Check Sheet

Company Name: R. R. Donnelley & Sons Company
Permit Number: AC 04-224043
PSD Number:
Permit Engineer:

Application:

- [x] Initial Application
  - [x] Incompleteness Letters
  - [x] Responses
  - [ ] Waiver of Department Action
  - [ ] Department Response
  - [ ] Other

Cross References:
- [ ]
- [ ]
- [ ]

Intent:

- [x] Intent to Issue
- [x] Notice of Intent to Issue
- [x] Technical Evaluation
- [ ] BACT or LAER Determination
- [x] Unsigned Permit

  Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] Other
- [x] Proof of Publication
  - [ ] Petitions - (Related to extensions, hearings, etc.)
  - [ ] Waiver of Department Action
  - [ ] Other

Final Determination:

- [ ] Final Determination
- [x] Signed Permit
- [ ] BACT or LAER Determination
  - [ ] Other

Post Permit Correspondence:

- [ ] Extensions/Amendments/Modifications
- [x] Other

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Carl W. Zielke
VP and Division Director
R. R. Donnelley & Sons Company
3100 South Ridgewood Ave.
South Daytona, FL 32119

4a. Article Number
P 230 524 307

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
6-7-93

5. Signature (Addressee)
[signature]

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

PS Form **3811**, December 1991 ☆U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

P 230 524 307

UNITED STATES POSTAL SERVICE

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	Mr. Carl W. Zielke, R. R. Donelley & Sons Co.
Street and No.	3100 S Ridgewood Ave
P.O., State and ZIP Code	South Daytona, FL 32119
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	Mailed: 6-4-93 Permit: AC64-224043

PS Form **3800**, June 1991

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

In the matter of an
Application for Permit by:

DER File No. AC 64-224043
Volusia County

Mr. Carl W. Zielke
V. P. and Division Director
R. R. Donnelley & Sons Company
3100 South Ridgewood Avenue
South Daytona, Florida 32119-3548

/

Enclosed is Permit Number AC 64-224043 for R. R. Donnelley & Sons Company to construct a 2 web, heatset offset press with dryer and enclosure in South Daytona, Volusia County, Florida. This permit is issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for John C Brown Jr
C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 4-6-93 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

Kim Moore (Clerk) 4-6-93 (Date)

Copies furnished to:

C. Collins, Central District
D. Cote, P.E., RRD
M. Horne, RRD
D. Miler, RRD

Final Determination

R. R. Donnelley & Sons Company
Volusia County
South Daytona, Florida

Permit Number: AC64-224043

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

June 3, 1993

FINAL DETERMINATION

The Technical Evaluation and Preliminary Determination for the permit to construct/install one (1) Harris Heidelberg, 2 web, heatset offset press (SDM-031) with dryer and enclosure in South Daytona, Volusia County, Florida, was distributed on May 15, 1993. The Notice of Intent to Issue was published in the Daytona Beach News Journal on May 17, 1993. Copies of the evaluation were available for public inspection at the Department's offices in Orlando and Tallahassee.

R. R. Donnelley and Son's application for a permit to construct/install a 2 web, heatset offset press with dryer and enclosure has been reviewed by the Bureau of Air Regulation in Tallahassee.

No comments regarding the Technical Evaluation and Preliminary Determination and permit Specific Conditions were submitted.

The final action of the Department will be to issue construction permit AC64-224043 as noticed during the public notice period.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

PERMITTEE:
R. R. Donnelly & Sons Comp.
3100 S. Ridgewood Avenue
South Daytona, FL 32119

Permit Number: AC64-224043
Expiration Date: April 30, 1994
County: Volusia
Latitude/Longitude: 29°09'00"N
80°59'15"W
Project: Lithographic Facility
Printing Press SDM-031

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 275, 296, 297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of one (1) Harris Heidelberg, 2 web, heatset offset press with a TEC System recuperative thermal afterburner to control volatile organic emissions (VOC). This facility will be located at the R. R. Donnelley & Sons facility in Volusia County, Florida.

The source 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. R. R. Donnelly & Sons' application received on January 5, 1993.
2. Department's letter dated January 27, 1993.
3. R. R. Donnelly's letter dated February 16, 1993.
4. Technical Evaluation and Preliminary Determination dated May 12, 1993.

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

GENERAL CONDITIONS:

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 arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. 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

GENERAL CONDITIONS:

rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, 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. 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 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.

14. 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

GENERAL CONDITIONS:

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:

LITHOGRAPHIC FACILITY - PRESS SDM-031

Emissions Limits

1. Total VOC allowable emissions from press SDM-031 shall not exceed the total emissions as listed in the following table:

Source	Pollutant	Emission Standards and Limitations
Presses SDM-031	VOC (fugitive)	Total of 3.5 lbs/hr, 15.4 TPY
KATEC Thermal Afterburner	VOC	Total of 12.4 lbs/hr, 54.4 TPY

Note:
- o Press is allowed continuous operation (i.e., 8760 hrs/yr);
- o Emissions from the press is based on minimum capture efficiencies of 80% (ink VOCs), 90% (alcohol substitute) and 37.5% (cleaning solvent).
- o Emissions from the afterburner are based on a minimum destruction efficiency of 95%.

2. The calculated emissions from either afterburner, assuming 95% destruction efficiency, shall not exceed 100 tons/yr during any 12-month period. If the emissions from either afterburner exceed 100 tons, this facility shall be required to perform annual testing to confirm destruction efficiency and VOC emissions.

3. There shall be no visible emissions (5% opacity) from the afterburner except that visible emission not exceeding 20% opacity shall be allowed for up to three minutes in any hour.

4. Maximum ambient air concentrations of the air toxics evaluated in the air quality analysis shall not exceed the air toxics reference concentrations (ATRC) calculated in accordance with the Department's Air Toxics Permitting Strategy. The following levels shall not be exceed:

Pollutant	Maximum Predicted Concentration (ug/m^3)			Reference Concentration (ug/m^3)		
	8-hr	24-hr	Annual	8-hr	24-hr	Annual
Butyl Cellosolve	---	---	2.0	---	---	20
Ethylene Glycol	5	3	---	1270	304.8	---

SPECIFIC CONDITIONS:

Operating Parameters

5. This source (press SDM-031) is allowed to operate continuously (8760 hours per year).

6. The permitted materials and utilization rates are as stated in the application.

7. The Permittee shall install, calibrate, maintain, and operate a device that continuously measures and records the combustion temperature at the control point of the afterburner.

8. Permittee shall install an overtemperature alarm and automatic press shutdown system. The overtemperature limit shall be set to alarm at 1450°F, with the presses to be shut down automatically one hour following the alarm if the overtemperature condition is not corrected. The high temperature limit shall be set at 1500°F, triggering an immediate shutdown of the presses.

9. The Permittee shall maintain a 3-hour rolling average combustion chamber temperature of at least 1350°F at the control point of each afterburner that is in use, whenever the dryer exhaust from any or all of the press systems (SDM-031, SDM-001, SDM-002, SDM-003) is directed to the control device. For the purposes of this permit, an hour shall be each period of sixty consecutive minutes.

10. Any other operating parameters established during compliance testing and/or inspection that will confirm the proper operation of this facility shall be included in the operating permit.

Compliance Determination

11. Compliance with the allowable emission limits shall be determined within 60 days after achieving the maximum production rate at which this facility will be operated, but not later than 180 days after initial start-up and as requested by the District office in their annual operating report, by the following reference methods as described in 40 CFR 60, Appendix A (July 1992 version) and adopted by reference in Rule 17-297, F.A.C.

Method 1. Sample and Velocity Traverses
Method 2. Volumetric Flow Rate
Method 3. Gas Analysis
Method 4. Determination of Moisture Content in Stack Gases
Method 9. Determination of the Opacity of Emissions from Stationary Sources

SPECIFIC CONDITIONS:

Method 24. Determination of the VOC content
Method 25A. Determination of Total Gaseous Organic Concentrations using Flame Ionization Analyzer

Other DER approved methods may be used for compliance testing after prior Department approval.

12. Emissions and control destruction efficiency will be determined from the average of 3 valid and separate test runs. The Central District office will be notified in writing at least 15 days in advance of the compliance test(s). Compliance tests shall be conducted with the facility operating at the highest production rates possible, under conditions that are representative of the performance and operational rates of the facility, and within its permitted limit. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

13. The permittee shall conduct EPA Method 25A and DER Method 9 testing to demonstrate compliance with the applicable VOC and visible emission standards, respectively, prior to obtaining an operation permit and with each subsequent renewal of an operation permit; and, as may be ordered by the Department pursuant to F.A.C. Rule 17-297.340(1)(c).

14. The initial and subsequent demonstrations (upon permit renewal and/or as requested by the Department) of the capture efficiency of each dryer enclosure shall be conducted using the U.S. EPA's VOC Capture Efficiency Test Procedure pursuant to F.A.C. Rule 17-297.450. The Permittee shall notify the Department's Central District in writing of the protocol that will be used for the capture efficiency demonstration at least 60 days prior to compliance testing. However, the requirements of this condition are not applicable as long as ethylene glycol and ethylene glycol n-butyl ether (butyl cellosolve) are being used.

15. The initial and subsequent compliance tests (upon permit renewal and/or as requested by the Department) for the actual destruction efficiency (comparison of the inlet and outlet concentrations) of the KATEC thermal afterburner shall be conducted using EPA Method 25A, pursuant to F.A.C. Rule 17-297 and 40 CFR 60, Appendix A (July, 1989 version). Other test methods may be used as long as prior Department approval has been granted in writing.

16. Pursuant to F.A.C. Rule 17-210.700, the Permittee shall submit a full written quarterly report to the Department's Central District when:

SPECIFIC CONDITIONS:

- one or more press systems were operating and the 3-hour rolling average combustion temperature of an operating afterburner controlling emissions from the press dryers was less than 1350°F, the cause of the low temperature, and the corrective actions taken; or,

- the KATEC thermal oxidizer's VOC input rate exceeded its maximum manufacturer's design capacity and the combustion temperature exceeded 1500°F; and, the corrective actions taken.

17. The permittee shall maintain a log of the quantity of volatile organic compounds (VOC) used on a monthly basis. The reference method for determining the VOC content of each material (including inks, thinner, coatings, clean-up solvents, waste solvents, etc.) shall be EPA Method 24.

18. Pursuant to F.A.C. Rule 17-4.160(14), the Permittee shall retain all monitoring records related to the requirements of construction permit, No. AC 64-224043, and shall retain the records at the facility for a period of three (3) years.

19. When the Department, after investigation, has good reason (such as odor complaints, increased visible emissions, excess emissions, etc.), to conclude that any applicable emission standard contained in this permit is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of air pollutant emissions from the facility and to provide a report of said tests to the Department.

20. Compliance with the ATRC shall be demonstrated based on calculations certified by a professional engineer registered in Florida using actual operating conditions (if actual operating conditions meet or exceed emission levels used in worst case scenario as stated in the permit application). The ambient concentration for organic compounds shall be determined by Department approved dispersion modeling. ATRC calculations shall be made available upon request.

Rule Requirements

21. This facility shall comply with all applicable provisions of Chapter 403, Florida Statutes; Chapters 17-209 through 17-297, and 17-4, Florida Administrative Code; and 40 CFR 60 (July, 1992, version).

22. This permit is issued in accordance with Rule 17-212.300, F.A.C., Sources not Subject to PSD or Nonattainment Requirements.

SPECIFIC CONDITIONS:

23. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-210.300(1)).

24. According to F.A.C. Rule 17-296.320(1)(a), no person shall store, pump, handle, process, load, unload, or use in any process or installation volatile organic compounds or organic solvents without applying known and existing vapor emissions control devices or systems deemed necessary and ordered by the Department. The following procedures shall be utilized to minimize pollutant emissions:

- maintain tightly fitting covers, lids, etc., on all containers of VOC when they are not being handled, tapped, etc.;
- prevent excessive air turbulence across exposed VOCs;
- where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin, bath, etc., of VOC so that it can be covered when not in use;
- all fittings, valve lines, etc., shall be properly maintained; and,
- all VOC spills shall be attended to immediately and the waste properly disposed of, recycled, etc.

25. This facility is subject to applicable provisions of Chapter 17-297, F.A.C., Stationary Sources - Emissions Monitoring.

26. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-296.320(2). Objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance pursuant to F.A.C. Rule 17-296.200(123).

27. Pursuant to F.A.C. Rule 17-212.300, Permits Required, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: hours of operation, VE test results, VOC emissions [lbs/month (calculable on a 24-hour basis) and tons/year], VOC content of organic materials (inks, thinner, coatings, solvents, etc.), utilization rates, destruction efficiency, and stack test results (upon permit renewal and/or as requested by the Department). Annual reports shall be sent to the Department's Central District office.

SPECIFIC CONDITIONS:

28. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

29. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 4 day
of June, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Howard L. Rhodes

Howard L. Rhodes, Director
Division of Air Resources
Management

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Howard L. Rhodes

FROM: for John C Brown, Jr
Clair Fancy

DATE: June 3, 1993

SUBJ: Approval of Construction Permit AC64-224043
R. R. Donnelley & Sons Company

Attached for your approval and signature is a permit prepared by the Bureau of Air Regulation for the above mentioned company to construct a 2 web, heatset offset press, with dryer and enclosure at their existing facility in South Daytona, Volusia County, Florida.

I recommend your approval and signature.

CF/TH/pa

Attachment

Memorandum

Florida Department of Environmental Protection

DARM-SS/CE-04A

TO: Charles Collins, District Air Program Administrator
Central District Office

Doug Beason
Office of General Counsel

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

DATE: August 1, 1994

SUBJECT: Exception to Guidance on Rate of Operation During Compliance Testing for All Sources Except Combustion Turbines for R. R. Donnelley & Sons Company
AC 64-224043; AO 64-244106
South Daytona, Volusia County, Florida

During a December 10, 1992, meeting between representatives of the subject company and the Bureau of Air Regulation staff (Clair Fancy, Mike Harley, and Bill Leffler), an agreement was reached in how compliance for this facility would be determined. This agreement was incorporated into construction permits Nos. AC 64-188871 and AC 64-224043. Conditions No. 11 through No. 20 of permit AC 64-224043 specify the compliance determinations. As stated in specification No. 12 for permit AC 64-224043, "compliance tests shall be conducted with the facility operating at the highest production rates possible, under conditions that are representative of the performance and operational rates of the facility, and within its permitted limit."

Operation permit requirements must be consistent with construction permit requirements. Special circumstances were involved in establishing the compliance procedures in the construction permits for this facility. Notwithstanding my February 11, 1994, Guidance on Operation Rate during Compliance Testing for All Sources Except Combustion Turbines, the compliance procedures in operation permit No. AO 64-244106 should be revised to those specified in construction permit No. AC 64-224043.

HLR/ch

Florida Department of
Memorandum — Environmental Protection

TO: John Brown

THROUGH: Preston Lewis

FROM: Teresa Heron T.H.

DATE: June 13, 1994

SUBJECT: R & R Donnelly & Sons Company
AC 64-244106
South Daytona, Volusia County, Florida

The following is a summary of the compliance issues concerning the subject facility:

***Construction Permit No. AC 64-188871** (processed by Bruce Mitchell) was issued on 03/15/91 for three (3) presses Nos. SDM-001, 002 & 003. A by-product pneumatic paper conveying system, with cyclones (3) and baghouse control systems was also a part of this permit. The three (3) presses share a TEC Systems, and a KATEC thermal afterburner system.

This permit has been revised four times. The main issue in this revision was the compliance determination.

After extensive discussions among Company representatives, Mike Harley, and Bill Leffler, a meeting ("resolution conference") was held by BAR in Tallahassee on 12/10/92. At this meeting, with Clair's concurrence, the compliance issues were resolved. Permit No. AC 64-188871 was then revised for the fourth time (January 14, 1993) to include all the requirements that were agreed to in the meeting on how to demonstrate compliance for this facility.

Although the Central District had a copy of the compliance determination agreement (revised construction permit), they elected to impose different compliance conditions in the operating permit (see R & R Donnelly's letters of 2/9/93 and 2/10/93). Reviewing the files documents, I don't know how this issue was resolved since the last two letters mentioned (2/9/93 and 2/10/93) are the last correspondence on this file. However, this appears to be the same issue this Company is facing now regarding permit No. AC 64-224043 which I processed in 1993.

***Construction Permit No. AC 64-224043** (processed by Teresa Heron) was issued on 06/04/93 for (1) one press, SDM-031, also controlled by an afterburner system that will operate in tandem with the existing afterburner for the other three presses.

Before this permit was issued, I read the files and consulted Mike Harley, Bill Leffler, and Jim Pennington regarding the compliance issues. The compliance determination conditions in this permit reflect what was approved by them and Clair Fancy in December 1993.

I gave a copy of the R & R Donnelly letter of 05/03/94 (copy attached) to Mike Harley and he confirmed to me that these issues were discussed before in 1993. In addition, he said that R & R Donnelly's incinerators are required to test every 5 years because each incinerator is a minor source and their emissions are under 100 tons/year/unit (FAC Rule 17-297.340(1)(d)).

My recommendation is to change the compliance condition in the operating permit to the compliance condition as written in the construction permit.

TH/bjb

Attachment

The Lakeside Press
R·R·DONNELLEY & SONS COMPANY

SOUTH DAYTONA MANUFACTURING DIVISION
3100 SOUTH RIDGEWOOD AVENUE
SOUTH DAYTONA, FLORIDA 32119
904-322-2300

CARL ZIELKE
VICE PRESIDENT
DIVISION DIRECTOR

May 17, 1993

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Fancy,

The Notice of Intent to Permit applicable to R. R. Donnelley & Sons Co. (DER File No. AC64-224043) was published in the Daytona Beach News Journal on May 17, 1993 as required by Section 403.815, Florida Statutes and Rule 17-103.150 F.A.C.

Enclosed is proof of such publication.

Sincerely,

Carl Zielke

Carl Zielke
Division Director

CZ/pt

Enclosure

cc: D. Heron
A. Zahm, C. Dist

LEGAL ADVERTISEMENT

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO
ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit (AC64-224043) to R. R. Donnelly & Sons Company, 3100 S. Ridgewood Avenue, South Daytona, FL 32119-3548 to construct/install a one (1) Harris Heilberg, 2 web, heatset offset press (SDM-031) with dryer and enclosure. The new press dryer exhaust will be controlled by a TEC Systems, Inc. Katec thermal afterburner system. This project is located at 3100 Ridgewood Avenue in South Daytona. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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. 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 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, Florida Statutes.

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 petittion 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, F.A.C.

The application is available for public inspection during normal 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 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Department of Environmental Regulation
Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments receved within 14 days of the publication of this notice will be considered in the Department's final determination.
Legal L10247. May 17, 1993, 1t.

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 7193237855

7193237855

RECIPIENT'S COPY

1 Date 5-12-93

From (Your Name) Please Print: C. Fancy - AQ
Your Phone Number (Very Important): (904) 487-3922
Company: DEPT OF ENVIR REG/STATE OF FLA
Department/Floor No.:
Street Address: 2600 BLAIR STONE RD MM 105
City: TALLAHASSEE
State: FL
ZIP Required: 32399

2 To (Recipient's Name) Please Print: Carl W. Zielke
Recipient's Phone Number (Very Important):
Company: RR Donnelly & Sons Co.
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 3100 S Ridgewood Ave
City: South Daytona
State: FL
ZIP Required: 32119

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address:
City:
State:
ZIP Required:

3 PAYMENT 1 ☐ Bill Sender 2 ☑ Bill Recipient's FedEx Acct. No. 3 ☐ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card
5 ☐ Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning)
11 ☐ OTHER PACKAGING
16 ☑ FEDEX LETTER*
12 ☐ FEDEX PAK*
13 ☐ FEDEX BOX
14 ☐ FEDEX TUBE

Standard Overnight (Delivery by next business afternoon; for Saturday delivery)
51 ☐ OTHER PACKAGING
56 ☐ FEDEX LETTER*
52 ☐ FEDEX PAK*
53 ☐ FEDEX BOX
54 ☐ FEDEX TUBE

Economy Two-Day (Delivery by second business day.†)
30 ☐ ECONOMY**
* Domestic Letter rate not available. Minimum charge: One pound economy rate.

Government Overnight (Restricted to authorized users only)
46 ☐ GOVT LETTER
41 ☐ GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 ☐ OVERNIGHT FREIGHT*** (Confirmed reservation required)
80 ☐ TWO-DAY FREIGHT***
†Delivery commitment may be later in some areas.
*Declared Value Limit $500.
**Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 ☐ HOLD FOR PICK-UP (Fill in Box H)
2 ☑ DELIVER WEEKDAY
3 ☐ DELIVER SATURDAY (Extra charge) (Not available to all locations)
4 ☐ DANGEROUS GOODS (Extra charge)
5 ☐
6 ☐ DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, ____ X ____ kg, 904 III
7 ☐ OTHER SPECIAL SERVICE
8 ☐
9 ☐ SATURDAY PICK-UP (Extra charge)
☐
12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total	Total	Total

DIM SHIPMENT (Chargeable Weight)
☐ ____ lbs.
L x W x H
Packaging Air
1 ☐ Regular Stop 3 ☐ Drop Box
4 ☐ B.S.C.
2 ☐ On-Call Stop 5 ☐ Station

7 Release Signature:

Emp. No. Date
☐ Cash Received
☐ Return Shipment
☐ Third Party ☐ Chg. To Del. ☐ Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received FedEx Employee Number

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 11/92
PART #137204 FXEM 3/93
FORMAT #155
155
© 1992-93 FEDEX
PRINTED IN U.S.A.

Att: Pat
Human Resources

13990513

Express Overnight
Priority

Pat
904/322-2321

RECEIVED
MAY 19 1993
Division of Air
Resources Management

ATTN:
Les Wilkinson

Acct # Fed EX 1399-0511-3
~~067-6025-2200-0500~~

3100 S. Ridgewood Ave
S Daytona 32119

904/322-2384 (Sent 5/12/93)

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

May 12, 1993

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Carl W. Zielke
V.P. and Division Director
R.R. Donnelly & Sons Company
3100 South Ridgewood Avenue
South Daytona, Florida 32119-3548

Dear Mr. Zielke:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to construct one (1) Harris Heidelberg, 2 web, heatset offset press with dryer and enclosure at R.R. Donnelly and Sons Company facility.

The new press dryer exhaust will be controlled by a new TEC Systems, Inc. KATEC thermal afterburner systems, to be operated in conjunction with the existing control system.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Preston Lewis of the Bureau of Air Regulation.

Sincerely,

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

CHF/TH/kbw

Attachments

cc: C. Collins, CD
D. Cote, P.E., RRD
M. Horne, RRD
D. Miler, RRD

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

DER File No. AC64-224043
Volusia County

R.R. Donnelly & Sons Company
3100 S. Ridgewood Avenue
South Daytona, FL 32119-3548

_____/

INTENT TO ISSUE

The Department of Environmental Regulation gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, R.R. Donnelly & Sons Company, applied on January 7, 1993, to the Department of Environmental Regulation for a permit to construct/install one (1) Harris Heidelberg, 2 web, heatset offset press (SDM-031) with dryer and enclosure. The proposed project will occur at the applicant's facility located at 3100 S. Ridgewood Avenue in Volusia County, South Daytona, Florida. The new press dryer exhaust will be controlled by a new TEC Systems, Inc. Katec thermal afterburner system to be operated in conjunction with the existing control system.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code (F.A.C.) Chapters 17-212 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue 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. 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 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.

