



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

November 8, 1994

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Douglas V. Turner
Plant Manager
D-Graphics
Division of Jefferson Smurfit Corporation
3389 Powers Avenue
Jacksonville, Florida 32231

Dear Mr. Turner:

Attached is one copy of the Department's Intent to Issue a construction permit for an increase in the allowable emissions of volatile organic compounds for Press #5. The modification will occur at the existing facility located in Duval County.

Please submit any comments that you wish to have considered concerning the Department's proposed action to me.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/BM/rbm

Attachments

c: S. Pace, DCR&ESD
C. Kirts, NED
J. Harper, EPA
J. Bunyak, NPS
J. Manning, P.E.
J. Braswell, Esq., DEP
T. Cole, Esq., OHF&C

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of
Application for Permit by:

D-Graphics
3389 Powers Avenue
Jacksonville, Tampa, Florida 32231

DEP File No. AC 16-259725

INTENT TO ISSUE

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue an air construction permit (copy attached). The Department is issuing this Intent to Issue for the reasons stated below.

The applicant, D-Graphics, requested an air construction permit on October 26, 1994, for an increase in the allowable emissions of volatile organic compounds (VOCs) for Press #5. The modification request was for an increase of 39.9 tons/year (TPY) of VOCs, which will result in an annual allowable emission limit of 130.5 TPY of VOCs for Press #5. The limit is for a calendar year (January 1 through December 31).

The Department has permitting jurisdiction under Chapter 403, Florida Statutes (F.S.), and Chapters 62-210 through 62-296 and 62-4, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that the issuance of an air construction permit is necessary for federal enforceable reasons.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue a Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be the one with significant circulation in the area that may be affected by the permitting action. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to

publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the proposed permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S..

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application/request have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under

Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

S. Pace, DCR&ESD
C. Kirts, NED
J. Harper, EPA
J. Bunyak, NPS
J. Braswell, Esq., DEP
T. Cole, Esq., OHF&C

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on

11/8/94

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Barbara J. Butwell 11/8/94
Clerk Date

State of Florida
Department of Environmental Protection
Notice of Intent to Issue

AC 16-259725

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue an air construction permit to D-Graphics, 3389 Powers Avenue, Jacksonville, Duval County, Florida 32231, for a modification to increase the allowable emissions of volatile organic compounds (VOCs) for Press #5. The modification request was for an increase of 39.9 tons/year (TPY) of VOCs, which will result in an annual allowable emission limit of 130.5 TPY of VOCs for Press #5. The limit is for a calendar year (January 1 through December 31). Press #5 is subject to the requirements and conditions of a determination of Lowest Achievable Emission Rate, which was issued at an earlier permitting action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
111 South Magnolia Park Courtyard
Tallahassee, Florida 32301

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-4300

Duval County Regulatory & Environmental Services Division
421 West Church Street, Suite 412
Jacksonville, Florida 32202-4111

Any person may send written comments on the proposed action to Mr. C. H. Fancy at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

D-Graphics
Duval County
Jacksonville, Florida

Press #5 Modification
Department Permit Number: AC 16-259725

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

November 8, 1994

I. Application

A. Applicant

D-Graphics
3389 Powers Avenue
Jacksonville, Florida 32231

B. Project/Location/Classification

The Department received a complete application on October 26, 1994, for a permit to allow a 39.9 tons per year (TPY) increase in volatile organic compounds (VOCs) for Press #5 at the existing facility in Jacksonville, Duval County, Florida. The facility's SIC Code is 2754: Gravure Commercial Printing. UTM coordinates of the existing facility are Zone 17, 440.2 km E and 3348.2 km N.

II. Project Description

D-Graphics has requested an increase in the allowable VOC emissions by 39.9 TPY for Press #5. The emissions of VOCs will be collected and transported to an incinerator. The minimum collection/transport and destruction efficiencies were established through a LAER (lowest achievable emissions rate) determination. D-Graphics intends to install sweeps at various locations in the process in order to immediately capture VOC emissions as they are emitted, thus decreasing fugitive VOC emissions. Also, D-Graphics intends to install a permanent enclosure around Press #5 after the engineering design has been completed and approved.

The LAER determination established a minimum capture and transport efficiency of 80% and a minimum destruction efficiency of 95%.

III. Emissions

The existing facility's allowable VOC emissions are: Press #4 @ 195.1 TPY and Press #5 @ 90.6 TPY. The increase of 39.9 TPY of VOC allowables for Press #5 will establish a new allowable emission limit of 130.5 TPY VOCs for Press #5. The limitation is for a calendar year (January 1 through December 31).

