

**(ddd) VOC Emissions from Offset Lithography and Letterpress.**

1. No person shall cause, let, permit, suffer, or allow the operation of any offset lithography printing facility unless:

(i) Offset presses utilize fountain solutions containing 8 percent or less by volume VOCs; and

(ii) The owner or operator installs and operates a VOC emission reduction system for all heatset offset printing operations approved by the Director to have at least a 90 percent reduction efficiency and a capture system approved by the Director, or an equivalent VOC emission rate.

2. No person shall cause, let, permit, suffer, or allow the operation of any sheet-fed offset lithography printing facility unless the VOC content of the on-press (as-applied) fountain solution is:

(i) 5.0 percent alcohol or less (by weight); or

(ii) 8.5 percent alcohol or less (by weight) and the fountain solution is refrigerated to below 60°F (15.5°C); or

(iii) 5 percent alcohol substitute or less (by weight) and no alcohol in the fountain solution.

3. Sheet-fed offset lithography presses with a sheet size of 11 inches by 17 inches or smaller, and presses with a total fountain solution reservoir of less than 1 gallon are exempt.

4. No person shall cause, let, permit, suffer or allow the operation of any cold-set web-fed offset lithography printing facility unless the VOC content of the on-press (as applied) fountain solution is 5 percent alcohol substitute or less (by weight) and no alcohol in the fountain solution.

5. No person shall cause, let, permit, suffer, or allow the operation of any heatset web-fed offset lithography printing facility unless the VOC content of the on-press (as-applied) fountain solutions is:

(i) 1.6 percent alcohol or less (by weight); or

(ii) 3.0 percent alcohol or less (by weight) and the fountain solution is refrigerated to below 60°F (15.5°C); or

(iii) 5.0 percent alcohol substitute or less (by weight) and no alcohol in the fountain solution.

6. For heatset web-fed offset lithographic and letterpress printing presses, the owner or operator shall install and operate a VOC emission reduction system for all dryers with a potential to emit greater than or equal to 25 tons of VOC emissions per year prior to controls.

(i) Control devices with an initial installation date on or before January 1, 2015, shall be approved by the Director to have at least a 90 percent reduction efficiency and a capture system approved by the Director.

(ii) Control devices with an initial installation date after January 1, 2015, shall be approved by the Director to have at least a 95 percent reduction efficiency and a capture system approved by the Director.

(iii) For situations where the inlet concentration is so low that 90 or 95 percent efficiency cannot be achieved, an outlet concentration of 20 ppmv as hexane on a dry basis may be used as an alternative.

(iv) Heatset presses used for book printing and heatset presses with a maximum web width of 22 inches or less are exempt from the requirements in of subparagraph 6.(i) through (iii).

(v) The following materials are exempt from the requirements of subparagraph 6.(i) through (iii):

(I) sheet-fed or coldset web-fed inks;

(II) sheet-fed or coldset web-fed varnishes; and

(III) waterborne coatings or radiation (ultra-violet light or electron beam) cured materials used on offset lithographic or letterpress presses.

7. All cleaners used for blanket washing, roller washing, plate cleaners, impression cylinder cleaners, rubber rejuvenators and other cleaners used for cleaning a press, press parts, or to remove dried ink from areas around a press shall have a VOC composite vapor pressure less than 10 mm Hg at 20°Celsius or contain less than 70 weight percent VOC. For those tasks that cannot be carried out with low VOC composite vapor pressure cleaning materials or reduced VOC content cleaning materials, 110 gallons per year of cleaning materials that do not meet the requirements of this subsection may be used.

8. All cleaning materials and used shop towels are to be kept in closed containers.

9. For the purpose of this subsection, the following definitions shall apply:

(i) "Cleaning Materials" means the materials used to remove excess printing inks, oils, and residual paper from press equipment. These materials are typically mixtures of organic (often petroleum-based) solvents.

(ii) "Fountain Solution" means the mixture of water and additional ingredients such as etchant, gum arabic and dampening aid which coats the non-image areas of the printing plate.

(iii) "Letterpress printing" means a printing process in which the image area is raised relative to the non-image area and the past ink is transferred to the substrate directly from the image surface.

