

COMPLIANCE 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 (*Please Circle the appropriate phrase: "Major Nox Emitting Facility" AND/OR "Major VOC Emitting"*) Facility described below:

Permit No.	<u>CP-46-0018</u>	Major Emitting Facility for	<u>NOx and VOCs</u>
Air Cleaning Device	<u>Thermal Oxidizers</u>	Related Plan Approvals	<u></u>
Owner	<u>Brown Printing Company</u>	RACT Proposal	<u>Installation of Condensers</u>
Address	<u>668 Gravel Pike</u>	Location	<u>668 Gravel Pike</u>
	<u>East Greenville, PA 18041</u>		<u>Upper Hanover Township</u>
Attention	<u>Bill Booth</u>		<u>Montgomery County</u>
	<u>Environmental Coordinator</u>		

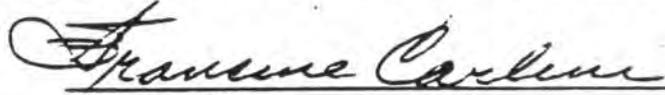
This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning devices are to be:
 - a. operated in such a manner as not to cause air pollution; and
 - b. 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 described above. This permit is valid for a period of 5 years for all sources listed in this operating permit *except those sources listed in Condition 7A of this permit. Upon completion and demonstration described in Condition 7A of this permit, the company shall apply for a revised operating permit.*

(SEE ADDITIONAL CONDITIONS ATTACHED)

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 09/26/1996
 Expires 09/26/2001


 Francine Carlini
 Regional Manager
 Air Quality

cc: Central Office
 Administration
 SEFO
 Re (KAL)150.20

RECEIVED
 Comb/Co & Mobile Sources
 Section (CARE)

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 EPA, REGION III



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CONDITIONS (continued):

3. This compliance permit is issued to the owner and operator for the operation of the following sources listed below. This permit is a determination of Reasonably Available Control Technology (RACT) pursuant to 25 Pa. Code §129.91 for the sources listed in this condition.

A. NOx emitting sources:

<u>Sources</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Capacity (MMBtu/hr)</u>	<u>Fuel</u>
Boiler No. 1	Weil McLain	MGB-36	5.95	Natural Gas
Boiler No. 2	Power Flame	WCR3-6-25B	1.923	Natural Gas
Boiler No. 3	Power Flame	WCR3-6-25B	1.923	Natural Gas
Boiler No. 4	Bryan	CL-120-WT-FDO	0.96	No. 2 Oil
Water Heater	State Industries	SBT 100 199 Net 6F	0.2	Natural Gas
2 Propane Vaporizers	National	30 x 10	0.5	Propane
Fire Pump	Cummins	6BTA59F1		No. 2
2 Emergency Generators	Ford	LSG-8751-6005-A		Propane

B. Seven (7) printing presses:

- Press No. 1002 (Harris, M1000A);
- Press No. 1003 (Harris, M1000A1);
- Press No. 1004 (Harris, M1000A2);
- Press No. 1005 (Baker Perkins, G-14);
- Press No. 1006 (Harris, M1000B);
- Press No. 1007 (Mitsubishi, L-750XL);
- Press No. 1008 (Mitsubishi, L-750XL);

The VOC emissions from the presses are controlled by the following oxidizers operated in tandem:

TEC System thermal oxidizer, Model Katec 14,500 natural gas fired; Thermo Electron thermal oxidizer, Model Titan 21,000 natural gas fired.

- C. Eight (8) ink jet printer Nos. 221, 225 through 228, 231 through 233.
- D. Two (2) propane storage tanks (30,000 gallons each).

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CONDITIONS (continued):

- E. VOC sources with the emission rated under the de minimus levels for each source category:

Source Category	Descriptions
2 Propane vaporizers	vaporize propane as fuel
7 Film processors	process film
Plating ovens	bake residual VOCs off plate
Etch mix tanks and ink mixers	mix inks, pigments, and thinners
Chemical storage room	chemical storage
Waste handling operations	consolidation of waste
2 Diesel storage tanks	for diesel and No. 2 fuel oil
Pre-press cleaning	clean photographic surfaces
13 Safety-Kleen cleaning sinks	parts cleaning and degreasing