IV. Rule Applicability

The proposed project is subject to preconstruction review in accordance with Chapter 403, Florida Statutes, and Chapters 62-210 through 297 and 62-4, Florida Administrative Code (F.A.C.). The proposed modification will occur in an area classified as transitional nonattainment for ozone, unclassifiable for PM₁₀ and SO₂, and in the area of influence of the air quality maintenance area for particulate matter.

The proposed modification is subject to the emissions review requirements pursuant to Rule 62-212.300, F.A.C., Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. The modification is subject to the LAER determination requirements and conditions for Press #5. Because the facility was constructed at the time that the area was classified as a nonattainment area for ozone, the VOC emissions would be limited in accordance with the RACT (reasonable available control technology) if it was not limited by a LAER determination.

The VOC collection/transport and destruction efficiencies shall be demonstrated in accordance with Rule 62-297.450, F.A.C., and shall be conducted twice every fiscal year (October 1 through September 30). Accounting of VOC emissions shall be verifiable on a 24-hour basis and shall be reported on a monthly basis in a quarterly report. The report shall be provided to the Duval County's Regulatory and Environmental Services Division. The quarterly reports shall be submitted by the 15th day after the end of the quarter (January-March, April-June, July-September, and October-December).

V. AIR QUALITY IMPACT ANALYSIS

Based on the increase in the VOC emissions of 39.9 TPY, the Department has reasonable assurance that the proposed project, as described in the report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment.

VI. Conclusion

Based on the information provided by D-Graphics, the Department has "reasonable assurance" that the proposed modification to Press #5, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapters 62-210 through 297 and 62-4 of the Florida Administrative Code.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:
D-Graphics
3389 Powers Avenue
Jacksonville, Florida 32231

Permit Number: AC 16-259725
Expiration Date: May 15, 1995
County: Duval
Latitude/Longitude: 30°15'55"N
81°37'18"W

Project: Rotogravure Printing Press
No. 5 Modification

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.); Chapters 62-210, 212, 272, 296 and 297, Florida Administrative Code (F.A.C.); and, Chapter 62-4, F.A.C. The above named permittee is hereby authorized to perform the work or operate the emission unit shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and specifically described as follows:

This is for the modification of the existing facility to allow the permittee to operate the rotogravure printing press No. 5 an additional 1863 hours for a total of 6091 hours per calendar year. The maximum allowable volatile organic compound (VOC) emissions and volatile organic compounds applied to the substrate shall not exceed 130.5 (90.6 + 39.9) tons per calendar year and 178.6 pounds per hour, respectively. The overall capture efficiency, transport system efficiency and destruction efficiency of the emission control system was established in a LAER determination signed February 18, 1985, pursuant to Rule 62-212.500(4), F.A.C.

The emission unit shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application to Modify an Air Pollution Source received on October 26, 1994.
2. Mr. C. H. Fancy's letter dated November 7, 1994.
3. Mr. Douglas Turner's letter with enclosures received November 8, 1994.

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and,

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

GENERAL CONDITIONS:

arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)
- (X) Determination of Lowest Achievable Emission Rate (LAER)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

GENERAL CONDITIONS:

for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and,
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. This permit supersedes construction permit No. AC 16-089528.
2. The hours of operation for Press No. 5 shall not exceed 6088 hours per calendar year (January 1 through December 31) of run time.
3. The maximum allowable volatile organic compounds (VOC) applied to the substrate shall not exceed 178.6 pounds per hour and the maximum allowable VOC emissions shall not exceed 130.5 tons per calendar year.
4. The source is subject to the emission standards established through a LAER determination signed February 18, 1985, which requires 80% overall capture and transport efficiency of the VOC delivered to the substrate and 95% total destruction of all VOC delivered to the inlet of the catalytic incinerator. The total allowable VOC emissions for the Press No. 5 shall not exceed 130.5 tons per calendar year.

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

SPECIFIC CONDITIONS:

5. Capture efficiency shall be demonstrated using the procedures specified in Rule 62-297.450, F.A.C. A pre-compliance test meeting shall be scheduled with Duval County Regulatory and Environmental Services Department (R&ESD) at least 15 days prior to the compliance test to ensure that proper testing procedures will be followed.

