PS Form 3811, July 1983

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:
Mr. Robert E. Kindorf
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

4. Type of Service:
☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail

Article Number
P 408 533 210

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

P 408 533 210

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Robert E. Kindorf	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	3/25/86

PS Form 3800, Feb. 1982

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

March 20, 1986

Enclosed are Permit Numbers AC 48-82733, AC 48-82735, AC 48-82736, and AC 48-82738 to Spiralkote, Inc. which authorize the construction of four flexographic printing and coating units at your existing facility in Orange County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any Party to these permits has the right to seek judicial review of the permits 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 32301; 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 these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:
Jerome J. Guidry, P.E.
Tom Sawicki, SJRD
Jeff Pallas, EPA Region IV

Final Determination

Spiralkote Inc.
Orange County
Orlando, Florida

Permit Numbers:

AC 48-82733
82735
82736
82738

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

March 19, 1986

Final Determination

The construction applications have been reviewed by the department. Public notice of the department's intent to issue was published in The Orlando Sentinel on February 11, 1986. The technical evaluation and preliminary determination were available for public inspection at the DER's St. Johns River District office and Bureau of Air Quality Management office.

There were no comments received on the proposed action. Therefore, it is recommended that the proposed construction permits be issued as drafted.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82738
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N/ 81° 21' 05"W
Project: Cyrel Plate Room

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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 permitting of four air pollution sources that make-up the Cyrel Plate Room operation at the permittee's existing facility. The tank washout, solvent recovery still (65% projected recovery efficiency), and dryer (electrically heated) emit volatile organic compounds and the finishing tank emits hydrochloric acid fumes through stacks in the roof. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group Number 275 - Commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The sources shall be as reflected in the permit applications, plans documents, drawings and amendments, except as otherwise noted on pages 5-8 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82738
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

A. Finishing Tank

1. The projected annual pollutant potential emissions are:

o HCl-248.0 lb/yr

2. The projected annual hours of operation are 1000.

B. Dryer

1. The maximum allowable VOC emissions shall not exceed the following:

o Perchloroethylene	1.7	lb/hr	1.2 TPY
o n-Butyl Alcohol	0.3	lb/hr	0.2 TPY

SPECIFIC CONDITIONS:

2. The permitted annual hours of operation are 1500.

C. Tank-Washout

1. The maximum allowable VOC emissions shall not exceed the following:

o Perchloroethylene	3.3	lb/hr	3.7	TPY
o n-Butyl Alcohol	0.6	lb/hr	0.6	TPY

2. The permitted annual hours of operation are 2250.

D. Solvent Recovery Still

1. The maximum allowable VOC emissions shall not exceed 7.1 lb/hr and 21.2 TPY (75% Perchloroethylene and 25% n-Butyl Alcohol)

2. The permitted annual hours of operation are 6000.

E. Cyrel Plate Room Operations

1. Objectionable odors shall not be allowed off plant property.

2. All air pollution sources are subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

3. According to FAC Rule 17-2.620(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 emission control devices or systems deemed necessary and ordered by the department. Currently, there are no control strategies associated with this operation other than crew efficiency to minimize pollutant emissions. The following procedures shall be utilized to minimize pollutant emissions, but shall not be limited to:

- o maintain tightly fitting covers, lids, etc., on all containers of VOC when they are not being handled, tapped, etc.,;
- o 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;

SPECIFIC CONDITIONS:

- o all fittings, valves, lines, etc., shall be properly maintained;
- o prevent excessive turbulence across exposed VOC;
- o all VOC spills shall be attended to immediately and the discardings properly disposed of, recycled, etc.; and,
- o maintain a monthly accounting of the VOC per type such that the beginning inventory and deliveries are accounted for.

4. A material balance scheme will be used to account for the VOC emissions, which involves the following:

Beginning Inventory	+	Inventory Received	-	Recycled Material	-	Final Inventory	=	Pollutant Emissions Released Into The Atmosphere

The annual VOC emissions per source shall be accounted for monthly, verifiable on a 24-hour basis, and shall be submitted in an AOR (annual operating report) within 60 days after the anniversary date of the operating permit(s) once acquired and shall be submitted to the DER's St. Johns River District office. All clean-up solvents shall be accounted for also.

5. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82738
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

Issued this 19 day of March, 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

ATTACHMENT 1

AC 48-82738

List of Attachments

2. Applications to Construct Air Pollution Sources, DER Form 17-1.202 (1), and Frank L. Cross' cover letter dated February 16, 1984.
3. C. H. Fancy's letter dated March 19, 1984.
4. Robert E. Kindorf's letter with attachments dated April 19, 1984, (confidential).
5. C. H. Fancy's letter dated May 23, 1984.
6. Applications to Construct Air Pollution Sources, DER Form 17-1.202(1), and Frank L. Cross' cover letter dated May 23, 1984.
7. C. H. Fancy's letter dated October 4, 1984.
8. Carol A. Forthman's letter dated April 8, 1985.
9. Robert E. Kindorf's letter dated April 12, 1985.
10. Winston A. Smith's letter with attachment dated June 14, 1985.
11. Robert L. Rhodes' letter dated June 21, 1985.
12. Carol A. Forthman's letter dated June 27, 1985.
13. Attendee list of a meeting held at Region IV EPA in Atlanta, Georgia, on July 3, 1985.
14. Robert E. Kindorf's letter dated August 9, 1985.
15. Robert E. Kindorf's letter with attachments dated July 17, 1985, (confidential).
16. Robert E. Kindorf's letter dated August 9, 1985.
17. Robert L. Rhodes' letter with attachment dated October 2, 1985.
18. Carol A. Forthman's letter with attachment dated October 11, 1985.
19. Robert E. Kindorf's letter dated October 17, 1985.
20. Applications to Construct Air Pollution Sources, DER Form 17-1.202(1), and Jerome J. Guidry's cover letter dated November 13, 1985.
21. Consent Order, OGC Case No. 84-0641, filed by Carol A. Forthman, Assistant General Counsel-DER, and signed December 2, 1985.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82733
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N
81° 21' 05"W/
Project: Kidder CI and Catalytic Incinerator System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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:

The Oylmpia Model 726 Kidder CI (Central Impressions) is a flexographic printing and coating unit with three associated natural gas dryers: a 1.4×10^6 Btu/hr - overhead dryer, a 1.2×10^6 Btu/hr flexographic dryer, and a 0.8×10^6 Btu/hr coating dryer. A catalytic incinerator will be retrofitted and required to meet LAER (lowest achievable emission rate: minimum 70% capture efficiency and 95% destruction efficiency). The incinerator will be custom designed by Etter Engineering Company, Inc., and is a 2500 CFM natural gas fired (0.8×10^6 Btu/hr) unit utilizing an Eclipse model 80-AHO burner. The duct work and collection system will be designed by Dec-E-Tech Industrial Design Engineering. The source emits volatile organic compounds. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group No. 275 - commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The source shall be as reflected in the permit application, plans documents, drawings and amendments, except as otherwise noted on pages 5-7 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82733
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

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

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The annual hours of operation shall not exceed 4000.

2. The maximum allowable VOC (volatile organic compounds-organic solvents) emission limit shall not exceed 8.1 pounds per hour and 16.1 tons per year (based on LAER-minimum 70% capture efficiency and 95% destruction efficiency). The maximum rated production capacity is 12.83 reams per hour (based on 3000 square feet per ream).