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. 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 their 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, Florida Statutes.

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 intent. 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 receipt of this intent 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, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 5-12-93 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

5-12-93
Date

Copies furnished to:
C. Collins, CD
D. Cote, P.E., RRD
M. Horne, RRD
D. Milen, RRD

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit (AC64-224043) to R. R. Donnelly & Sons Company, 3100 S. Ridgewood Avenue, South Daytona, FL 32119-3548 to construct/install a one (1) Harris Heilberg, 2 web, heatset offset press (SDM-031) with dryer and enclosure. The new press dryer exhaust will be controlled by a TEC Systems, Inc. Katec thermal afterburner system. This project is located at 3100 Ridgewood Avenue in South Daytona. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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. 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 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, Florida Statutes.

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, F.A.C.

The application is available for public inspection during normal 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 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Department of Environmental Regulation
Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Preston Lewis 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

R. R. Donnelly & Sons Company
Volusia County
South Daytona, Florida

Permit Number: **AC**64-224043

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

May 12, 1993

I. NAME AND ADDRESS OF APPLICANT

R. R. Donnelly & Sons Company
3100 S. Ridgewood Avenue
South Daytona, Florida 32119-3548

II. REVIEWING AND PROCESS SCHEDULE

Date of Receipt of Application: January 5, 1993.

Completeness Review: Department's letter dated January 27, 1993.

Applicant Response to Incompleteness Letter: Company's letter dated February 16, 1993.

Application Completeness Date: February 16, 1993.

III. FACILITY INFORMATION

III.1 FACILITY LOCATION

The proposed source is located at 3100 S. Ridgewood Ave., South Daytona, Volusia County, Florida. The latitude and longitude coordinates are 29°09'00"N and 80°59'15"W, respectively.

III.2 STANDARD INDUSTRIAL CLASSIFICATION CODE (SIC) and SOURCE CLASSIFICATION CODE (SCC)

This facility is classified as follows:

Major Group No. 27 - Chemicals and Allied Products

Industry Group No. 275 -

Industry No. 2752 - Lithographic Commercial Printing

Source Classification Code - 4-05-004-11, Lithographic (Tons Solvent in Ink)

III.3 FACILITY CATEGORY

R. R. Donnelly & Sons Co. will be a major emitting facility for volatile organic compounds (VOC). The entire plant's permitted VOC emissions are 62.9 tons per year from the existing three presses. The new press (SDM-031), Harris Heidelberg, Model M3000, 2 web, heatset offset press will increase potential emission by 69.8 tons per year.

IV. PROJECT DESCRIPTION

This project involves the construction/installation of the new press SDM-031, Harris Heidelberg, Model M3000, 2 web, heatset

offset press with eight (8) in-line printing units. The materials used on this press will be similar to those used on the existing presses at the facility.

The exhaust from the press dryers will be controlled using two (2) TEC Systems recuperative thermal afterburner systems. A new afterburner will be installed to operate in tandem with the existing afterburner.

The dryer exhaust from the new press SDM-031, along with the exhaust from presses SDM-001, 002 and 003, will be controlled by both of the afterburner systems. One or both afterburner systems will operate as necessary depending on the number of presses on-line. The maximum exhaust flow capacity of each of these thermal afterburners is such that the exhausts from no more than three (3) presses (existing presses SDM-001, 002, 003), or the exhaust from the new press (SDM-031) together with the exhaust from one of the existing presses, can be simultaneously directed through a single afterburner.

V. PROCESS DESCRIPTION

In offset lithographic printing, ink is transferred from the image plate to a rubber-covered "intermediate" or "blanket" cylinder and then to the substrate. Transfer of the image from the image plate to the blanket cylinder, rather than directly to the substrate, is the "offset" characteristic of this type of printing.

A printing press is made up of a number of printing units, from 1 to as many as 12. Printing units are available that print both sides of the substrate at the same time (a process known as perfecting), as well as only one side (known as non-perfecting).

Offset lithographic printing is also characterized by the form in which the material to be printed on (the substrate) is fed to the press. In sheet-fed printing, individual sheets of paper or metal are fed to the press. In web printing, continuous rolls of paper are fed to the press and the paper is cut to size after it is printed.

Lithographic inks are composed of pigments, vehicles, binders, and other additives. The pigments provide the desired color and are composed of organic and inorganic materials. Lithographic inks may be heatset, where heat is required to set the ink, or non-heatset, where the inks set by absorption into the substrate, by oxidation, or other non-heatset methods. Heatset inks may contain up to 45 percent volatile organic compounds (VOCs). Non-heatset inks have higher boiling points than heatset inks and are less pasty. They usually contain below 35 percent VOCs. Most non-heatset inks used in sheet-fed printing are 20 to 25 percent VOC.

A "fountain solution" is applied to the print plate to render the non-image areas unreceptive to ink. Since printing inks are oil-based, the fountain solution is water-based. The fountain solution contains small quantities of gum arabic or synthetic resins, acids of buffer salts to maintain the pH of the solution, and a wetting agent or "dampening aid" to enhance the spreadability of the fountain solution across the print plate. The role of the dampening aid is to reduce the surface tension of water as well as increase viscosity.

Isopropyl alcohol, a VOC, has traditionally been used as the dampening aid. The concentration of alcohol in the fountain solution can range from 0 to 35 percent (by volume) or higher, with the concentration in most presses falling between 15 and 20 percent.

Cleaning solutions are used to remove excess printing inks, oils, and paper pieces from press equipment. The solutions are petroleum-based solvents, often mixed with detergent and/or water. The cleaning compound may be a single solvent, such as kerosene, or a combination of solvents. Cleaning solutions are used to wash the blankets, the rollers, and the outside of the presses. A general purpose cleaner may not work well for every job.

VI. RULE APPLICABILITY

This project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes (F.S.) and Chapter 17-212, Florida Administrative Code (F.A.C.).

The proposed source is located at R. R. Donnelley and Sons (RRD) facility in an area (Volusia County) currently designated attainment for all criteria pollutants in accordance with Rule 17-275.400, F.A.C.

RRD will be a major emitting facility for volatile organic compounds as (132.7 TPY) as defined in Rule 17-212.400, F.A.C. as a result of this modification).

This facility category, Lithographic Printing facility, is not in the list of the 28, Table 17-212.400-1, Major Facility Category, Rule 17-212.400, F.A.C.

The proposed project is not subject to Rule 17-212.400, F.A.C., Prevention of Significant Deterioration, because its emissions do not exceed the PSD threshold levels of 250 TPY.

The proposed project shall be permitted under Rule 17-212.300, F.A.C., Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements.

The proposed facility shall comply with Rule 17-296.310(2), F.A.C.; General Particulate Emission Limiting Standards and

17-296.320, F.A.C.; General Pollutant Emissions Limiting Standards.

The proposed capture (dryer enclosures, etc.) efficiencies of 80% (ink VOCs), 90% (alcohol substitute), 37.5% (cleaning solvents), and 95% destruction efficiency are acceptable to the Department.

The projected potential pollutant emissions, except for VOC, from natural gas combustion from the new afterburner and the associated dryers are 0.45 TPY (PM), 0.09 TPY (SO_2), 19.8 TPY (NO_x), and 4.8 TPY (CO). These projections are based on continuous operation (8760 hrs/yr), Table 1.4-1, AP-42 Emission Factors and maximum heat inputs of 7.2 MMBTU/hr (afterburner) and 27.2 MMBTU/hr (dryers).

Pursuant to F.A.C. Rules 17-296.320(2) and 17-296.401(1)(b), objectionable odors shall not be allowed off the facility's property. Pursuant to F.A.C. Rule 17-296.401(1)(a), no visible emissions (5 percent opacity) except that visible emissions (VE) not exceeding 20 percent opacity are allowed for up to three minutes in any one hour period.

The proposed project is subject to all applicable provisions of Chapters 17-209 through 17-297, F.A.C. and 40 CFR 60 (July, 1992 version). Also, the new press is subject to the applicable provisions of F.A.C. Rule 17-210.650, Circumvention; 17-210.700, Excess Emissions; and 17-4.130, Plant Operation-Problems.

The initial and subsequent compliance tests (upon permit renewal and/or as requested by the Department) for the actual destruction efficiency (comparison of the inlet and outlet concentrations) of the KATEC thermal afterburner shall be conducted using EPA Method 25A, pursuant to F.A.C. Rule 17-297.400 and 40 CFR 60, Appendix A (July, 1992 version). Other test methods may be used as long as prior Department approval has been granted in writing.

The initial and subsequent demonstrations (upon permit renewal and/or as requested by the Department) of the capture efficiency of each dryer enclosure shall be conducted using the U.S. EPA's VOC Capture Efficiency Test Procedure pursuant to F.A.C. Rule 17-297.450. The Permittee shall notify the Department's Central District in writing of the protocol that will be used for the capture efficiency demonstration at least 60 days prior to compliance testing. However, the requirements of these conditions are not applicable as long as low volatility alcohol substitutes such as ethylene glycol and ethylene glycol n-butyl ether (butyl cellosolve) are being used.

VII. EMISSION LIMITATIONS

VII.1 SOURCE IMPACT ANALYSIS

The printing of the different materials will produce emissions of volatile organic compounds (VOC).

The estimated total potential VOC emissions due to the printing of all different materials at this press (SDM-031) are summarized in Table 1.

Table 1

Source	Potential Pollutant Emissions lbs/hr	TPY
Afterburner		
Ink	11.35	49.7
Alcohol Substitute	.96	4.2
Cleaning Solvents	.04	0.2
NG Usage*		
Dryers		
NG Usage*	.08	.4
Fugitives		
Alcohol Substitutes	2.13	9.3
Cleaning Solvents	1.38	6.0
TOTAL	**15.94**	**69.8**

Note: 1. Continuous operation allowed (i.e., 8760 hrs/yr);
2. Minimum afterburner destruction efficiency is 95%; and
*3. Emissions for NG combustion based on Table 1.4-1, AP-42 Emission Factors for both the afterburner and the dryer.

Table 2 lists the permitted emissions from this press (SDM-031).

Table 2

Source	Pollutant	Emission Standards and Limitations
Presses SDM-031	VOC	Total of 3.5 lbs/hr, 15.4 TPY
KATEC Thermal Afterburner	VOC	total of 12.4 lbs/hr, 54.4 TPY

Note: o Press is allowed continuous operation (i.e., 8760 hrs/yr);
o Emissions from the press is based on minimum capture efficiencies of 80% (ink VOCs), 90% (alcohol substitute) and 37.5% (cleaning solvent), in accordance with F.A.C. Rule 17-296.320(1);

- Emissions from the afterburner are based on a minimum destruction efficiency of 95% in accordance with F.A.C. Rule 17-296.320(1).

R. R. Donnelly & Sons' facility wide VOC emission levels shall not exceed 132.7 tons/VOC per year.

VII.2 AIR QUALITY ANALYSIS

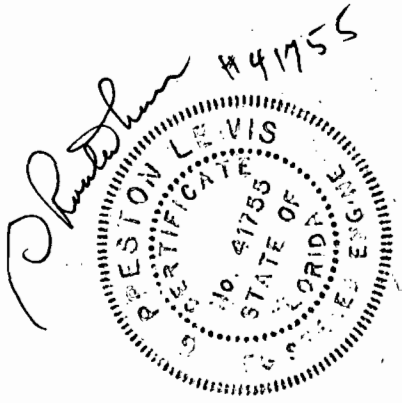
The project has been evaluated in accordance with the procedures contained in the Department's Draft Air Toxics Permitting Strategy. The maximum hourly emissions of potential VOC air toxics were modeled to determine the maximum predicted ambient concentrations for comparison to the Department's current draft air toxics reference concentrations. The pollutants evaluated were butyl cellosolve and ethylene glycol.

The applicant used the EPA and Department-approved SCREEN model. Downwash parameters were used because the stacks were less than good engineering practice (GEP) stack heights. The modeling results are given in the table below and show that the maximum predicted concentrations for each pollutant are less than the appropriate reference concentrations.

Pollutant	Maximum Predicted Concentration (ug/m^3)			Reference Concentration (ug/m^3)		
	8-hr	24-hr	Annual	8-hr	24-hr	Annual
Butyl Cellosolve	---	---	2.0	---	---	20
Ethylene Glycol	5	3	---	1270	304.8	---

VIII. CONCLUSION

Based on the information provided by R. R. Donnelley & Sons Company, Department has reasonable assurance that the proposed construction/installation of one (1) Harris Heidelberg, 2 web, heatset offset press, 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 Chapter 17-212 of the Florida Administrative Code.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

PERMITTEE:
R. R. Donnelly & Sons Comp.
3100 S. Ridgewood Avenue
South Daytona, FL 32119

Permit Number: AC64-224043
Expiration Date: April 30, 1994
County: Volusia
Latitude/Longitude: 29°09'00"N
80°59'15"W
Project: Lithographic Facility
Printing Press SDM-031

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 275, 296, 297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of one (1) Harris Heidelberg, 2 web, heatset offset press with a TEC System recuperative thermal afterburner to control volatile organic emissions (VOC). This facility will be located at the R. R. Donnelley & Sons facility in Volusia County, Florida.

The source 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. R. R. Donnelly & Sons' application received on January 5, 1993.
2. Department's letter dated January 27, 1993.
3. R. R. Donnelly's letter dated February 16, 1993.
4. Technical Evaluation and Preliminary Determination dated May 12, 1993.

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

GENERAL CONDITIONS:

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 arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. 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

GENERAL CONDITIONS:

rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, 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. 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 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.

14. 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

GENERAL CONDITIONS:

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:

LITHOGRAPHIC FACILITY - PRESS SDM-031

Emissions Limits

1. Total VOC allowable emissions from press SDM-031 shall not exceed the total emissions as listed in the following table:

Source	Pollutant	Emission Standards and Limitations
Presses SDM-031	VOC (fugitive)	Total of 3.5 lbs/hr, 15.4 TPY
KATEC Thermal Afterburner	VOC	Total of 12.4 lbs/hr, 54.4 TPY

Note: o Press is allowed continuous operation (i.e., 8760 hrs/yr);
o Emissions from the press is based on minimum capture efficiencies of 80% (ink VOCs), 90% (alcohol substitute) and 37.5% (cleaning solvent).
o Emissions from the afterburner are based on a minimum destruction efficiency of 95%.

2. The calculated emissions from either afterburner, assuming 95% destruction efficiency, shall not exceed 100 tons/yr during any 12-month period. If the emissions from either afterburner exceed 100 tons, this facility shall be required to perform annual testing to confirm destruction efficiency and VOC emissions.

3. There shall be no visible emissions (5% opacity) from the afterburner except that visible emission not exceeding 20% opacity shall be allowed for up to three minutes in any hour.

4. Maximum ambient air concentrations of the air toxics evaluated in the air quality analysis shall not exceed the air toxics reference concentrations (ATRC) calculated in accordance with the Department's Air Toxics Permitting Strategy. The following levels shall not be exceed:

Pollutant	Maximum Predicted Concentration (ug/m^3)			Reference Concentration (ug/m^3)		
	8-hr	24-hr	Annual	8-hr	24-hr	Annual
Butyl Cellosolve	---	---	2.0	---	---	20
Ethylene Glycol	5	3	---	1270	304.8	---

SPECIFIC CONDITIONS:

Operating Parameters

5. This source (press SDM-031) is allowed to operate continuously (8760 hours per year).

6. The permitted materials and utilization rates are as stated in the application.

7. The Permittee shall install, calibrate, maintain, and operate a device that continuously measures and records the combustion temperature at the control point of the afterburner.

8. Permittee shall install an overtemperature alarm and automatic press shutdown system. The overtemperature limit shall be set to alarm at 1450°F, with the presses to be shut down automatically one hour following the alarm if the overtemperature condition is not corrected. The high temperature limit shall be set at 1500°F, triggering an immediate shutdown of the presses.

9. The Permittee shall maintain a 3-hour rolling average combustion chamber temperature of at least 1350°F at the control point of each afterburner that is in use, whenever the dryer exhaust from any or all of the press systems (SDM-031, SDM-001, SDM-002, SDM-003) is directed to the control device. For the purposes of this permit, an hour shall be each period of sixty consecutive minutes.

10. Any other operating parameters established during compliance testing and/or inspection that will confirm the proper operation of this facility shall be included in the operating permit.

Compliance Determination

11. Compliance with the allowable emission limits shall be determined within 60 days after achieving the maximum production rate at which this facility will be operated, but not later than 180 days after initial start-up and as requested by the District office in their annual operating report, by the following reference methods as described in 40 CFR 60, Appendix A (July 1992 version) and adopted by reference in Rule 17-297, F.A.C.

Method 1. Sample and Velocity Traverses
Method 2. Volumetric Flow Rate
Method 3. Gas Analysis
Method 4. Determination of Moisture Content in Stack Gases
Method 9. Determination of the Opacity of Emissions from Stationary Sources

SPECIFIC CONDITIONS:

Method 24. Determination of the VOC content
Method 25A. Determination of Total Gaseous Organic Concentrations using Flame Ionization Analyzer

Other DER approved methods may be used for compliance testing after prior Department approval.

12. Emissions and control destruction efficiency will be determined from the average of 3 valid and separate test runs. The Central District office will be notified in writing at least 15 days in advance of the compliance test(s). Compliance tests shall be conducted with the facility operating at the highest production rates possible, under conditions that are representative of the performance and operational rates of the facility, and within its permitted limit. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

13. The permittee shall conduct EPA Method 25A and DER Method 9 testing to demonstrate compliance with the applicable VOC and visible emission standards, respectively, prior to obtaining an operation permit and with each subsequent renewal of an operation permit; and, as may be ordered by the Department pursuant to F.A.C. Rule 17-297.340(1)(c).

14. The initial and subsequent demonstrations (upon permit renewal and/or as requested by the Department) of the capture efficiency of each dryer enclosure shall be conducted using the U.S. EPA's VOC Capture Efficiency Test Procedure pursuant to F.A.C. Rule 17-297.450. The Permittee shall notify the Department's Central District in writing of the protocol that will be used for the capture efficiency demonstration at least 60 days prior to compliance testing. However, the requirements of this condition are not applicable as long as ethylene glycol and ethylene glycol n-butyl ether (butyl cellosolve) are being used.

15. The initial and subsequent compliance tests (upon permit renewal and/or as requested by the Department) for the actual destruction efficiency (comparison of the inlet and outlet concentrations) of the KATEC thermal afterburner shall be conducted using EPA Method 25A, pursuant to F.A.C. Rule 17-297 and 40 CFR 60, Appendix A (July, 1989 version). Other test methods may be used as long as prior Department approval has been granted in writing.

16. Pursuant to F.A.C. Rule 17-210.700, the Permittee shall submit a full written quarterly report to the Department's Central District when:

SPECIFIC CONDITIONS:

- one or more press systems were operating and the 3-hour rolling average combustion temperature of an operating afterburner controlling emissions from the press dryers was less than 1350°F, the cause of the low temperature, and the corrective actions taken; or,

- the KATEC thermal oxidizer's VOC input rate exceeded its maximum manufacturer's design capacity and the combustion temperature exceeded 1500°F; and, the corrective actions taken.

17. The permittee shall maintain a log of the quantity of volatile organic compounds (VOC) used on a monthly basis. The reference method for determining the VOC content of each material (including inks, thinner, coatings, clean-up solvents, waste solvents, etc.) shall be EPA Method 24.

18. Pursuant to F.A.C. Rule 17-4.160(14), the Permittee shall retain all monitoring records related to the requirements of construction permit, No. AC 64-224043, and shall retain the records at the facility for a period of three (3) years.

19. When the Department, after investigation, has good reason (such as odor complaints, increased visible emissions, excess emissions, etc.), to conclude that any applicable emission standard contained in this permit is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of air pollutant emissions from the facility and to provide a report of said tests to the Department.

20. Compliance with the ATRC shall be demonstrated based on calculations certified by a professional engineer registered in Florida using actual operating conditions (if actual operating conditions meet or exceed emission levels used in worst case scenario as stated in the permit application). The ambient concentration for organic compounds shall be determined by Department approved dispersion modeling. ATRC calculations shall be made available upon request.

Rule Requirements

21. This facility shall comply with all applicable provisions of Chapter 403, Florida Statutes; Chapters 17-209 through 17-297, and 17-4, Florida Administrative Code; and 40 CFR 60 (July, 1992, version).

22. This permit is issued in accordance with Rule 17-212.300, F.A.C., Sources not Subject to PSD or Nonattainment Requirements.

SPECIFIC CONDITIONS:

23. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-210.300(1)).

24. According to F.A.C. Rule 17-296.320(1)(a), no person shall store, pump, handle, process, load, unload, or use in any process or installation volatile organic compounds or organic solvents without applying known and existing vapor emissions control devices or systems deemed necessary and ordered by the Department. The following procedures shall be utilized to minimize pollutant emissions:

- maintain tightly fitting covers, lids, etc., on all containers of VOC when they are not being handled, tapped, etc.;
- prevent excessive air turbulence across exposed VOCs;
- where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin, bath, etc., of VOC so that it can be covered when not in use;
- all fittings, valve lines, etc., shall be properly maintained; and,
- all VOC spills shall be attended to immediately and the waste properly disposed of, recycled, etc.

25. This facility is subject to applicable provisions of Chapter 17-297, F.A.C., Stationary Sources - Emissions Monitoring.

26. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-296.320(2). Objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance pursuant to F.A.C. Rule 17-296.200(123).

27. Pursuant to F.A.C. Rule 17-212.300, Permits Required, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: hours of operation, VE test results, VOC emissions [lbs/month (calculable on a 24-hour basis) and tons/year], VOC content of organic materials (inks, thinner, coatings, solvents, etc.), utilization rates, destruction efficiency, and stack test results (upon permit renewal and/or as requested by the Department). Annual reports shall be sent to the Department's Central District office.

SPECIFIC CONDITIONS:

28. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

29. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this _____ day
of _____, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Howard L. Rhodes, Director
Division of Air Resources
Management

The Lakeside Press
R·R·DONNELLEY & SONS COMPANY

750 WARRENVILLE ROAD
LISLE, ILLINOIS 60532
708-963-9494

May 5, 1993

Ms. Teresa Heron, Review Engineer
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

Subject: R.R. Donnelley & Sons Company, South Daytona Division
Comments on Draft Construction Permit, #AC 64-224043

Dear Ms. Heron:

Confirming our phone conversation of today regarding the subject construction permit, the following reflects a clarification of the operation of the thermal afterburner systems.

As described in your draft of the permit (page 2), the original and new thermal afterburner control systems will be physically connected to permit the exhaust from any of the presses to be directed to either of the control systems. The maximum exhaust flow capacity however, of each of these thermal afterburners (both are KATEC Model 2-174 units) is such that the exhausts from no more than three (3) existing presses (SDM-001, 002, 003), or the exhaust from the new press (SDM-031) together with the exhaust from one (1) existing (SDM-001, 002, or 003) press can be simultaneous directed through a single afterburner.

Further as outlined in condition #6 of the draft construction permit, the maximum permitted VOC input rate to the afterburner cannot be exceeded because of the overtemperature alarm and automatic press shutdown system.

These physical limitations will ensure that both sources are minor, as defined under the Florida Administrative Code.

I am enclosing a copy of TEC's latest brochure which describes the operation of their thermal oxidizer.

