173-490-204 Graphic arts systems. (1) Specific applicability.

(a) This section shall apply to all packaging rotogravure, publication rotogravure, specialty printing operations, and flexographic printing facilities that use more than 90 megagrams (100 tons) per year of VOCs as a component of ink, for the thinning of ink, cleaning of presses, press components and equipment; and are covered by WAC 173-490-025.

(b) Machines that have both coating units (apply a uniform layer of material across the entire width of a web) and printing units (forming words, designs, and pictures) shall be included under WAC 173-490-204 rather than WAC 173-490-040(6), Surface coaters.

(2) Provisions for specific processes.

(a) No owner(s) or operator(s) of a packaging rotogravure, publication rotogravure or flexographic printing subject to this regulation and employing solvent containing ink may operate, cause, allow or permit the operation of the facility unless:

(i) The volatile fraction of ink, as it is applied to the substrate, contains twenty-five percent by volume or less of organic solvent and seventy-five percent by volume or more of water;

(ii) The ink as it is applied to the substrate, less water, contains sixty percent by volume or more nonvolatile material; or

(iii) The owner(s) or operator(s) installs and operates a system that captures at least ninety percent by weight and;

(A) A carbon adsorption system which reduces the volatile organic emissions from the capture system by at least ninety percent by weight;

(B) An incineration system which oxidizes at least ninety percent of the nonmethane VOCs (VOC measured as total combustible carbon) to carbon dioxide and water; or

(C) An alternative VOC emission reduction system demonstrated to have at least a ninety percent reduction efficiency, measured across the control system, and has been approved by ecology.

(b) A collection system shall be used with the emission controls of WAC 173-490-204 (2)(a)(iii). The design and operation of the collection system shall be consistent with good engineering practice, and shall provide an overall reduction in the emission of VOCs of at least:

(i) Seventy-five percent where a publication rotogravure process is used; or

(ii) Sixty-five percent where a packaging rotogravure process is used; or

(iii) Sixty percent where a flexographic process is used.

(3) Testing and monitoring.

(a) To demonstrate compliance with this chapter, refer to WAC 173-400-105.

(b) When add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(i) Exhaust gas temperature of all incinerators;

(ii) Temperature rise across a catalytic incinerator bed;

(iii) Breakthrough of VOC on a carbon adsorption unit; and

(iv) Any other continuous monitoring or recording device required by ecology.

(c) The owner or operator of a facility shall be responsible for all expenses of monitoring required by WAC 173-490-204 (3)(b).

[Statutory Authority: Chapter 70.94 RCW. WSR 91-05-064 (Order 90-06), § 173-490-204, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. WSR 82-16-021 (Order DE 82-22), § 173-490-204, filed 7/27/82. Statutory Authority: RCW 70.94.331 and 70.94.395. WSR 80-11-062 (Order DE 80-18), § 173-490-204, filed 8/20/80.]