SPECIFIC CONDITIONS:

3. A compliance test shall be conducted to determine the control system's capture efficiency and the incinerator's destruction efficiency. The compliance test shall be conducted while operating at 100% of the rated production capacity. All subsequent compliance test(s) can be conducted while the unit is operating at 90-100% of the rated production capacity.

- o Destruction efficiency determination

  The test method shall be EPA Method 25, Appendix A, 40 CFR 60, or other test method(s) approved by the department.

- o Capture efficiency determination

  The procedure proposed by the permittee involves the determination and comparison of the amount of VOC used during the test and the VOC concentration measured at the inlet of the incinerator over the same period of time.

4. All compliance tests shall require written notification to the DER's St. Johns River District office fifteen (15) days prior to the day of a test. All test(s) results shall be submitted to the DER's St. Johns River District office forty-five (45) days after completion of the last test run.

5. Objectionable odors shall not be allowed off plant property.

6. The units are subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

7. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

8. All VOC emissions shall be accounted for monthly and verifiable on a 24-hour basis, and should include clean-up solvents. The annual amount of VOC emissions shall be submitted in an AOR (annual operating report) to the DER's St. Johns River District office within sixty (60) days after the anniversary date of the operating permit once acquired.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82733
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

9. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this 19 day of March, 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

ATTACHMENT 1

AC 48-82733
AC 48-82735
AC 48-82736

List of Attachments

2. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), and Frank L. Cross's cover letter dated February 16, 1984.
3. C. H. Fancy's letter dated March 19, 1984.
4. Robert E. Kindorf's letter with attachments dated April 19, 1984, (confidential).
5. C. H. Fancy's letter dated June 8, 1984.
6. Robert E. Kindorf's letter with attachments dated June 28, 1984.
7. Frank L. Cross's document entitled "Air Emission Compliance Plan for VOC's" received August 21, 1984 by DER OGC.
8. Frank L. Cross's letter with attachments dated August 30, 1984.
9. Frank L. Cross's letter dated September 10, 1984.
10. C. H. Fancy's letter dated October 4, 1984.
11. Robert E. Kindorf's letter with attachments dated October 23, 1984.
12. Robert E. Kindorf's letter dated October 31, 1984, (confidential).
13. Robert L. Rhodes' letter dated November 1, 1984, (confidential).
14. Robert E. Kindorf's letter dated November 29, 1984.
15. Carol A. Forthman's letter dated April 8, 1985.
16. Robert E. Kindorf's letter dated April 12, 1985.
17. Robert E. Kindorf's letter with attachments dated May 8, 1985, (confidential).
18. Winston A. Smith's letter with attachment dated June 14, 1985.
19. Robert L. Rhodes' letter dated June 21, 1985.
20. Carol A. Forthman's letter dated June 27, 1985.
21. Spiralkote document submitted to Region IV EPA on July 3, 1985, (confidential).
22. Attendee list of a meeting held at Region IV EPA in Atlanta, Georgia, on July 3, 1985.
23. Robert E. Kindorf's letter with attachments dated July 17, 1985, (confidential).
24. Robert E. Kindorf's letter dated August 9, 1985.
25. Robert L. Rhodes' letter with attachment dated October 2, 1985.
26. Carol A. Forthman's letter with attachment dated October 11, 1985.
27. Robert E. Kindorf's letter dated October 17, 1985.
28. Applications to Construct Air Pollution Sources, DER Form 17-1.202(1), and Jerome J. Guidry's cover letter dated November 13, 1985.
29. Consent Order, OGC Case No. 84-0641, filed by Carol A. Forthman, Assistant General Counsel-DER, and signed December 2, 1985.
30. Proposed LAER determination, which was noticed in the FAW on January 17, 1986 issue.
31. Robert E. Kindorf's letter dated January 17, 1986.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82735
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N/
81° 21' 05"W
Project: Kidder I

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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:

The Kidder I is an existing flexographic printing and coating unit with one associated 1 x 10^6 Btu per hour natural gas burner. The source emits volatile organic compounds. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group Number 275 - Commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The source shall be as reflected in the permit application, plans documents, drawings and amendments, except as otherwise noted on pages 5-7 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82735
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The annual hours of operation shall not exceed 4250.

2. The maximum allowable VOC emissions shall not exceed 22.4 lbs/hr and 47.7 tons/yr. The maximum rated production capacity is 9.17 reams per hour (based on 3000 square feet per ream).

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82735
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

3. A compliance test(s) shall be conducted to determine the VOC emissions. The method to be used is EPA Method 25, Appendix A, 40 CFR 60, or other tests method(s) approved by the department. The compliance test(s) shall be conducted while the unit is operating at 100% of the rated capacity. All subsequent compliance test(s) can be conducted while the unit is operating at 90-100% of the rated production capacity.

4. All compliance tests shall require written notification to the DER's St. Johns River District office fifteen (15) days prior to the day of a test. All test(s) results shall be submitted to the DER's St. Johns River District office forty-five (45) days after completion of the last test run.

5. Objectionable odors shall not be allowed off plant property.

6. The unit is subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

7. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

8. All VOC emissions shall be accounted for monthly and verifiable on a 24-hour basis, and should include clean-up solvents. The annual amount of VOC emissions shall be submitted in an AOR (annual operating report) to the DER's St. Johns River District office within sixty (60) days after the anniversary date of the operating permit once acquired.

9. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82735
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this 19 day of March 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82736
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N/ 81° 21' 05"W
Project: Kidders II & III and Catalytic Incinerator System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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 permitting of Kidder II with an associated natural gas (NG) heater (0.8×10^6) Btu/hr) and Kidder III with an associated NG heater (1.2×10^6 Btu/hr). A catalytic incinerator will be retrofitted and required to meet LAER (lowest achievable emission rate: minimum 70% capture efficiency and 95% destruction efficiency). The incinerator will be custom designed by Etter Engineering Company, Inc., and is a 2500 CFM NG fired (0.8×10^6 Btu/hr) unit utilizing an Eclipse model 80-AHO burner. The duct work and collection system will be designed by Dec-E-Tech Industrial Design Engineering. The sources emit volatile organic compounds. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group Number 275 - Commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The source shall be as reflected in the permit application, plans documents, drawings and amendments, except as otherwise noted on pages 5-7 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82736
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

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

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The annual hours of operation per unit, Kidder II or III, shall not exceed 4250.

2. The maximum allowable VOC (volatile organic compounds-organic solvents) emission limit, total from both units, shall not exceed 15.0 pounds per hour and 31.9 tons per year (based on LAER-minimum 70% capture efficiency and 95% destruction efficiency). The maximum rated production capacity per unit is 9.17 reams per hour (based on 3000 square feet per ream).

SPECIFIC CONDITIONS:

3. Compliance test(s) shall be conducted to determine the control system's capture efficiency and the incinerators destruction efficiency. A compliance test shall be conducted with only one unit in operation and a compliance test shall be conducted with both units in operation. Compliance test(s) shall be conducted while operating at 100% of the rated production capacity. All subsequent compliance test(s) can be conducted while the unit(s) is/are operating at 90-100% of the rated capacity.

- o Destruction efficiency determination

  The test method shall be EPA Method 25, Appendix A, 40 CFR 60, or other test method(s) approved by the department.

- o Capture efficiency determination

  The procedure proposed by the permittee involves the determination and comparison of the amount of VOC used during a test run and VOC concentration measured at the inlet of the incinerator over the same period of time.