Please let us know if there is anything we can do to assure that an approved copy of the proposed permit can be issued by Friday, May 7th.

Should you have any questions, please contact me at (708) 719-6777.

Sincerely

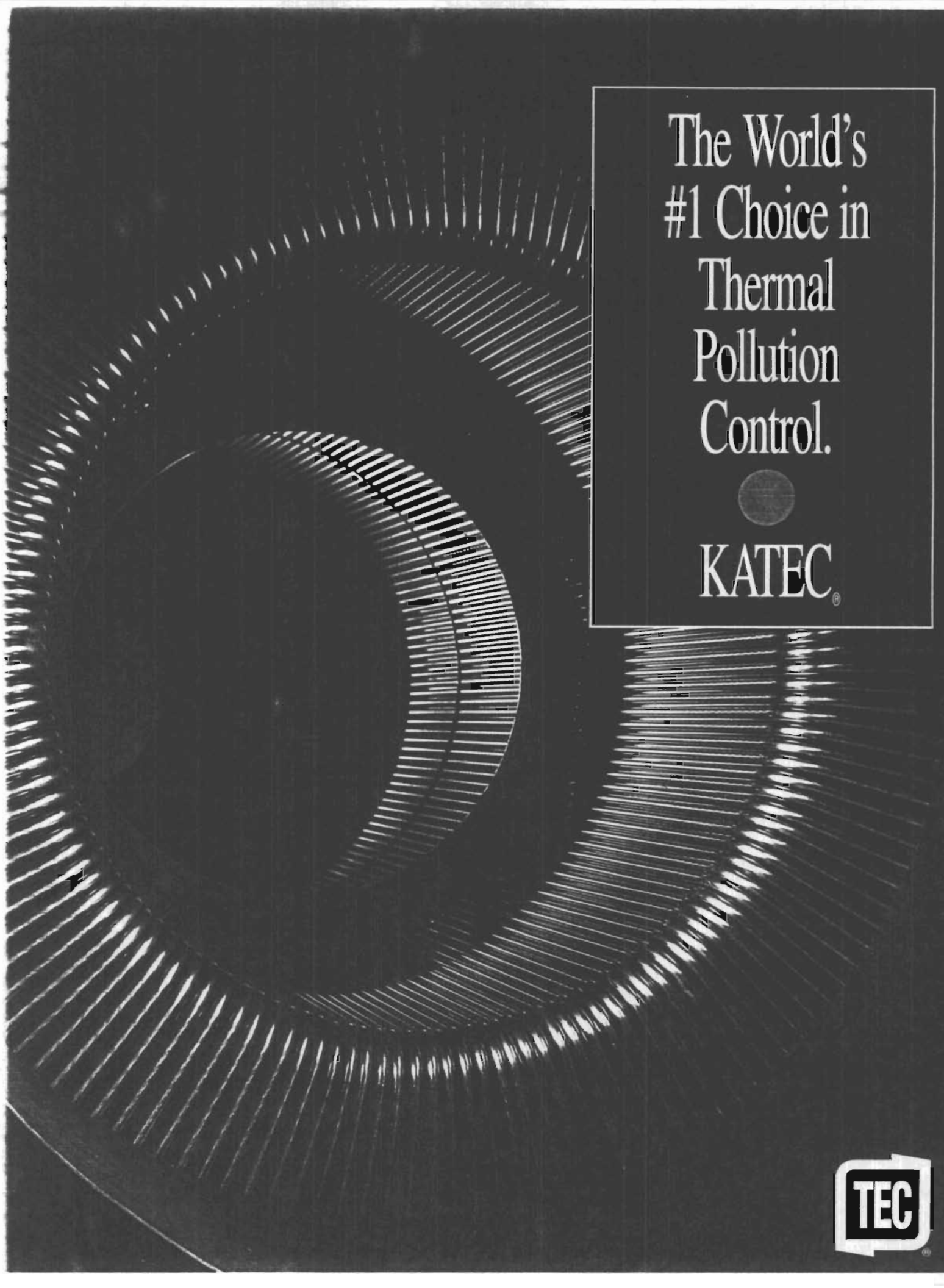
R.R. Donnelley & Sons Co.

Larry Laya

Larry Laya
Senior Environmental
Project Engineer

SD9307CP
Attachment: TEC Brochure

CC: C. Fancy, FDER
L. Wilkinson, RRD South Daytona
M. Horne


The World's
#1 Choice in
Thermal
Pollution
Control.
KATEC®
TEC®

KATEC®

Thermal Oxidation System.

Cost-efficiency and high performance from TEC Systems.

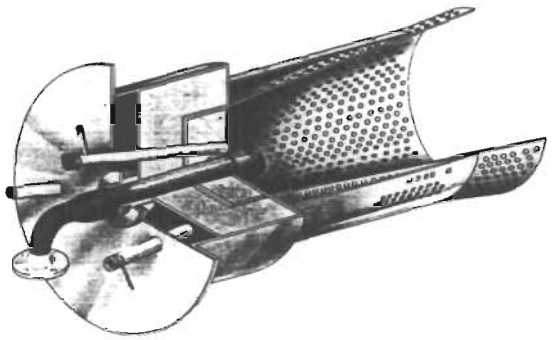
Built To Take The Heat.

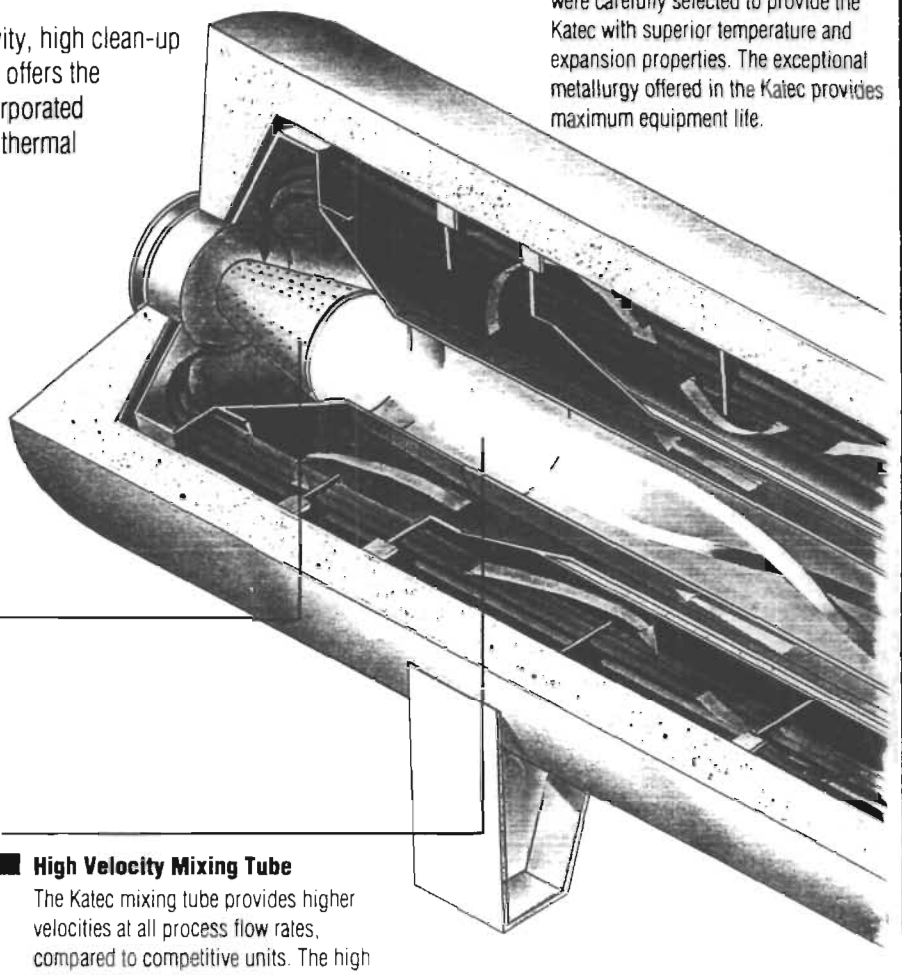
The Katec thermal oxidizer from TEC S trouble-free VOC air pollution control.

TEC Systems has been building highly efficient pollution control equipment for over twenty years. Over 400 Katec oxidation systems have been installed worldwide since they were first introduced.

The unique Katec design provides system longevity, high clean-up efficiencies and lower operating costs. The Katec also offers the added benefit of energy recovery: the unit can be incorporated with a secondary heat exchanger to heat water, air, or thermal oil; or to provide chilled water.

Superior Metallurgy
Five different grades of stainless steel were carefully selected to provide the Katec with superior temperature and expansion properties. The exceptional metallurgy offered in the Katec provides maximum equipment life.



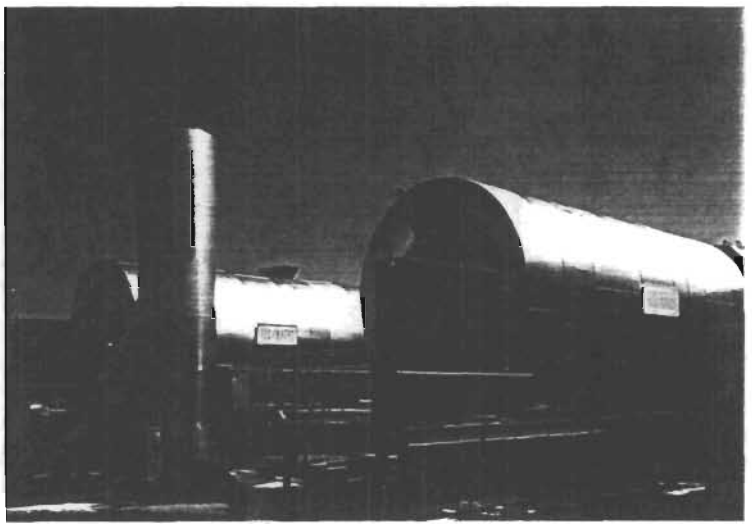


Highly Efficient Raw Gas Burner
A custom TEC raw gas burner is 45% more efficient than nozzle mix burners because it uses no combustion air. Imported high temperature micro-alloy steel provides longer life than other steels. The unit is designed to promote mixing, for better clean-up and stable flame under all conditions. This burner helps eliminate costly shutdowns caused by flameouts. A burner combustion safeguard is built in to ensure safe operation.

The Katec unit automatically initiates a warm-up cycle, to minimize stress on components and provide long equipment life.

High Velocity Mixing Tube
The Katec mixing tube provides higher velocities at all process flow rates, compared to competitive units. The high velocity creates turbulence, thoroughly mixing the exhaust air. This eliminates stratification, and provides higher clean-up rates and lower operating costs.

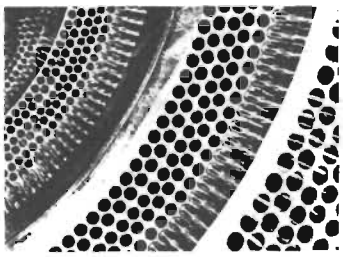
AC Drive
A high efficiency AC drive is provided to minimize operating costs, especially when process exhaust air flow rates are only a portion of the total oxidizer capacity. Unlike competitive systems that often have dampers that actuate too quickly, the Katec process air flow is accurately controlled to prevent rapid fluctuations.



Katec adaptability eliminates one-on-one setup.
A single TEC Katec unit can handle multiple process installations, eliminating the need for a one-on-one press/process pollution control setup. Katec is also available as a tandem system. Multiple Katec thermal oxidizers operate just as efficiently as they do in single-unit installations.

ı TEC Systems features advanced engineering and rugged construction to provide years of ontrol. Take a look inside this Katec oxidizer, to see how it's "built to take the heat!"

less steel
ovide the
ture and
xceptional
ec provides

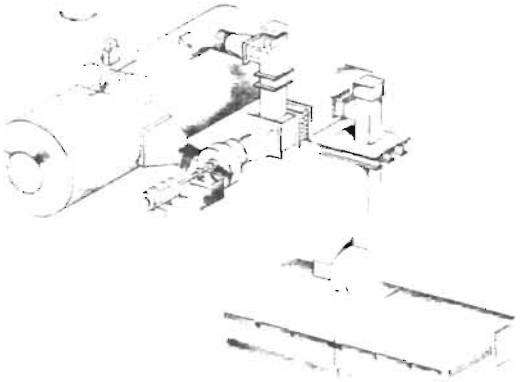


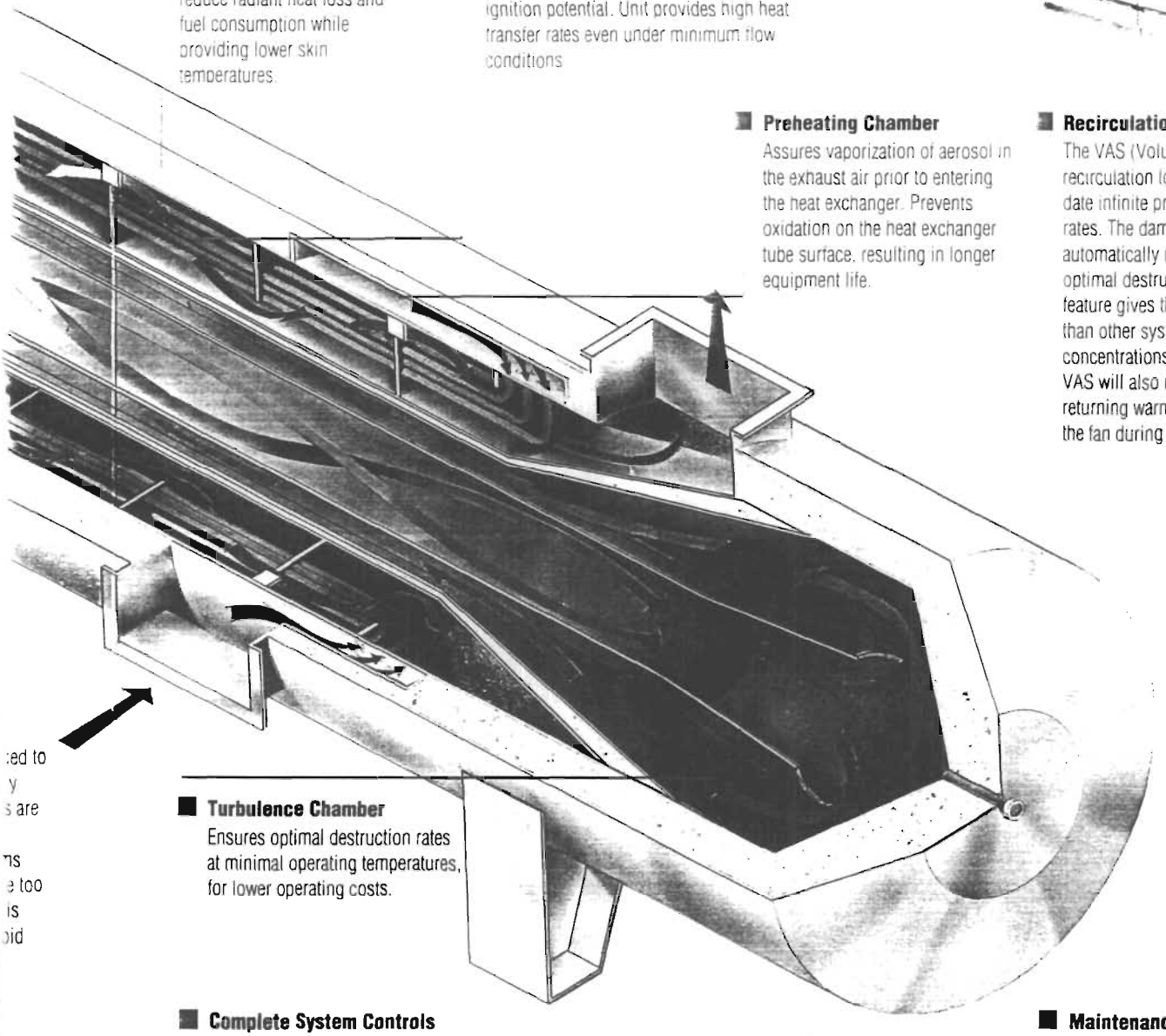
Heat Insulation

Twelve inches of insulation reduce radiant heat loss and fuel consumption while providing lower skin temperatures.

Patented Heat Exchanger

Heat exchanger efficiencies of up to 76% are available, to minimize operating cost. The heat exchanger's unique design allows for smaller overall equipment size, resulting in less radiant heat loss and lower operating costs. A special feature is the patented 90-degree tube bend, which allows for individual tube expansion and minimal stress, to assure equipment longevity. Exhaust air flows into the tubes at high velocities, minimizing pre-ignition potential. Unit provides high heat transfer rates even under minimum flow conditions.





Preheating Chamber

Assures vaporization of aerosol in the exhaust air prior to entering the heat exchanger. Prevents oxidation on the heat exchanger tube surface, resulting in longer equipment life.

Recirculation Loop (VAS)

The VAS (Volume Adapting System) recirculation loop will accommodate infinite process air flow turndown rates. The dampers provided will automatically modulate to maintain optimal destruction efficiency. The VAS feature gives the Katec more adaptability than other systems by allowing heavier concentrations of solvent-laden air. The VAS will also reduce operating costs by returning warm air back to the suction of the fan during idle operation.

ed to
y
s are

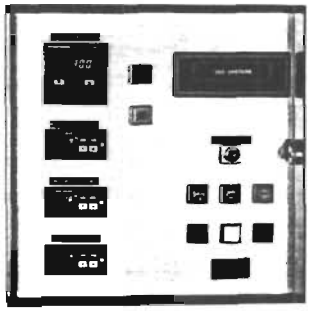
ns
e too
is
oid

Turbulence Chamber

Ensures optimal destruction rates at minimal operating temperatures, for lower operating costs.

Complete System Controls

Dampers and damper controls are provided to completely integrate the operation of the process and the oxidizer. This system integration can help to maximize the performance of both the process and the oxidizer. The controls of the oxidizer are specially designed to accommodate occasional spikes in solvent concentration from the process, to reduce equipment fatigue and extend equipment operating life. Every Katec unit is equipped with a completely pre-wired and pre-piped gas train in a weatherproof enclosure.

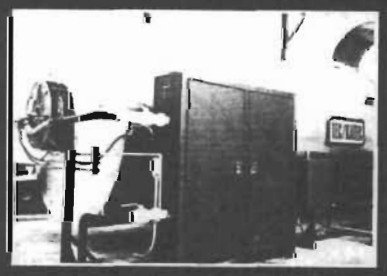


Maintenance and Troubleshooting

While the Katec unit is operating, up-to-the-minute information is easily obtained. The digital temperature controllers and the PLC display panel not only provide operating data, but also give a controlled temperature ramp rate. This feature helps to minimize equipment stress, so equipment lasts longer. The PLC display panel provides operating status data, first-out troubleshooting indications, and a maintenance schedule.

The Katec thermal oxidation system provides superior clean-up today and keeps you prepared for the pollution control requirements you'll face tomorrow.

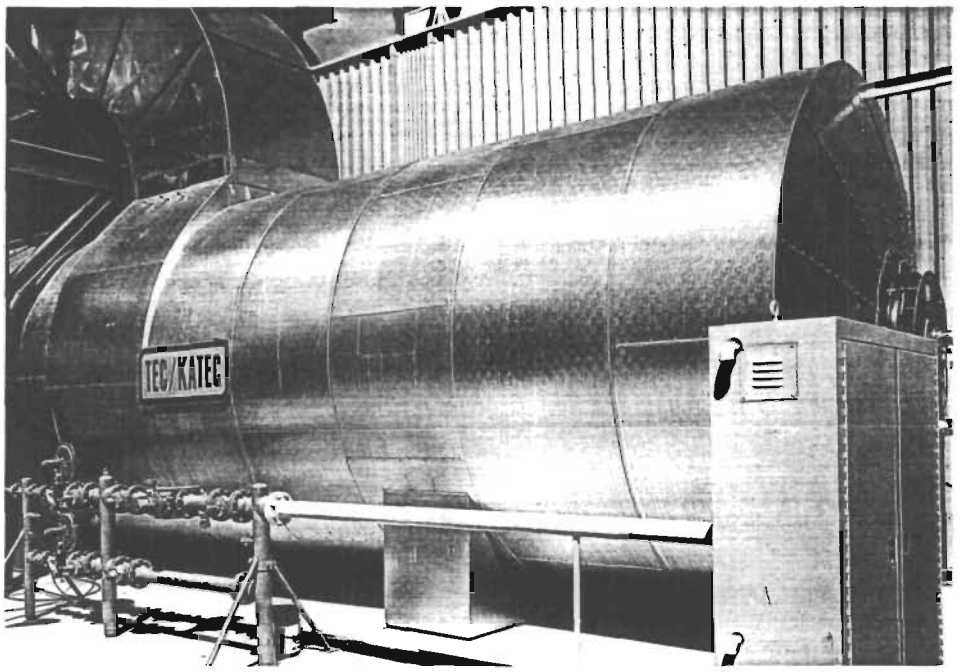
Up to 99+% Cleaning Efficiency.



KATEC

- *World class engineering is your assurance of a quality system built for longevity and efficiency.*

- *Proven performance, with over 400 installations worldwide.*



KATEC

Experience

Over 1000 installations worldwide make TEC the pollution control specialist. The Katec system alone has been installed at over 400 facilities.

Whether you're involved in web offset printing; packaging and flexo printing; coating, laminating and label production; converting foil; plastic films with special substrates; or paper coating productions, TEC has the system to meet your needs. TEC offers you a full choice of pollution control equipment. In addition to Katec, you can choose from Quantum™, Phoenix, Spectrum and Diablo™ systems. Proven systems designed and engineered to match your capital outlay prerequisites and satisfy all your regulatory requirements, now and in the future.

And while we're the leader in pollution control, we're also the number one manufacturer of drying systems for the graphic arts, paper, and process/converting industries.

Your TEC Team

A team of TEC professionals is always available to answer your questions on pollution control and drying systems.

You'll work with your own TEC Team, headed up by a project engineer, who will coordinate your project from start to finish. Your TEC Team also includes your sales representative, an internal sales consultant, a technical parts representative, and a field service specialist. At TEC Systems, we work hard to provide service continuity, system familiarity, and complete satisfaction.

Regional Service Centers

TEC offers one of the largest service staffs in the pollution control industry. Our TEC Service Centers work to make planning, installation, and start-up fit your schedule. The TEC Systems field service staff is highly-trained and experienced. And our twenty-four hour service policy helps minimize downtime.

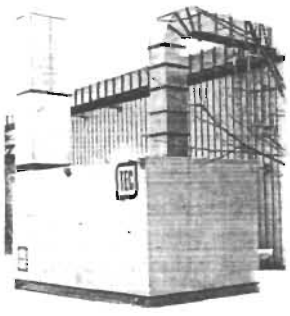
Full One-Year Warranty

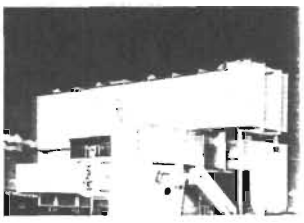
TEC is one of the few industrial manufacturers that offers a full warranty. Our ability to extend this type of customer protection is possible because of our equipment's dependability.

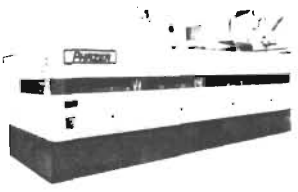
Quality Assurance

Prior to shipment, TEC's quality audit ensures that your equipment meets the rigid quality standards set by you and TEC Systems. Each member of the audit team confirms - in writing — that the quality requirements have been satisfied in the system's design and manufacture. It's your assurance of quality from TEC Systems.