4. The expiration date shown on the Operating Permit is for state purposes. For federal enforcement purposes the Plan Approval shall remain in effect as part of the State Implementation Plan until repealed pursuant to 40 CFR 51.4 and approved by the U.S. Environmental Protection Agency. The Plan Approval and Operating Permit shall become enforceable by the Environmental Protection Agency upon its approval of the above as a revision to the PA State Implementation Plan.
5. Operating requirements for NOx emitting sources specified in Condition 3A of this Compliance Permit:
- A. The sources shall be operated and maintained in accordance with manufacturer's specifications and good air pollution control practices.
 - B. The sources shall only fire the fuel(s) specified in Condition 3A of this Operating Permit as primary fuel(s) and propane as secondary fuel.
 - C. **The operation** of the emergency generators and the fire pump shall not exceed 500 hours **each** in a consecutive 12-month period.
 - D. **The company** shall record the date and the hours of the operation for each emergency generator and the fire pump.
6. Operating requirements for the printing presses (Nos. 1002 to 1008) and the thermal oxidizers:
- A. Operating requirements:
 - 1. The printing presses and thermal oxidizers shall be operated in accordance with the manufacturer's specifications and good air pollution control practices.

CONDITIONS (continued):

2. The thermal oxidizers shall be equipped with temperature monitoring and recording devices which continuously indicates and records the temperatures of the combustion chamber or zone.
3. The owner and operator shall operate the thermal oxidizers in such a manner that the temperature of the combustion chamber is maintained at a minimum of 1300°F to assure the destruction efficiency of 98% with a minimum set point of 1325°F for TEC Systems (Katec) Model No. 14500 and Thermo Electron (Titan) Model No. 21000.
4. The printing presses shall not start applying inks fountain solutions and cleaning solvents before the thermal oxidizer combustion chamber reaches the temperature stated in condition 6.A.3 above..
5. The thermal oxidizers shall not be bypassed at any time when the presses and/or the dryers are in operation.
6. The thermal oxidizer combustion chamber temperature as set forth in condition 6.A.3 shall be maintained for at least 30 minutes after the presses and the ovens are shut off.
7. The exhaust rate from each press to the thermal oxidizers are specified below:

Presses	Exhaust Rate (SCFM)
1002	4360
1003	3500
1004	4550
1005	5750
1006	5750
1007	5000
1008	5000

The combined exhaust rate shall not exceed:

- a. 14,500 SCFM for TEC Systems (Katec) Model No. 14500;
 - b. 21,000 SCFM for Thermo Electron (Titan) Model No. 21000.
8. The cleaning towels shall be placed in closed containers immediately after use.
 9. The solvent laden towels shall be disposed of by acceptable means.

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CONDITIONS (continued):

B. Emission limitations:

1. The owner and operator shall use the cleaning solvent which has the vapor pressure of less than 10 mm Hg at 20°C.
2. The VOC content of the etch solution, as applied, shall not exceed 3% (by weight). The alcohol content in the etch solution, as applied, shall not exceed 1.6 % (by volume).
3. The VOC emissions from each presses shall not exceed the rate specified below:

Presses	Hourly Rate lb/hr	Daily Rate lb/day	Annual Emissions tpy
1002	3.3	78.7	5.6
1003	2.6	61.4	5.2
1004	4.3	104.1	8.8
1005	7.1	169.7	11.8
1006	7.1	169.7	9.7
1007	4.1	98.6	6.5
1008	4.1	108.6	6.2
Total	32.6	790.8	53.8

The allowable emissions are based on the following facts:

- a. The thermal oxidizer destruction efficiency is 98%.
 - b. The VOC capture efficiency is 100% for ink oil and 70% for etch solution.
 - c. The VOC capture efficiency for automated washing is 40%. The cloth retention for automated washing is 33%. The remaining amount of VOC is fugitive emissions.
 - d. The cloth retention for hand washing is 50%. The remaining amount of VOC is fugitive emissions.
4. The hourly and daily VOC emissions shall be calculated based on the actual monthly ink, etch solution, and cleanup solvent usage, the operating hours, and the number of image impressions.