4. All compliance test(s) shall require written notification to the DER's St. Johns River District office fifteen (15) days prior to the day of a test(s). All test(s) results shall be submitted to the DER's St. Johns River District office forty-five (45) days after completion of the last test run.

5. Objectionable odors shall not be allowed off plant property.

6. The units are subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

7. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82736
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

8. All VOC emissions per source shall be accounted for monthly and verifiable on a 24-hour basis, and should include clean-up solvents. The annual amount of VOC emissions shall be submitted in an AOR (annual operating report) to the DER's St. Johns River District office within sixty (60) days after the anniversary date of the operating permit once acquired.

9. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this 19 day of March, 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

Lowest Achievable Emission Rate (LAER) Determination
Spiralkote, Inc.
Orange County

The applicant has installed three (3) flexographic printing presses at their facility in Orlando, Florida. The units will consist of a Kidder Central Impression (CI) Printing Press and two Kidder Presses (II and III). The units are used for printing labels on composite cans. The Kidder CI and Kidder units II and III will operate 4000 and 4250 hours per year respectively.

The flexographic printing process uses a rubber image carrier located above the surface of the plate, is usually web fed, and runs on a variety of substrates. Basically, the process is the application of an alcohol based ink to the surface of a moving web or film, then rapid solvent evaporation using heated air. The solvent laden air is currently exhausted from the system directly into the atmosphere.

The solvent vapors are defined as volatile organic compounds (VOC's) and when discharged to the atmosphere contribute significantly to air pollution. VOC emissions are most significant as air pollutants in their role of photochemical oxidant precursors.

The dryer is the major source of VOC emissions with a lesser amount emitted at the ink fountain, the press, and the chill rolls. Vapor capture systems are necessary to minimize VOC vapor loss around the ink fountain and at the chill rolls. VOC emissions can also be reduced by using low solvent technology inks, if compatible with the planned line substrate.

The Spiralkote printing facility is located in Orange County, which is classified nonattainment for the pollutant ozone, Rule 17-2.410. The installation of the Kidder II unit caused the facility ozone (VOC) emissions to exceed 100 tons per year thus becoming major and requiring employment of Lowest Achievable Emission Rate (LAER) as a review requirement. The installation of the Central Impression and the Kidder III unit each resulted in VOC emissions that exceeded the 40 ton per year significant emission rate; Table 500-2 Regulated Air Pollutants - Significant Emission Rates.

The printing press installations have resulted in Spiralkote, Inc. becoming a major facility for ozone (VOC) in a nonattainment area for ozone (VOC) and for modifications to a major facility to occur, thus becoming subject to the provisions of Rule 17-2.510 (2)(d) 4.a. LAER has been applied for each aforementioned printing press in accordance with the regulations (Rule 17-2.510 (4)(a)). The procedure for determining LAER is set forth in Rule 17-2.640.

Date of Receipt of LAER application:

November 19, 1985

Date of Publication in the Florida Administrative Weekly:

January 17, 1986

Review Group Members:

This determination was based upon comments received from the Stationary Source Control Section and the St. Johns River District.

LAER Determined by DER:

Pollutant	Emission Limit
Ozone (VOC)	70 percent capture efficiency of the VOC vapors emitted at the press and 95 percent destruction of the collected vapors by the catalytic incinerator.

LAER Determination Rationale:

In flexographic printing from stationary sources, volatile organic compounds (VOC's) can be released to the atmosphere by evaporation from the inking, cleaning, and curing operations. Hydrocarbons comprise a class of VOC's containing only carbon and their by-products are considered poisonous, but most are harmful only in very high concentrations. Hydrocarbons can react with other chemicals, notably in the photochemical reaction, which results in the oxidants commonly called smog.

To control VOC emissions the applicant first considered using waterborne inks instead of organic solvent inks. They experimented with waterborne inks but concluded that, even though promising, water borne inks are not yet well enough developed for their printing requirements. Only add-on control devices remain for consideration.

The three most popular types of add-on devicies are those for thermal and catalytic incineration and carbon adsorption. The applicant will use a catalytic incinerator to reduce by 95% the amount of VOC's delivered to the inlet of the incinerator when the printing presses described in this determination are operating. The incineration system is to be custom built by the Etter Engineering Company, Inc. The applicant will install the necessary enclosures and ducting for the printing presses to capture 70 percent of the vapors generated. The planned incinerator and press ducting modifications will result in 95 less tons of VOC's discharged into the atmosphere per year.

The Department, when preparing a Lowest Achievable Emission Rate (LAER) determination, shall give consideration to and make a determination that reflects: 1) information published by the USEPA including the BACT/LAER Clearinghouse, 2) the most stringent emission limitation which is contained in the implementation plan of any state, 3) the most stringent emission limitation which is achieved in practice, and 4) all scientific, engineering, technical material, or other relevant information available to the department.

The latest (June 1985) BACT/LAER Clearinghouse summary lists data for sixteen facilities which use printing presses, half of which are rotogravure systems. Most of the efficiencies reported were based on stack tests for the control device and did not include the capture efficiency of the vapors generated at the emission point. At one of the listed facilities a material balance around the control device and vapor collection system was done. The control device destruction efficiency was 95% and the capture efficiency was 73%. This facility did not have to meet LAER.

The literature research indicates that a 95% destruction efficiency of a catalytic incinerator and vapor system capture efficiency between 70-73 percent are the most stringent limits that meet the LAER requirements as set for the in Rule 17-2.510(4)(b). The department agrees that the VOC emission limit for the printing presses, as proposed by the applicant, is LAER.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended by:

C. H. Fancy, P.E., Deputy Chief, BAQM

3/19/86
Date

Approved by:

Victoria J. Tschinkel, Secretary

3/19/86
Date

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____

To: _____ Loctn: _____

To: _____ Loctn: _____

From: _____ Date: _____

RECEIVED
MAR 19 1986
Office of the Secretary

TO: Victoria J. Tschinkel

FROM: Clair Fancy

DATE: March 19, 1986

SUBJ: Approval of Attached Air Construction Permits and LAER Determination

Attached for your approval and signature are four Air Construction Permits and LAER determination to Spiralkote, Inc. to construct four flexographic printing and coating units at the applicant's existing facility in Orlando, Orange County, Florida.

Day 90, after which the permits would be issued by default, is March 24, 1986.

The Bureau recommends your approval and signature.

CF/pa

Attachment

DER
MAR 20 1986
BAQM

Check Sheet

Company Name: Spiralhoto, Inc

Permit Number: AC 48-082733, -35, -36, -37, -38, -39, 40, -41
PSD Number: ✓ W ✓ W W W

Permit Engineer:

Application:

☑ Initial Application
- ☑ Incompleteness Letters
- ☑ Responses
- ☐ Waiver of Department Action
- ☐ Department Response
- ☐ Other

Cross References:
- ☑ AC 48-117138
- ☐
- ☐

082737
082739
082740
082741
} Withdrawn

Intent:

- ☑ Intent to Issue
- ☑ Notice of Intent to Issue
- ☑ Technical Evaluation
- ☑ BACT or LAER Determination 33, 35, 36, 38
- 4 ☑ Unsigned Permit

Correspondence with:
- ☐ EPA
- ☐ Park Services
- ☐ Other

- ☑ Proof of Publication
- ☐ Petitions - (Related to extensions, hearings, etc.)
- ☐ Waiver of Department Action
- ☐ Other

Final **Determination:**

- ☑ Final Determination
- 4 ☑ Signed Permit
- ☑ BACT or LAER Determination
- ☐ Other

Post Permit Correspondence:

- ☑ Extensions/Amendments/Modifications
- ☐ Other

PS Form 3811, July 1983 447-845

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

3. Article Addressed to:
Robert E. Kindorf, V.P.
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, FL 32809

4. Type of Service	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 274 007 660

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X Darrell Coley

7. Date of Delivery
11/4/87

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

DOMESTIC RETURN RECEIPT

P 274 007 660

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent Robert E. Kindorf, VP Spiralkote, Inc.	
Street and No. 1200 Central FL PKWY	
P.O., State and ZIP Code Orlando, FL 32809	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 10/30/87 Permit: AC 48-82733 Exp. Dt. Ext.	

