



United States Environmental Protection Agency General Permit for New or Modified Minor Sources of Air Pollution in Indian Country

<http://www.epa.gov/air/tribal/tribalnsr.html>

General Air Quality Permit for New or Modified True Minor Source Graphic Arts and Printing Operations

Last Modified: July 2, 2014

Version 1.0

Information about this General Permit:

Applicability

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, part D and 40 CFR part 49, subpart C, this permit authorizes the construction or modification, and operation of each stationary graphic arts and printing operations for which a reviewing authority issues an Approval of the Request for Coverage (permitted source).

Eligibility

To be eligible for coverage under this general permit, the permitted source must qualify as a true minor source as defined in 40 CFR 49.152.

Request for Coverage

Requirements for submitting a Request for Coverage are contained in Section 7 of this general permit.

Incorporation of Documents

The information contained in each reviewing authority's Approval of the Request of Coverage is hereby incorporated into this general permit.

Termination

Section 6 of this general permit addresses a reviewing authority's ability to revise, revoke and reissue, or terminate this general permit. It also addresses the reviewing authority's ability to terminate an individual permitted source's Approval of the Request for Coverage under this general permit.

Definitions

The terms used herein shall have the meaning defined in 40 CFR 49.152 and in Attachment B of this permit. If a term is not defined, it shall be interpreted in accordance with normal business use.

Permit Terms and Conditions

The following applies to each permittee and permitted source with respect to only the affected emissions units and any associated air pollution control equipment listed in that permitted source's Approval of the Request for Coverage.

Section 1 – General Provisions

1. *Construction and Operation*

The permittee shall construct or modify, and operate the affected emission units and any associated air pollution control equipment in compliance with this permit and all other applicable federal air quality regulations; and in a manner consistent with the Request for Coverage.

2. *Location*

This permit only authorizes the permittee to construct or modify, and operate the permitted source in the location listed in the reviewing authority's Approval of the Request for Coverage for that permitted source.

3. *Liability*

This permit does not release the permittee from any liability for compliance with other applicable federal and tribal environmental laws and regulations, including the CAA.

4. *Severability*

The provisions of this permit are severable. If any portion of this permit is held invalid, the remaining terms and conditions of this permit shall remain valid and in force.

5. *Compliance*

The permittee must comply with all provisions of this permit, including emission limitations that apply to the affected emissions units at the permitted source. Noncompliance with any permit provision is a violation of the permit and may constitute a violation of the CAA; is grounds for an enforcement action; and is grounds for the reviewing authority to revoke the Approval of the Request for Coverage and terminate the permitted source's coverage under this general permit.

6. *National Ambient Air Quality Standards (NAAQS)/Prevention of Significant Deterioration (PSD) Protection*

The permitted source must not cause or contribute to a NAAQS violation and, in an attainment area, must not cause or contribute to a PSD increment violation.

7. *Unavailable Defense*

It is not a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the provisions of this permit.

8. *Property Rights*

The permit does not convey any property rights of any sort or any exclusive privilege.

9. *Information Requests*

You, as the permittee, shall furnish to the reviewing authority, within a reasonable time, any information that the reviewing authority may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. For any such information claimed to be confidential, the permittee must submit a claim of confidentiality in accordance with 40 CFR part 2 subpart B.

10. *Inspection and Entry*

- Upon presentation of proper credentials, the permittee must allow a representative of the reviewing authority to:
- a. Enter upon the premises where a source is located or emissions-related activity is conducted or where records are required to be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. Inspect, during normal business hours or while the source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices or operations regulated or required under the permit;
 - d. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
 - e. Record any inspection by use of written, electronic, magnetic and photographic media.

11. *Posting of Coverage*

Sections 1 through 6 of this general permit, and the most current Approval of the Request for Coverage for the permitted source, must be posted prominently at the facility, and each affected emissions unit and any associated air pollution control equipment must be labeled with the identification number listed in the Approval of the Request for Coverage for that permitted source.

12. *Duty to Obtain Source-Specific Permit*

If the reviewing authority intends to terminate a permitted source's coverage under this general permit for cause as provided in Section 6 of this general permit, then the permittee shall apply for and obtain a source-specific permit under 40 CFR 49.155 as required by the reviewing authority.

13. *Credible Evidence*

For the purpose of establishing whether the permittee violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the permittee had performed the appropriate performance or compliance test or procedure.