6. Destruction efficiency of the catalytic incinerator shall be demonstrated by determining the inlet and outlet VOC concentrations using EPA Method 25. Dividing the outlet concentration by the inlet concentration will provide the penetration. Destruction Efficiency = 1 - Penetration.

7. Compliance tests shall be performed at maximum operating conditions for single press and multiple press operations. A 95% total destruction of all VOC delivered to the inlet of the catalytic incinerator shall be demonstrated by these compliance tests.

8. The Department, R&ESD of Duval County, and EPA shall be notified, in writing, at least 15 days in advance of any EPA Method 25 compliance test.

9. The use of all coatings and solvents shall be recorded daily. Accounting of VOC emissions (42.9 lbs/hr or less) shall be verifiable on a 24-hour basis and shall be reported on a monthly basis in a quarterly report. This shall be done by documenting, through measurements and records, that the VOCs applied to the substrate do not exceed 178.6 lbs/hr and maintaining records to demonstrate that the VOC capture/transport and destruction system is maintained and operated properly. The report shall be provided to the Duval County's R&ESD. The quarterly reports shall be submitted by the 15th day after the end of the quarter (January-March, April-June, July-September, and October-December).

10. The permittee shall, within 10 days of issuance of this permit, surrender the air construction permits, AC 16-105518 for Press No. 2 and AC 16-093347 for Press No. 4, to the Department's Northeast District office.

11. The permittee shall, concurrent with any future modification (physical change in operation or method of operation at the facility that results in any increase in emissions of any air pollutant) or for any increase in printing capability, configure the existing Press No. 5 and any other presses being installed to ensure 100% capture (i.e., Permanent Total Enclosure that meets the

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

SPECIFIC CONDITIONS:

requirements of Procedure T as defined in Rule 62-297.440(7)(f), F.A.C.) of all VOC emissions. No operation of the modified system shall be allowed in the new configuration without total enclosure as described above.

12. In the event that no further modifications are made to the facility, the permittee shall take action to effect Permanent Total Enclosure that meets the requirements of Procedure T as defined in Rule 62-297.440(7)(f), F.A.C., not later than June 30, 1996.

13. Any changes effected under Specific Conditions 11 and 12, above, shall be done through a timely application for an air construction permit modification. Action by the Department shall reflect appropriate changes in the hourly and annual VOC emission rates and shall incorporate a minimum of 95 percent VOC destruction capability.

14. The permittee shall conduct a compliance stack test utilizing the capture method described in permit Specific Condition No. 5 and EPA Method 25, as described in 40 CFR 60, Appendix A, not later than December 31, 1994, and no less frequently than every six months beginning with the date of the initial (late 1994) compliance test.

15. Testing of emissions shall be conducted with the emission unit (Press No. 5) operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than 90 percent of the maximum operating rate allowed by the permit. In this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit.

16. Operation of Press No. 5, prior to total enclosure, shall occur only with the curtains down and closed, except for parting of the curtains to enter and exit the press area as needed for operating the press.

17. The stack testing facilities shall be provided by the permittee pursuant to Rule 62-297.345, F.A.C.

PERMITTEE:
D-Graphics

Permit Number: AC 16-259725
Expiration Date: May 15, 1995

SPECIFIC CONDITIONS:

18. This permit expires on May 15, 1995. The permittee shall submit a complete application for an operation permit to R&ESD of Duval County no later than February 15, 1995.

Issued this _____ day
of _____, 1994

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

Howard L. Rhodes, Director
Division of Air Resources
Management

Attachment 1
(Available Upon Request)

Attachment 2

(Available Upon Request)

Attachment 3



**JEFFERSON SMURFIT CORPORATION
D-GRAPHICS DIVISION**

3389 POWERS AVENUE
JACKSONVILLE, FL 32207
TELEPHONE: 904/733-4020
FAX: 904/733-4381

November 7, 1994

RECEIVED
NOV 8 1994

Mr. Clair Fancy, P.E.
Chief, Bureau of Air Regulations
Division of Air Resources Management
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Bureau of
Air Regulation

Dear Mr. Fancy:

Regarding the questions in your memo dated November 7, 1994, to the best of my knowledge the answers are as follows:

Question #1 - Press #5 was properly balanced after Press #4 was shutdown.

Question #2 - Is answered in the first full paragraph on page 3 of Current Practices Review Air Sources prepared by Ed Barber And Associates dated November 4, 1994.

I trust that the above is fully responsive to your questions.