* U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

file copy

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

October 28, 1987

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Mr. Kindorf:

Re: Expiration Date Extension for the Construction Permit No. AC 48-82733

The Department is in receipt of Mr. Jerome J. Guidry's letter dated September 25, 1987, which requested an extension of the expiration date for the above referenced permit. The following shall be changed and added:

Expiration Date:

From: November 30, 1987
To: March 31, 1988

Attachment to be Incorporated:

35. Mr. Jerome J. Guidry's letter dated September 25, 1987, and received September 28, 1987, at the Central Florida District office.

This letter must be attached to your construction permit No. AC 48-82733 and shall become a part of the permit.

Sincerely,

Dale Twachtmann
Secretary

DT/ks

cc: T. Sawicki, CF District
J. Guidry, P.E.
B. Pittman, Esq.

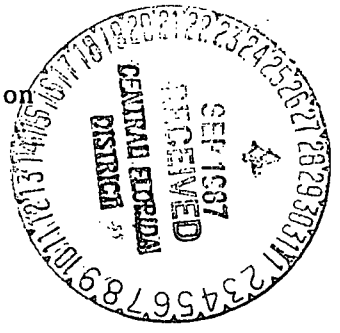
ATTACHMENT 35

POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

File Copy

AS

September 25, 1987



Mr. A. T. Sawicki, P.E.
Florida Department of Environmental Regulation
3319 Maguire Blvd., Suite 232
Orlando, FL 32803

RE: Spiralkote
Kidder CI and Catalytic Incinerator
AC48-82733

Dear Mr. Sawicki:

I wish to request an extension to the above referenced construction permit. Please change the expiration date from November 30, 1987 to March 31, 1988.

If you have any questions, please call me at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.
Manager, EAD Division

JJG:daa

cc: Robert Kindorf
Bruno Ferraro

Certified Mail No. P 609 605 524

A3:az

DER
OCT 15 1987
BAQM

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

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

TO: Dale Twachtmann

THRU: Howard Rhodes

FROM: Clair Fancy

DATE: October 28, 1987

SUBJ: Amendment to Construction Permit No. AC 48-82733

FOR SIGNATURE

Spiralkote Inc. has requested an expiration date extension for the above referenced construction permit issued March 19, 1986. The Bureau recommends approval.

CHF/BM/s

attachment

DER
OCT 30 1987
BAQM

RECEIVED
OCT 28 1987
Office of the Secretary

POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

File Copy

AB John

September 25, 1987

Mr. A. T. Sawicki, P.E.
Florida Department of Environmental Regulation
3319 Maguire Blvd., Suite 232
Orlando, FL 32803

RE: Spiralkote
Kidder CI and Catalytic Incinerator
AC48-82733

Dear Mr. Sawicki:

I wish to request an extension to the above referenced construction permit. Please change the expiration date from November 30, 1987 to March 31, 1988.

If you have any questions, please call me at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.
Manager, EAD Division

JJG:daa

cc: Robert Kindorf
Bruno Ferraro

Certified Mail No. P 609 605 524

A3:az

DER
OCT 15 1987
BAQM

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

	Initial	Date
1. TO: (NAME, OFFICE, LOCATION) Bruce Mitchell		
2. Bureau of Air Quality Manag-		
3. Department of Environmental Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32399-2400		
4.		

REMARKS:

F.Y.R.

10-15-87

Maggie,

I have made myself a copy. No other cc's necessary.

DER

OCT 15 1987

BAQM

INFORMATION

- Review & Return
- Review & File
- Initial & Forward

DISPOSITION

- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM: John Turner

DATE 10/14/87

PHONE SC 325-1403

PS Form 3811, July 1983 447-845

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:
Robert E. Kindorf
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 408 531 209

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
6/26/87

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

DOMESTIC RETURN RECEIPT

P 408 531 209

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Robert E. Kindorf Spiralkote, Inc. 1200 Central Florida Parkway	
P.O. State and ZIP Code Orlando, FL 32809	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 6/24/87 AC 48-82733 -117138	

PS Form 3800, Feb. 1982

File Copy

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

June 19, 1987

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Mr. Kindorf:

Re: Expiration Date Extension for the Construction Permits: AC 48-82733 and -117138

The Department is in receipt of Mr. Jerome J. Guidry's letter dated May 19, 1987, which requested an extension of the expiration date for the above referenced permits. The following shall be changed and added:

Expiration Date:

o AC 48-82733
From: June 30, 1987
To: November 30, 1987

o AC 48-117138
From: July 31, 1987
To: November 30, 1987

Attachment to be Incorporated:

o AC 48-82733
34. Mr. Jerome J. Guidry's letter dated May 19, 1987, and received May 26, 1987.

o AC 48-117138
5. Mr. Jerome J. Guidry's letter dated May 19, 1987, and received May 26, 1987.

This letter must be attached to your construction permits, Nos. AC 48-82733 and -117138, and shall become a part of the permits.

Sincerely,

Dale Twachtmann
Secretary

DT/ks

cc: T. Sawicki, P.E.
J. Guidry, P.E.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: Dale Twachtmann

THRU: Howard Rhodes

FROM: Clair Fancy

DATE: June 19, 1987

SUBJ: Amendment to Construction Permits Nos. AC 48-82733 and AC 48-117138
Spiralkote, Inc.

Spiralkote Inc. has requested expiration date extensions for the referenced construction permits issued March 19, 1986, and August 22, 1986, respectively. The Bureau recommends approval.

CHF/BM/s

Attachment

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) Clair Fancy	Initial	
	Date	22 June
2.	Initial	
	Date	
3.	Initial	
	Date	
4.	Initial	
	Date	

REMARKS:

DER

JUN 24 1987

BAQM

INFORMATION

- [ ] Review & Return
- [ ] Review & File
- [ ] Initial & Forward
- [ ]

DISPOSITION

- [ ] Review & Respond
- [ ] Prepare Response
- [ ] For My Signature
- [ ] For Your Signature
- [ ] Let's Discuss
- [ ] Set Up Meeting
- [ ] Investigate & Report
- [ ] Initial & Forward
- [ ] Distribute
- [ ] Concurrence
- [ ] For Processing
- [ ] Initial & Return

FROM: Kim Dugger

DATE

PHONE

POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

PM 5-21-87 Orlando, FL

CM: [P-609-605-422]

DER
MAY 26 1987
BAQM

May 19, 1987

Mr. C. H. Fancy, P.E.
Deputy Chief, Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301-8241

RE: Spiralkote, Inc.
Orange County, AP
Kidder CI Press - AC48-82733
Olympia 746 Press - AC48-117138

Dear Mr. Fancy:

We are requesting extensions to the expiration dates of the above referenced construction permits. We expect to have the stack test results by July 1, 1987 and the certificate of completion application submitted by July 30, 1987. In order to give the Department ample time to review the test results and the applications, we wish to extend the two permit expiration dates to November 30, 1987.

