

Guidance for estimating emissions for Non-Title V facilities

Note: This guidance is intended to help facilities estimate the amount of air pollutants released annually in order to complete Ohio EPA's Non-Title V Air Emissions Report Form. This guidance contains simplified criteria and conservative assumptions which may overestimate actual emissions in some cases. Detailed emission calculations using actual production data, coating analyses, emission factors, material balance, etc., may yield lower emission levels. It is recommended detailed calculations be used when actual facility emissions are expected to exceed 50 tons per year.

Facility/source type	Size/production rate/thruput PER YEAR ^a	Likely Emission Range (TPY)
Dry cleaner	All <i>(assumes all facilities in Non-TV program are below major source MACT criteria: have only dry-to-dry machines and use less than 2,100 gal. perc per year or have both transfer and dry-to-dry machines and use less than 1,800 gal perc per year)</i>	0 - 10
Gasoline dispensing facility (GDF)		
w/ Stage I control	less than 1,500,000 gallons gasoline <i>(Assumes emission factor of 13 lb OC/1000 gal. gasoline and diesel dispensing emissions are negligible)</i>	0 - 10
	1,500,000 - 7,700,000 gallons gasoline	10 - 50
	> 7,700,00 gallons gasoline	50 - 100 (all OC)
w/ Stage I and II controls	less than 6,450,000 gallons gasoline <i>(Assumes emission factor of 3.1 lb OC/1000 gal. gasoline and diesel dispensing emissions are negligible)</i>	0 - 10
	6,450,000 - 32,250,000 gallons gasoline	10 - 50
Auto body shop	facility used less than 2,850 gallons of all solvents, paints, and coatings combined <i>(assumes 7 lb VOC gal max)</i>	0 - 10
	facility used between 2,850 and 14,300 gallons of all solvents, paints, and coatings combined <i>(assumes 7 lb VOC gal max)</i>	10 - 50
Printing facilities (by printing method, follows criteria and assumptions of permit-by-rule, OAC 3745-31-03(A)(4)(k) and (l))		
lithographic, non-heatset	facility used less than 2,850 gallons of cleaning solvent and fountain solution additives combined <i>(assumes 7 lb VOC gal max)</i>	0 - 10
	facility used between 2,850 and 14,300 gallons of cleaning solvent and fountain solution additives combined <i>(assumes 7 lb VOC gal max)</i>	10 - 50

Facility/source type	Size/production rate/thruput PER YEAR ^a	Likely Emission Range (TPY)
lithographic, heatset	facility used less than 20,000 lbs of all inks, cleaning solvents, and fountain solution additives combined (<i>assumes 100% material VOC</i>)	0 - 10
	facility used between 20,000 and 100,000 lbs of all inks, cleaning solvents, and fountain solution additives combined (<i>assumes 100% material VOC</i>)	10 - 50
flexographic, water-based/UV inks	facility used less than 80,000 lbs of water-based inks, coatings, and adhesives combined (<i>assumes 25% wt. VOC in materials</i>)	0 - 10
	facility used between 80,000 and 400,000 lbs of water-based inks, coatings, and adhesives combined (<i>assumes 25% wt. VOC in materials</i>)	10 - 50
flexographic, solvent-based	facility used less than 20,000 lbs of ink, dilution solvents, coatings, cleaning solutions, and adhesives combined (<i>assumes 100% material VOC</i>)	0 - 10
	facility used between 20,000 and 100,000 lbs of ink, dilution solvents, coatings, cleaning solutions, and adhesives combined (<i>assumes 100% material VOC</i>)	10 - 50
digital	facility used less than 2,600 gallons of ink, dilution solvents, coatings, cleaning solutions, and adhesives combined (<i>assumes 7.5 lb VOC/gal max.</i>)	0 - 10
	facility used between 2,600 and 13,333 gallons of ink, dilution solvents, coatings, cleaning solutions, and adhesives combined (<i>assumes 7.5 lb VOC/gal max.</i>)	10 - 50
screen or letterpress	facility used less than 2,850 gallons of ink, dilution solvents, coatings, cleaning solutions, and adhesives combined (<i>assumes 7 lb VOC gal max</i>)	0 - 10
	facility used between 2,850 and 14,300 gallons of ink, dilution solvents, coatings, cleaning solutions, and adhesives combined (<i>assumes 7 lb VOC gal max</i>)	10 - 50
Concrete plant (by mixing method, follows criteria and emission calculation methodology of general permits.)		
Truck mix	produced less than 155,000 cu. yds of concrete ^b (<i>includes 7 tpy from main equipment and up to 3 tpy of miscellaneous fugitive dust sources; does not include additional emissions from auxiliary power generators</i>)	0 - 10
	produced between 155,000 and 875,000 cu. yds of concrete (<i>includes 40 tpy from main equipment and up to 10 tpy of miscellaneous fugitive dust sources; does not include additional emissions from auxiliary power generators</i>)	10 - 50
Central mix	produced less than 300,000 cu. yds of concrete ^c (<i>includes 5.3 tpy from main equipment and up to 4.7 tpy of miscellaneous fugitive dust sources; does not include additional emissions from auxiliary power generators</i>)	0 - 10