Section 2: Emission Limitations and Standards

14. The permittee shall maintain and operate each affected emission unit, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions of NSR regulated pollutants and considering the manufacturer's recommended operating procedures at all times, including periods of startup, shutdown, maintenance and malfunction. The reviewing authority will determine whether the permittee is using acceptable operating and maintenance procedures based on information available to the reviewing authority which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the permitted source.
15. The permittee shall not allow volatile organic compound (VOC) emissions from an individual printing press (printing line) to exceed 25 tons per year.
16. The permittee shall not allow VOC emissions from the combination of all graphic arts and printing operations (all printing lines) to exceed:
- a. 75 tons per year based on a 12-month rolling total in ozone attainment, unclassifiable or attainment/unclassifiable areas;
 - b. 50 tons per year based on a 12-month rolling total in marginal or moderate ozone nonattainment areas;

- c. 25 tons per year based on a 12-month rolling total in serious ozone nonattainment areas;
- d. 15 tons per year based on a 12-month rolling total in severe ozone nonattainment areas; or
- e. 7 tons per year based on a 12-month rolling total in extreme ozone nonattainment areas.

17. *Standards for Flexible Packaging Printing Operations*

The permittee shall not apply any coating, inks or adhesives in flexible packaging printing operations (including flexographic and rotogravure operations) unless the VOC content is equal to or less than:

- a. 0.16 lbs VOC/lb material, as applied (equivalent to 16% VOC by weight); OR
- b. 0.5 lbs VOC/lb coating solids, as applied.

18. *Standards for Offset Lithographic and Letterpress Printing Operations*

The permittee shall limit VOC emissions from lithographic and letterpress printing as follows:

- a. On-press (as applied) fountain solution for *heatset web offset lithographic printing* shall not exceed:
 - 1. 1.6% alcohol by weight in the fountain; OR
 - 2. 3% alcohol by weight in the fountain, if the fountain solution is refrigerated to below 60°F; OR
 - 3. 5% alcohol substitute and no alcohol in the fountain solution.
- b. On-press (as applied) fountain solution for *sheet-fed offset lithographic printing* shall not exceed:
 - 1. 5% alcohol by weight in the fountain; OR
 - 2. 8.5% alcohol by weight in the fountain, if the fountain solution is refrigerated to below 60°F; OR
 - 3. 5% alcohol substitute and no alcohol in the fountain solution.
- c. On-press (as applied) fountain solution for *coldset web offset lithographic printing* shall not exceed:
 - 1. 5% alcohol substitute by weight and no alcohol in the fountain solution.

19. *Standards for Cleaning Operations*

The VOC content of cleaning materials used for cleaning operations shall not exceed 70% by weight.

20. *Exemption for Sheet-fed Offset Lithographic Printing*

The requirements of Condition 18.b do not apply to sheet-fed presses with sheet sizes of 11 inches by 17 inches or smaller OR any press with a total fountain solution reservoir of less than 1 gallon (3.785 liters).

21. *Exemption for Non-compliant Materials*

For graphic arts and printing operations located in areas designated as ozone attainment, unclassifiable and attainment/unclassifiable, marginal nonattainment, or moderate nonattainment, the permittee may use up to 110 gallons (416 liters) per calendar year of VOC-containing material that does not meet the requirements of Condition 17.

22. *Additional Standards for Nonattainment Areas*

Each permitted source located in a serious, severe or extreme ozone nonattainment area shall meet the additional requirements in Attachment C.

23. *Labeling and Containers*

All VOC-containing material (e.g., inks, adhesives, coatings, thinners, and clean-up solvents) shall be stored in closed containers with labels that clearly identify the contents of the containers.

24. *Waste Containers*

All waste materials containing VOC (e.g., soiled rags) shall be stored in sealed containers until properly disposed.

25. *Spills*

The permittee shall implement procedures to minimize spills of any VOC-containing material during handling and transfer to and from containers, enclosed systems, waste receptacles and other equipment.