If you have any questions regarding this request, please contact either Bruno Ferraro at (305) 298-2282 or me at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.

cc: Robert E. Kindorf
Bruno A. Ferraro
A. T. Sawicki
Rob Rhodes

Certified Mail No. P 609 605 422

PS Form 3811, July 1983 447-845

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:
Mr. Robert E. Kindorf
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, FL 32809

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
P 408 532 072

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X [signature]

7. Date of Delivery
10-23-86

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

P 408 532 072

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Robert E. Kindorf	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 10/17/86	

PS Form 3800, Feb. 1982

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

October 15, 1986

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Mr. Kindorf:

Re: Expiration Date Extension for the Construction Permits:
AC 48-82733, -82735 and -82736

The department is in receipt of Mr. Robert L. Rhodes' letter dated September 16, 1986, which requested an extension of your expiration date for the above referenced permits. The bureau is in agreement with the request and the following shall be changed and added:

Expiration Date:

From: December 31, 1986
To: June 30, 1987

Attachment to be Incorporated:

33. Mr. Robert L. Rhodes' letter dated September 16, 1986.

This letter must be attached to your construction permits, Nos. AC 48-82733, -82735 and -82736, and shall become a part of the permits.

Sincerely,

Victoria J. Tschinkel
Secretary

VJT/ks

cc: T. Sawicki
J. Cobb
R. Rhodes

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: Victoria J. Tschinkel, Secretary

FROM: C. H. Fancy, Deputy Chief, BAQM

DATE: October 15, 1986

SUBJ: Approval and Signature of an Amendment to the Construction Permits, Nos. AC 48-82733, -82735 and -82736, for Spiralkote, Inc., Issued March 19, 1986.

Enclosed is an amendment to the referenced construction permits and the bureau recommends approval.

BM/ks

POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

PM
11-5-86
Orlando

September 30, 1986

HAND DELIVERED

DER
NOV 6 1986
BAQM

Mr. A. T. Sawicki, P.E.
Air Permitting
Florida Department of Environmental Regulation
3319 Maguire Blvd., Suite 232
Orlando, FL 32803

RE: A.P. Orange Co.
Spiralkote, Inc.
Cyrel Plate Room - AC 48-82738

Dear Mr. Sawicki:

Enclosed are four signed copies of the above referenced Certificate of Completion. Also enclosed is a check for $300 for the application fee and the Compliance report.

Please note that the solvent recovery still originally referenced in this construction permit has been replaced by a new, more efficient unit and is being permitted under a separated construction permit.

If you have any questions, please call Bruno Ferraro or me at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.
Manager, EAD Division

JJG:BAF:daa

cc: Bob Kindorf
Rob Rhodes
Bruce Mitchell

21-023.00

BEST AVAILABLE COPY

OCT - 6 1986

PBSJ, INC. - ORLANDO

FILE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

AIR POLLUTION SOURCES
CERTIFICATE OF COMPLETION OF CONSTRUCTION*

PERMIT NO. AC48-82738 DATE: 9/16/86

Company Name: Spiralkote, Inc. County: Orange

Source Identification(s): Cyrel Plate Room: Finishing Tank, Dryer, Tank-Washout

Actual costs of serving pollution control purpose: $ N/A

Operating Rates: See attached Design Capacity: N/A

Expected Normal See Attached During Compliance Test See attached

Date of Compliance Test: August 1986 (Attach detailed test report) Attached

Test Results:	Pollutant	Actual Discharge	Allowed Discharge
	HCl	0.0045 lbs/hr	0.005 lbs/hr
	n-butyl Alcohol	0.25 lbs/hr	0.9 lbs/hr (for dryer & tank washout)
	Perchloroethylene	1.51 lbs/hr	5 lbs/hr (for dryer & tank washout)

Date plant placed in operation: existing

This is to certify that, with the exception of deviations noted**, the construction of the project has been completed in accordance with the application to construct and Construction Permit No. AC48-82738 dated March 20, 1986.

A. Applicant:

Robert E. Kindorf, Vice President — Robert E. Kindorf
Name of Person Signing (Type) — Signature of Owner or Authorized Representative and Title

Date: 10-3-86 Telephone: 305-859-7780

B. Professional Engineer:

Jerome J. Guidry, P.E. — Jerome J. Guidry
Name of Person Signing (Type) — Signature of Professional Engineer

Post, Buckley, Schuh & Jernigan, Inc. Florida Registration No. 32589
Company Name

Date: 10-1-86

(Seal)

889 North Orange Avenue, Orlando, FL 32801
Mailing Address

305-423-7275
Telephone Number

*This form, satisfactorily completed, submitted in conjunction with an existing application to construct permit and payment of application processing fee will be accepted in lieu of an application to operate.

**As built, if not built as indicated include process flow sketch, plot plan sketch, and updates of applicable pages of application form.

Spiralkote Compliance Report
August 1986
Cyrel Plate Room
AC48-82738

A. Finishing Tank

Specific Condition #1 and #2

The projected annual pollutant potential emissions are HCl-248.0 lbs/yr, operating 1000 hours. The allowable hourly emissions per the construction permit application is 0.005 lbs/hr for HCl.

For the month of August 1986, 19 lbs of HCl was used in production or an average of 0.90 lbs/day. Based on the emission factor of 2% loss due to evaporation, the emissions are as follows:

$$0.90 \text{ lbs/day} \times \frac{1 \text{ day}}{4 \text{ hrs}} = 0.225 \text{ lbs/hr usage}$$

$$0.225 \text{ lbs/hr} \times 0.02 = 0.0045 \text{ lbs/hr of HCl emissions}$$

Allowable emissions = 0.005 lbs/hr HCl

This source is in compliance with permit conditions.

B. Dryer

Specific Condition #1 and #2

The maximum allowable VOC emissions shall not exceed the following:

o	Perchloroethylene	1.7 lbs/hr	1.2 tpy
o	n-Butyl Alcohol	0.3 lbs/hr	0.2 tpy

Permitted annual hours of operation are 1500.

For the month of August 1986, 400 gallons of perchloroethylene/n-butyl alcohol mixture was used in the cyrel plate manufacturing process. Based on the emission factors in the original permit application, the emissions are as follows:

Average Daily Usage

$$400 \text{ gallons/month} \times \frac{1 \text{ month}}{21 \text{ days}} = 19.0 \text{ gallons/day}$$

$$19.0 \text{ gal/day} \times \frac{1 \text{ day}}{6 \text{ hr}} = 3.17 \text{ gal/hr}$$

The mixture contains 25% n-butyl alcohol and 75% perchloroethylene, therefore:

3.17 gal/hr x 0.25 = 0.7925 gal/hr of n-butyl alcohol and

3.17 gal/hr - 0.7925 gal/hr = 2.3775 gal/hr perchloroethylene.

Emissions

n-butyl alcohol

0.7925 gal/hr x 6.729 lbs/gal x 0.02 = 0.1067 lbs/hr

0.1067 lbs/hr of n-butyl alcohol going to dryer from dragout.