Facility/source type	Size/production rate/thruput PER YEAR ^a	Likely Emission Range (TPY)
	produced between 300,000 and 2,260,000 cu. yds of concrete <i>(includes 40 tpy from main equipment and up to 10 tpy of miscellaneous fugitive dust sources; does not include additional emissions from auxiliary power generators)</i>	10 - 50
Painting operations		
Solvent-based	facility used less than 2,850 gallons of all solvents, paints, and coatings combined <i>(assumes 7 lb VOC/gal max)</i>	0 - 10
	facility used between 2,850 and 14,300 gallons of all solvents, paints, and coatings <i>(assumes 7 lb VOC/gal max)</i>	10 - 50
Water-based	facility used less than 10,000 gallons of all paints <i>(assumes 2.0 lb VOC/gal max.)</i>	0 - 10
	facility used between 10,000 and 50,000 gallons of all paints <i>(assumes 2.0 lb VOC/gal max.)</i>	10 - 50
Metal parts fabrication facility	Facility used less than 2,000 gallons of all paints and degreasing solvents combined AND has no externally vented shot blast machines or machining operations <i>(assumes 7 lb VOC/gal max. for paints and solvents, 7 tpy VOC plus up to 3 tpy misc. particulate)</i>	0 - 10
	Facility used between 2,000 and 8,000 gallons of all paints and degreasing solvents combined AND has externally vented shot blast machines or machining operations <i>(assumes up to 28 tpy VOC plus up to 22 tpy misc particulate)</i>	10 - 50
Woodworking facility	Facility used less than 2,000 gallons of all stains, lacquers, and other VOC-containing materials combined AND has no externally vented woodworking equipment or sawdust loadout <i>(assumes 7 lb VOC/gal max. for liquid materials, 7 tpy VOC plus up to 3 tpy misc. particulate)</i>	0 - 10
	Facility used between 2,000 and 8,000 gallons of all stains, lacquers, and other VOC-containing materials combined AND has externally vented woodworking equipment and/or sawdust loadout <i>(assumes up to 28 tpy VOC plus up to 22 tpy misc. particulate)</i>	10 - 50

Notes:

^a Unless noted, emissions from fuel combustion equipment such as building heaters, small boilers, and hot water heaters are not included since many of these types of sources are exempt from permitting requirements by OAC 3745-31-03.

- ^b Truck mix general permit calculation method allows 11.4 tpy PM based on 250,000 cu. yd. concrete annual production and does not include additional fugitive dust emissions from roadways, storage piles, etc. Using this method and a simple ratio, 7.0 tpy PM equates to approximately 155,000 cu. yd. concrete per year. An additional 3.0 tpy PM is assumed for roadways and storage pile emissions.
- ^c Central mix general permit calculation method allows 5.3 tpy PM based on 300,000 cu. yd. concrete annual production and does not include additional fugitive dust emissions from roadways, storage piles, etc. An additional 4.7 tpy PM is assumed for roadways and storage pile emissions.