26. *Emergency Engines*

Each affected emergency engine shall:

- a. Be equipped with a non-resettable hour meter;
- b. If using fuel oil, use diesel or biodiesel containing no more than 15 ppm (0.0015 percent) sulfur;
- c. Meet the following certification requirements for compression ignition emergency engines:
 - i. For model year 2006 and later engines, the engine shall be certified to the applicable standards in 40 CFR part 89.
- d. Meet the following requirements for spark ignition emergency engines manufactured on or after January 1, 2009:
 - i. Gasoline and rich burn LPG emergency engines greater than 25 horsepower (hp) and less than 130 hp shall be certified by the manufacturer to the Phase I standards in 40 CFR 90.103.
 - ii. Gasoline and rich burn LPG emergency engines greater than or equal to 130 hp shall be certified by the manufacturer to the standards in 40 CFR 1048.
 - iii. All other spark ignition emergency engines (those that are not gasoline or rich burn LPG) greater than 25 HP shall meet the standards for emergency engines in Table 1 to 40 CFR Subpart JJJJ. If the emergency engine is not certified to the standards in Table 1 to 40 CFR Subpart JJJJ, then the permittee shall demonstrate compliance with the applicable emission limitations as required by Condition 28.
- e. If not required to meet the standards in Conditions 26.c or 26.d based on the engine model year or date of manufacture:
 - i. Follow the manufacturer's emission-related operation and maintenance instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions;
 - ii. Change oil and filter and inspect every hose and belt every 500 hours of operation or annually, whichever comes first; and
 - iii. Inspect air cleaner or spark plugs, as applicable, every 1,000 hours of operation, or annually, whichever comes first.

Section 3: Monitoring and Testing Requirements

27. The permittee shall monitor usage of all VOC-containing material on a weekly basis.

28. *Emergency Engines Not Certified by the Manufacturer*

For each emergency engine required to meet the standards in Condition 26.d, but that is not certified by the manufacturer to the applicable standards, and is not required to be certified by the manufacturer, the permittee shall:

- a. For an engine greater than 25 HP and less than or equal to 500 HP, conduct an initial performance test as follows:
 - i. Within 60 days after achieving the maximum production rate at which the permitted source will operate, but not later than 180 days after the first day of operation after issuance of the Approval of the Request for Coverage;
 - ii. The test shall verify compliance with the applicable emission limitations in Condition 26.d.iii.;
 - iii. According to a test plan approved by the reviewing authority;

- iv. While the permitted source is operating under typical operating conditions;
 - v. With at least three test runs, each of at least 1 hour duration;
 - vi. Within 10 percent of peak load for the engine;
 - vii. Using test methods from 40 CFR part 60, Appendix A unless alternative methods are approved by the reviewing authority in writing in advance of the test; and
 - viii. Simultaneously for carbon monoxide and nitrogen oxides whenever either one needs to be tested.
- b. For an engine greater than 500 HP, conduct an initial performance test and subsequent performance testing every 8,760 hours of operation or 3 years, whichever comes first as follows:
- i. The performance tests shall verify compliance with the applicable emission limitations in Condition 26.d.iii.
 - ii. The performance tests shall be performed according to Conditions 28.a.iii through viii.

Section 4: Recordkeeping Requirements

29. The permittee shall maintain all records required to be kept by this permit onsite for at least five years from the date of origin, unless otherwise stated.
30. The permit application and all documentation supporting that application shall be maintained by the permittee for the duration of time the affected emissions unit(s) is/are covered under this permit.
31. The permittee shall maintain a log of inks, coatings, adhesives, fountain-solution alcohol and alcohol substitutes, thinners, cleaners, and any other VOC-containing materials used at the facility. For each VOC-containing material the list shall identify the type of material (ink, coating, adhesive, cleaning material etc.), the density of the material in pounds (lbs)/gallon or grams/liter, and the VOC content of the material in percent by weight. In addition:
- a. For each fountain solution the log shall identify the percent alcohol or alcohol substitute by weight;
 - b. For each coating, ink or adhesive used in flexible packaging printing operations the log shall identify the lbs VOC/lb material OR the lbs VOC/lb solids; and
 - c. For each coating, ink or adhesive for a permitted source located in a serious, severe, or extreme ozone nonattainment area, the log shall identify the VOC content in grams/liter.
- The log shall be updated on a monthly basis.
32. The permittee shall maintain monthly usage records in gallons or liters of graphic arts materials and cleaning solutions showing the type and amount used of each graphic-arts ink, coating, adhesive, fountain solution, blanket wash, and all other cleaning solutions or VOC-containing materials.
33. The permittee shall maintain monthly records of VOC emissions from each printing press and the resulting 12-month rolling total of VOC emissions. The 12-month rolling total is defined as the sum of the VOC emissions during the current month and the VOC emissions for the previous eleven (11) months. Emissions shall only be determined on a mass basis, except that the following VOC retention factors shall be used:
- a. Lithographic inks, heat-set – 20%;
 - b. Lithographic inks, non heat-set – 95%; and
 - c. All other VOC-containing materials – 0%

A sample calculation can be found in Attachment D.

