217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT
RENEWAL

PERMITTEE

Tempo Graphics, Inc.
Attn: Richard Lami
455 East North Avenue
Carol Stream, Illinois 60188

Application No.: 86110033 I.D. No.: 043020ABI
Applicant's Designation: Date Received: September 11, 2000
Subject: Offset Printing Plant
Date Issued: Expiration Date:
Location: 455 East North Avenue, Carol Stream

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of operation of four web heatset offset presses (Harris M100, Didde VIP, Didde C1000 and Harris 600) with five dryers all controlled by one Phoenix 6000 thermal oxidizer, five non-heatset offset presses, exhaust starch spray powder, and Natural-gas-combustion heaters pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., VOM less than 25 tons per year). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permits issued for this location.

2a. This permit is issued based upon the 4 heatset-web-offset printing presses being controlled by Phoenix 6000 thermal oxidizer. The thermal oxidizer is required to reduce 93% of the VOM emissions from the dryers exhausts.

b. The thermal oxidizer is required to be operated at all times when the four web heatset offset presses are in operation.

c. The thermal oxidizer combustion chambers shall be preheated to the manufacturer's recommended temperature but not lower than 1375 degrees F, before the printing process is begun; this temperature shall be maintained during the printing process.

d. The thermal oxidizer shall be equipped with continuous temperature indicators and strip chart recorders for the afterburner combustion chamber temperatures that meet the requirements of 35 Ill. Adm. Code 218.105(d)(2).

3. Operation of four heatset-web-offset presses, and five non-heatset offset presses shall not exceed the following limits:

a. Four heatset-web-offset presses:

Material	VOM Content % Weight	Material Usage (Tons/Mo)	Material Usage (Tons/Yr)	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Ink	40%	14.8	178.0	0.333	3.99
Fountain Solution Additives	20%	0.93	11.1	0.065	0.78
Automatic Blanket Wash	100%	0.50	6.00	0.314	3.77
Manual Wash	100%	1.29	15.5	0.646	7.75
Scratch Off	50%	0.22	2.58	0.018	0.21

These limits are based on the potential emissions from four heatset-web-offset presses and are based on 93% destruction efficiency by thermal oxidizer, 20% retention of ink, 70% capture efficiency of FSA by thermal oxidizer, 90% capture efficiency of scratch off solution, 50% retention of manual wash and material balance.

b. Five non-heatset offset presses:

Material	VOM Content % Weight	Material Usage (Tons/Mo)	Material Usage (Tons/Yr)	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Ink	40%	3.33	40.0	0.067	0.8
Fountain Solution Additives	5%	2.00	24.0	0.10	1.2
Manual Wash	100%	0.83	5.0	0.21	2.5

These limits are based on potential emissions from five non-heatset presses and are based on 95% retention factor for ink, 50% retention factor for manual wash and material balance.

c. Miscellaneous products (adjuncts, wash, process oils)

Material	VOM Content % Weight	Material Usage (Tons/Mo)	Material Usage (Tons/Yr)	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Misc. Product	35%	0.92	11.0	0.32	3.85

These limits are based on potential emissions from miscellaneous product and are based on material balance as indicated in the permit application.

d. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

4a. The fountain solution for all presses shall not exceed 5% (by volume) VOM content as applied. The fountain solution shall not contain alcohol. This is to demonstrate compliance with 35 Ill. Adm. Code 218.407(a)(1)(A)(iii), (a)(2) and (a)(3)(B).

b. The clean-up solutions, as used, shall not exceed 30% (by weight) VOM, pursuant to 35 Ill. Adm. Code 218.207(a)(4)(A).

c. The VOM cleaning materials, including used cleaning towels, shall be kept, stored and disposed of in closed containers, pursuant to 35 Ill. Adm. Code 218.407(a)(5).

5a. Natural gas consumption for use in printing ovens, afterburners, and other fuel combustion sources shall not exceed 50 million cubic feet per year.

b. Natural gas shall be the only fuel used for the ovens and afterburners and other fuel combustion sources.

c. Records of natural gas consumption shall be maintained. Records of cubic feet per month and year shall be retained for three years.

6a. Within 90 days of a written request from the Illinois EPA the Permittee shall submit data on the VOM contents of the representative materials applied on the printing presses determined by laboratory analysis in accordance with 35 Ill. Adm. Code Section 218.105.

b. The submitted data shall include: the VOM content of the materials, a justification of why these are representative, a description of the sampling procedures, and documentation for the analysis.

c. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.