Sincerely,

Douglas Turner
Plant Manager

Enclosures

cc: Mr. Terry L. Cole, Attorney at Law

**CURRENT PRACTICES REVIEW
AIR SOURCES**

Prepared for:

**D-Graphics
A Division of Jefferson Smurfit Corporation
3389 Powers Avenue
Jacksonville, FL 32207**

Submitted to:

**D-Graphics
City of Jacksonville
Florida Department of Environmental Protection**

Prepared by:

**Ed Barber And Associates
P.O. Box 838
Macclenny, FL 32063**

November 4, 1994

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CURRENT PRACTICES REVIEW AIR SOURCES

Pursuant to Emergency Order Case Number 94-3395 issued by The State of Florida Department of Environmental Protection (FDEP) paragraph 17, Ed Barber and Associates was retained by D-Graphics, an affiliate of Jefferson Smurfit Corporation, 3389 Powers Avenue, Jacksonville, Florida as an independent consultant to review current practices at the facility. Further this order provided that the results of this review would be provided to the FDEP and City of Jacksonville (City). This report constitutes that review.

As stated in The Emergency Order, D-Graphics operates a catalytic incinerator with an associative air capture and transport system that provides treatment for volatile organic carbon compounds (VOC) being emitted from a rotogravure printing press. The press, designated as Press 5, and its pollution control system are operated as authorized under permit AC 16-089528 issued February 12, 1985.

In the review process, interviews were conducted with D-Graphics personnel, Jefferson Smurfit representatives, the company attorney, representatives of The City and FDEP. The review is divided into four sections: (1) operating conditions, (2) control systems, (3) monitoring and (4) record keeping, testing, maintenance and inspection. Additionally, this report contains conclusions and recommendations.

Operating Conditions

This facility operates under FDEP permit AC 16-089528 and the Emergency Order referenced above. There is currently no operating permit for this facility. The operating permit is presently the subject of an administrative proceeding. D-Graphics emissions and operations data have been summarized in an October 27, 1994 letter from Mr. Michael Farrar to Mr. Ernest Frey and Mr. Alton Yates.

The permit limit for maximum VOCs applied to the substrate in pounds per hour (specific condition 2) were exceeded for 1991. The pounds per hour were not exceeded for 1990, 1992, 1993. The test results for 1994 have not as yet been received. Run hours (specific condition 1) have exceeded permit limits for 1990, 1991, 1992, 1993 and 1994. The 1994 run hours exceedence was in part the basis for the issuance of the Emergency Order.

The company has also disclosed that the VOC capture requirements were compromised when the containment curtains, located on the operators side of the press, were removed or in some cases not maintained in the proper position. Otherwise, the conditions of the permits in terms of meeting limits of discharges should have been met when equipment was operated and maintained properly.

Systems upsets can be caused by unit overheating (pressure) or power failures. No records of such occurrences (if any have occurred) have been made. In the permit it was anticipated that an automatic system shut down process would be used, a lower explosive level (LEL) system, to safeguard against accidents. However, D-Graphics utilizes a different system as described in a letter from Mr. Michael Farrar to Mr. Ernest Frey and Mr. Alton Yates dated November 2, 1994. Instead of the LEL, the operators utilize panel alarm lights that are activated when the temperature across the catalytic bed in the incinerator exceeds safe limits. The press operator then can safely manually shut down the press and the incinerator. If temperatures get even higher, because the operator fails to appropriately shut down the system, then the incinerator burner is automatically extinguished. In any case, the gases are intended to be vented to atmosphere during an upset occurrence.

Fugitive sources at the site may be generated from several areas. There are noncovered spaces around the edges of the curtains and above the press, open drums of solvent and ink (when material is briefly being handled or removed), building roof vents, doors and vents from four 3,000 gallon storage tanks, all of which may generate or transfer fugitive emissions to atmosphere. Those fugitive emissions from the press line are accounted for in the calculations of material mass balance and would be detected during testing if they by design exceed 20%.

Control Systems

There are two elements of emission control, the capture and conveyance and the destruction of the VOCs through use of a catalytic incinerator. Compliance is measured by calculation of capture efficiency and VOC destruction efficiency. A LEAR determination was used in the permit process to evaluate overall capture and transport efficiency. Capture efficiency is, according to the LEAR, 80% and overall destruction efficiency in the incineration process is 95%. Test results are compiled in the Mr. Michael Farrar to Mr. Ernest Frey, Mr. Alton Yates letter of October 27 and reports as submitted to FDEP. These results indicate general compliance (based on test results that equal or exceed the LEAR efficiencies) except for the destruction efficiency in 1990. In that case the level was 94.5% which might be argued to be, for purposes of compliance, at 95%. All testing appears to be in order and the system appears to be physically capable of operating within acceptable capture and destruction limits when operated properly.