34. The permittee shall maintain monthly records of VOC emissions from the combination of all graphic arts and printing operations and the resulting 12-month rolling total of VOC emissions. The 12-month rolling total is defined as the sum of the VOC emissions during the current month and the VOC emissions for the previous eleven (11) months.
35. For each emergency engine, the permittee shall:
 - a. Maintain a log of all maintenance activities conducted;
 - b. Maintain a log of the hours of operation including the date, time, duration, and reason for use; and
 - c. Maintain records of fuel supplier certifications to demonstrate compliance with the sulfur content in Condition 26.b, if applicable (the certification shall contain the sulfur content of the fuel and the method used to determine the sulfur content of the fuel).
36. The results of each performance test conducted pursuant to Condition 28 shall be recorded. At a minimum, the permittee shall maintain records of:
 - a. The date of each test;
 - b. Each test plan;
 - c. Any documentation required to approve an alternate test method;
 - d. Conditions during the test, including the engine power rating;
 - e. The results of each test; and
 - f. The name of the company or entity conducting the analysis.

Section 5: Notification and Reporting Requirements

37. *Notification of Construction or Modification, and Operation*

The permittee shall submit a written or electronic notice to the reviewing authority within 30 days from when the permittee begins actual construction or modification, and when the permittee begins operation or resumes operation.

38. *Notification of Change in Ownership*

If the permitted source changes ownership, then the permittee must submit a written or electronic notice to the reviewing authority within 90 days after the change in ownership is effective. In the report, the permittee must provide the reviewing authority a written agreement containing a specific date for transfer of ownership, and an effective date on which the new owner assumes partial and/ or full coverage and liability under this permit. The submittal must identify the previous owner, and update the name, street address, mailing address, contact information, and any other information about the source if it would change as a result of the change of ownership. The permittee shall ensure that the permitted source remains in compliance with the general permit during any such transfer of ownership.

39. *Notification of Closure*

The permittee must submit a report of any permanent or indefinite closure to the reviewing authority in writing within 90 days after the cessation of all operations at the permitted source. The notification must identify the owner, the current location, and the last operating location of the permitted source. It is not necessary to submit a report of closure for regular, seasonal closures.

40. *Annual Reports*

The permittee shall submit an annual report on or before March 15 of each year to the reviewing authority. The annual report shall cover the period from January 1 to December 31 of the previous year and shall include:

- a. An evaluation of the permitted source's compliance status with respect to the requirements of Section 2 during the calendar year;

- b. Summaries of the required monitoring, testing and recordkeeping in Sections 3 and 4; and
- c. Summaries of deviation reports submitted pursuant to Condition 41.

41. *Deviation Reports*

The permittee shall promptly report to the reviewing authority any deviations from permit requirements including deviations attributable to upset conditions. Deviation reports shall include:

- a. Identity of the affected emissions unit where the deviation occurred;
- b. Nature of the deviation;
- c. Length of time of the deviation;
- d. Probable cause of the deviation; and
- e. Any corrective actions or preventive measures taken as a result of the deviation to minimize emissions from the deviation and to prevent future deviations.
- f. For the purposes of this permit, *promptly* means within 30 days after the end of the month in which the permittee discovered the deviation.

42. *Performance Test Reports*

The permittee shall submit a test report to the reviewing authority within 45 days after the completion of any required performance test. At a minimum, the test report shall include:

- a. A description of the emissions unit and sampling location(s);
- b. The time and date of each test;
- c. A summary of test results, reported in units consistent with the applicable standard;
- d. A description of the test methods and quality assurance procedures used;
- e. A summary of any deviations from the proposed test plan and justification for why the deviation(s) was necessary;
- f. The amount of fuel burned, raw material consumed, and product produced during each test run;
- g. Operating parameters of the source and control equipment during each test run;
- h. Sample calculations of equations used to determine test results in the appropriate units; and
- i. The name of the company or entity performing the analysis.

43. *Reporting and Notification Address*

The permittee shall send all required reports to the reviewing authority at the mailing address specified in the Approval of the Request for Coverage.

44. *Signature Verifying Truth, Accuracy, and Completeness*

All reports required by this permit shall be signed by a responsible official as to the truth, accuracy, and completeness of the information. The report must state that, based on information and belief formed after reasonable inquiry, the statements and information are true, accurate, and complete. If the permittee discovers that any reports or notification submitted to the reviewing authority contain false, inaccurate, or incomplete information, the permittee shall notify the reviewing authority immediately and correct or amend the report as soon as is practicable.