Perchloroethylene

2.3775 gal/hr x 13.598 lbs/gal x 0.02 = 0.6466 lbs/hr

0.6466 lbs/hr of perchloroethylene going to dryer from drag out.

Summary

Compound	Allowable	Actual
n-butyl alcohol	0.3 lbs/hr	0.1067 lbs/hr
perchloroethylene	1.7 lbs/hr	0.6466 lbs/hr

This source is in compliance with permit conditions.

C. Tank-Washout

Specific Condition #1 and #2

The maximum allowable VOC emissions shall not exceed the following:

o	perchloroethylene	3.3 lbs/hr	3.7 tpy
o	n-butyl alcohol	0.6 lbs/hr	0.6 tpy

For the month of August 1986, 400 gallons of 25% n-butyl alcohol/75% perchloroethylene mixture was used in the cyrel plate manufacturing process. Based on the emission factors in the original permit application, the emissions are as follows:

Average Daily Usage

$$400 \text{ gal/month} \times \frac{1 \text{ month}}{21 \text{ days}} \times \frac{1 \text{ day}}{9 \text{ hrs}} = 2.12 \text{ gal/hr}$$

2.12 gal/hr x 0.25 = 0.53 gal/hr of n-butyl alcohol

2.12 gal/hr - 0.53 gal/hr = 1.59 gal/hr of perchloroethylene

Emissions

n-butyl alcohol

0.53 gal/hr x 6.729 lbs/gal x 0.04 = 0.1427 lbs/hr

0.1426 lbs/hr of n-butyl alcohol evaporates from tank

Perchloroethylene

1.59 gal/hr x 13.598 lbs/gal x 0.04 = 0.8648 lbs/hr

0.8648 lbs/hr of perchloroethylene evaporating from tank

Summary

Compound	Allowable	Actual
n-butyl alcohol	0.6 lbs/hr	0.1427 lbs/hr
perchloroethylene	3.3 lbs/hr	0.8648 lbs/hr

This source is in compliance with permit conditions.

D. Solvent Recovery Still

The solvent recovery still referenced in this construction permit has been replaced with a new unit currently being permitted separately by Bruce Mitchell of DER Tallahassee. Therefore we are eliminating any mention of the solvent recovery still from this permit.

SINCE 1934

fp Spiralkote, Inc.

September 15, 1986

Mr. Bruno A. Ferraro
Post, Buckley, Schuh & Jernigan, Inc.
889 North Orange Avenue
Orlando, FL 32801-1088

Dear Bruno:

Listed below are the usage figures for the Cyrel Plate Room during the month of August 1986. Let me know if you need more information.

USAGE

PLATE WASHOUT		400 GALLONS	TOTAL
8-1	0	8-18	17
8-4	35	8-19	17
8-5	35	8-20	22
8-6	0	8-21	0
8-7	17	8-22	0
8-8	17	8-25	35
8-11	0	8-26	35
8-12	35	8-27	22
8-13	22	8-28	17
8-14	22	8-29	17
8-15	35		

Gallons to Cyrel Recovery 400
Spent Cyrel Solvent - 96% Solvent (See Attachement)
Washout & Dryer Emissions - 16 gallons or 192 lbs.

CYREL STILL

Input		Solid Waste		Cyrel Solvent
400 Gallons	-	16 Gallons	=	384 Gallons

384 gallons x 94% efficiency = 361 gallons recovered

Emissions = 23 gallons or 276 lbs.

12200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32809 TELEPHONE (305) 859-7780 CABLE: SPIRALKOTE ORL TELEX 56-6543

FINISHING TANK

8-1	0	8-18	300
8-4	600	8-19	300
8-5	600	8-20	450
8-6	0	8-21	0
8-7	300	8-22	0
8-8	300	8-25	600
8-11	0	8-26	600
8-12	600	8-27	450
8-13	450	8-28	300
8-14	450	8-29	300
8-15	600		

Unit of measure ML
Total usage 7200ML or 18.99 lbs.

Average time before solution is neutralized 1/2 hour.

Sincerely,

ROBERT E. KINDORF
VICE PRESIDENT

REK:jac

WASTE CHARACTERIZATION

DA _____
DU PONT CODE _____
CONTRACTOR _____
EPA CODES F002, F003
OTHER CODES _____

I. LOCATION _____
EPA I.D.# _____

II. NAME OF WASTE SPENT CYREL® SOLVENT

III. COMPOSITION

A. MAJOR COMPONENTS	C. ONE TIME OR TYPICAL ANALYSIS	D. CONCENTRATION RANGE % UPPER	D. CONCENTRATION RANGE % LOWER	E. EXPOSURE LIMITS +ACGIH	E. EXPOSURE LIMITS ++OSHA
1. Perchloroethylene	72%	73	71	100 ppm	
2. N-Butanol	24%	25	24	100 ppm	
3. Synthetic Rubber	3%	4	2		
4. Methacrylates/Acrylates	< 1%				
5. Organic Fillers	< 1%				

B. TRACE ELEMENTS NOT LISTED ABOVE (PPM)

CN < 5 Ag 0.06 As 56 Ba < 0.5
Cd < 0.025 Cr 0.075 Cu 0.055 Hg < 0.02 Ni < 0.1 Pb < 0.25 Se 0.014
Zn 0.143 S* 35 Cl* < 0.1 N* 85.1 P* < 0.15 Fl* 15 I* 1
Other _____

IV. PHYSICAL STATE @ 25°C (CIRCLE): SOLID (LIQUID) SLUDGE LIQUID/SOLID PHASES GAS
OTHER _____
SOLIDS : IS THERE A DUSTING HAZARD IF CONTAINERS ARE OPENED? --------
LIQUIDS : MULTIPLE PHASES? No VOL % OF EACH PHASE --------
LIQUIDS & SLUDGES : CAN THE WASTE BE PUMPED? Yes POURED? _____
LIQUID/SOLID PHASES : % FREE FLOWING LIQUID LAYER -------- (VOLUME %)
GASES : PRESSURE OF CONTAINER -------- PSIG

V. CONTAINMENT (CIRCLE)
BULK _____ (MC _____)
55-GAL. STEEL DRUMS (DOT _____)
30-GAL. FIBER DRUMS (DOT _____)
5-GAL PAILS
OTHER _____
APPROX. WT. PER CONTAINER _____ LBS.

VI. PROPERTIES (CIRCLE)
(COMBUSTIBLE) (FP 120 °F) (CLOSED CUP) IGNITABLE (FP _____ °F) (CLOSED CUP)
CORROSIVE OSHA CARCINOGEN
pH 5.6 ODOR (YES) NO) Perchloroethylene
Btu/LB. N/A COLOR Light Red
REACTIVE No
TOXIC No
OTHER _____

VII. D.O.T. SHIPPING NAME Waste Combustible Liquid N.O.S.
D.O.T. HAZARD CLASSIFICATION Combustible Liquid
U.N. NO. _____ N.A. NO. N.A. 1993

VIII. VOLUME (FOR PLANNING PURPOSES ONLY)
THIS REQUEST _____
ANNUAL _____

IX. REMARKS _____

*Organically bound only

Rev. 2/81 – CR

PBS&J
POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

PM
10-14-86

October 14, 1986

Mr. Bruce Mitchell
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

RE: Spiralkote, Inc.
Catalytic Incinerators - Status Report

Dear Bruce:

