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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHCENTRAL REGION - FIELD OPERATIONS
AIR QUALITY CONTROL PROGRAM

OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the rules and regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source described below.

Permit No: 36-2027

Source & Air Cleaning Device: Printing Facility

Owner: R. R. Donnelley & Sons Company

(See Attached)

Address: 216 Greenfield Road

Lancaster, PA 17601

Attention: Mr. John Hallgren

Sr. Vice President, Division Director

Location: Lancaster East Plant
Lancaster City
Lancaster County

This permit is subject to the following conditions:

1. That the source and any associated air cleaning devices are to be:

   a. operated in such a manner as not to cause air pollution;
   b. in compliance with the specifications and conditions of the Reasonably Available Control Technology (RACT) plan;
   c. operated and maintained in a manner consistent with good operating and maintenance practices.

2. This permit is valid only for the specific equipment, location and owner named above.

3. ~~This operating permit is valid for a limited time only and may be renewed before its expiration. Requests for an operating permit renewal must be in writing and must be accompanied by a fee in the amount of $600 payable to the "Commonwealth of Pennsylvania - Clean Air Fund." The request should be made on the attached Interim Application for Renewal of a Permit to Operate form and must be received by the Department along with a completed Compliance History form (attached) no later than~~ JAN 1 2000.

4. See attached.

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued: JUL 14 1995

~~Expires: June 30, 2000~~

Program Manager

Sources, Continued

A. The heatset web offset lithographic printing presses and control equipment includes the following:

	Source	Manufacturer
1.	LGM-950 Heatset Three Unit Triple Web Offset Lithographic Printing Press with Heatset Dryers (Three)	Toshiba/TEC
2.	LGM-951 Heatset Two Unit Double Web Offset Lithographic Printing Press with Heatset Dryers (Two)	Toshiba/TEC
3.	LGM-952 Heatset Four Unit Single Web Offset Lithographic Printing Press with Heatset Dryer	Harris/TEC
4.	LGM-953 Heatset Four Unit Single Web Offset Lithographic Printing Press with Heatset Dryer	Harris/TEC
5.	LGM-954 Heatset Four Unit Single Web Offset Lithographic Printing Press with Heatset Dryer	Harris/MEG
6.	LGM-955 Heatset Four Unit Single Web Offset Lithographic Printing Press with Heatset Dryer	Harris/TEC

The emissions from the dryers of the above presses shall be controlled by the Regenerative Thermal Oxidizer Unit (JWP).

The emissions from the dryer of LGM-954 shall be controlled by the standby catalytic afterburner (C. E. Air Preheater) if the press is to be operated during periods of maintenance of the Regenerative Thermal Oxidizer (RTO).

The emissions from the dryers of LGM's 950, 951, and 955 web offset printing presses shall be controlled by the standby thermal afterburner (Phoenix-TEC) if the presses are to be operated during periods of maintenance of the RTO.

B. The rotogravure printing operation consist of the following sources and control equipment:

1.	LGR-974 Four Color Rotogravure Press with Eight Print Units	OMG Cerutti
2.	LGR-975 Four Color Rotogravure Press with Eight Print Units	OMG Cerutti
3.	LGR-976 Four Color Rotogravure Press with Ten Print Units	OMG Cerutti
4.	LGR-977 Four Color Rotogravure Press with Ten Print Units	Motter Printing Press Co.
5.	LGR-978 Four Color Rotogravure Press with Eight Print Units	Motter/Hoe Co.

Sources, Continued

6.	LGR-979 Four Color Rotogravure Press with Ten Print Units	Motter Printing Press Co.
7.	LGCM-302 Four Color Proof Press with Four Print Units	OMG Cerutti
8.	Solvent Wipe Dryer	Cissell Mfg. Co.

The above sources are controlled by a six bed carbon adsorptive solvent recovery system manufactured by Simon Croftshaw.

9. Miscellaneous Cleaning Equipment

   a. Gravure Cylinder Prep. Tanks
   b. Blade Wash Tank
   c. Parts Washers

~~C. Three (3) 25.1 mm BTU/hr Natural Gas/No. 6 Fuel Fired Industrial Boilers (CB-400-600)~~ ~~Cleaver-Brooks~~

onditions, Continued

4. This operating permit consolidates Operating Permit Nos. 36-302-130, 36-320-001A, and 36-320-026. Sources and any associated air cleaning devices, for the above permits, are to be in compliance with the specifications and conditions of the applicable plan approvals issued.

5. Sources subject to 40 CFR, Part 60, Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing of the Standards of Performance for New Stationary Sources shall comply with all applicable requirements of this subpart. 40 CFR, §60.4 requires submission of copies of all requests, reports, applications, submittals, and other communications to both EPA and the Department. EPA copies shall be forwarded to:

   Director
   Air, Toxics and Radiation Division
   U. S. EPA, Region III
   841 Chestnut Street
   Philadelphia, PA 19107

6. The company shall comply with the applicable requirements of 25 Pa. Code, §129.67 - Graphic Arts Systems.

~~7. The company shall limit the facility's annual usage of No. 6 fuel oil (less than or equal to 1.0% wt. sulfur) to less than 2.5 million gallons based on a twelve (12) month rolling total.~~

Conditions, Continued

8. The company shall maintain records, at the facility, including purchase orders and/or invoices for solutions containing Volatile Organic Compounds (VOC's) ~~and Hazardous Air Pollutants (HAP's)~~ used in the facility and documentation of the VOC content ~~and HAP's, type and content~~, in the materials obtained through EPA approved test methods or procedures.