TEC Systems:
A Full Choice in Pollution Control and Drying Equipment







TEC Systems Provides The World's Greatest Selection of Pollution Control Systems, Air Flotation Drying Systems and Web Handling Equipment.

LITHO IN USA

1706-0392

W.R.GRACE & CO.–Conn.

1-800-558-2884

TEC Systems, W.R. Grace & Co.–Conn.
830 Prosper Road, P.O. Box 30
De Pere, Wisconsin 54115-0030
Telephone: 414/336-5715
800/558-2884 Sales
800/558-5535 Service
FAX: 414/336-3404

Authorized Representative:
National Graphic Sales, Inc.
181 S. Bloomingdale Rd., Suite 102
Bloomingdale, Illinois 60108
Telephone: 708/894-3333
FAX: 708/894-4233

RR DONNELLEY & SONS COMPANY
South Daytona Division

3100 South Ridgewood Avenue
South Daytona, Florida 32119
Telephone (904) 322-2320
Fax (904) 322-2330

Gloria M. Ysasi-Diaz
Vice President/Division Director

May 3, 1994

5/23 John
what is status of
this.
Clair

Preston:
Prepare a short
summary and a
recommended
solution by 6/13.
JB

Mr. W. Douglas Beason
Office of General Counsel
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
2600 Blair Stone Road, Suite 654
Tallahassee, FL 32399-2400

RE: **OPERATION PERMIT NO. A064-244106**
R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA, VOLUSIA COUNTY, FLORIDA

Dear Mr. Beason:

In accordance with the procedure outlined in the NOTICE OF PERMIT ISSUANCE for the subject Operation Permit, attached is our petition for an administrative proceeding with respect to this permit which was issued by the State of Florida, Department of Environmental Protection, Central District Office, on April 19, 1994, and received at our facility by certified mail on April 21, 1994.

We are requesting that Specific Condition #14 (relating to compliance testing), be revised to mirror the conditions included in the Construction Permit (#AC64-224043) issued for this press and afterburner system installation. This request is based on extensive discussions with FDEP personnel in Orlando and Tallahassee and agreements previously reached regarding this issue.

The attached petition contains the following information:

a. Petitioner's information
b. A statement of how and when notice of the Department's action was received
c. A statement of how our interests are affected by the Department's action
d. A statement of the material facts in dispute
e. A statement of facts which we contend warrant reversal or modification of the Department's action
f. A statement of which rules we contend require reversal or modification
g. A statement of this relief sought

Should there be any questions, please call Warren Whitehead of my staff at 904/322-2670 or Larry Laya of our Corporate Environmental Affairs Department at 708/719-6777.

We await your counsel as to the time, location and procedural format of the requested administrative proceeding.

Sincerely,

R.R. DONNELLEY & SONS CO.

Gloria M. Ysasi-Diaz
Vice President/
Division Director

GMY:bw

Attachment

cc: G. Bender
H. Britton
D. Kalina
L. Laya
W. Whitehead

C. H. Fancy, P.E. (FDEP)
C. Collins (FDEP)

PETITION FOR ADMINISTRATIVE HEARING
OPERATION PERMIT NO. A064-244106
SUBMITTED BY R.R. DONNELLEY & SONS COMPANY
MAY 3, 1994

a. **Petitioner Information**

Gloria M. Ysasi-Diaz 904/322-2320
Vice President/Division Director
R.R. DONNELLEY & SONS COMPANY
3100 S. Ridgewood Avenue
South Daytona, Volusia County, FL 32119

b. **How and when notice of Department's action was received**

The NOTICE OF PERMIT ISSUANCE and OPERATION PERMIT dated April 19, 1994, were received at this facility by Certified Mail on April 21, 1994.

c. **How our interests are affected by the Department's action**

Specific Condition #14 of the Operation Permit captioned above for Press SDM-031, limits source operation to 110% of the utilization rate as determined during the compliance test. This is a significant modification of Specific Condition #12 of the Construction Permit (#AC64-224043) which does not contain this restrictive condition.

Our concern, as outlined in numerous conversations with the District Office in Orlando and with the Department's office in Tallahassee, is that, since our utilization rates are dependent upon customer requirements as well as equipment performance, it would be very expensive and extremely difficult to perform a compliance test that would meet these maximum conditions outlined. Being unable to attain these rates during a compliance test could therefore restrain our future capacity for any customer work that would require rates higher than these reduced limits.

d. **Material facts in dispute**

Compliance Testing, Specific Condition #14 of the subject Operation Permit, states that:

> Testing of emissions should be conducted with the source operating at 90% to 100% of maximum permitted utilization rates. The source may be tested at less than 90% of maximum permitted utilization rates; however, <u>subsequent source operation is limited to 110% of the tested rate until a new test is conducted and approved by the Department in writing.</u> Once the source is so limited, operation at higher capacities not to exceed maximum permitted utilization rates is allowed for a cumulative total of no more than 15 successive calendar days for purposes of additional compliance testing to regain maximum permitted utilization rates with prior notification to the Department.

The Department cites Rule 17-4.070(3) as its authority to issue any permit with specific conditions necessary to provide reasonable assurances that Department rules can be met. As described below, agreements reached with the Department together with other conditions contained in the Operation Permit, provide the reasonable assurances needed to satisfy Rule 17-4.070(3) without the totally unnecessary and unreasonable restriction on this source provided by the current wording of Specific Condition #14.

e. **Facts we contend warrants reversal or modification**

In order to address the Department's concerns with limitations on material usage rates and emissions, we have held extensive discussions with and have provided detailed documentation to FDEP describing our operations and demonstrating the performance of our emission control system. The following lists some of the correspondence with the Department relative to this issue:

1. On December 10, 1992, Donnelley met with the Department to resolve the issue of operating rate compliance determination. We agreed to accept specific conditions requiring alarms and automatic shutdown of equipment to be included in a modification of Construction (#AC64-188871) and Operation (#A064-219874) Permits for the three presses and afterburner system installed at this facility. As a result of this agreement, these specific conditions requiring alarms and automatic shutdown have also been included in the subject Operation Permit and associated Construction Permit for the fourth press and afterburner system.

   Ref: Letter dated 2/9/93 to Alan Zahm
   Operation Permit A064-219874, Specific Condition #15
   Construction Permit AC64-224043, Specific Condition #12

   Letter dated 12/24/92 to Carl Zielke, which listed Amendments to Construction Permit #AC64-188871 including Specific Condition No. A.14 (see also item No. 4 below)

2. We provided to Florida DEP our comments on a draft order for an alternate compliance demonstration. Under the section titled "Order" of this letter, paragraphs 7 and 8 discuss in detail the problems associated with performing a compliance test at maximum utilization rates.

   Ref: Letter dated 7/21/92 to Mike Harley

3. We described to Florida DEP how our prior compliance test on September 16, 1992, fully demonstrated that the performance of the emission control system far exceeds the requirements of the permit under low, intermediate and high operational conditions.

Ref: Letter dated 9/30/92 to Mike Harley

4. We confirmed to Florida DEP the results of our meeting with the Department in Tallahassee on December 10, 1992. This letter confirmed the agreement reached on how compliance tests are to be conducted. It stated that "A compliance test will be performed under normal operational conditions following the installation of the new press (SDM-004) next year, and prior to the renewal of the operation permit every 5 years." (Emphasis supplied.)

Ref: Letter dated 12/11/92 to Clair Fancy

f. Statement of rules we contend require reversal

We request a revision of Specific Condition #14 of Operation Permit Number A064-244106 since a performance test at normal operational conditions and other permit conditions will provide more than adequate assurances that this facility is operating (and will continue to do so), within the limits imposed by FDEP. Therefore the facility meets the requirements of 17-4.070(1) and a permit issued with a revised Specific Condition #14 will satisfy 17-4.070(3).

g. Statement of relief sought

We request a revision of Specific Condition #14 of the Operation Permit to reflect the agreed-to requirements of Specific Condition #12 of the Construction Permit issued for this installation and to be consistent with the requirements of the Operation Permit for the other similar equipment at this facility.

The following is the agreed-to wording as stated in Construction Permit No. AC64-224043:

"Compliance tests shall be conducted with the facility operating at the highest production rates possible, under conditions that are representative of the performance and operational rates of the facility and within its permitted limit."

Respectfully Submitted.

R.R. DONNELLEY & SONS CO.
Petitioner

By: Gloria M. Ysasi-Diaz
Gloria M. Ysasi-Diaz
Vice President/
Division Director
South Daytona Mfg. Div.

The Lakeside Press
R·R·DONNELLEY & SONS COMPANY
750 WARRENVILLE ROAD
LISLE, ILLINOIS 60532
708-963-9494

File

April 27, 1993

Ms. Teresa Heron, Review Engineer
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

Subject: R.R. Donnelley & Sons Company, South Daytona Division
Comments to Draft of Application For Construction Permit
#AC 64-224043

Dear Ms. Heron:

Confirming our phone conversation of today regarding the subject construction permit, the following reflects revisions to specified paragraphs in the draft which have been found acceptable and will be used in the final Permit:

IV. (1st Para.) This project involves the construction /installation of the new press SDM-031, Harris Heidelberg, Model M3000, 2 web, heatset offset press with eight (8) in-line printing unit. The materials used.....

(2nd Para.) The exhaust from the press dryers will be controlled using two (2) TEC Systems recuperative thermal afterburner systems. A new afterburner will be installed to operate in tandem with the existing afterburner.

VI (3rd Para.) This facility will.....

(9th Para.) The projected potential pollutant emissions, except for VOC from natural gas combustion from the new afterburner and the associated dryers are 0.45 TPY (PM), 0.09 TPY (SO_2), 19.8 TPY (NO_x) .....

SPECIFIC CONDITIONS:

4. This source (press SDM-031) is allowed to operate continuously (8760 hours per year).

7. The permittee shall maintain a rolling 3-hour average combustion chamber temperature of at least 1350°F at the control point of any afterburner in use, whenever the dryer exhaust from any or all of the press systems (SDM-031, SDM-001, SDM-002, and SDM-003) is directed to the control device . For the purposes of .....

10. Control destruction efficiency will be determined from the average of 3 valid and separate compliance test runs. The Central District office will be notified in writing at least 15 days in advance of the compliance test(s). Compliance tests shall be conducted with the facility operating at the normal production rates, under conditions that are representative of the .....

22a. Pursuant to F.A.C. Rule 17-210.700, the permittee shall submit a full written quarterly report to the Department's Central District when:

- o One or more press systems were operating and the rolling 3-hour average combustion chamber temperature of an operating afterburner controlling emissions from the press dryers was less than 1350°F, the cause of the low temperature .....
- o The KATEC thermal oxidizer's VOC....

Ms Heron please note: As I stated in our phone conversation, we recommend Specific Condition 22b. incorporate Specific Condition #11, of our Operation Permit (#AO64-219874) recently issued by FDER for the three (3) existing web offset presses at the South Daytona Facility. It should state:

22b. The permittee shall maintain a log of quantity of volatile organic compounds (VOC) used on a monthly basis. The reference method for determining the VOC content of each material shall be EPA Method 24 (Note: vendor specifications, data sheets, etc. are acceptable).

These records shall provide the basis for the calculation of VOC emissions for the Annual Operations Report DER Form 17-210.900(4) and for any other reports that may be required.

Should you have any questions please contact me at (708) 719-6777.

Sincerely

R.R. Donnelley & Sons Co.

Larry Laya

Larry Laya
Senior Environmental
Project Engineer

The Lakeside Press
R·R·DONNELLEY & SONS COMPANY
750 WARRENVILLE ROAD
LISLE, ILLINOIS 60532
708-963-9494

RECEIVED
MAR 0 9 1993
Division of Air
Resources Management

To file

March 5, 1993

Ms. Teresa Heron, Review Engineer
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

Subject: R.R. Donnelley and Sons Company, South Daytona Division
Application For Construction Permit (AC 64-224043)
Request For Additional Information

Dear Ms. Heron:

Confirming our phone conversation of March 5, 1993, regarding your request for additional information for the subject construction permit application, I am forwarding the following for your review and use:

1. Description of Heatset Web Offset Lithographic Process

You requested that we provide a description of the heatset web offset lithographic process. I believe you will find Section 8, taken from the following publication, of use:

Air Quality Permits, A Handbook For Regulators & Industry
Published By: The Association of Local Air Pollution Control Officials (ALAPCO) and,
The State and Territorial Air Pollution Program Administrators (STAPPA).

2. Ink Oil Retention Factor

You requested that we provide sources for the ink oil retention factor used in Table 1, of our permit application.

A. Reference to page 8-16 of the Air Quality Permits Handbook, the factors recommended by the U.S. EPA for heat-set web offset lithographic printing are:

20%	retained on the web
80%	evaporated in the dryer
0%	evaporated in the pressroom

2. I am also enclosing a copy of a portion of a draft of the Offset Lithographic Printing Control Techniques Guideline (CTG) prepared for the U.S. EPA, dated September 6, 1991. The copies include a summary of the process and on pages 2-7 and 5-4, statements confirming EPA's position on the use of a retention factor of 20% for heatset ink.

Although we did not discuss this, I understand Dirk Hiler of our South Daytona Division informed you that we incorrectly stated that Press SDM-031 had nine (9) in-line units. All records should be changed to indicate that it has only eight (8) in-line units.

If you require any additional information, please call Dirk Hiler at (904) 322-2387 or me at (708) 719-6777.

Sincerely

R.R. Donnelley & Sons Co.

Larry Laya
Senior Environmental
Project Engineer

LL: ll
CONPER03
cc: G. Bender
H. Britton
C. Collins, FDER
C. Fancy, FDER
D. Hiler
D. Kalina
C. Zielke

The Lakeside Press
R·R·DONNELLEY & SONS COMPANY

750 WARRENVILLE ROAD
LISLE, ILLINOIS 60532
708-963-9494

February 16, 1993

Mr. Clair Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

Subject: R.R. Donnelley and Sons Company, South Daytona Division
Application For Construction Permit (AC 64-224043)
Response to FDER Completeness Summary Dated
January 27, 1993

Dear Mr. Fancy:

In response to your January 27, 1993, letter, the information you requested is as follows:

Construction Permit Application DER Form 17-1.202(1)

1. Press SDM-031 is a new, Harris Heidelberg, Model M3000, two (2) web, heatset offset press with nine (9) in-line printing units. The printing process, heatset web offset lithography, used with this press is similar to that of the other three permitted presses at this facility.

2. The following is an inventory of all air sources, their allowable and actual emissions, and the chronological air permitting activities at the South Daytona Manufacturing Facility of R.R. Donnelley & Sons Company.

   A. Construction Permit #AC 64-188871, submitted November 1, 1990 for presses SDM-001, 002, and 003 with KATEC Thermal Afterburner, was issued by the FDER on March 15, 1991. This permit was also amended to include:

      1. A by-products pneumatic paper conveying system, with three cyclones and baghouse control systems.

      2. A coating unit manufactured by Epic Products International Model SSDT.

      3. A magazine poly-bagging operation using heat sealing.

B. An application for an Operation Permit for presses SDM-001, 002 & 003 was submitted to the Agency on September 30, 1992.

Per Specific Condition A.2 of the Construction Permit, the total VOC emissions from the KATEC thermal afterburner controlling presses SDM-001, SDM-002 and SDM-003 shall not exceed 14.35 lbs/hr (62.9 TPY).

A compliance test was conducted at the subject facility on September 16, 1992. The actual mass emission rate of VOC's from the KATEC thermal afterburner controlling presses SDM-001, SDM-002 and SDM-003 ranged from 0.8 to 1.0 lbs/hr under the conditions of the test, well below the 14.35 lbs/hr limitation.

3. The basis for the calculations for Table I (page 16 of 18), Section II was reviewed with Teresa Heron (FDER review engineer). A summary of these calculations follows:

Raw Material (Sec. III, Page 4)	Raw Material Utilization Rate		Contaminent Type	% Wt.	VOC Input #/hr
Ink	746.5	lbs/hr	VOC	38.00	283.7
Alcohol Substitute	21.3	lbs/hr	VOC	100.00	21.3
Fountain Sol. Etch	21.3	lbs/hr	N/A	0.00	0.0
Cleaning Solvent	2.2	lbs/hr	VOC	100.00	2.2
Total VOC Input					307.2

The VOC's in the inks are very low volatility, evaporating only in the press dryers. The dryers are operated under negative pressure, with all exhaust directed to the afterburner.

Low volatility alcohol substitutes such as ethylene glycol and ethylene glycol n-butyl ether (butyl cellosolve) are being used in this process to minimize fugitive air emissions from fountain solution. Most of these materials are evaporated in the dryers, where they are exhausted to the afterburner.

Low volatility cleaning solvents are used for press and blanket cleaning. Solvents and spent solvents are stored in closed containers to minimize fugitive emissions.

AIR MODELING AND TOXIC REVIEW

1. Attached as Exhibit A, is our report on the modeling of toxic chemicals emitted during the production process, using the EPA and FDER approved model TSCREEN. The only air toxics used in significant quantities in this process that are on the FDER Air Toxics List, are the ethylene glycol and butyl cellosolve (a glycol ether), used in the fountain solution.

   Included in this report is a summary of the results of that modeling and a comparison with the appropriate No-Threat Levels listed in the FDER Air Toxics List. For simplicity, the modelling was performed for the combination of existing presses plus the proposed additional press under maximum anticipated application rates. The results for the expanded production operation show that the concentrations of the air toxics present are significantly lower than the No-Threat Levels listed for each pollutant.

If you require any additional information, please call Dirk Hiler at (904) 322-2387 or me at (708) 719-6777.

Sincerely

R.R. Donnelley & Sons Co.

Larry Laya
Senior Environmental
Project Engineer

LL: ll
CONPER02
cc: G. Bender
H. Britton
C. Collins, FDER
D. Hiler
D. Kalina
C. Zielke

EXHIBIT A

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

FEBRUARY 16, 1993

EXHIBIT A

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

TABLE OF CONTENTS

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

1. Scope of Project

An expansion of our South Daytona Manufacturing Facility is being implemented. The expansion consists of a building addition to the North of the existing facility and the installation of a new 2-web, 9-unit, heatset offset printing press. This press will be equipped with a KATEC thermal oxidizer emission control system, which will be used in tandem with the existing identical KATEC afterburner.

2. Emissions Estimate

Emissions used in the modeling program were based on the values tabulated in our Construction Permit Application #AC 64-188871 for presses SDM-001, 002, and 003, and the new Construction Permit Application #AC 64-2224043 for press SDM-031. The following lists materials used in our printing process that contain VOC's and identifies those that are found on the FDER's Air Toxics working list:

Material	VOC		CAS Number	Air Toxic
Ink	Petroleum Distillates	(38%)	64741-86-2	N/A
Fountain Solution				
Alcohol Subs.	Ethylene Glycol	(25%)	107-21-1	312
	Butyl Cellosolve	(75%)	111-76-2	315
Etch	Phosphoric Acid	(1%)	7664-38-2	556
Cleaning Solvent				
Aromatic 150	Aromatic HC	(50%)	64742-95-6	N/A
Solvent 140	Aliphatic HC	(30%)	64742-88-7	N/A
Low Odor Solv.	Aliphatic HC	(15%)	64742-96-7	N/A
Solvent DPM	Glycol Ether	(<5%)	34590-94-8	N/A

Table 1 summarizes the Air Toxic Emissions from the fountain solution, which was the only material used in a significant quantity to be considered in this exercise.

3. Dispersion Modeling

Table 2 summarizes the emissions and stack characteristics considered in this exercise. As is typical in conducting a dispersion analysis, stacks which are functionally similar are combined to form a single emission point. For example, when all presses are running, the dryer exhaust will normally be controlled by both KATEC thermal afterburners running in parallel. The exhaust therefore, in this scenario is shown as a single point. The stack diameter and stack gas exit velocity have been adjusted to simulate this condition.

A. Assumptions

For the dispersion modeling exercise we assumed maximum emissions, i.e., maximum design flow and maximum inlet concentrations. All data was taken directly from the construction permit applications for the four (4) presses.

The distance to the closest property line is measured from a point equidistant between the two stacks. The first receptor site was established at the property line to the West. Additional receptors were located at 100 meter distances up to a distance of 1000 meters. Table 2 lists the program inputs used in the modeling program. Figure 1 is a site plan which illustrated the location of the emission points, building dimensions and distances to the property line.

4. Results and Conclusions

Copies of the actual data print-outs and graphs are included in Appendix A. Table 3 summarizes the results of the dispersion modeling and compares them to the No-Threat Levels as supplied by the FDER. A review of this table shows that the maximum eight (8) hour and twenty four (24) hour concentrations for the Air Toxics modeled are significantly lower than the stated guideline concentrations.

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

Table 1

AIR TOXIC EMISSIONS

I. Fountain Solution (Alcohol Substitute)

Press Number	Ethylene Glycol lb/hr	Ethylene Glycol g/s	Butyl Cellosolve lb/hr	Butyl Cellosolve g/s
SDM-001	0.120	0.015	0.361	0.046
SDM-002	0.121	0.016	0.361	0.045
SDM-003	0.120	0.015	0.361	0.046
Total Existing Presses	0.361	0.046	1.083	0.137
SDM-031	0.240	0.030	0.721	0.091
All Presses	0.601	0.076	1.804	0.228

II. Fountain Solution (Etch)

Press Number	Phosphoric Acid * lb/hr	Phosphoric Acid * g/s
SDM-001, 002, 003	0.0005	-
SDM-031	0.0004	-
All Presses	0.0009	-

* Did not run model on this air toxic as extremely low emission rate will have insignificant impact on air quality.