Enclosed is a letter from the manufacturer of Spiralkote's incinerators explaining the status of their systems. They have determined that the solvent-laden air was bypassing the catalyst beds because of a "wall effect" caused by the stainless steel construction materials in the incinerators. They are currently correcting the problem and will be ready to test the units on October 22, 1986. I will keep you informed of our progress.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Bruno A. Ferraro
Environmental Scientist

BAF:daa

cc: Bob Kindorf w/o enclosures
Rob Rhodes w/enclosures

Certified Mail No. P 034 188 341

Enclosure

21-023.00

DER
OCT 16 1986
BAQM

Dec-E-Tech
Industrial design engineering & manufacturing
P.O. Box 72 • Tyngsborough, MA • 01879 • Tel.# 617/649-3285

October 2, 1986

Spiralkote, Inc.
1200 Central Florida Pkwy
Orlando, FL 32821

Attn: Bob Kindorff

Re: Incinerator Testing

Dear Bob,

I have contacted Steve Neck of Air Consulting and Engineering and have tentatively scheduled the testing of both systems for the week of October 20, 1986. If this meets with your approval, I will arrive at Spiralkote for the installation of the new trays on October 16, 1986 and schedule the pre-test with Ken Pisarczyk of Carus Chemical Co. and Bruno Ferraro of P,B,S,& J, Inc. for October 20, 1986.

The new tray design is a result of our most recent efforts in determining the reason for low destruction efficiency. We found that we were bypassing solvent laden air by the reactor bed due to a "wall effect" which caused the airstream to channel VOC's and therefore not come in contact with the catalyst material. To eliminate this, we modified the tray design by reducing the overall height of the trays to three inches, covered the walls with felt covered by a glass woven material, and removed the baffle plates in the trays themselves. We tried this at Union Industries in Providence and Crown Zellerbach in Greensburg. My initial testing at C.Z. showed a 98.9% overall destruction.

Union has been tested by Etter Engineering personnel and the results were a destruction of 98.6% . The new tray assemblies should be shipped to you October 9, 1986 from Etter Engineering.

Also, a lab analysis and test was run by Carus Chemical Co. of your solvents and inks. We will send you a copy of the report as soon as we receive it.

Please call me if these dates meet with your approval.

If I can be of any further assistance, please let me know.

Sincerely,

Roger Decelles

Roger Decelles,
President

cc: Herb Etter - Etter Engineering
Bruno Ferraro - P,B,S,& J
Steve Neck - ACE
Ken Pisarczyk - Carus Chemical
J.R. Wilson - Spiralkote

POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

PM
10-6-86

October 3, 1986

Mr. Dennis Nester
Orange County Environmental Protection Department
2008 E. Michigan Avenue
Orlando, FL 32806

RE: Spiralkote, Inc.
Catalytic Incinerator Testing
Permit Nos. AC48-82733 and AC48-82736

Dear Dennis:

We have scheduled a re-test for the above referenced sources for Wednesday, October 22, 1986 at 8:30 and it may take three (3) days to complete both tests. We will be conducting an EPA Method 25 with a capture efficiency determination.

Steve Neck, P.E. will be performing the test. Call me at (305) 423-7275 if you have any questions.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Bruno A. Ferraro
Environmental Scientist

BAF:daa

cc: Steve Neck, P.E.
Roger DeCelles, P.E.
Bruce Mitchell, BAQM Certified # 394 738 212
Rob Rhodes
Tom Sawicki, P.E.
Bob Kindorf

Certified Mail No. P 274 158 761

21-023.00

LAW OFFICES

HOLLAND & KNIGHT

406 THIRTEENTH STREET WEST
P. O. BOX 1669
BRADENTON, FLORIDA 33506
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110 EAST BROWARD BLVD.
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BARNETT BANK BLDG.
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TALLAHASSEE, FLORIDA 32302
(904) 224-7000

600 NORTH FLORIDA AVE.
P. O. BOX 1288
TAMPA, FLORIDA 33601
(813) 223-1621

PLEASE REPLY TO: Tallahassee

888 SEVENTEENTH STREET, N. W.
SUITE 400
WASHINGTON, D. C. 20006
(202) 955-5550

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

September 16, 1986

DER

SEP 16 1986

BAQM

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301-8241

Re: fp Spiralkote, Inc.--
Air Pollution Source Construction Permits
AC48-82733 (Kidder CI), AC48-82735 (Kidder I);
AC48-82736 (Kidder II & III)

Dear Mr. Fancy:

In accordance with the applicable Specific Conditions in each of the above-referenced permits, permittee fp Spiralkote, Inc. (Spiralkote) requests an extension of the construction permit expiration date from December 31, 1986, to June 30, 1987. (By our letter of July 2, 1986, we requested an extension until December 31, 1986. We understand that this extension request has been granted although we have not received any formal notification to this effect.)

Initial source tests on Kidder CI, and on Kidder II/Kidder III have indicated certain operational difficulties. The incinerators are in operation and are removing a significnt percentage of the VOCs but have not yet attained the required removal efficiency.

Spiralkote's consulting engineers are working with the company responsible for construction and installation of the units as well as with the company responsible for design and manufacture to pinpoint problem areas. We are advised that progress is being made toward resolving the apparent difficulties. We are further advised that additional compliance tests will be scheduled for October.

Therefore, it will be necessary to extend the expiration dates of the subject construction permits until June 30, 1987, to

allow time for the results of the compliance tests to be included in the applications for operating permits so that these applications can be filed at least 90 days prior to the expiration date of the construction permits as required by the applicable Specific Conditions. The requested extension should allow adequate time for processing the complete permit applications.

With regard to Kidder I, an extension is requested so that Spiralkote can install its new Olympia press. When the new press is operational, Kidder I will be dismantled and sold thus negating the need for an operation permit.

Finally, you will note that no extension is required for the Cyrel Plate Room permit (AC48-82733). We are advised that a complete application for an operating permit for this facility will be filed on or before October 1, 1986. Hopefully, this will allow the Department to process the permit for issuance well before the December 31, 1986, expiration date of the construction permit. The company, however, reserves the right to seek an additional extension of the construction permit to allow for complete processing of the operation permit application.

We are advised that representatives of Post, Buckley, Schuh & Jernigan have conferred with Bruce Mitchell concerning the need for this extension.

If you have any questions concerning the matter, please contact me as soon as possible.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs
cc: Mr. Bruce Mitchell
Gary Early, Esquire
Mr. Robert Kindorf
Mr. William Kindorf
Bruno A. Ferraro
24777-1L9/15:87

LAW OFFICES

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TELEX 52-2233-MIAMI

September 16, 1986

DER
SEP 18 1986
BAQM

DER
SEP 18 1986
BAQM

Gary Early, Esquire
Office of General Counsel
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Re: fp Spiralkote, Inc.--Orlando Facility
OGC File No. 84-0641 (Our File 24777-1)

Dear Gary:

This will follow up on our earlier letters concerning this facility.

As noted in our letter of May 27, 1986, Spiralkote completed construction and installation of pollution control units for Kidder II, Kidder III, and Kidder Central Impression (CI) as of May 23, 1986. Initial compliance testing, however, has indicated certain operational problems.

We are advised that the company, its consulting engineers, and the designer and manfacturer of the incinerators have been carrying out a detailed analysis to determine the cause of the difficulties being encountered. We are further advised that the company now contemplates an additional compliance test to be carried out during October, 1986.