7. Within 90 days of a written request from the Illinois EPA the volatile organic emissions of the thermal oxidizer controlling the 4 heatset offset printing presses shall be measured by an approved testing service, during conditions which are representative of maximum emissions.

8. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Volatile Organic Material	USEPA Method 25A

9. These tests shall be performed to show that the thermal oxidizer system reduces VOM emissions from the printing dryers by 93%.

10. The Illinois EPA shall be notified in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Illinois EPA to witness these tests.

11. Copies of Final Report(s) for these tests shall be submitted to the Illinois EPA within fourteen (14) days after the test results are compiled and finalized.

12. The Final Report shall include as a minimum:

    a. A summary of results.

    b. General information.

    c. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

    d. Detailed description of test conditions, including:

        i. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption,

        ii. Control equipment information, i.e., equipment condition and operating parameters during testing, and

        iii. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.

    e. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

    f. An explanation of any discrepancies among individual tests or anomalous data.

    g. The results of all quality control evaluation, including a copy of all quality control data.

13. Submittals of information shall be made as follows:

    a. Submittal of Test Plan - one copy to Source Emission Test Specialist and one copy to Permit Section.

b. Notices of Test - one copy to Source Emission Test Specialist, one copy to the Regional Office, and one copy to Permit Section.

c. Final Report - one copy to Source Emission Test Specialist, one copy to the Regional Office, and one copy to Permit Section.

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
Compliance Unit (#40)
P.O. Box 19276
Springfield, Illinois 62794

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

14. The Permittee shall maintain records of the following items:

a. Monthly and annual usage of all VOM materials.

b. VOM contents of the materials used (as applied).

c. VOM emissions per month and per year.

d. Control device monitoring equipment data.

e. A record of operating time for the control device, monitoring equipment and the associated printing lines.

f. A maintenance log for the control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.

15. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

16. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

17. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

18. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

19. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: annual ink usage, fountain solution usage, cleaning solution usage and other VOM containing material usages, also annual natural gas usage from the prior year. If there have been no exceedances during the prior calendar year the Annual Emissions Report shall include a statement to that effect.

If you have any questions on this, please call John Blazis at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JPB:psj

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the printing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, (i.e., VOM less than 25 tons/year) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

1. Emissions from the presses:

   a. Four heatset-web-offset presses:

Material	VOM Content % Weight	Material Usage (Tons/Mo)	Material Usage (Tons/Yr)	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Ink	40%	14.8	178.0	0.333	3.99
Fountain Solution Additives	20%	0.93	11.1	0.065	0.78
Automatic Blanket Wash	100%	0.50	6.00	0.314	3.77
Manual Wash	100%	1.29	15.5	0.646	7.75
Scratch Off	50%	0.22	2.58	0.018	0.21

   This table defines the potential emissions from four heatset-web-offset presses and is based on 93% destruction efficiency by thermal oxidizer, 20% retention of ink, 70% capture efficiency of FSA by thermal oxidizer, 90% capture efficiency of scratch off solution, 50% retention of manual wash and material balance.

   b. Five non-heatset offset presses:

Material	VOM Content % Weight	Material Usage (Tons/Mo)	Material Usage (Tons/Yr)	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Ink	40%	3.33	40.0	0.067	0.8
Fountain Solution Additives	5%	2.00	24.0	0.10	1.2
Manual Wash	100%	0.83	5.0	0.21	2.5

   This table defines potential emissions from five non-heatset presses and is based on 95% percent retention factor for ink, 50% retention factor for manual wash and material balance.

   c. Miscellaneous products:

Material	VOM Content % Weight	Material Usage (Tons/Mo)	Material Usage (Tons/Yr)	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Misc. Product	35%	0.92	11.0	0.32	3.85

This table defines potential emissions from miscellaneous product and is based on material balance as indicated in permit application.

2. Fuel combustion emissions from the printing ovens, afterburners and other fuel combustion heaters:

	E M I S S I O N S	
Natural Gas Consumption	Nitrogen Oxide (Ton/Yr)	Carbon Monoxide (Ton/Yr)
50 Million Cubic Feet/Year	3.40	2.86

This table defines the potential emissions from the fuel combustion sources determined by standard emission factors.

JPB:psj