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

Table 2

PROGRAM INPUT SUMMARY

I. Fixed Parameters

Source Type	Point
Stack Height (M)	15.23
Stack Inside Diameter (M)	
Stack #1	1.07
Stack #2	1.07
Combined Stacks	1.51
Stack Gas Exit Velocity (M/S)	
New Press	6.35
Existing Presses	17.39
All Presses	11.80
Stack Gas Exit Temperature (K)	588.56
Ambient Air Temperature (K)	300.00
Building Dimensions (M)	
Height	9.14
Minimum Horizontal Dimension	129.44
Maximum Horizontal Dimension	146.19
Distance to Fenceline (M)	27.84

II. Variable Parameters

Model File Number	Description	Emission Rate (g/s)
Butyl Cellosolve		
SDMOD005	All Presses	0.228
Ethylene Glycol		
SDMOD015	All Presses	0.076

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

Table 3

PROGRAM OUTPUT SUMMARY

Model File Number	Description	Maximum Concentration ($\mu g/m^3$) Maximum	8 Hr	24 Hr
Butyl Cellosolve				
SDMOD005	All Presses	11.060	8 ($\pm$1)	4 ($\pm$1)
No Threat Levels		-	-*-	-*-
* Values not provided, Annual No-Threat Level is 20 $\mu g/m^3$				
Ethylene Glycol				
SDMOD015	All Presses	3.704	3 ($\pm$1)	1 ($\pm$1)
No-Threat Levels			1270	304.8

AMBIENT AIR QUALITY IMPACT STUDY

R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
MANUFACTURING PLANT EXPANSION

Appendix A

TSCREEN PRINT-OUTS & GRAPHS

Butyl Cellosolve

SDMOD005 ..... All Presses

Ethylene Glycol

SDMOD015 ..... All Presses

*** SCREEN-1.2 MODEL RUN ***
*** VERSION DATED 91/10 ***

South Daytona #SDMOD005 (4-Press BC)

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.2270
STACK HEIGHT (M)	=	15.23
STK INSIDE DIAM (M)	=	1.51
STK EXIT VELOCITY (M/S)	=	11.8000
STK GAS EXIT TEMP (K)	=	588.56
AMBIENT AIR TEMP (K)	=	300.00
RECEPTOR HEIGHT (M)	=	2.00
IOPT (1=URB,2=RUR)	=	1
BUILDING HEIGHT (M)	=	9.14
MIN HORIZ BLDG DIM (M)	=	129.44
MAX HORIZ BLDG DIM (M)	=	146.19

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	11.06	28.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

BUOY. FLUX = 32.34 M**4/S**3; MOM. FLUX = 40.46 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES **

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
23.	.0000	0	.0	.0	.0	.0	.0	.0	NA
100.	7.550	3	8.0	8.7	2560.0	27.4	21.9	20.3	HS
200.	4.363	4	8.0	8.9	2560.0	34.3	31.3	27.8	HS
300.	2.685	4	5.0	5.6	1600.0	56.4	46.9	41.9	HS
400.	1.921	4	5.0	5.6	1600.0	65.1	61.1	54.8	HS
500.	1.570	4	4.0	4.4	1280.0	80.6	75.4	67.9	HS
600.	1.387	4	4.0	4.4	1280.0	80.6	88.2	79.6	HS
700.	1.421	5	1.0	1.1	5000.0	106.7	72.9	47.0	NO
800.	1.668	5	1.0	1.1	5000.0	106.7	80.9	50.5	NO
900.	1.861	5	1.0	1.1	5000.0	106.7	88.8	53.8	NO

1000.	2.003	5	1.0	1.1	5000.0	106.7	96.6	57.0	NO
1100.	2.100	5	1.0	1.1	5000.0	106.7	104.2	60.0	NO
1200.	2.161	5	1.0	1.1	5000.0	106.7	111.6	63.0	NO
1300.	2.194	5	1.0	1.1	5000.0	106.7	118.9	66.0	NO
1400.	2.205	5	1.0	1.1	5000.0	106.7	126.0	68.8	NO
1500.	2.199	5	1.0	1.1	5000.0	106.7	133.0	71.5	NO
1600.	2.180	5	1.0	1.1	5000.0	106.7	139.9	74.2	NO
1700.	2.153	5	1.0	1.1	5000.0	106.7	146.6	76.8	NO
1800.	2.119	5	1.0	1.1	5000.0	106.7	153.2	79.3	NO
1900.	2.081	5	1.0	1.1	5000.0	106.7	159.7	81.8	NO
2000.	2.039	5	1.0	1.1	5000.0	106.7	166.0	84.2	NO
2100.	1.996	5	1.0	1.1	5000.0	106.7	172.3	86.5	NO
2200.	1.952	5	1.0	1.1	5000.0	106.7	178.4	88.8	NO
2300.	1.908	5	1.0	1.1	5000.0	106.7	184.4	91.1	NO
2400.	1.864	5	1.0	1.1	5000.0	106.7	190.4	93.3	NO
2500.	1.820	5	1.0	1.1	5000.0	106.7	196.2	95.4	NO
2600.	1.777	5	1.0	1.1	5000.0	106.7	201.9	97.5	NO
2700.	1.735	5	1.0	1.1	5000.0	106.7	207.6	99.6	NO
2800.	1.694	5	1.0	1.1	5000.0	106.7	213.1	101.7	NO
2900.	1.654	5	1.0	1.1	5000.0	106.7	218.6	103.7	NO
3000.	1.615	5	1.0	1.1	5000.0	106.7	224.0	105.6	NO
3500.	1.441	5	1.0	1.1	5000.0	106.7	249.9	115.0	NO
4000.	1.294	5	1.0	1.1	5000.0	106.7	274.1	123.7	NO
4500.	1.172	5	1.0	1.1	5000.0	106.7	297.0	131.9	NO
5000.	1.069	5	1.0	1.1	5000.0	106.7	318.6	139.7	NO
5500.	.9812	5	1.0	1.1	5000.0	106.7	339.2	147.0	NO
6000.	.9062	5	1.0	1.1	5000.0	106.7	358.9	154.0	NO
6500.	.8413	5	1.0	1.1	5000.0	106.7	377.7	160.7	NO
7000.	.7848	5	1.0	1.1	5000.0	106.7	395.9	167.2	NO
7500.	.7352	5	1.0	1.1	5000.0	106.7	413.3	173.4	NO
8000.	.6913	5	1.0	1.1	5000.0	106.7	430.2	179.4	NO
8500.	.6522	5	1.0	1.1	5000.0	106.7	446.5	185.2	NO
9000.	.6172	5	1.0	1.1	5000.0	106.7	462.3	190.9	NO
9500.	.5857	5	1.0	1.1	5000.0	106.7	477.7	196.4	NO
10000.	.5572	5	1.0	1.1	5000.0	106.7	492.6	201.7	NO
15000.	.3739	5	1.0	1.1	5000.0	106.7	624.2	248.9	NO
20000.	.2809	5	1.0	1.1	5000.0	106.7	733.8	288.6	NO
25000.	.2248	5	1.0	1.1	5000.0	106.7	829.6	323.4	NO
30000.	.1911	4	1.0	1.1	320.0	276.8	1333.4	1330.3	NO
40000.	.1639	4	1.0	1.1	320.0	276.8	1554.0	1555.0	NO
50000.	.1458	4	1.0	1.1	320.0	276.8	1747.3	1751.6	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 23. M:

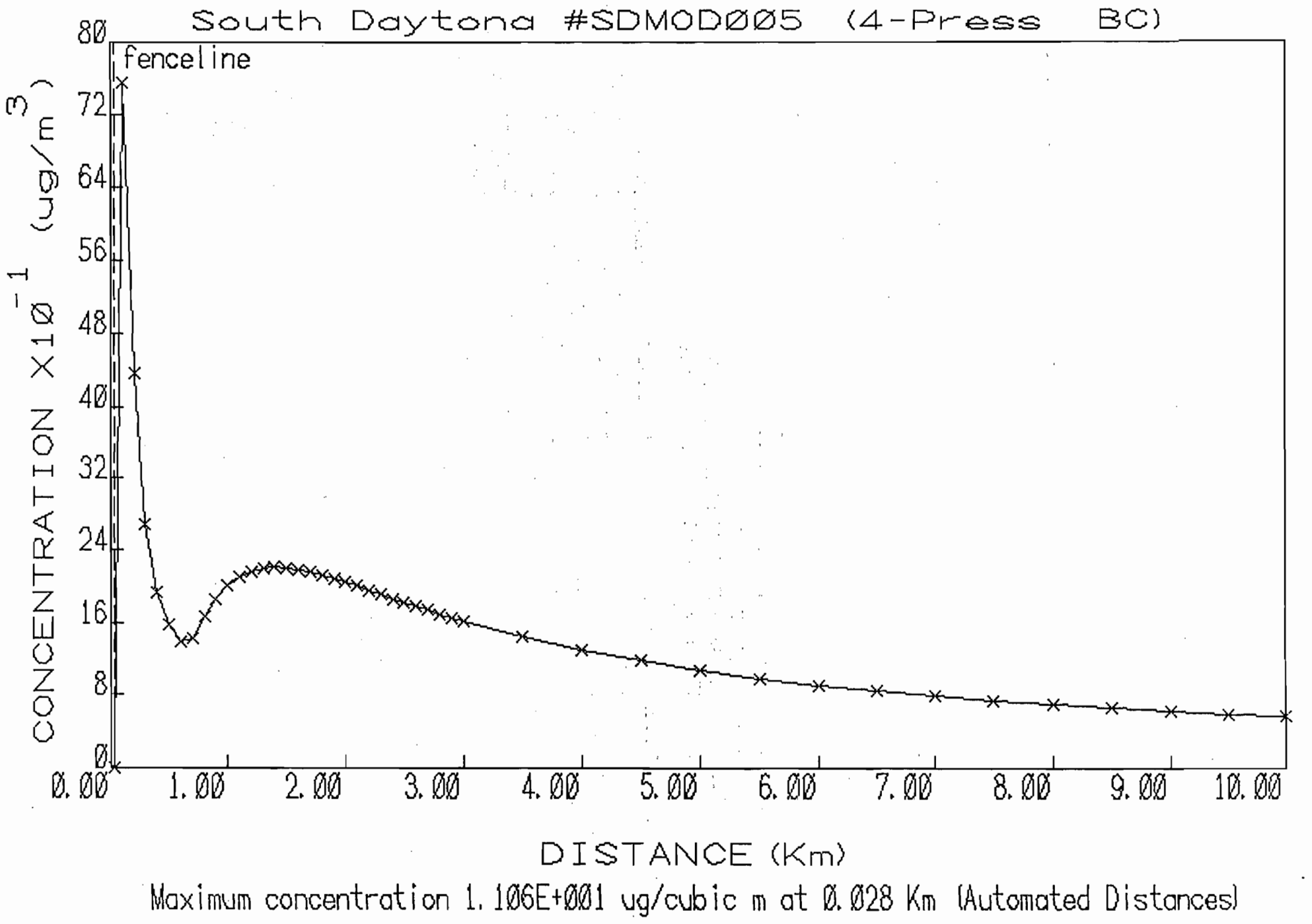
28.	11.06	4	20.0	22.2	5000.0	14.5	4.7	6.5	HS

DIST = DISTANCE FROM THE SOURCE
CONC = MAXIMUM GROUND LEVEL CONCENTRATION
STAB = ATMOSPHERIC STABILITY CLASS (1=A, 2=B, 3=C, 4=D, 5=E, 6=F)
U10M = WIND SPEED AT THE 10-M LEVEL
USTK = WIND SPEED AT STACK HEIGHT
MIX HT = MIXING HEIGHT
PLUME HT= PLUME CENTERLINE HEIGHT
SIGMA Y = LATERAL DISPERSION PARAMETER
SIGMA Z = VERTICAL DISPERSION PARAMETER
DWASH = BUILDING DOWNWASH:
DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

```
**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES **
```

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
23.	.0000	0	.0	.0	.0	.0	.0	.0	NA
100.	7.550	3	8.0	8.7	2560.0	27.4	21.9	20.3	HS
200.	4.363	4	8.0	8.9	2560.0	34.3	31.3	27.8	HS
300.	2.685	4	5.0	5.6	1600.0	56.4	46.9	41.9	HS
400.	1.921	4	5.0	5.6	1600.0	65.1	61.1	54.8	HS
500.	1.570	4	4.0	4.4	1280.0	80.6	75.4	67.9	HS
600.	1.387	4	4.0	4.4	1280.0	80.6	88.2	79.6	HS
700.	1.421	5	1.0	1.1	5000.0	106.7	72.9	47.0	NO
800.	1.668	5	1.0	1.1	5000.0	106.7	80.9	50.5	NO
900.	1.861	5	1.0	1.1	5000.0	106.7	88.8	53.8	NO
1000.	2.003	5	1.0	1.1	5000.0	106.7	96.6	57.0	NO

```
 DWASH=    MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO  MEANS NO BUILDING DOWNWASH USED
 DWASH=HS  MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS  MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA  MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 *** CAVITY CALCULATION - 1 ***      *** CAVITY CALCULATION - 2 ***
  CONC (UG/M**3)      =    .0000       CONC (UG/M**3)      =    .0000
  CRIT WS @10M (M/S)  =   99.99       CRIT WS @10M (M/S)  =   99.99
  CRIT WS @ HS (M/S)  =   99.99       CRIT WS @ HS (M/S)  =   99.99
  DILUTION WS (M/S)   =   99.99       DILUTION WS (M/S)   =   99.99
  CAVITY HT (M)       =    9.14       CAVITY HT (M)       =    9.14
  CAVITY LENGTH (M)   =   51.18       CAVITY LENGTH (M)   =   49.89
  ALONGWIND DIM (M)   =  129.44       ALONGWIND DIM (M)   =  146.19

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S.  CONC SET = 0.0

**************************************
*** USER SPECIFIED AVERAGING TIMES ***
**************************************

ESTIMATED MAXIMUM CONCENTRATION FOR 30 MIN AVERAGING TIME:
11 UG/M**3

ESTIMATED MAXIMUM CONCENTRATION FOR 3 HR AVERAGING TIME:
10(+/-1) UG/M**3

ESTIMATED MAXIMUM CONCENTRATION FOR 8 HR AVERAGING TIME:
8(+/-2) UG/M**3

ESTIMATED MAXIMUM CONCENTRATION FOR 24 HR AVERAGING TIME:
4(+/-2) UG/M**3


**********************************
*** END OF SCREEN MODEL OUTPUT ***
**********************************
```



Maximum concentration 1.106E+001 ug/cubic m at 0.028 Km (Automated Distances)

02-11-93
14:37:39

*** SCREEN-1.2 MODEL RUN ***
*** VERSION DATED 91/10 ***

South Daytona #SDMOD015 (4-Press EG)

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.7600E-01
STACK HEIGHT (M)	=	15.23
STK INSIDE DIAM (M)	=	1.51
STK EXIT VELOCITY (M/S)	=	11.8000
STK GAS EXIT TEMP (K)	=	588.56
AMBIENT AIR TEMP (K)	=	300.00
RECEPTOR HEIGHT (M)	=	2.00
IOPT (1=URB,2=RUR)	=	1
BUILDING HEIGHT (M)	=	9.14
MIN HORIZ BLDG DIM (M)	=	129.44
MAX HORIZ BLDG DIM (M)	=	146.19

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	3.704	28.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

BUOY. FLUX = 32.34 M**4/S**3; MOM. FLUX = 40.46 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES **

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
23.	.0000	0	.0	.0	.0	.0	.0	.0	NA
100.	2.528	3	8.0	8.7	2560.0	27.4	21.9	20.3	HS
200.	1.461	4	8.0	8.9	2560.0	34.3	31.3	27.8	HS
300.	.8989	4	5.0	5.6	1600.0	56.4	46.9	41.9	HS
400.	.6431	4	5.0	5.6	1600.0	65.1	61.1	54.8	HS
500.	.5258	4	4.0	4.4	1280.0	80.6	75.4	67.9	HS
600.	.4643	4	4.0	4.4	1280.0	80.6	88.2	79.6	HS
700.	.4758	5	1.0	1.1	5000.0	106.7	72.9	47.0	NO
800.	.5585	5	1.0	1.1	5000.0	106.7	80.9	50.5	NO
900.	.6231	5	1.0	1.1	5000.0	106.7	88.8	53.8	NO

1000.	.6705	5	1.0	1.1	5000.0	106.7	96.6	57.0	NO
1100.	.7031	5	1.0	1.1	5000.0	106.7	104.2	60.0	NO
1200.	.7236	5	1.0	1.1	5000.0	106.7	111.6	63.0	NO
1300.	.7345	5	1.0	1.1	5000.0	106.7	118.9	66.0	NO
1400.	.7381	5	1.0	1.1	5000.0	106.7	126.0	68.8	NO
1500.	.7361	5	1.0	1.1	5000.0	106.7	133.0	71.5	NO
1600.	.7300	5	1.0	1.1	5000.0	106.7	139.9	74.2	NO
1700.	.7208	5	1.0	1.1	5000.0	106.7	146.6	76.8	NO
1800.	.7095	5	1.0	1.1	5000.0	106.7	153.2	79.3	NO
1900.	.6966	5	1.0	1.1	5000.0	106.7	159.7	81.8	NO
2000.	.6828	5	1.0	1.1	5000.0	106.7	166.0	84.2	NO
2100.	.6684	5	1.0	1.1	5000.0	106.7	172.3	86.5	NO
2200.	.6536	5	1.0	1.1	5000.0	106.7	178.4	88.8	NO
2300.	.6387	5	1.0	1.1	5000.0	106.7	184.4	91.1	NO
2400.	.6239	5	1.0	1.1	5000.0	106.7	190.4	93.3	NO
2500.	.6093	5	1.0	1.1	5000.0	106.7	196.2	95.4	NO
2600.	.5949	5	1.0	1.1	5000.0	106.7	201.9	97.5	NO
2700.	.5808	5	1.0	1.1	5000.0	106.7	207.6	99.6	NO
2800.	.5671	5	1.0	1.1	5000.0	106.7	213.1	101.7	NO
2900.	.5537	5	1.0	1.1	5000.0	106.7	218.6	103.7	NO
3000.	.5408	5	1.0	1.1	5000.0	106.7	224.0	105.6	NO
3500.	.4823	5	1.0	1.1	5000.0	106.7	249.9	115.0	NO
4000.	.4333	5	1.0	1.1	5000.0	106.7	274.1	123.7	NO
4500.	.3923	5	1.0	1.1	5000.0	106.7	297.0	131.9	NO
5000.	.3578	5	1.0	1.1	5000.0	106.7	318.6	139.7	NO
5500.	.3285	5	1.0	1.1	5000.0	106.7	339.2	147.0	NO
6000.	.3034	5	1.0	1.1	5000.0	106.7	358.9	154.0	NO
6500.	.2817	5	1.0	1.1	5000.0	106.7	377.7	160.7	NO
7000.	.2628	5	1.0	1.1	5000.0	106.7	395.9	167.2	NO
7500.	.2461	5	1.0	1.1	5000.0	106.7	413.3	173.4	NO
8000.	.2314	5	1.0	1.1	5000.0	106.7	430.2	179.4	NO
8500.	.2184	5	1.0	1.1	5000.0	106.7	446.5	185.2	NO
9000.	.2066	5	1.0	1.1	5000.0	106.7	462.3	190.9	NO
9500.	.1961	5	1.0	1.1	5000.0	106.7	477.7	196.4	NO
10000.	.1866	5	1.0	1.1	5000.0	106.7	492.6	201.7	NO
15000.	.1252	5	1.0	1.1	5000.0	106.7	624.2	248.9	NO
20000.	.9404E-01	5	1.0	1.1	5000.0	106.7	733.8	288.6	NO
25000.	.7527E-01	5	1.0	1.1	5000.0	106.7	829.6	323.4	NO
30000.	.6397E-01	4	1.0	1.1	320.0	276.8	1333.4	1330.3	NO
40000.	.5488E-01	4	1.0	1.1	320.0	276.8	1554.0	1555.0	NO
50000.	.4881E-01	4	1.0	1.1	320.0	276.8	1747.3	1751.6	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 23. M:

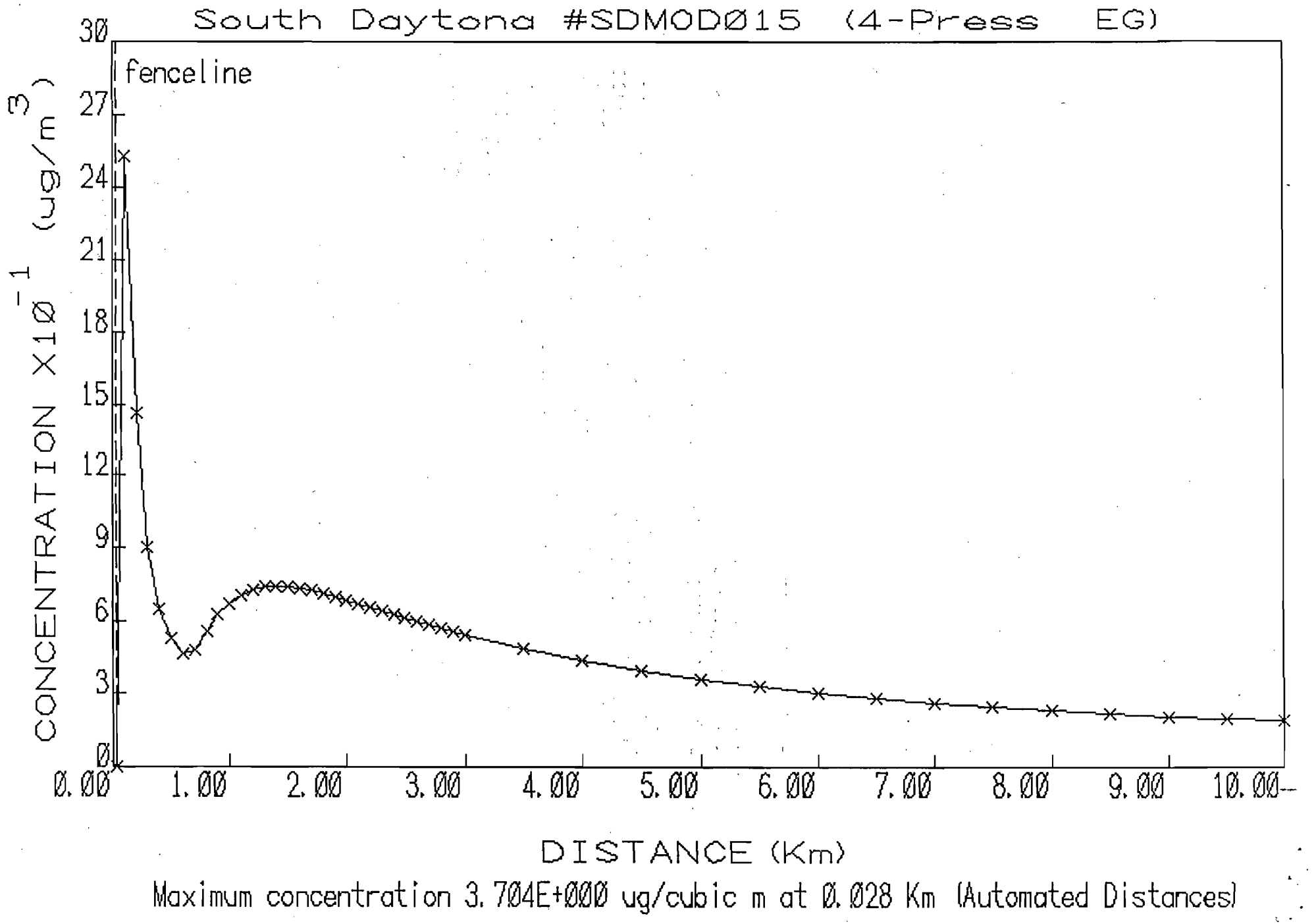
28.	3.704	4	20.0	22.2	5000.0	14.5	4.7	6.5	HS

DIST = DISTANCE FROM THE SOURCE
CONC = MAXIMUM GROUND LEVEL CONCENTRATION
STAB = ATMOSPHERIC STABILITY CLASS (1=A, 2=B, 3=C, 4=D, 5=E, 6=F)
U10M = WIND SPEED AT THE 10-M LEVEL
USTK = WIND SPEED AT STACK HEIGHT
MIX HT = MIXING HEIGHT
PLUME HT= PLUME CENTERLINE HEIGHT
SIGMA Y = LATERAL DISPERSION PARAMETER
SIGMA Z = VERTICAL DISPERSION PARAMETER
DWASH = BUILDING DOWNWASH:
DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