Negative pressure is placed on the system to assist in VOC capture within the press enclosure. This negative pressure is achieved by the dryer fans. The air supply fans deliver less air than the exhaust fans. The difference creates a negative pressure across the system.

Temperatures and system negative pressure are continuously monitored from a central control box near the press. The system consists of temperature gauges, lights and a chart recorder. These instruments are used by the press operator to determine how well the

system is working. Temperatures at various points in the system and the pressure sensor (for negative pressure pulling air to the exhaust system) are displayed. There are three switches for Press 5, Station 1, Station 2-7 and Station 8, that are used to direct exhaust either to the incinerator or vent to atmosphere. These switches are not switched to atmosphere unless there is an emergency or unless there is a Station 8 water base application.

There is no specified treatment system to be used when water base product is being applied at Station 8. The emissions (non VOC) are vented to atmosphere. A review of the recirculation system does not indicate any cross connections that would allow VOCs to be emitted from Station 1 or Station 2-7 through the Station 8 vent during this time period. The water base product contains ammonia. The effect that the ammonia could have on the catalytic bed, should the discharge be directed to the incinerator, is unknown. The permit does not appear to address this issue.

Sweeps were recently installed within the press enclosure to facilitate capture. These sweeps are located at press and floor levels. These sweeps should improve capture and reduce fugitive emissions from the press area.

In general the destruction portion of the system, appears to be relatively new and in good working order. Recent inspections indicate no problems with this system and unless testing indicates otherwise there is no reason to believe that this incinerator can not or will not continue to adequately perform its intended function at the appropriate, permitted level. The system is also such that it probably consistently does well and is not subject to efficiency variations.

The capture/conveyance system is, as permitted, not extremely efficient. When operating, as indicated by testing and mass balance calculations, this system achieves approximately 80% to 85% efficiency. Residual fugitive emissions during shut downs escape due to loss of negative pressure through the unenclosed areas. These emissions may not be great in number and the impact on the resource is no doubt immeasurable, however this system, as presently permitted, is not efficient in terms of VOC capture even when operating properly (80%-85% capture). Further both the gas buildup in the press area, no doubt uncomfortable to workers, and the inconvenience of the curtains tend to lead to circumvention of that element of the capture system. In essence, removal or misplacement of curtain sections by workers, as evidenced by the problems noted in the Emergency Order, is always a possibility. From a practical standpoint these real and potential operational problems are inherent in the design.

In the files there is reference in both drawings and verbage to a particulate air filter in the exhaust system prior to air conveyance to the recirculation system. There is a place on the duct on the roof marked filter. Employees know nothing about this filter. It is not clear from the file if this filter exists, if it is required or if it is even necessary.

Monitoring

The system operation is monitored at the control box. Lights and gauges reflect the pollution control system temperatures and pressure. A daily chart records incinerator and catalytic bed temperatures only. Pressure which is a critical component of capture is watched constantly but not recorded. The chart readings do however give a sense of operational efficiency. The temperature across the bed indicates the operational state of the press and nature of the solvent being sent to the incinerator. Charts are set on a clock and manually dated. The plant manager can review these charts daily for the period of time that press operators are not directly supervised (during parts of the 24 hour daily operation).

There are no other monitoring devices maintained at this facility. Monitoring during testing is performed in accordance with the permit or standard engineering protocol.

VOC content of ink and solvents are obtained from manufacturers specifications. Independent checks are not performed by D-Graphics. These manufacturers specifications are assumed to be accurate.

Record Keeping, Testing, Maintenance and Inspection

In general records are kept as required by the permit. Names and quantities of all solvents and inks are maintained and a compilation is submitted as a quarterly report in accordance with the permit. No additional information has been routinely requested by the FDEP or City regarding the solvent and ink content or usage. D-Graphics maintains more detailed information than is submitted.

Testing is performed according to methods as directed by the permit. D-Graphics has not reported that these tests have not been accepted by FDEP or the City. Yearly stack tests, for example, are up to date with the most recent one (1994) to be submitted as soon as the results are received from testing consultants. Testing procedures do not appear to be a problem.

Maintenance of capture and conveyance equipment may be adequate but relies on memory and is not documented. Generally there is no use of logs for items replaced or repaired and no schedule for repair. The conveyance system relies on flow balance with both fixed dampers and with vent dampers that are controlled by switches at the control panel. These dampers may be subject to some degree of failure particularly the vent dampers.