Section 6: Changes to this General Permit

45. *Revising, Reopening, Revoking and Reissuing, or Terminating for Cause*

The permit may be revised, reopened, revoked and reissued or terminated for cause. The filing of a request by you, the permittee, for a permit revision, revocation and re-issuance, or termination, or of a notification of planned

changes or anticipated noncompliance does not stay any permit condition. This provision also applies to the documents incorporated by reference.

46. *Terminating Coverage Under this Permit*

The reviewing authority may terminate a previously issued Approval of the Request for Coverage, and thereby terminate that permittee's authorization to construct or modify, and that permitted source's authorization to operate under this general permit for cause as defined in Attachment B. The reviewing authority may provide the permittee with notice of the intent to terminate, and delay the effective date of the termination to allow the permittee to obtain a case-by-case permit under 40 CFR 49.155.

47. *Change in Ownership*

If the permitted source changes ownership, the reviewing authority may change the Approval of the Request of Coverage to reflect the new ownership in accordance with the administrative amendment provisions in 40 CFR 49.159(f).

Section 7: Obtaining Coverage under this General Permit

48. To obtain coverage under this general permit, an applicant must submit a Request for Coverage to the appropriate reviewing authority for the area in which the permitted source is or will be located. Attachment E contains a list of reviewing authorities and their areas of coverage.
49. You must also submit a copy of the Request for Coverage to the Indian Governing Body for any area within Indian country in which the permitted source will locate at the same time you submit your Request for Coverage to the reviewing authority.

Attachment A: Abbreviations and Acronyms

ASTM	American Society for Testing and Materials
CAA	Federal Clean Air Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
hp	horsepower
lb	pound
NAAQS	national ambient air quality standards
NSR	new source review
PSD	Prevention of Significant Deterioration
VOC	volatile organic compounds

Attachment B: Definitions

For the purposes of this general permit:

Approval of the Request for Coverage means a reviewing authority's letter granting an applicant's request for construction or modification, and operation of a true minor source under the terms and conditions of this general permit.

Biodiesel means a combustion fuel made from fatty acids or methyl esters that complies with the specifications of ASTM 6751.

Cause means with respect to the reviewing authority's ability to terminate a permitted source's coverage under a permit that:

1. The permittee is not in compliance with the provisions of this general permit;
2. The reviewing authority determines that the emissions resulting from the construction or modification of the permitted source significantly contribute to NAAQS violations, which are not adequately addressed by the requirements in this general permit.
3. The reviewing authority has reasonable cause to believe that the permittee obtained Approval of the Request for Coverage by fraud or misrepresentation.
4. The permittee failed to disclose a material fact required by the Request for Coverage or the regulations applicable to the permitted source of which the applicant had or should have had knowledge at the time the permittee submitted the Request for Coverage.

Cleaning operations include the cleaning of the press, press parts, and removal of dried ink, but does not, generally, include cleaning electronic components, cleaning the pre-press or post-press operations, the use of part washers and cold cleaners, or the use of janitorial supplies to clean areas around the press.

Coldset means a type of offset lithographic and letterpress printing operation where heat is not applied to dry ink.

Construction means any physical change or change in the method of operation including fabrication, erection, installation, demolition, or modification of an emission unit that would result in a change of emissions.

Distillate fuel means fuel oils, including recycled oils that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM 396, or equivalent.

Emergency engine means an engine that is operated to provide electrical power or mechanical work during an emergency situation. Examples include engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or an engine used to pump water in the case of fire, flood, or other event.

Flexible packaging means any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, liners, and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

Flexographic printing means a printing process where the image is raised above the printing plate, and the image carrier is made of rubber or other elastomeric material.

Heatset means a type of offset lithographic and letterpress printing operation where heat is applied to dry ink.

Individual printing press means a single printing line that can include, but is not limited to, unwind or feed section(s); a series of individual workstations; any dryers associated with the work stations; and a rewind, stack or collection section. Inboard and outboard work stations, including those employing multiple application methods, if they are capable of printing or coating on the same substrate.

Offset lithographic and letterpress printing operation means operations where printing and non-printing areas are in the same plane on the surface of a thin metal lithographic plate – also referred to as planographic printing. To maintain the distinction between the areas on the lithographic plate, the image area is rendered oil receptive, and the non-image area is rendered water receptive.

Natural gas means a mixture of hydrocarbons that is a gas at standard conditions and is either composed of at least 70 percent methane by volume or has a gross calorific value of between 950 and 1150 British thermal unit per dry standard cubic foot.