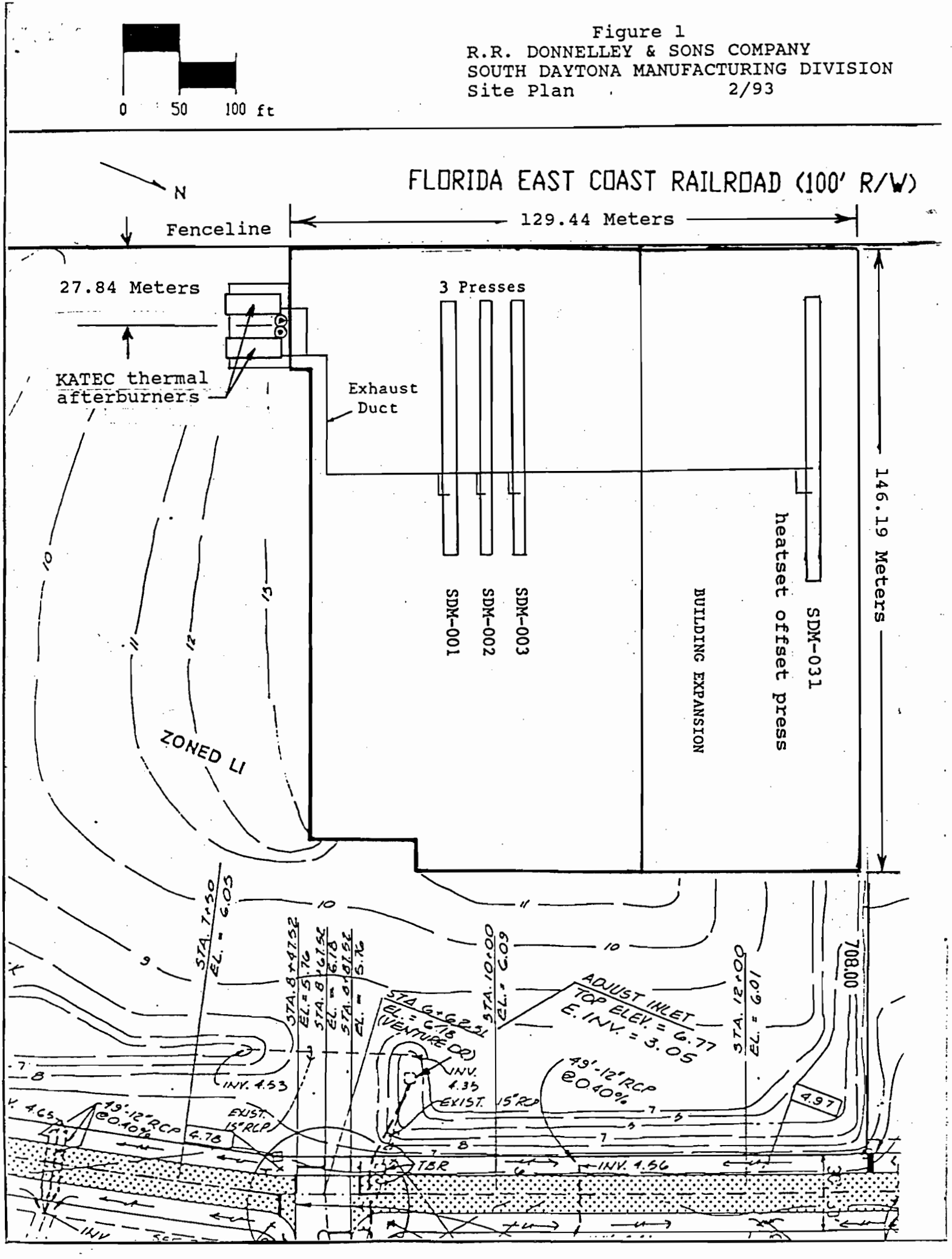
```
**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES **
```

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
23.	.0000	0	.0	.0	.0	.0	.0	.0	NA
100.	2.528	3	8.0	8.7	2560.0	27.4	21.9	20.3	HS
200.	1.461	4	8.0	8.9	2560.0	34.3	31.3	27.8	HS
300.	.8989	4	5.0	5.6	1600.0	56.4	46.9	41.9	HS
400.	.6431	4	5.0	5.6	1600.0	65.1	61.1	54.8	HS
500.	.5258	4	4.0	4.4	1280.0	80.6	75.4	67.9	HS
600.	.4643	4	4.0	4.4	1280.0	80.6	88.2	79.6	HS
700.	.4758	5	1.0	1.1	5000.0	106.7	72.9	47.0	NO
800.	.5585	5	1.0	1.1	5000.0	106.7	80.9	50.5	NO
900.	.6231	5	1.0	1.1	5000.0	106.7	88.8	53.8	NO
1000.	.6705	5	1.0	1.1	5000.0	106.7	96.6	57.0	NO

```
 DWASH=    MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO  MEANS NO BUILDING DOWNWASH USED
 DWASH=HS  MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS  MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA  MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 *** CAVITY CALCULATION - 1 ***       *** CAVITY CALCULATION - 2 ***
  CONC (UG/M**3)      =    .0000        CONC (UG/M**3)      =    .0000
  CRIT WS @10M (M/S)  =   99.99        CRIT WS @10M (M/S)  =   99.99
  CRIT WS @ HS (M/S)  =   99.99        CRIT WS @ HS (M/S)  =   99.99
  DILUTION WS (M/S)   =   99.99        DILUTION WS (M/S)   =   99.99
  CAVITY HT (M)       =    9.14        CAVITY HT (M)       =    9.14
  CAVITY LENGTH (M)   =   51.18        CAVITY LENGTH (M)   =   49.89
  ALONGWIND DIM (M)   =  129.44        ALONGWIND DIM (M)   =  146.19

 CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S.  CONC SET = 0.0

**************************************
*** USER SPECIFIED AVERAGING TIMES ***
**************************************

ESTIMATED MAXIMUM CONCENTRATION FOR 30 MIN AVERAGING TIME:
4 UG/M**3

ESTIMATED MAXIMUM CONCENTRATION FOR 3 HR AVERAGING TIME:
3(+/-0) UG/M**3

ESTIMATED MAXIMUM CONCENTRATION FOR 8 HR AVERAGING TIME:
3(+/-1) UG/M**3

ESTIMATED MAXIMUM CONCENTRATION FOR 24 HR AVERAGING TIME:
1(+/-1) UG/M**3


**********************************
*** END OF SCREEN MODEL OUTPUT ***
**********************************
```



Maximum concentration 3.704E+000 ug/cubic m at 0.028 Km (Automated Distances)


0 50 100 ft
Figure 1
R.R. DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
Site Plan 2/93
N
FLORIDA EAST COAST RAILROAD (100' R/W)
Fenceline
129.44 Meters
27.84 Meters
3 Presses
KATEC thermal afterburners
Exhaust Duct
146.19 Meters
SDM-001
SDM-002
SDM-003
BUILDING EXPANSION
heatset offset press
SDM-031
ZONED LI
STA. 7+30 EL. = 6.03
STA. 8+47.32 EL. = 5.76
STA. 8 EL. = 6.18
STA. 9+01.52 EL. = 5.76
STA. 6+62.21 EL. = 6.18 (VENTURI OR)
STA. 10+00 EL. = 6.09
ADJUST INLET TOP ELEV. = 6.77 E. INV. = 3.05
STA. 12+00 EL. = 6.01
708.00
INV. 4.53
INV. 4.35
EXIST. 15" RCP
49'-12" RCP @0.40%
EXIST. 15" RCP
4.78
4.97
TBR
INV. 4.56
INV

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1. ☒ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Carl W. Zielke, V.P. & Div. Dir
R.R. Donnelley & Sons Co.
3100 South Ridgewood Ave.
South Daytona, Florida 32119

4a. Article Number: P 062 922 026

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery: 2-1-93

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, November 1990 ☆U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

P 062 922 026

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to: Carl W. Zielke, VP & Div Dir
Street and No.: RR Donnelley & Sons Co
P.O., State and ZIP Code: 3100 South Ridgewood Ave
South Daytona, FL 32119

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	AC 64-224043 mailed: 1/28/93

PS Form **3800**, June 1991

File Copy

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 28, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Carl W. Zielke, Vice-President & Division Director
R. R. Donnelley & Sons Company
3100 South Ridgewood Avenue
South Daytona, Florida 32119

Dear Mr. Zielke:

Re: R. R. Donnelley & Sons Company
AC64-224043 Heatset Web Offset Press (SDM-031)

The Department has received the application for a permit to construct a new 2-web, heatset press controlled with a thermal afterburner at the R. R. Donnelley & Sons facility located in South Daytona, Florida. Based on our initial review of your proposal, we have determined that additional information is needed in order to process this application. Please complete the application by supplying the information requested below:

DER Form 17-1.202(1)

1. Give a more detailed description of this process. How many units will this press have?

2. Submit an inventory of all sources at your facility. List their actual and allowable emissions and chronological air permitting activities that have occurred at your facility in the last five (5) years.

3. Furnish the basis of calculations for Table I (page 16 of 18) Section II. What precautions are taken to minimize fugitive air emissions from this process?

AIR MODELING AND TOXIC REVIEW

1. Please model all emitted toxic chemicals using EPA and FDER approved model, such as TSCREEN, for comparison with the appropriate No-Threat Levels listed in the attachment.

Should you have any questions on this matter, please contact Teresa Heron (review engineer) or Cleve Holladay (meteorologist) at (904)

488-1344 or write to me at the above address. The processing of your application will continue once this information is received.

Sincerely,

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

CHF/TH/plm

cc: C. Collins, CD
Dennis J. Cote, P.E.
Ready File
Teresa Heron } 1/28/93 RR

P 062 921 960

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Carl Zielke	
Street and No. RR Donnelley & Sons	
P.O., State and ZIP Code S. Daytona, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 1-27-93 AC 64-224043	

PS Form 3800, June 1991

PS Form 3811 ... -845 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Carl W. Zielke, VP & DO.
RR Donnelley & Sons
3100 S. Ridgewood ave
S. Daytona, Fl 32119

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 062 921 960

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature – Addressee
X

6. Signature – Agent
X J Viola

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

File Copy

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 27, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Carl W. Zielke, Vice-President & Division Director
R. R. Donnelley & Sons Company
3100 South Ridgewood Avenue
South Daytona, Florida 32119

Dear Mr. Zielke:

Re: R. R. Donnelley & Sons Company
AC64-224043 Heatset Web Offset Press (SDM-031)

The Department has received the application for a permit to construct a new 2-, web, heatset press controlled with a thermal afterburner at the R. R. Donnelley & Sons facility located in South Daytona, Florida. Based on our initial review of your proposal, we have determined that additional information is needed in order to process this application. Please complete the application by supplying the information requested below:

DER Form 17-1.202(1)

1. Give a more detailed description of this process. How many units will this press have?

2. Submit an inventory of all sources at your facility. List their actual and allowable emissions and chronological air permitting activities that have occurred at your facility in the last five (5) years.

3. Furnish the basis of calculations for Table I (page 16 of 18) Section II. What precautions are taken to minimize fugitive air emissions from this process?

AIR MODELING AND TOXIC REVIEW

1. Please model all emitted toxic chemicals using EPA and FDER approved model, such as TSCREEN, for comparison with the appropriate No-Threat Levels listed in the attachment.

Should you have any questions on this matter, please contact Teresa Heron (review engineer) or Cleve Holladay (meteorologist) at (904)

488-1344 or write to me at the above address. The processing of your application will continue once this information is received.

Sincerely,

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

CHF/TH/plm

cc: C. Collins, CD
Dennis J. Cote, P.E.

The Lakeside Press
R·R·DONNELLEY & SONS COMPANY
SOUTH DAYTONA MANUFACTURING DIVISION
3100 SOUTH RIDGEWOOD AVENUE
SOUTH DAYTONA, FLORIDA 32119
904-322-2300

December 21, 1992

Mr. Clair H. Fancy, Bureau Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy

Please find attached, an application for a Permit to Construct, one (1), Harris Heidelberg, 2-web, heatset offset press at the R.R. Donnelley & Sons Company, South Daytona Manufacturing Division located in South Daytona, Florida. The press will be designated as SDM-031. The materials used on this press will be similar to those used on the existing presses at this facility.

The exhaust from the press dryers will be controlled using a TEC Systems recuperative thermal afterburner system identical to that currently in operation at this location. This system will be installed to operate in tandem with the existing afterburner. Therefore, the dryer exhaust from the new press SDM-031, along with the exhaust from presses SDM-001, 002 and 003, will be controlled by both of the afterburner systems. One or both afterburner system will operate as necessary, depending on the number of presses on-line.

Based on emission factors agreed upon by the Florida Department of Environmental Regulation in our previous permit application, a 95% afterburner control efficiency, 8,760 operating hours per year and the VOC input values described in the attached application, the maximum potential VOC emissions from this press will be 69.5 tons/year. Actual VOC emissions will be substantially lower.

Installation of the new press is scheduled to begin in March of 1993, and the construction is expected to be completed by June 1, 1993.

Our check in the amount of $4,500.00 is enclosed to cover the application fee. If there are any questions, please call me at (904) 322-2320 or Larry Laya, our Corporate Environmental Project Engineer at (708) 719-6777.

Sincerely,

R.R. Donnelley & Sons Company

Carl W. Zielke
Vice-President & Division Director

cz:LL
CONPER01
cc: G. Bender
H. Britton
C. Collins, FDER
D. Cote
D. Hiler
D. Kalina
L. Laya

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Application for Permit to Construct
Heatset Web Offset Press #SDM-031

TABLE OF CONTENTS

$4,500 pd. 1-5-93 Rcpt. #140833

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

AC64-224043

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Heatset Web Offset Press [X] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: R.R. Donnelley & Sons Company COUNTY: Volusia

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Press w/ Afterburner

SOURCE LOCATION: Street 3100 South Ridgewood Avenue City South Daytona

UTM: East 500400 North 3224600

Latitude 29 ° 09 ' 00 "N Longitude 80 ° 59 ' 15 "W

APPLICANT NAME AND TITLE: Mr. Carl W. Zielke, Vice Pres. and Division Director

APPLICANT ADDRESS: 3100 S. Ridgewood Ave., South Daytona, FL 32119-3548

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of R.R. Donnelley & Sons

I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Carl W Zielke

Carl W. Zielke, Vice Pres. and Div. Director

Name and Title (Please Type)

Date: 12/21/92 Telephone No. 904-322-2320

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, tha

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Dennis J. Cote

Dennis J. Cote, P.E.
Name (Please Type)

R.R. Donnelley & Sons Company
Company Name (Please Type)

725 Warrenville Road, Lisle IL 60332
Mailing Address (Please Type)

Florida Registration No. 43680 Date: 12/18/92 Telephone No. 708-719-6694

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

This application is for a permit to construct a heatset web offset printing press whose exhaust will be controlled by a new thermal afterburner system to be operated in conjunction with the existing afterburner system. The high efficiency VOC destruction achieved by this type of system will ensure compliance with applicable emission limitations

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction 3/1/93 Completion of Construction 7/1/93

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

New Thermal Afterburner Capital Cost	$1,070,000.00
Existing Thermal Afterburner (Installed Cost)	800,000.00
Total Pollution Control Systems Cost	$1,870,000.00

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Construction Permit #AC 64-188871 which includes the existing afterburner, was issued 3/15/91. The expiration date was extended by FDER to 12/31/92. The Division applied for an operating permit on September 30, 1992.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied?

   b. If yes, has "Lowest Achievable Emission Rate" been applied?

   c. If yes, list non-attainment pollutants.

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Paper	N/A	N/A	19,645	Input to Press
Ink	VOC	38	746.5	Input to Press
Alcohol Substitute*	VOC	100	21.3	Input to Press
Ftn. Solution Etch*	VOC	0	21.5	Input to Press
Cleaning Sol.**	VOC	100	2.2	Input to Press
Water	N/A	N/A	1,026	Mixed w/Ftn. Sol. Conc.

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 20,436.5

2. Product Weight (lbs/hr): 20,164.2

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC.	12.4	54.1	17-2.620(1)	N/A	247	1,053	Afterburner
VOC	3.5	15.4	17-2.620(1)	N/A	3.5	15.4	Fugitives

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

* Fountain Solution Etch and Alcohol Substitute Concentrates are mixed with water to make Press Ready Fountain Solution.

** Cleaning Solvent represents total solvent consumption for the cleaning of blankets, rollers and other general cleaning requirements.

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
TEC/KATEC 2-174	VOC	≥ 95%		*
* See Appendix B.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas - Afterburner	0.002	0.007	7.2
Natural Gas - Dryers	0.007	0.027	27.2

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: Nil Percent Ash: Nil

Density: N/A lbs/gal Typical Percent Nitrogen: Nil

Heat Capacity: Nominal 1,000 BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): None

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

1. Waste Paper - Recycled

2. Waste Cleaning Solvent and Printing Inks - Will be disposed of by a licensed waste hauler/fuel blender with ultimate waste disposition via thermal destruction as supplementary fuel in a cement kiln.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: Discharge @ 50 ft. Stack Diameter: 3.50 ft.

Gas Flow Rate: 36,000 ACFM 17,400 DSCFM Gas Exit Temperature: 600 °F.

Water Vapor Content: 3% v/v % Velocity: 62 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [X] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [X] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Although BACT is not required for this installation, the level of control that will be employed for this installation constitutes the equivalent of what would be considered BACT.	

D. Describe the existing control and treatment technology (if any).

1. Control Device/System: Recuperative Thermal A/B*
2. Operating Principles: Thermal Oxidation
3. Efficiency:* ≥ 95%
4. Capital Costs: $800,000

*To be operated in conjunction with a second new afterburner.

*Explain method of determining

5. Useful Life: 10 to 15 years 6. Operating Costs: $14 /hr

7. Energy: 200 Kw, Avg. 2MM BTU/hr NG 8. Maintenance Cost: $10,000 /yr

9. Emissions:

Contaminant	Rate or Concentration
VOC	Less than 5% Of input VOC Concentration

10. Stack Parameters

a. Height: 50 ft. b. Diameter: 3.5 ft.

c. Flow Rate: 36,000 ACFM d. Temperature: 600 °F.

e. Velocity: 62 FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1. Recuperative Thermal Afterburner

a. Control Device: TEC/KATEC 2-174 b. Operating Principles: Thermal Oxidation

c. Efficiency:[1] ≥ 90% d. Capital Cost: $1,070,000.00

e. Useful Life: 10 to 15 years f. Operating Cost: $14/hr

g. Energy:[2] 200 KWH, Avg. 2MMBTU/hr NG h. Maintenance Cost: $10,000/yr

i. Availability of construction materials and process chemicals: Available

j. Applicability to manufacturing processes: Applicable

k. Ability to construct with control device, install in available space, and operate within proposed levels: Can build, install and operate properly.

2. Catalytic Afterburner

a. Control Device: b. Operating Principles: Catalytic Oxidation

c. Efficiency:[1] 90% d. Capital Cost: $1,000,000.00

e. Useful Life: 8 years f. Operating Cost: $15/hr

g. Energy:[2] 200 KWH, Avg. 2MMBTU/hr NG h. Maintenance Cost: $40,000/yr

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes: Applicable

k. Ability to construct with control device, install in available space, and operate within proposed levels: Able to do

3. Chilled Condenser

a. Control Device:

b. Operating Principles: Chilled Condensation

c. Efficiency:[1] ≤ 80%

d. Capital Cost: $850,000.00

e. Useful Life: 8 years

f. Operating Cost: $15/hr

g. Energy:[2] 400 KWH

h. Maintenance Cost: $150,000/yr

i. Availability of construction materials and process chemicals: Available

j. Applicability to manufacturing processes: Applicable, but low efficiency

k. Ability to construct with control device, install in available space, and operate within proposed levels: Able to do

4. Regenerative Thermal Afterburner

a. Control Device:

b. Operating Principles: Thermal Oxidation

c. Efficiency:[1] ≥ 90%

d. Capital Costs: $1,200,000.00

e. Useful Life: 8 years

f. Operating Cost: $12/hr

g. Energy:[2] 200 KWH, 1.5MMBTU/hr NG

h. Maintenance Cost: unknown

i. Availability of construction materials and process chemicals: Available

j. Applicability to manufacturing processes: Applicable

k. Ability to construct with control device, install in available space, and operate within proposed levels: Able to do

F. Describe the control technology selected: Recuperative Thermal Afterburner

1. Control Device:

2. Efficiency:[1] ≥95%

3. Capital Cost: $1,070,000.00

4. Useful Life: 10 TO 15 YEARS

5. Operating Cost: $14.24/HR

6. Energy:[2] 191 KWH, 2 Avg. MMBTU/hr NG

7. Maintenance Cost: 10,000/yr

8. Manufacturer: TEC Systems, Inc.

9. Other locations where employed on similar processes:

a. (1) Company: R.R. Donnelley & Sons Co.

(2) Mailing Address: 3100 South Ridgewood Ave

(3) City: South Daytona

(4) State: Florida

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager: Dirk Hiler

(6) Telephone No.: 904-322-2387

(7) Emissions:[1]

Contaminant	Rate or Concentration
VOCs	< 5% of input VOC concentration

(8) Process Rate:[1] 17,400 scfm

b. (1) Company: R.R. Donnelley & Sons Co.