The incinerator is new and probably presently needs very little maintenance. However no long term maintenance plans have been developed so that as the equipment ages, the current high degree of performance may not be guaranteed.

Inspections by government and in-house inspectors have been infrequent. Recently Jefferson Smurfit has instituted self inspections and as a result of the Emergency Order, daily inspections by Ed Barber & Associates are being performed. Irregularities are to be reported to the plant manager and a written report made to the City and FDEP.

Routine equipment inspections are not made. When maintenance is performed on the incinerator no written report by the contractors is sent to the company and no calibrations of equipment and sensors are reported. There is a presumption of accuracy and precision on the part of D-Graphics.

In general training has been informal and on-the-job. The level of understanding of the press operators may need improving.

Conclusions and Recommendations

Based on our review we have recommendations concerning the operation.

- 1) The Capture and conveyance system is limited and inefficient. While testing indicates that it meets or exceeds permit limits it allows considerable incidental emissions which could be captured and treated. We recommend evaluation of total enclosure.
- 2) The capture system is not reliable when you consider the human factor. Human error is likely in dealing with the curtains, on the operator side, and while they achieve 80% to 85% efficiency they could be improved upon. Total enclosure would remedy this concern.
- 3) The active drum storage area near the press may not emit large quantities of VOCs. Although the permit does not require it, ideally this area should be included in the containment area. This area should be included in the total enclosure plan.
- 4) There are no good as-built drawings of the system available. These drawings should be made. It is difficult to trace the inflows and outflows. Ductwork should be labelled.
- 5) Routine system efficiency evaluations at the time of the stack tests would ensure maintenance of appropriate flows, recirculation and detect leaks or maintenance problems.
- 6) Maintenance and inspection logs would assist in periodic management review.

7) The pressure sensor is a critical component to VOC capture, I would evaluate methods to record its readings. Some type of a data logger might be appropriate.

8) All permits should be updated to reflect practices or changes. Reporting requirements for upsets should be included.

9) Press operators and/or shift supervisors should receive annual training by in-house experts. This effort would both update the employees on new regulations and reinforce the importance of following procedures.

10) The permit requirements (application and AC permit) as defined in various components of the file are difficult to follow. While this is not surprising, I would have one document specify all requirements and agreements. Since the application, LEAR, completeness summary responses and permit are all part of the program, a summary would assist the plant manager in maintaining compliance.

The facility itself is presently in good condition. I believe improved enclosure and formal routine maintenance and inspection will bring the facility up-to-date in terms of air emissions. Considering the size of the operation (small) the plant could be developed into an extremely low VOC discharger.

Attachment

Florida Department of
Environmental Protection

Memorandum

DARM-EM-02

TO: District Air Program Administrators
County Air Program Administrators
Bureau of Air Regulation Engineers

FROM: Howard L. Rhodes, Director *HLR*
Division of Air Resources Management

DATE: March 17, 1994

SUBJECT: Guidance on The Use of EPA Methods 18, 25 and 25A
for Measuring Gas Stream Volatile Organic Compounds
(VOC) Concentration

This memo is to provide guidance concerning the appropriate EPA methods for use in the measurement of VOC concentrations. The commonly used methods are EPA Methods 25 and 25A, and occasionally EPA Method 18. This memo does not preclude the requirement for obtaining an Alternate Standard or Procedure (ASP) per 17-297.620, F.A.C.

Method 25 is the recommended method for the measurement of total gaseous nonmethane organic emissions from most air pollution sources - especially combustion sources. The lower limit of detection for EPA Method 25 is 50 ppmv as carbon. The presence of water vapor and carbon dioxide may positively bias (observed emissions higher than true emissions) the results of the method. Pursuant to 40 CFR 60 Appendix A, the bias is not considered to be significant if the product of the volumetric concentrations of water vapor and carbon dioxide is not greater than 100. For example, the bias is not significant for a source having 10 percent CO₂ and 10 percent water vapor, but it would be significant for a source near the detection limit having 10 percent CO₂ and 20 percent water vapor. EPA Method 25 shall be the required VOC measurement technique whenever it is required by Chapter 17-296, F.A.C., or 17-297, F.A.C., or an applicable federal NSPS or NESHAP. It shall also be the required VOC measurement technique for combustion sources, sources controlled by VOC incinerators (afterburners), and sources that emit an unknown mix of organic compounds. Any owner who wants to use another measurement technique (i.e., EPA Method 25A) in lieu of EPA Method 25 must apply for and obtain approval of an ASP.