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CONDITIONS (continued):

- C. Monitoring and recordkeeping requirements:
1. The owner and operator shall record the following information for the presses covered under this plan approval:
 - a. monthly ink oil, etch solution, and cleanup solvent usage;
 - b. the VOC content and the density of the ink, the etch solution and the cleanup solvent as applied;
 - c. number of image impressions;
 - e. total operating hours.
 2. Records of data required under Condition 6.C.1 above shall be kept in a format approved by the Department.
 3. The owner and operator shall maintain the records of:
 - a. the amount of VOC as waste shipped out and the date of the shipment;
 - b. the temperature of the gases in the thermal oxidizer combustion chamber;
 - c. sufficient data and calculations to clearly demonstrate that the requirements specified in condition 6.B above are met.
 4. Data or information required under this Compliance Permit shall be recorded and maintained in a time frame consistent with the period.
7. Operating requirements for the eight (8) ink jet printers:
- A. Compliance schedule:
1. Within three (3) months after the issuance of this Compliance Permit, the owner shall install a condenser on one of the ink jet printers.
 2. Within two (2) months after the condenser installation, the owner shall:
 - a. Perform a test to measure the recovery efficiency in accordance with the provisions of 25 Pa. Code Chapter 139. The test shall be performed while the source is operating at its normal maximum capacity as stated in the application.

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CONDITIONS (continued):

- b. Complete its determination of the technical feasibility of the condenser for use on the ink jet printer.
 3. Within three (3) months after the condenser installation, the owner shall:
 - a. Submit two complete copies of the test report including all operating conditions to the Regional Air Quality Manager.
 - b. Submit its determination of technical feasibility, including all supporting documentation, to the Regional Air Quality Manager. If the determination supports that the condenser is not technically feasible, the owner shall also submit a revised and complete RACT operating permit amendment with its determination report. The Department will give its preliminary approval or disapproval in writing within 30 days of a complete submission.
 4. At least thirty (30) days prior to the test, the Regional Air Quality Manager shall be informed of the date and time of the test.
 5. At least sixty (60) days prior to the test, the company shall submit to the Department for approval the procedures for the test and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples.
 6. Within eight (8) months of the installation of the first condenser stated in condition 7.A.1 above, the owner shall install one condenser on each of the remaining seven (7) ink jet printers, unless the Department agrees in a preliminary written approval that a condenser is technically infeasible.
 7. If the Department's final analysis in the revised RACT operating permit application shows that condensers are technically feasible, the owner shall install one condenser on each of the remaining seven (7) ink jet printers within five (5) months of the Department's final determination.
- B. Operating requirement for the condenser:
 1. A maximum condenser exiting air temperature of 40°F shall not be exceeded on any occasion that the connected ink jet printers are operated.
 2. Equipment shall be provided so that at the request of the Department the condenser exiting air temperature can be determined.

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CONDITIONS (continued):

C. Emission limitations:

The VOC emissions from each of the ink jet printers shall not exceed the amount specified below:

Ink Jet Printers	VOC Usage Limitations (tons/year)
221	1.5
225	1.7
226	1.9
227	1.8
228	1.2
231	0.9
232	1.7
233	1.7

8. Operating requirements for 30,000 gallon propane storage tanks

- A. The tanks shall be operated in compliance with 25 Pa. Code Section 129.57.
- B. The annual propane throughput to each tank shall be recorded and records shall be maintained and made available to the Department upon request.

9. Operating requirements for the sources specified in Condition 3E of this Compliance Permit

- A. The VOC emissions from each source category shall not exceed 3 pounds per hour, 15 pounds per day and 2.7 tons per year.
- B. The owner shall maintain records that clearly demonstrate to the Department that each source category is not subject to 25 Pa. Code Sections 129.91 through 129.94.

10. General Conditions:

- A. Records required under this Compliance Permit shall be kept for at least 2 years and shall be made available to the Department upon request.
- B. If at any time the Department has cause to believe that air contaminant emissions from the aforementioned source(s) may be in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection, the company shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s). Such testing shall be conducted in accordance with

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CONDITIONS (continued):

the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.

- C. The company, within one hour of occurrence, shall notify the Department, at 610-832-6242, of any malfunction of the source(s) or associated air cleaning device(s) which results in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection. A written report shall be submitted to the Department within two working days following the incident describing the malfunctions and corrective actions taken.
- D. If at any time the permittee causes, permits or allows any modification (as that term is defined in Chapter 121 of Title 25, the Rules and Regulations of the Department of Environmental Protection) of the aforementioned air contamination source(s), the operation and use of which is authorized by this permit, or causes, permits or allows any modifications, malfunction or removal of any air pollution control device required as a condition of this permit, then and in that event, this permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).

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