(2) Mailing Address: Donnelley Drive

(3) City: Glasgow (4) State: Kentucky

(5) Environmental Manager: Tom Gaffin

(6) Telephone No.: 502-678-2121

(7) Emissions:[1]

Contaminant	Rate or Concentration
VOCs	< 10% of input VOC Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring ____/____/____ to ____/____/____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Uaed

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO^2	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Application for Permit to Construct
Heatset Web Offset Press #SDM-031

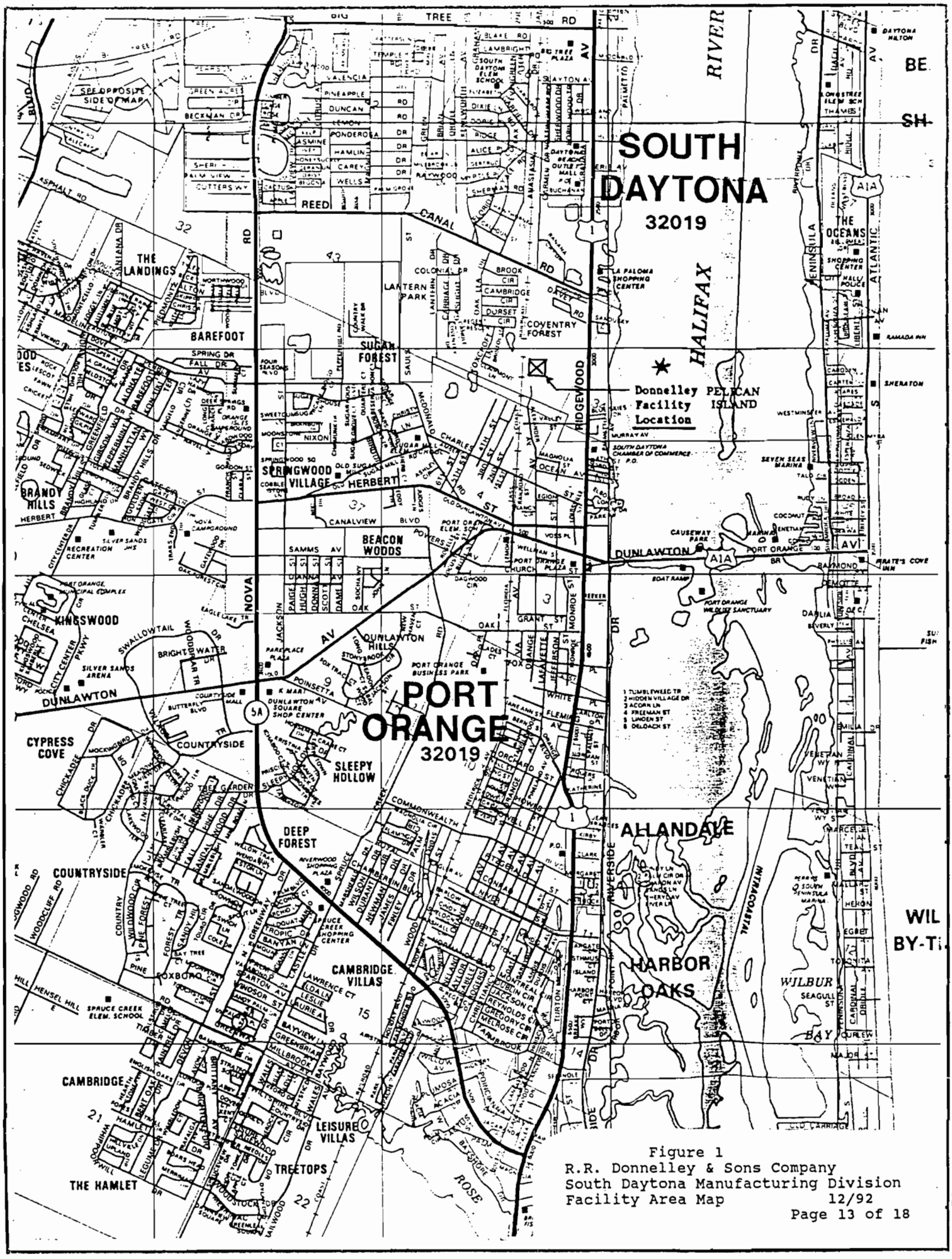
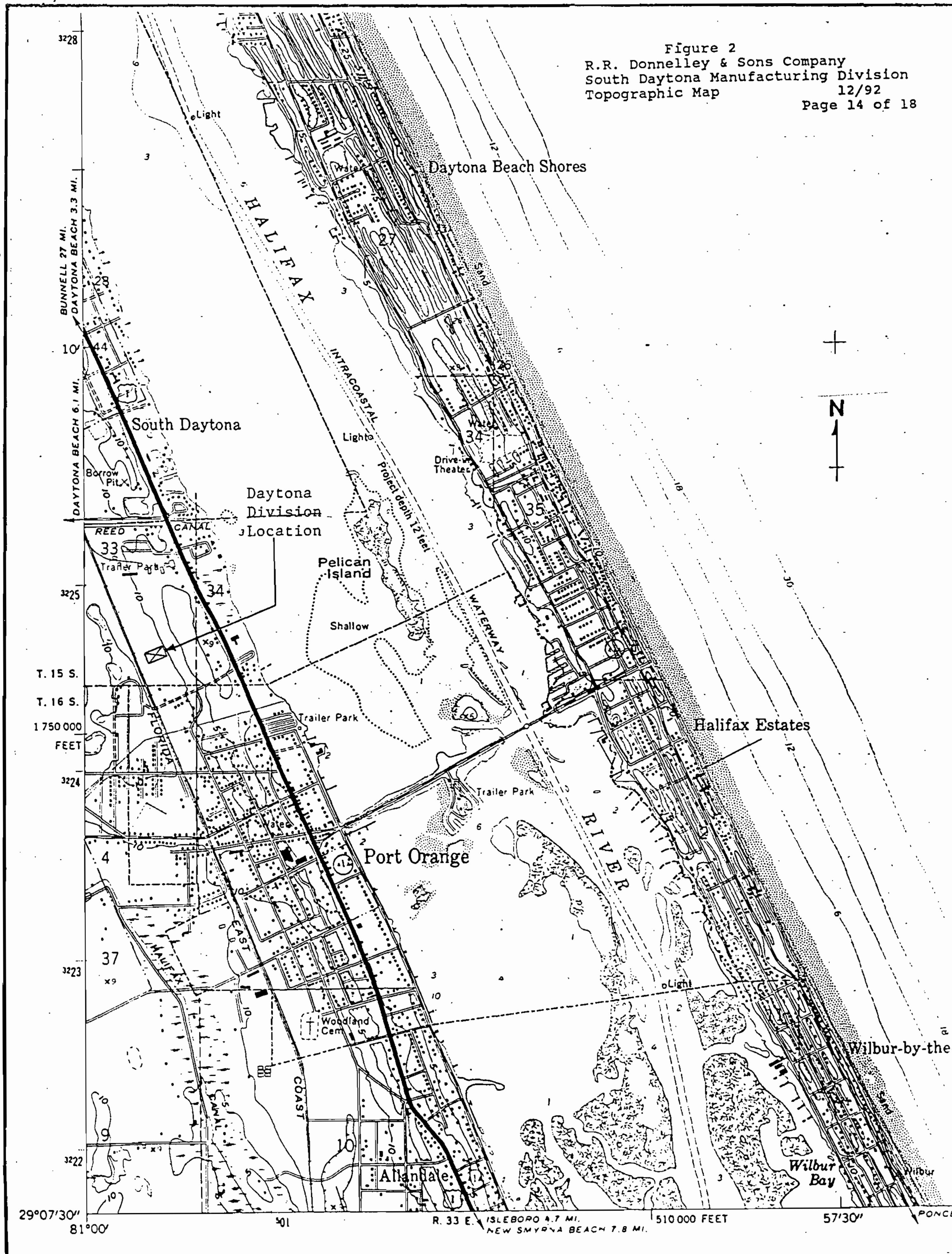
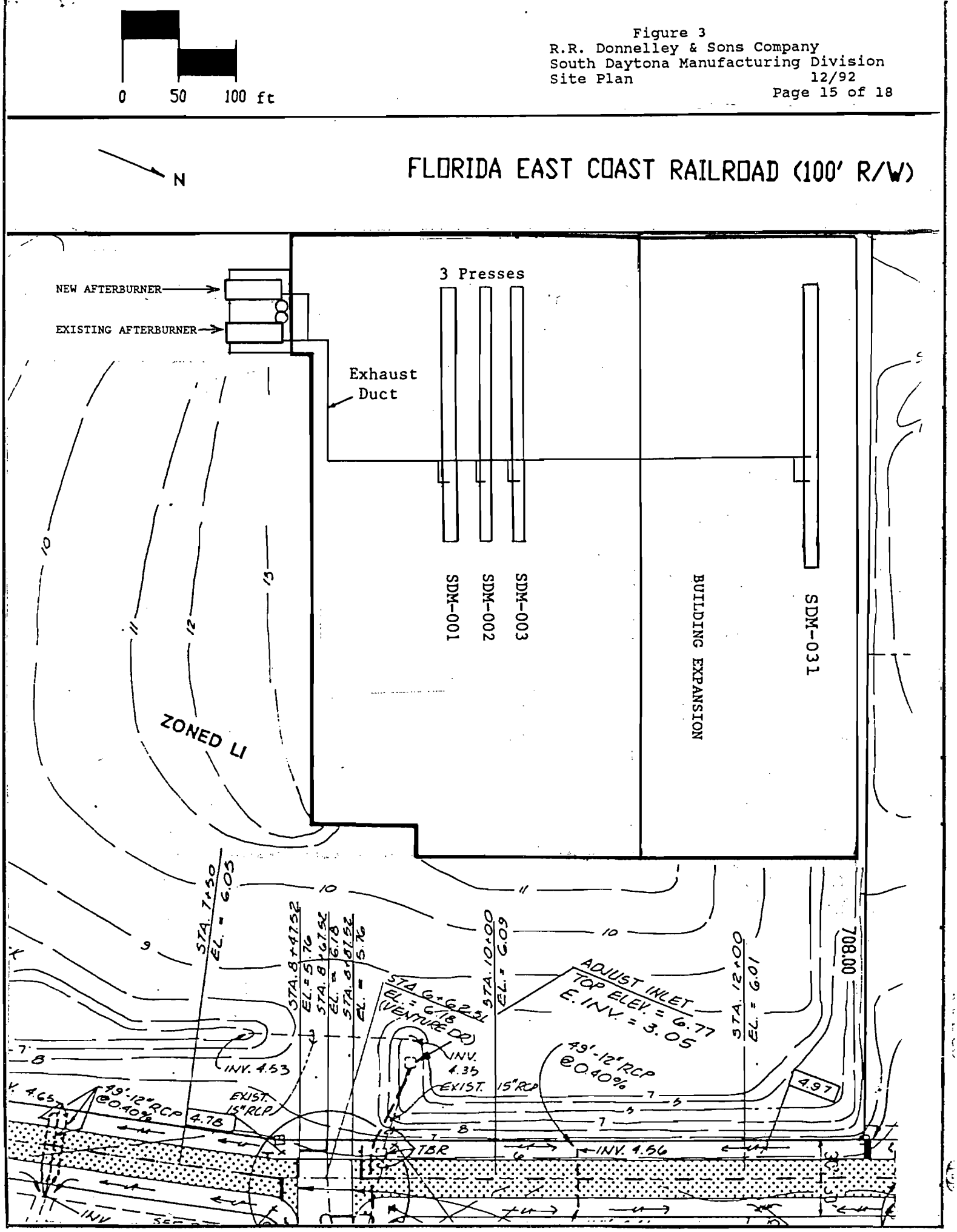


Figure 1
R.R. Donnelley & Sons Company
South Daytona Manufacturing Division
Facility Area Map 12/92

Figure 2
R.R. Donnelley & Sons Company
South Daytona Manufacturing Division
Topographic Map 12/92




0 50 100 ft
N
FLORIDA EAST COAST RAILROAD (100' R/W)
NEW AFTERBURNER
EXISTING AFTERBURNER
3 Presses
Exhaust Duct
SDM-001
SDM-002
SDM-003
BUILDING EXPANSION
SDM-031
ZONED LI
STA. 7+50
EL. = 6.05
STA. 8+47.52
EL. = 5.76
STA. 8+67.52
EL. = 6.18
STA. 8+81.52
EL. = 5.76
STA. 10+00
EL. = 6.09
STA. 12+00
EL. = 6.01
708.00
STA. 6+62.52
EL. = 6.18
(VENTURE DR)
ADJUST INLET
TOP ELEV. = 6.77
E. INV. = 3.05
INV. 4.53
INV. 4.35
EXIST. 15" RCP
49'-12" RCP @ 0.40%
EXIST. 15" RCP
4.78
4.97
INV. 4.56
TBR

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Material Input/VOC Emissions Data
Heatset Web Offset Press #SDM-031

TABLE 1

I. Material Input/Output Factors

	VOC Content (% by Weight)	% Fugitive	% Capture	%Retention In Paper
Ink	38	0	80	20
Alcohol Substitute	100	10	90	0
Cleaning Solvent	100	62.5	37.5	0

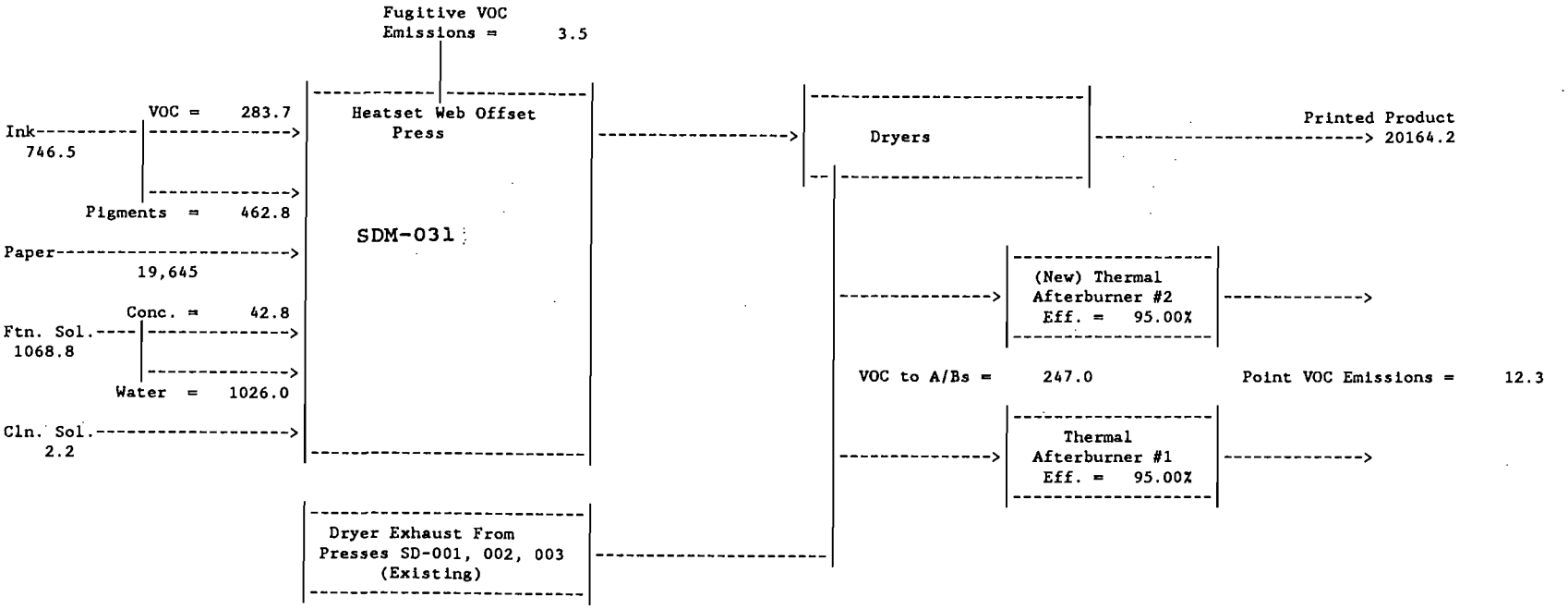
II. Material Input and Emission Rate

	VOC Input (lbs/hr)	VOC Emission Rates (lb/hr) Fugitive	Point	Total
Ink	283.7	0.00	11.35	11.35
Alcohol Substitute	21.3	2.13	0.96	3.09
Cleaning Solvent	2.2	1.38	0.04	1.42
Totals	307.2	3.51	12.35	15.86

Total press VOC emissions @ 8,760 operating hrs/year = 69.5 Tons/Year

II. Emissions from the Combustion of Natural Gas in the Afterburner (A/B) and Press Dryers (SDM-031 Only). Estimates based on AP-42 Factors.

	NG Usage (MMBTU/hr)		Partic. (lbs/hr)		SO_2 (lbs/hr)		NO_x (lbs/hr)		CO (lbs/hr)		VOC (lbs/hr)	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
A/B	2	7.2	.006	.022	.001	.004	.20	.72	.04	.14	.011	.038
Dryers	6.8	27.2	.020	.080	.004	.016	.95	3.80	.24	.95	.019	.076



Notes: 1. The values shown, represent total process inputs and outputs from one (1) double web offset press. All values shown are in units of lbs/hr. at "Maximum" Rates.

2. The two (2) Katec afterburners are operated in tandem to a common duct from all four (4) presses, therefore the load can be transferred to either, or balanced between both afterburners.

REVISION	BY	DATE
A		

R. R. DONNELLEY & SONS COMPANY

TOLERANCE
DECIMAL ±
FRACTIONAL ±

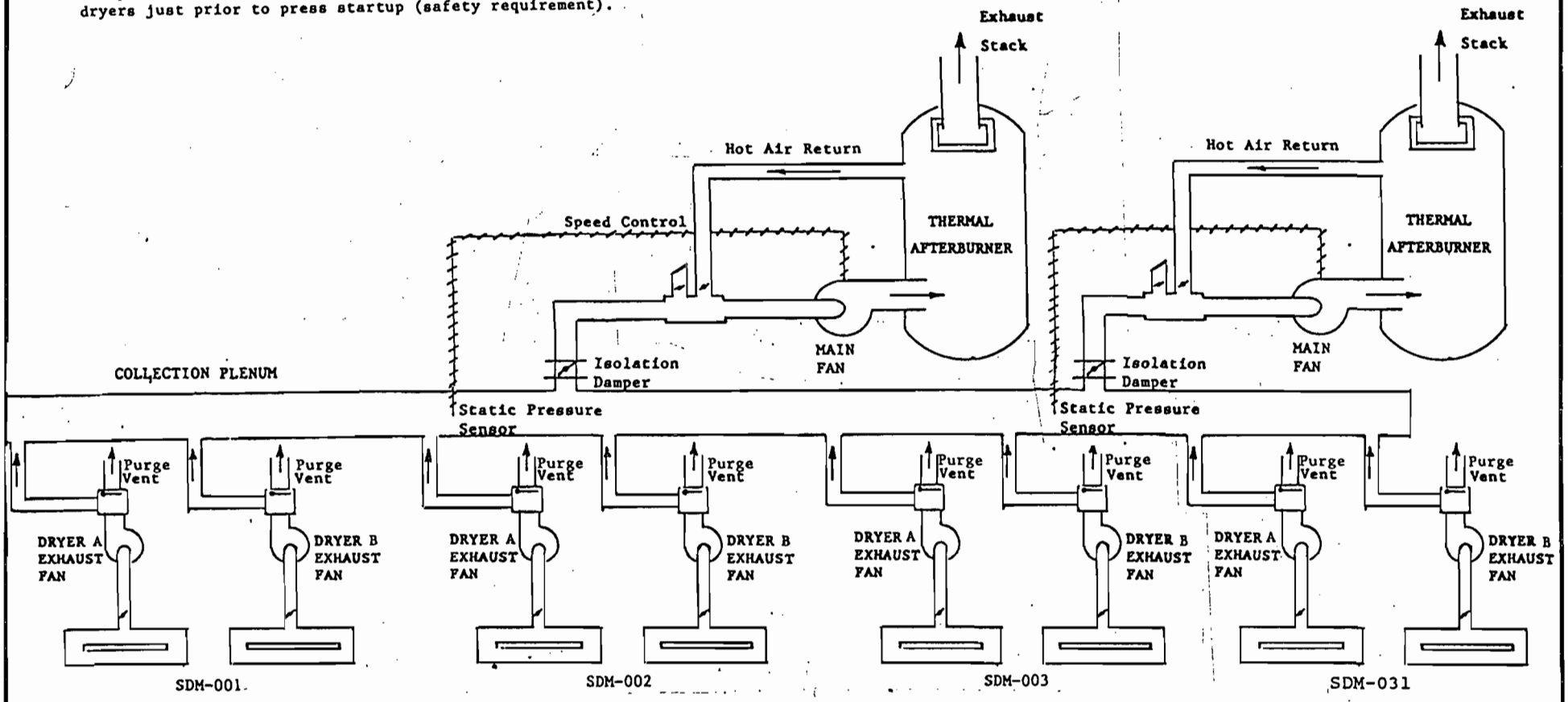
SCALE: None
DATE: 12/92
DRN. BY
CHK'D. BY
APP. BY

PARTS LIST NO.
REF. Dwg. No.

Process Flow Diagram
South Daytona Manufacturing Division

DRAWING NO. Figure 4

NOTE: The purge vents are utilized for the initial purge of the dryers just prior to press startup (safety requirement).



R. R. DONNELLEY & SONS COMPANY

TOLERANCE	SCALE	None
DECIMAL ±	DATE	12/92
FRACTIONAL ±	DRN. BY	
PARTS LIST NO.	CHK'D. BY	
REF. Dwg. No.	APP. BY	

Thermal Afterburner Control System
South Daytona Manufacturing Division

REVISION	BY	DATE
(A)		

DRAWING NO. Figure 5

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Materials Specifications Sheets
Heatset Web Offset Press #SDM-004 Expansion

APPENDIX A

Product Class	Manufacturer's Name	Revision Date
Heatset Web Offset Ink	Sun Chemical Co.	2/15/91
Fountain Solution Concentrate		
Blue Chip Solution (Etch)	Rycoline Products	5/01/89
Product Code 5-137 (Alcohol Substitute)	Rycoline Products	8/02/89
Cleaning Solvent (Oxy-Web Auto Wash)	Anchor Lithkemko	10/18/90

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Air Pollution Control System
Heatset Web Offset Press #SDM-004 Expansion

APPENDIX B

The TEC Systems Inc. KATEC 2-174 recuperative thermal afterburner system, operated at a minimum of 1400°F, provides 95% or greater VOC destruction efficiencies, based upon performance tests of an identical system in place at this location. The VOC destruction efficiency of the system can be demonstrated by measuring the concentration of total gaseous organics (using a Flame Ionization Analyzer) simultaneously up and downstream of the afterburner under typical operating conditions. As explained previously, USEPA reference Method 25 is not applicable for compliance demonstration for this type of control system since the method is not valid for VOC concentrations below 50ppm C-1, as is expected in the exhaust from this unit.

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Materials Specifications Sheets
Heatset Web Offset Press #SDM-031 Expansion

APPENDIX A

Product Class	Manufacturer's Name	Revision Date
Heatset Web Offset Ink	Sun Chemical Co.	2/15/91
Fountain Solution Concentrate		
Blue Chip Solution (Etch)	Rycoline Products	5/01/89
Product Code 5-137 (Alcohol Substitute)	Rycoline Products	8/02/89
Cleaning Solvent (Oxy-Web Auto Wash)	Anchor Lithkemko	10/18/90

MATERIAL SAFETY DATA SHEET

Sun Chemical Corporation
General Printing Ink Division

I Product Identification

Manufacturer's Name	**Sun Chemical Corporation**	MSDS Number :	**151001**
Street Address	631 Central Avenue Carlstadt New Jersey 07072	Revision Date :	2/15/91
		Supersedes :	11/22/89
Telephone Number	(201) 933-4500		
Product Class	**HEATSET INKS**		
Manufacturer's Code	**SEE ATTACHED LIST**		

II Hazardous Ingredients

Component	Hazard	Exposure Limits	
		OHSA	ACGIH
Petroleum Middle Distillate (CAS# 64741-86-2)	(See Section XI)		

III Health Effect Information - Finished Product

Primary Hazard: May cause eye irritation or skin irritation upon prolonged or repeated contact.

IV Health Effect Information - Hazardous Ingredients (100% Concentration)

Eye Contact	May be slightly irritating upon direct contact.
Skin Contact	Repeated or prolonged exposure may cause drying of skin and irritation.
Inhalation	This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product.
Ingestion	Ingestion of small quantities is usually non-fatal unless aspiration occurs. Aspiration may lead to chemical pneumonitis.
Health Data	See Section XI
Medical Conditions Aggrevated By Exposure	Existing skin disorders.

V Emergency & First Aid Procedures

Eye Contact	Flush eyes with water for 15 minutes. If irritation develops, consult a physician.
Skin Contact	Wash affected area with soap and water. Remove soiled clothing and launder before reusing.
Inhalation	None expected to be necessary at ambient conditions.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

VI Personal Health Protection Information

Eye Protection	Safety glasses or goggles recommended to prevent accidental contact.
Skin Protection	Gloves recommended for repeated or prolonged exposure.
Ventilation	In accordance with good engineering practices.
Respiratory Protection	None required under conditions of normal use.
Other	None.

VII Fire & Explosion Data

Flash Point (lowest) 210°F	Flash Point Method T.C.C.
Flash Point Category (OSHA/NFPA) IIIB	Lower Flammability Limit in Air (% by Vol) 1.1 %

Extinguishing Media	Carbon Dioxide, Dry Chemical, Foam.
Special Fire Fighting Procedures	Self-contained breathing apparatus and protective clothing should be worn in chemical fires.
Unusual Fire and Explosion Hazards	Dense smoke may be generated while burning. Oxides may be generated as products of combustion.