Method 25A is the recommended method for measurement of compounds consisting of only carbon and hydrogen, or a single organic solvent if the analyzer used during the testing is calibrated for this solvent. EPA EMTIC Guideline Document EMTIC GD-011 and the attached EPA memo dated October 25, 1993, recommends the use of EPA Method 25A if the VOC concentration at the outlet of an incinerator is less than 50 ppmv as carbon. However, the presence of partially oxidized organic compounds in a combustion source or VOC incinerator (afterburner) may cause the results

District Air Program Administrators
County Air Program Administrators
March 17, 1994
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obtained with Method 25A to be biased low. EPA Method 25A shall be the required VOC measurement technique whenever it is required by Chapter 17-296, F.A.C., or 17-297, F.A.C., or an applicable federal NSPS or NESHAP. Any owner who wants to use another measurement technique in lieu of EPA 25A must apply for and obtain approval of an ASP.

EPA Method 18 applies to the analysis of approximately 90 percent of the total gaseous organic compounds emitted from an industrial source. It is an extremely flexible procedure and is primarily used for the measurement of emissions from sources in the synthetic organic chemical manufacturing industry. EPA Method 18 shall be the required VOC measurement technique whenever it is required by Chapter 17-296, F.A.C., or 17-297, F.A.C., or an applicable federal NSPS or NESHAP. Any owner who wants to use another measurement technique in lieu of EPA Method 18 must apply for and obtain approval of an ASP.

If the estimated concentration of VOC emissions from the exhaust of a combustion source (incinerator/afterburner) are estimated to be less than 50 ppmv as carbon, the owner may request approval to use EPA Method 25A in lieu of EPA Method 25. The request must be accompanied by the results of simultaneous EPA Method 25 and EPA Method 25A compliance tests which meet all applicable audit requirements. In order to be acceptable the tests must be conducted at 90 to 100% of the maximum permitted capacity, and the EPA Method 25 must pass the required audit, produce EPA Method 25A results that are less than 50 ppmv, and also produce EPA Method 25 results that are not greater than 75 ppmv as carbon. The use of EPA Method 25A for subsequent compliance tests may be approved through the process for alternate standards or procedures under those circumstances.

If it is deemed desirable to subtract methane from the total hydrocarbons measured by EPA Method 25A, EPA Method 18 should be required to identify and measure most (~90%) of the hydrocarbons. EPA Method 18 will determine the degree of negative bias due to partially oxidized/chlorinated organic compounds.

The approval of alternate test methods is handled by the Emissions Monitoring Section. Any questions on the ASP process should be referred to Mike Harley at SC 278-1344 or (904)488-1344.

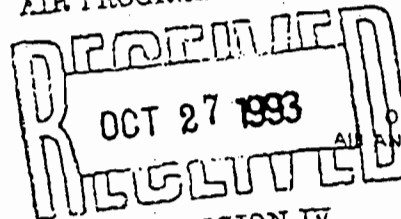
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 25 1993

AIR PROGRAMS BRANCH



OFFICE OF
AIR AND RADIATION

EPA-REGION IV
ATLANTA, GA.

MEMORANDUM

SUBJECT: EPA's VOC Test Methods 25 and 25A

FROM: John B. Rasnic, Director *Richard Blonchi*
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

TO: Air, Pesticides, and Toxics Management Division
Directors
Regions I and IV

Air and Waste Management Division Director
Region II

Air, Radiation, and Toxics Division Director
Region III

Air and Radiation Division Director
Region V

Air, Pesticides, and Toxics Division Director
Region VI

Air and Toxics Division Directors
Regions VII, VIII, IX and X

As a result of requests from industry, Regional Offices and State programs, we have reviewed our guidance regarding the use of Methods 25 and 25A for measuring gas stream volatile organic compounds (VOC) concentration. Information obtained during this review has resulted in the following revised guidance, which is effective immediately and which supersedes all previous guidance on this matter. This revision has been coordinated with the other divisions within the Office of Air Quality Planning and Standards.