9. The company shall comply with the applicable recordkeeping and reporting requirements addressed in 25 Pa. Code, Chapter 129.95.

10. Records shall be maintained for a period of five (5) years at the facility and made available to the Department when requested.

11. Emission statements addressed in 25 Pa. Code, §135.21 shall be calculated on a month by month basis.

12. The following data shall be collected and recorded at least on a monthly basis and included in annual reports that are to be submitted to the Department on or before March 1 of each year:

    a. Press Run Time (hours or impressions for each press)

    b. Materials Containing VOC's and HAP's (for each source)

        (1) Manufacturer
        (2) Product Number and Type
        (3) Usage (by weight and volume)
        (4) Density (s.g. or lb/gal)
        (5) VOC Content (% by weight) as applied
        (6) Vapor Pressure (mm Hg)
        ~~(7) Hazardous Air Pollutants (type and % by weight)~~

    ~~c. No. 6 fuel oil usage~~

    The above information shall be submitted in a report format and in such a manner that further calculations are not required. Submitting only documents such as Material Safety Data Sheets (MSDS) to satisfy the requirements of b.(1) through (7) is not acceptable.

13. The company shall submit quarterly reports to the Lancaster District Office for the rotogravure printing operation. The report should include the use of ink, cleaning solvent, solvent reclaimed and the VOC emissions emitted from each of the above sources for the rotogravure printing operation.

14. For VOC emission calculation purposes, the total quantities of VOC's used shall be determined from actual VOC's in each material and the quantities of each of those materials used rather than using overall averages.

Conditions, Continued

15. The company shall maintain, at the facility, supporting documentation including supporting calculations, emission estimation factors and assumptions with supporting documentation, and any other information required for determining compliance and make this information available to the Department when requested.

16. The destruction removal efficiency of the regenerative thermal oxidizer (JWP) shall be at least 90% for VOC's as demonstrated through Department approved testing in accordance with 25 Pa. Code, Chapter 139 which occurred on April 26, 1993.

    The following parameters shall be used to estimate VOC emissions from the listed sources:

    a. Printing Ink - 80% capture - 20% retained in the substrate.

    b. Automatic Blanket Wash - 40% capture - 60% fugitive emissions.

    c. Fountain Solution - 70% capture - 30% fugitive emissions.

    d. Dryers - 100% capture efficiency - 100% ducted to the thermal oxidizers.

17. The temperature of the combustion chamber on the regenerative thermal oxidizer shall be maintained at least at 1400°F when controlling VOC's from the press heatset dryers when presses are operating.

18. The company shall collect and record information necessary for determining compliance with the requirements of Condition 17 at least once every shift while presses are operating.

19. The weighted average VOC content of all heatset inks used for the heatset lithographic printing process shall not exceed 45% by weight.

20. The fountain solution VOC content used for the heatset lithographic printing process shall not exceed 3% by weight as applied.

21. The cleaning solutions used for both automatic and manual cleaning of the lithographic printing presses shall have a VOC composite partial vapor pressure of less than or equal to 10 mm Hg at 20°C or containing less than 30% by weight VOC. The company shall limit the use of higher vapor pressure cleaning solutions used to clean the lithographic printing presses to less than 5% by weight of the total manual cleaning solutions used.

22. The company shall collect and record information necessary to verify compliance with the requirements of Conditions 19, 20, and 21. The records shall be kept in a manner which allows verification of compliance without additional calculations.

Conditions, Continued

23. The company shall keep all containers containing VOC's ~~and HAP's~~ tightly closed when not in use. This includes containers containing cleaning solvents and used liquids containing VOC's ~~and HAP's~~. Solvent laden wipes shall be kept in closed containers when not in use.

24. If the company wants credit for VOC's from cleaning solvents that are retained in wipes and sent off site, or for other materials containing VOC's as liquid wastes, the company will need to submit a protocol, for Department approval, including the testing and record-keeping procedures.

25. The company shall contact the Lancaster District Office prior to providing scheduled maintenance to the RTO if the bypass is used. During periods of unscheduled maintenance or malfunction to the RTO, the company shall notify the Lancaster District Office as early as possible but not later than 4 p.m. of the first working day if the bypass is used. This will enable the Department to inspect the standby control system while it is in use.

26. The catalytic afterburner (C. E. Air Preheater) and the thermal afterburner (Phoenix-TEC) will be operationally checked out at least once a year from the date of issuance of the original operating permit when the system was put into operation. A report including operating condition of burners, refractories, heat exchangers, catalysts, stacks, operating temperatures (inlets and outlets) and maintenance provided to the afterburners if any, should be submitted to the Lancaster District Supervisor within thirty days from the operational check.

27. Bypass shall be used only during periods of maintenance to the RTO. During bypass conditions, the company shall operate LGM-954 web offset printing press only if the dryer emissions are controlled by the catalytic afterburner (C. E. Air Preheater). During bypass conditions, any combination of dryers of web offset presses LGM-950, LGM-951, and LGM-955 may be operated only if controlled by the thermal afterburner (Phoenix-TEC), up to its rated capacity of 10,000 scfm with the chamber temperature being maintained at least at 1,375°F.

28. The expiration date shown on this RACT Operating Permit is for State purposes. For Federal Enforcement purposes this operating permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced and approved by the U.S. Environmental Protection Agency (EPA). The operating permit shall become enforceable by EPA upon its approval as a revision to the SIP.