Permittee means the owner or operator of a permitted source.

Permitted source means each graphic arts and printing operation for which a reviewing authority issues an Approval of the Request for Coverage.

Request for Coverage means a permit application that contains all the information required in the standard application form.

Rotogravure printing means a printing process in which an image is etched or engraved below the surface of a plate or cylinder.

Attachment C: Nonattainment Area VOC Limits

For graphic arts and printing operations located in serious, severe, and extreme ozone nonattainment areas, the permittee shall limit the VOC content of graphic arts and printing materials as follows:

Type of Material	VOC Limit	
Lithographic ink	300 grams/liter	2.50 lbs/gallon
Letterpress ink	300 grams/liter	2.50 lbs/gallon
Rotogravure ink	300 grams/liter	2.50 lbs/gallon
Flexographic ink non-porous substrate	300 grams/liter	2.50 lbs/gallon
Flexographic ink porous substrate	225 grams/liter	1.88 lbs/gallon
Flexographic fluorescent ink	300 grams/liter	2.50 lbs/gallon
Coating	300 grams/liter	2.50 lbs/gallon
Adhesive	150 grams/liter	1.25 lbs/gallon
Fountain solution	As applied, no greater than 80 grams/liter of material OR no greater than 100 grams/liter, if a refrigerated chiller is used.	As applied, no greater than 0.668 lbs/gallon of material OR no greater than 0.834 lbs/gallon, if a refrigerated chiller is used.

For compliance purposes, each VOC limit in this table shall be assumed to have three significant figures.

Information on the ozone attainment status of the area where your facility is located can be found at: <http://www.epa.gov/airquality/greenbook/>. You may also contact your reviewing authority for information on your attainment status.

Attachment D – Sample Calculation for Monthly VOC Emissions

Below is a sample calculation for determining monthly VOC emissions from a single VOC-containing material. For total monthly emissions, the permittee must conduct this calculation for each VOC-containing material used each month and determine the sum of all VOC emissions.

Sample calculation for a heat-set lithographic ink:

Lithographic ink density – 1 lb/gallon

Monthly usage – 100 gallons

VOC content – 4% alcohol by weight

VOC retention factor for heatset lithographic ink (see Condition 33) – 30%

Calculation:

Monthly VOC Emissions (tons) = Density (lbs/gallon) x VOC content (weight %) x Monthly Usage (gallons) x (100% - VOC Retention Factor (%)) ÷ 2000 (lbs/ton)

Monthly VOC Emissions (tons) = 1(lbs/gal) x 4% x 100 gal x (100% - 30%) ÷ 2000 (lbs/ton)

Monthly VOC Emissions (tons) = 1 x 4% x 100 x 70% ÷ 2000

Monthly VOC Emissions = 0.0014 tons VOC

Attachment E – List of the EPA Reviewing Authorities and Areas of Coverage

EPA Region	Address	Area Covered	Phone Number
Region 1	1 Congress Street Suite 1100 Boston, MA 02114–2023	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont	888- 372-7341 617-918-1111
Region 2	290 Broadway 25th Floor New York, NY 10007–1866	New Jersey, New York, Puerto Rico, and Virgin Islands	877-251-4575
Region 3	1650 Arch Street Philadelphia, PA 19103–2187	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia	800-438-2474 215-814-5000
Region 4	Sam Nunn Atlanta Federal Center 61 Forsyth Street SW 12th Floor Atlanta, GA 30303	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee	800-241-1754 404-562-9000
Region 5	77 West Jackson Street Chicago, IL 60604	Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin	800-621-8431 312-353-2000
Region 6	1445 Ross Avenue Dallas, TX 75202	Arkansas, Louisiana, New Mexico, Oklahoma, and Texas	800-887-6063 214-665-2760
Region 7	901 North 5th Street Kansas City, KS 66101–2907	Iowa, Kansas, Missouri, and Nebraska	800-223-0425 913-551-7003
Region 8	1595 Wynkoop Street Denver, CO 80202–1129	Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming	800-227-8917 303-312-6312
Region 9	75 Hawthorne Street San Francisco, CA 94105	American Samoa, Arizona, California, Guam, Hawaii, Navajo Nation, Nevada, and Northern Mariana Islands	866-372-9378 415-947-8000
Region 10	1200 Sixth Avenue Seattle, WA 98101	Alaska, Idaho, Oregon, and Washington	800-424-4372 206-553-1200