The EPA has decided to add an option 3 to permit further the use of Method 25A in lieu of Method 25 under certain conditions. Therefore, our new guidance is as follows. The EPA mandates the use of Method 25 for measuring gas stream VOC concentration when determining the destruction efficiency (DE) of afterburners. It also allows the use of Method 25A, in lieu of Method 25, under any of the following circumstances: 1) when the applicable regulation

limits the exhaust VOC concentration to less than 50 ppm; 2) when the VOC concentration at the inlet of the control system and the required level of control are such to result in exhaust VOC concentrations of 50 ppm or less; or 3) if, because of the high efficiency of the control device, the anticipated VOC concentration at the control system exhaust is 50 ppm or less, regardless of the inlet concentration.

Further, if a source elects to use Method 25A under option 3, above, the exhaust VOC concentration must be 50 ppm or less and the required DE must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required DE apparently has been met, but the exhaust concentration is above 50 ppm, this is an indicator that Method 25A is not the appropriate test method and that Method 25 should be used.

BACKGROUND

The primary industry impacted by this policy is the printing industry, which has consistently claimed that the Method 25 test procedure is too expensive and cumbersome to be used as a compliance demonstration tool. They have stated that current state-of-the-art technology afterburners routinely achieve 98-99 percent destruction efficiency, generally significantly greater than is required by regulations. As a result, control system outlet VOC concentrations are commonly less than 50 ppm, regardless of the inlet concentration.

Regulations which specify performance requirements for the subject control systems have typically been based on older technology, which was less efficient than current technology. We agree with the printing industry's claim that VOC destruction technology currently available can perform at greater levels than as specified by the regulations. It is therefore appropriate to revise our guidance on the usage of these compliance demonstration methods.

This guidance specifies the circumstances under which Method 25 and Method 25A are to be used. It will reduce the administrative burden on a significant number of regulated industrial sources but will not reduce the stringency of any currently applicable regulatory requirements.

cc: OAQPS Division Directors

METHOD 25

INTRODUCTION:

Method 25 is the best method for gas streams where organic concentrations are greater than 100 ppm and moisture is either less than 5% with an associated high CO₂ concentration (>5%) or less than 10% with an associated low CO₂ (<5%). The interference which results from CO₂ dissolving in condensed moisture can bias the results high as much as 150 ppm in the presence of moisture concentrations exceeding 10%.

METHODOLOGY:

In Method 25, volatile organic carbon (VOC) sample is collected by drawing gases from an emitting source through a heated stainless steel sample probe followed by a glass fiber filter maintained at 250 ± 5°F, which removes particulate carbon from the sampling stream. The VOC sample stream is then drawn through a dry ice cooled stainless steel U-tube condenser packed with quartz wool. In this portion of the train, "condensable" organics are collected. The lighter volatiles then travel through a valve rotameter to an evacuated four liter stainless steel tank. The tank sample represents the "non-condensable" portion of the collected sample. A sample is taken at a constant flow rate over usually a one-hour period. Following each test run, the sample train is disconnected, the trap and tank portions sealed, and the traps are stored on dry ice until analyses are performed.

APPLICABILITY:

The minimum detectable for the method is 50 ppm as carbon. At the outlet of a thermal or catalytic incinerator, if functioning correctly, the VOC concentration should be quite low (<50 ppm as C). Hence, the method, even though appropriate for measuring inlet concentrations, would not give good results for outlet concentrations less than 50 ppm.

In an attempt to control the quality of EPA Method 25 stack test results, EPA initiated a program to develop audit material to assess the accuracy of Method 25 sampling and analysis procedures. The audit gas sampling/analysis program has some shortcomings, which are being looked into by an EPA contractor.

DEP, when evaluating a Method 25 stack test result, determines how the test results are possible biased upon the audit sample result.

METHOD 25A

INTRODUCTION:

Method 25A is a better method for measuring hydrocarbon concentrations greater than 2 ppm and less than 100 ppm. The method gives good results when the hydrocarbons are all hydrogen and carbon. When applied to measuring hydrocarbons containing oxygen, nitrogen, and chlorine, the efficiency of the method is reduced.

METHODOLOGY:

A gas sample is drawn from the source through a heated sample line, if necessary, and glass fiber filter to a flame ionization analyzer (FIA). Results are reported as volume concentrations equivalents of the calibration gas or as carbon equivalents.

APPLICABILITY:

The flame ionization analyzer (FIA) can be easily calibrated if dealing with a known mixture containing one or two compounds. The difficulty rises when confronted with an unknown mixture. Generally, in these cases, FIA cannot reasonably measure true mass. Also, in sources where incineration is used as a control measure, oxygenated hydrocarbons may be present in the exit mixture. The FIA response for the oxygenated compounds is biased low, thereby introducing an error.