VIII Reactivity Data

Stable	Unstable	Conditions to Avoid
X		None.

Incompatability Strong oxidizers.

IX Physical Data

Boiling Range	464 - 516°F	Density (lbs/gal)	Approx. 8
Percent Volatile (weight)	See Page 5	Evaporation Rate (vs. Butyl Acetate)	Slower
Vapor Density (vs. air)	Heavier	Appearance/ Odor	Colored Viscous liquid Hydrocarbon odor

X Environmental Precautions

Procedure if Material is Spilled or Released — Clean up with absorbent material.

Waste Disposal Method — In accordance with federal, state, and local regulations.

XI Special Precautions

Handling and Storage Requirements — Store in closed containers.

Precautionary Statements — None.

XII Additional Comments

Evaluation of this specific raw material in a test battery designed to detect multiple genotixic endpoints has demonstrated this component to be nongenotoxic. Lack of genotoxic activity is strongly correlated with noncarcinogenicity. Therefore, this component is not expected to result in tumors in laboratory animals.

However, in accordance with the Occupational Safety and Health Administration Hazard Communication Standard, all manufacturers and distributors of middle distillates are alsorequired to report that earlier studies conducted by the American Petroleum Institute have indicated that middle distillates, as a class, were weakly to moderately tumorigenic in laboratory animals. It is suspected that these tumors may be due in part to the severely irritated skin condition resulting from continuous contact of the test animals with the material.

SECTION I PRODUCT IDENTIFICATION 26050 PAGE 1

TRADE NAME(AS LABELED): BLUE CHIP FOUNTAIN SOLUTION

FORMULA: B-5 TO B-50
PRODUCT CODE #: 26050
DATE ISSUED: 4/29/87 REVISED 5-1-89
MANUFACTURER: RYCOLINE PRODUCTS, INC.
ADDRESS: 5540 NORTHWEST HIGHWAY
CHICAGO, ILLINOIS 60630
PHONE NUMBER: (312) 775-6755 OR
**24 HOUR EMERGENCY # CHEMTRACK 1-800-424-9300

N.F.P.A. HAZARD RATING	HEALTH
	1
4=EXTREME	FIRE
3=HIGH	----
2=MODERATE	0
1=MINIMAL	REACTIVITY

	0

SECTION II HAZARDOUS INGREDIENTS

CHEMICAL NAME	CAS NUMBERS	PERCENT W/W	EXPOSURE LIMITS IN AIR ACGIH TLV	OSHA PEL
+ PHOPHORIC ACID	7664-38-2	1	1 Mg/M3	1 Mg/M3

THIS IS A NON-FLAMMABLE,NON-CORROSIVE WATER SOLUTION
PH OF UNDILUTED CONCENTRATE IS APPROX.=2.0
+CHEMICAL IS SUBJECT TO SARA TITLE III sec. 313 PART 372 REPORTING

SECTION III PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT, F: 212
VAPOR PRESSURE(MMHG): 17.50 @68 DEG. F
MELTING POINT,F: UNKNOWN
VAPOR DENSITY(AIR=1):> 1.00 @60 DEG. F
SOLUBILITY IN WATER: INFINITE
SPECIFIC GRAVITY(H2O=1): 1.110
% VOLATILE BY VOLUME: 84
VOC (LB/GAL): 0
EVAPORATION RATE: SLOWER (THAN ETHER)
APPEARANCE AND ODOR: BLUE GREEN LIQUID, MILD ODOR

SECTION IV FIRE AND EXPLOSION

FLASH POINT,F: ABOVE 200, T.C.C.
FLAMMABILITY LIMITS IN AIR: LOWER(LEL): NONE UPPER(UEL): NONE
AUTOIGNITION TEMPERATURE:NONE DEG. F

EXTINGUISHING MEDIA

_X_ WATER SPRAY/FOG _X_ CO2 _X_ DRY CHEMICAL _X_ ALCOHOL FOAM

SPECIAL FIRE FIGHTING PRODCEDURES: USE SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.
UNUSUAL FIRE AND EXPLOSION HAZARDS: DO NOT FLAME CUT, WELD OR SAW EMPTY CONTAINER.

SECTION V REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: FREEZING TEMP. AND EXCESSIVELY WARM TEMP.

INCOMPATIBILITY(MATERIALS TO AVOID): STRONG OXIDIZING MATERIALS AND ALKALINE MATERIALS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: NONE

HAZARDOUS DECOMPOSITION PRODUCTS: CO,CO2, AND OXIDES OF NITROGEN.

SECTION VI SPECIAL PRECAUTION INFORMATION

HANDS(GLOVE MATERIAL): NEOPRENE AND NATURAL RUBBER
EYES: CHEMICAL SAFETY SPLASH GOGGLES

VENTILATION REQUIREMENTS: GENERAL MECHANICAL VENTILATION OF AREA IS RECOMMENDED.

RESPIRATION TYPE: OSHA APPROVED FOR ORGANIC VAPOR.

OTHER: SAFETY SHOWER AND EYE WASH SHOULD BE AVAILABLE

SECTION VII SPILL/LEAKAGE PROCEDURES

SPILL RESPONSE PROCEDURE: USE ABSORBENT MATERIAL TO COLLECT AND CONTAIN FOR DISPOSAL. CONTAIN LARGE SPILL AND PUMP TO SUITABLE TANK. WASH AREA WITH SUITABLE DETERGENT AND WATER AND THOROUGHLY RINSE WITH WATER.

WASTE DISPOSAL: USE PLASTIC CONTAINERS AND DISPOSE IN AN APPROVED LICENSED SITE.

NOTE:DISPOSE OF ALL WASTES IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

SECTION VIII HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE FOR EACH POTENTIAL ROUTE OF EXPOSURE

CONTACT WITH SKIN: DRYING,REDNESS, AND BLISTERING POSSIBLE.

CONTACT WITH EYES: IRRITION ON CONTACT.

INHALATION: EXCESSIVE INHALATION MAY CAUSE DIZZINESS, NAUSEA,AND ANESTHESIA. IF USED IN COMBINTION WITH ALCOHOL.

INGESTION: IRRITANT MATERIAL - SAME EFFECT AS INHALATION.

ABSORBED THROUGH SKIN: NOT EXPECTED TO BE ABSORBED THROUGH THE SKIN

HEALTH EFFECTS OR RISKS FROM EXPOSURE

ACUTE: SKIN OR EYE CONTACT MAY CAUSE IRRITATION.

CHRONIC: NO KNOWN CHRONIC EFFECTS FROM EXPOSURE TO THIS PRODUCT.

FIRST AID PROCEDURES

EYE CONTACT: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. CONTACT LENSES MUST BE REMOVED. GET MEDICAL ATTENTION.

SKIN CONTACT: REMOVE ALL CONTAMINATED CLOTHING. WASH SKIN WITH SOAP & WATER.

INHALATION: REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF NEEDED. GET MEDICAL ATTENTION IF INDICATED.

INGESTION: GET MEDICAL ATTENTION, GIVE LARGE QUANTITIES OF WATER AND INDUCE VOMITING. DO NOT MAKE AN UNCONSCIOUS PERSON VOMIT.

CARCINOGENICITY: INGREDENT'S OF PRODUCT ARE NOT FOUND ON;

FEDERAL OSHA NTP IARC

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: SKIN DISEASE.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS IN HANDLING AND STORING: WASH THOROUGHLY AFTER HANDLING, KEEP CONTAINER CLOSED. DO NOT GET IN EYES; ON SKIN OR CLOTHING

OTHER PRECAUTIONS: PROTECT AGAINST PHYSICAL DAMAGE TO CONTAINERS. STORE IN A COOL, WELL VENTILATED AREA. KEEP AWAY FROM HEAT AND OXIDIZING MATERIALS. FOR INDUSTRIAL USE ONLY.

SECTION I PRODUCT IDENTIFICATION #53270 PAGE 1

TRADE NAME(AS LABELED): ALCOHOL REPLACEMENT

FORMULA: 5-137
PRODUCT CODE #: 53270
DATE ISSUED: 4/29/87 REVISED 8-2-89
MANUFACTURER: RYCOLINE PRODUCTS, INC.
ADDRESS: 5540 NORTHWEST HIGHWAY
CHICAGO, ILLINOIS 60630
PHONE NUMBER: (312) 775-6755

N.F.P.A. HAZARD RATING

4=EXTREME
3=HIGH
2=MODERATE
1=MINIMAL

HEALTH
2
FIRE
2
REACTIVITY
0

SECTION II HAZARDOUS INGREDIENTS

	CHEMICAL NAME	CAS NUMBERS	PERCENT W/W	EXPOSURE LIMITS IN AIR ACGIH TLV	OSHA PEL
+	ETHYLENE GLYCOL N-BUTYL ETHER	111-76-2	70-80	25 PPM (SKIN)	25 PPM
+	ETHYLENE GLYCOL	107-21-1	20-30	25 PPM	NOT EST.

+THIS CHEMICAL IS SUBJECT TO SARA TITLE III sec. 313 40CFR372 REPORTING.

SECTION III PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT, F: 340 TO 400
VAPOR PRESSURE(MMHG): .19 @68 DEG. F
MELTING POINT,F: UNKNOWN
VAPOR DENSITY(AIR=1):> 3.50 @60 DEG. F
SOLUBILITY IN WATER: INFINITE
APPEARANCE AND ODOR: GREEN LIQUID, MILD ODOR

SPECIFIC GRAVITY(H2O=1): 0.9499
% VOLATILE BY VOLUME: 98
VOC (LB/GAL): 7.8
EVAPORATION RATE: SLOWER (THAN ETHER)

SECTION IV FIRE AND EXPLOSION

FLASH POINT,F: 145 T.C.C.
FLAMMABILITY LIMITS IN AIR: UNKNOWN
AUTOIGNITION TEMPERATURE: 460 DEG. F

EXTINGUISHING MEDIA

_X_ WATER SPRAY/FOG _X_ CO2 _X_ DRY CHEMICAL _X_ ALCOHOL FOAM

SPECIAL FIRE FIGHTING PRODCEDURES: USE SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.
UNUSUAL FIRE AND EXPLOSION HAZARDS: DO NOT FLAME CUT, WELD OR SAW EMPTY CONTAINER.

ECTION V REACTIVITY DATA

STABILITY: STABLE CONDITIONS TO AVOID: FLAME, SPARKS AND EXCESSIVELY WARM TEMP.

INCOMPATIBILITY(MATERIALS TO AVOID): STRONG OXIDIZING MATERIALS AND ALKALINE MATERIALS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR CONDITIONS TO AVOID: NONE

HAZARDOUS DECOMPOSITION PRODUCTS: CO AND CO2 UPON COMBUSTION

SECTION VI SPECIAL PRECAUTION INFORMATION

HANDS(GLOVE MATERIAL): NEOPRENE AND NATURAL RUBBER
EYES: CHEMICAL SAFETY SPLASH GOGGLES

VENTILATION REQUIREMENTS: GENERAL MECHANICAL VENTILATION OF AREA IS RECOMMENDED. LOCAL VENTILATION OF AREA MAYBE NEEDED.

EPIRATION TYPE: OSHA RECOMMENDED FOR ORGANIC VAPOR.

OTHER: SAFETY SHOWER AND EYE WASH SHOULD BE AVAILABLE.

SECTION VII SPILL/LEAKAGE PROCEDURES

SPILL RESPONSE PROCEDURE: USE ABSORBENT MATERIAL TO COLLECT AND CONTAIN FOR DISPOSAL. CONTAIN LARGE SPILL AND PUMP TO SUITABLE TANK. WASH AREA WITH SUITABLE DETERGENT AND WATER AND THOROUGHLY RINSE WITH WATER.

WASTE DISPOSAL: USE PLASTIC OR STEEL CONTAINERS AND DISPOSE IN AN APPROVED LICENSED SITE, INCINERATION.

NOTE:DISPOSE OF ALL WASTES IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION VIII HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE FOR EACH POTENTIAL ROUTE OF EXPOSURE

CONTACT WITH SKIN: DRYING,REDNESS, AND BLISTERING POSSIBLE.

CONTACT WITH EYES: IRRITION ON CONTACT.

INHALATION: EXCESSIVE INHALATION MAY CAUSE DIZZINESS, NAUSEA,AND ANESTHESIA.

INGESTION: IRRITANT MATERIAL - SAME EFFECT AS INHALATION.

ABSORBED THROUGH SKIN: ETHLYENE GLYCOL N-BUTYL ETHER MAY BE ABSORBED THROUGH THE SKIN- SAME EFFECT AS INHALATION.

HEALTH EFFECTS OR RISKS FROM EXPOSURE

ACUTE: INHALATION MAY BE IRRITATION TO THE EYES, NOSE, AND RESPIRATORY TRACK.INGESTION MAY CAUSE HEADACHE, NAUSES, VOMITTING, AND DIZZINESS.

CHRONIC: EXCESSIVE EXPOSURE TO THIS PRODUCT MAY CAUSE DAMAGE TO SKIN, LIVER LUNG, KIDNEY, BLOOD, AND LYMPHOID SYSTEM.

FIRST AID PROCEDURES

EYE CONTACT: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. CONTACT LENSES MUST BE REMOVED. GET MEDICAL ATTENTION.

KIN CONTACT: REMOVE ALL CONTAMINATED CLOTHING. WASH SKIN WITH SOAP & WATER.

INHALATION: REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF NEEDED. GET MEDICAL ATTENTION IF INDICATED.

INGESTION: GET MEDICAL ATTENTION. DILUTE BY GIVING VICTIM WATER AND THEN INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH OR INDUCE VOMITING IF VICTIM IS UNCONSCIOUS.

CARCINOGENICITY: INGREDENT'S OF PRODUCT ARE NOT FOUND ON;

FEDERAL OSHA NTP IARC

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: SKIN DISEASE, RESPIRATORY DISEASE, KIDNEY, AND LIVER DISEASE.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS IN HANDLING AND STORING: WASH THOROUGHLY AFTER HANDLING, KEEP CONTAINER CLOSED. DO NOT GET IN EYES; ON SKIN OR CLOTHING

OTHER PRECAUTIONS: PROTECT AGAINST PHYSICAL DAMAGE TO CONTAINERS. STORE IN A COOL, WELL VENTILATED AREA. KEEP AWAY FROM HEAT AND OXIDIZING MATERIALS. FOR INDUSTRIAL USE ONLY.

MATERIAL SAFETY DATA SHEET

Date Prepared: 10/18/90 Page: 1

ANCHOR LITHKEMKO
50 Industrial Loop North
Orange Park, FL 32073

EMERGENCY PHONE NUMBER * (904) 264-3500 * This number is available days, nights, weekends, and holidays.

This MSDS complies with 29 CFR 1910.1200 Hazard Communication Standard.

Federal law requires persons receiving the Material Safety Data Sheet to study it carefully, become aware of hazards, if any, of the product involved. In the interest of safety you should: (1) notify your employee agents, and contractors of the information on this sheet; (2) furnish a copy to each of your customers for the product; and (3) request your customers to inform their employees and customers as well.

FOR INDUSTRIAL USE ONLY USE ONLY AS DIRECTED DO NOT TAKE INTERNAL

SECTION I PRODUCT IDENTIFICATION

PRODUCT NAME: ** OXY-WEB AUTO WASH
PRODUCT NUMBER: 7290
D.O.T. PROPER SHIPPING NAME: COMPOUND, CLEANING, LIQUID
UN NUMBER: 1993
DATE OF LAST MSDS SHIPMENT: N/A
MSDS PREPARED BY: L. M. ANDERSON

HMIS INFORMATION: Health - 1 Flammability - 2
Reactivity - 0 Personal Protective Equipment - B

HAZARD INDEX: 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Lea
Safety Glasses & Gloves

SECTION II HAZARDOUS INGREDIENTS

----- INGREDIENT ----- MATERIAL DESCRIPTION	CAS#	% BY WT.	ACGIH TLV(TWA) PPM	OSHA PEL PPM	OTHER LIMIT
AROMATIC 150	/64742-95-6 /	45-55	/NOT EST/	/NOT EST/	
(Aromatic Hydrocarbon)	/	/	/	/	/100 PPM
SOLVENT 140	/64742-88-7 /	25-35	/ 100.00/	500.00/	
(Aliphatic Hydrocarbon)	/	/	/	/	/
LOW ODOR BASE SOLVEN	/64742-96-7 /	15-25	/NOT EST/	500.00/	
Aliphatic Hydrocarbon	/	/	/	/	/
SOLVENT DPM	/34590-94-8 /	<5	/ 100.00/	100.00/	
(Glycol Ether DPM)	/	/	/	/	/ACGIH -
	/	/	/	/	/OSHA - S
	/	/	/	/	/STEL = 1

** OXY-WEB AUTO WASH

****

This product contains no reported carcinogens or suspected carcinogens

****

SECTION III PHYSICAL DATA

Boiling Range: High- 550.0 F Low- 375.0 F
Vapor Pressure: 2.08 MMHG @68 F
Vapor Density: Heavier Than Air
Evaporation Rate: Faster than Butyl Acetate
Weight per Gallon: 7.0
VOC lbs. per gal.: 7.008
Physical State: LIQUID
Appearance: CLEAR, COLORLESS
Odor: MILD SOLVENT
pH: N/A
Water Solubility: 0%
PHOTOCHEMICALLY REACTIVE - California Rule 102

SECTION IV D.O.T., FIRE AND EXPLOSION HAZARD DATA

Flammability Classification: Class 3A DOT: Combustible Liquid
Actual Flashpoint TCC: 145.0 F

EXTINGUISHING MEDIA: Use water spray, foam, CO2, or dry chemical fire fighting apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep work areas free of hot metal surfaces and other sources of ignition.

FIRE FIGHTING PROCEDURES: Fire fighters should wear self-contained breat ing apparatus and full protective clothing. Use water spray to cool near containers and structures exposed to fire.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Gently flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

SKIN CONTACT: Remove contaminated clothing (wash before re-use), wash affected skin areas with soap and water, and seek medical attention if irritation persists.

INHALATION: If breathing difficulties, dizziness or light-headedness occ when working in areas with high vapor concentration, victim should seek fresh air. If breathing stops, give artificial respiration and seek immediate medical attention.

INGESTION: Do not induce vomiting; seek medical attention immediately.

** OXY-WEB AUTO WASH

****

SECTION VI HEALTH INFORMATION, ACUTE AND CHRONIC

EYES: Direct contact will cause burning, tearing and redness.

SKIN EFFECTS: Prolonged or repeated skin contact can cause moderate irritation, defatting, and/or dermatitis.

INHALATION: Prolonged or repeated breathing of very high vapor concentr tions may cause headaches, nausea and vomiting. Chronic overexposure in high concentrations may produce CNS depression.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

PRIMARY ROUTES OF ENTRY: Inhalation.

SYSTEMIC AND OTHER EFFECTS: Chronic overexposure to Solvent DPM in high concentrations has caused kidney and liver damage in laboratory animals.

SECTION VII REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Extreme heat, sparks and open flames.

MATERIALS TO AVOID: Strong oxidizing agents, strong acids or bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition in the presence air may yield carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur. CONDITIONS TO AVOID: NA

SECTION VIII SPILL OR LEAK PROCEDURES

PRECAUTIONS IN CASE OF RELEASE OR SPILL: Stay upwind and away from spil unless wearing appropriate protective equipment. Stop and/or contain dis charge if it may be done safely. Keep all sources of ignition away; use non-sparking tools for cleanup. Ventilate area of spill and cover with inert material to reduce fumes. Keep out of drains, sewers or waterways. Contact fire authorities, notify local health and pollution control agencies, and call spill response teams if large spill.

WASTE DISPOSAL METHOD: Dispose of product in accordance with applicable local, county, state, federal regulations.

** OXY-WEB AUTO WASH

SECTION IX PERSONAL PROTECTION AND STORAGE PRECAUTIONS

RESPIRATORY PROTECTION: The use of respiratory protection depends on vap concentrations above the time-weighted TLV. Use a respirator/gas mask wi appropriate cartridges or canister (NIOSH approved, if available), or sup plied air equipment, depending on airborne concentration.

PROTECTIVE GLOVES: The use of gloves which are impermeable to the specif material handled is advised to prevent skin irritation and absorption.

EYE PROTECTION: Safety glasses are recommended to safeguard against potential eye contact, irritation or injury.

OTHER PROTECTIVE EQUIPMENT: The availability of eye washes and safety showers in work areas is recommended.

HANDLING AND STORAGE PRECAUTIONS: Keep product containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation. Keep product containers closed when not in use.

OTHER PRECAUTIONS: Personnel should avoid inhalation of vapors. Personal contact with the product should be avoided. Containers, even those that have been emptied, may retain product residues and/or vapors. Observe all hazard precautions given in this data sheet. Vapors of this product are heavier than air and will collect in low places.

The opinions expressed herein are those of qualified experts within the manufacturer and its suppliers. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of the manufacturer, it is user's obligation to determine the conditions of safe use of the product.

R.R.Donnelley & Sons Company
South Daytona Manufacturing Division
Air Pollution Control System
Heatset Web Offset Press #SDM-031 Expansion

APPENDIX B

The TEC Systems Inc. KATEC 2-174 recuperative thermal afterburner system, operated at a minimum of 1400°F, provides 95% or greater VOC destruction efficiencies, based upon performance tests of an identical system in place at this location. The VOC destruction efficiency of the system can be demonstrated by measuring the concentration of total gaseous organics (using a Flame Ionization Analyzer) simultaneously up and downstream of the afterburner under typical operating conditions. USEPA reference Method 25 is not applicable for compliance demonstration for this type of control system since the method is not valid for VOC concentrations below 50ppm C-1, as is expected in the exhaust from this unit.

BOATMEN'S BANK OF ROLLA

The Lakeside Press

JANUARY 4, 1993 02567

R R DONNELLEY & SONS COMPANY

80-289
815

2567 South Daytona Manufacturing Division
3100 S. Ridgewood Ave.
South Daytona, FL 32119

$4,500.00

PAY TO THE ORDER OF FORTY FIVE HUNDRED ********** 00/100 DOLLARS

FLORIDA DEPT OF ENVIRONMENT RE
2600 BLAIR STONE RD
TALLAHASSEE, FL 32399-2400

ACCOUNTS PAYABLE

R. R. DONNELLEY & SONS COMPANY
William C. Gallatt
Karlene King

[redacted]

OS-725

DETACH BEFORE DEPOSITING

NO RECEIPT NECESSARY; ENDORSEMENT OF CHECK CONSTITUTES RECEIPT IN FULL FOR ITEMS DETAILED. IF NECESSARY TO WRITE US REGARDING THIS REMITTANCE REFER TO ABOVE VOUCHER NUMBER AND, IN CASE OF ERROR, HOLD CHECK PENDING REPLY.

R. R. DONNELLEY & SONS CO.
3100 S. RIDGEWOOD AVE.
SOUTH DAYTONA, FL 32119

2567 FOR: SDM-031 AIR PERMITTING (CONSTRUCTION PERMIT)

RECEIVED

JAN 0 5 1993

Division of Air
Resources Management

ACCOUNT NO.067-10230100-0000 4,500.00

TOTAL: $4,500.00

Original check was sent to F&A on 1-6-93

RECEIVED Barbara (mail room)

5 1993

Management