(iv) "Lithographic printing" means a printing process where the image and the non-image areas are chemically differentiated; the image area is oil receptive and non-image area is water receptive.

(v) "Offset lithography printing" means a printing process that transfers the ink film from the lithographic plate to an intermediary surface (blanket) which then transfers the ink film to the substrate.

(vi) "Sheet-fed" refers to the process in which the substrate is cut into sheets before being printed.

(vii) "Web-fed" refers to the process in which the substrate is supplied to the press in the form of rolls.

10. Applicability. Prior to January 1, 2015, the requirements of this subparagraph (ddd) shall apply to facilities at which the potential emissions of volatile organic compounds from offset lithography printing equal or exceed 25 tons per year and are located in Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale Counties as follows:

(i) All applicable facilities shall comply with the provisions of subparagraphs 1. and 9.

11. Applicability. Prior to January 1, 2015, the requirements of this subparagraph (ddd) shall apply to facilities at which the potential emissions of volatile organic compounds from offset lithography printing equal or exceed 100 tons per year and are located in Barrow, Bartow, Carroll, Hall, Newton, Spalding, and Walton Counties as follows:

(i) All applicable facilities shall comply with the provisions of subparagraphs 1. and 9.

12. Applicability. Prior to January 1, 2015, all letterpress printing operations are subject to the applicability and control requirements of subparagraph 391-3-1-.02(2)(tt).

13. Applicability. On and after January 1, 2015, the requirements of this subparagraph (ddd) shall apply to facilities at which actual emissions of volatile organic compounds from offset lithographic printing and letter press printing, before controls, equal or exceed 15 pounds per day (or 2.7 tons per 12-month rolling period) for facilities located in Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Hall, Henry, Newton, Paulding, Rockdale, Spalding, and Walton Counties as follows:

(i) Individual heatset web offset lithographic printing presses and individual heatset web letterpress printing presses that have potential emissions of volatile organic compounds from the dryer, prior to controls, that equal or exceed 25 tons per year shall comply with the provisions of subparagraph 6;

(ii) Individual heatset web offset lithographic printing presses that have potential emissions of volatile organic compounds from the dryer, prior to controls, that do not equal or exceed 25 tons per year and are located at facilities at which the potential emissions of volatile organic compounds from offset lithography printing equal or exceed 25 tons per year in Cherokee; Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale Counties shall comply with the provisions of subparagraph 1.(ii);

(iii) Individual heatset web offset lithographic printing presses that have potential emissions of volatile organic compounds from the dryer, prior to controls, that do not equal or exceed 25 tons per year and are located at facilities at which the potential emissions of volatile organic compounds from offset lithography printing equal or exceed 100 tons per year in Barrow, Bartow, Carroll, Hall, Newton, Spalding, and Walton Counties shall comply with the provisions of subparagraph 1.(ii);

(iv) All applicable facilities shall comply with the provisions of subparagraphs 2., 3., 4., 5., 7., 8., and 9;

(v) Any physical or operational changes that are necessary to comply with the provisions specified in subparagraphs 13.(i) or (iv) are subject to the compliance schedule specified in subparagraph 15.

14. Applicability: The requirements of subparagraph 13. will no longer be applicable by the compliance deadlines if the counties specified in those subparagraphs are re-designated to attainment for the 1997 National Ambient Air Quality Standard for ozone prior to January 1, 2015 and such counties continue to maintain that Standard thereafter. Instead, the provisions of subparagraphs 10., 11., and 12. will continue to apply on and after January 1, 2015. In the event the 1997 National Ambient Air Quality Standard for ozone is violated in the specified counties, the requirements of subparagraph 13. will only be reinstated if the Director determines that the measure is necessary to meet the requirements of the contingency plan.

15. Compliance Schedule:

(i) An application for a permit to construct and operate volatile organic compound emission control systems and/or modifications of process and/or coatings used must be submitted to the Division no later than **July 1, 2014**.

(ii) On-site of construction of emission control systems and/or modification of process or coatings must be completed by **November 1, 2014**.

(iii) Full compliance with the applicable requirements specified in subparagraphs 13.(i) and (iv) must be completed before **January 1, 2015**.