Accordingly, Spiralkote requests that the time for compliance with Paragraph 16(c) of the Consent Order entered November 26, 1985, be extended until November 1, 1986; that the time for compliance with Paragraph 16(d) of the Consent Order be extended until December 1, 1986, and that the time for compliance with Paragraph 16(e) of the Consent Order be extended until January 1, 1987.

Spiralkote continues to exercise its best efforts to bring these facilities into compliance with the terms and conditions of the construction permit. We would appreciate your confirming to us that the failure to meet the deadlines referred to above results from events not within the control of Spiralkote

and that Spiralkote has used all reasonable efforts to obtain alternative means of compliance so that the stipulated penalty, contemplated by Paragraph 17 of the Consent Order, will not be invoked in this case.

By separate correspondence, we have requested an additional extension of time of the expiration dates of the applicable Department construction permits to allow for completion of compliance testing so that this information can be included in the complete applications for operating permits for these sources.

If you have any questions, please give me a call.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs
cc: Mr. Bruce Mitchell
Mr. Robert Kindorf
Mr. William Kindorf
Mr. Bruno Ferraro
24777-119/15:87

LAW OFFICES

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(202) 955-5550

cable address
Hnd Knight Tpa
H&K Mia
Telex 5-2630-tampa
Telex 52-2233-miami

September 16, 1986

Gary Early, Esquire
Office of General Counsel
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

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OGC File No. 84-0641 (Our File 24777-1)

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If you have any questions, please give me a call.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs
cc: Mr. Bruce Mitchell
Mr. Robert Kindorf
Mr. William Kindorf
Mr. Bruno Ferraro
24777-119/15:87

PS Form 3811, July 1983 447-845

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:
Robert Kindorf
Spiralkote, Inc
1200 Central Fl Pkwy
Orlando, Fl 32809

4. Type of Service:
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail

Article Number
P 408 532 094

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

5. Signature – Addressee
X [signature]

6. Signature – Agent
X

7. Date of Delivery
7-22-86

8. Addressee's Address *(ONLY if requested and fee paid)*
1200 CENT. FL PKWY
ORL, FL. 32821

DOMESTIC RETURN RECEIPT

P 408 532 094

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Robert Kindorf	
Street and No. 1200 Cent. Fl Pkwy	
P.O., State and ZIP Code Orlando, Fl 32809	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982

Main File Copy

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

July 11, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Mr. Kindorf:

Re: Expiration Date Extension for the Construction Permits, AC 48-82733, -82735, -82736, and -82738

The department is in receipt of Mr. Robert L. Rhodes' letter dated July 2, 1986, which requested an extension of your expiration date for the above referenced permits. The bureau is in agreement with the request and the following shall be changed and added:

Expiration Date:

From: August 31, 1986
To: December 31, 1986

Attachment to be Incorporated:

A. AC 48-82733, -82735, -82736
32. Mr. Robert L. Rhodes' letter dated July 2, 1986.
B. AC 48-82738
22. Mr. Robert L. Rhodes' letter dated July 2, 1986.

This letter must be attached to your construction permits, Nos. AC 48-82733, -82735, -82736, -82738, and shall become a part of the permits.

Sincerely,

Victoria J. Tschinkel
Secretary

VJT/ks

cc: Tom Sawicki
Gary Early

ATTACHMENT 32

LAW OFFICES

HOLLAND & KNIGHT

406 Thirteenth Street West
P. O. Box 1669
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888 Seventeenth Street, N. W.
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(202) 955-5550

Cable address
Hnd Knight Tpa
H&K Mia
Telex 5-2630-Tampa
Telex 52-2233-Miami

July 2, 1986

BY HAND DELIVERY

C. H. Fancy, P. E.
Deputy Chief
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301-8241

Re: fp Spiralkote, Inc.--Air Pollution Source Construction Permits AC48-82733, AC48-82735, AC48-82736, & AC48-82738

Dear Mr. Fancy:

In accordance with the applicable Specific Condition in each of the above-referenced permits, permittee fp Spiralkote, Inc. (Spiralkote) requests an extension of the construction permit expiration dates from August 31, 1986, to December 31, 1986.

Construction of the control equipment on Kidder CI, Kidder II and Kidder III has been completed and source testing is underway. Compliance test results, however, are not yet available. In addition, discussions are underway with Department staff concerning compliance demonstration procedures for the other sources at the facility. Therefore, it will be impossible for Spiralkote to submit complete applications for operating permits within a time frame that would allow for processing of the application and issuance of the operation permits prior to the expiration date of the construction permits. The requested time extension should allow adequate time for processing the complete permit applications upon submittal.

We are advised that representatives of Post, Buckley, Schuh & Jernigan have conferred with Bruce Mitchell concerning the need for this extension.

If you have any questions concerning this matter, please contact me as soon as possible.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs

cc: Mr. Bruce Mitchell
Gary Early, Esquire
Mr. Robert Kindorf
Mr. William Kindorf
Bruno A. Ferraro

24777-3L7/2:87

ATTACHMENT 22

LAW OFFICES

HOLLAND & KNIGHT

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H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

July 2, 1986

BY HAND DELIVERY

C. H. Fancy, P. E.
Deputy Chief
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301-8241

Re: fp Spiralkote, Inc.--Air Pollution Source Construction Permits AC48-82733, AC48-82735, AC48-82736, & AC48-82738

Dear Mr. Fancy:

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Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs

cc: Mr. Bruce Mitchell
Gary Early, Esquire
Mr. Robert Kindorf
Mr. William Kindorf
Bruno A. Ferraro

24777-3L7/2:87

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: Victoria J. Tschinkel, Secretary

FROM: C. H. Fancy, Deputy Chief, BAQM

DATE: July 11, 1986

SUBJ: Approval and Signature of an Amendment to the Construction Permits, Nos. AC 48-82733, -82735, -82736, and -82738 for Spiralkote, Inc., Issued March 19, 1986.

Enclosed is an amendment to the referenced construction permits and the bureau recommends approval.

BM/ks

DER
JUL 14 1986
BAQM

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

July 9, 1986

Mr. Jerome J. Guidry
Manager, EAD Division
Post, Buckley, Schuh & Jernigan, Inc.
889 North Orange Avenue
Orlando, Florida 32801-1088

Dear Mr. Guidry:

Re: Proposal of a Material Balance Scheme for Kidder I (Construction Permit No. AC 48-82735) to Demonstrate Compliance

The department has received your letter dated June 17, 1986, outlining the procedures to be used to demonstrate compliance for the referenced VOC source. The proposal is acceptable and will be filed with the above referenced permit. All compliance reports should be filed with the DER's St. Johns River District office.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/BM/s

enclosures

cc: Tom Sawicki
Gary Early
Bob Kindorf
Rob Rhodes

Recd 7/3/86
BAQM

7/10 B:11T
Please handle

LAW OFFICES

HOLLAND & KNIGHT

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BRADENTON, FLORIDA 33506
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TELEX 52-2233-MIAMI

July 2, 1986

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C. H. Fancy, P. E.
Deputy Chief
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301-8241

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Dear Mr. Fancy:

In accordance with the applicable Specific Condition in each of the above-referenced permits, permittee fp Spiralkote, Inc. (Spiralkote) requests an extension of the construction permit expiration dates from August 31, 1986, to December 31, 1986.

Construction of the control equipment on Kidder CI, Kidder II and Kidder III has been completed and source testing is underway. Compliance test results, however, are not yet available. In addition, discussions are underway with Department staff concerning compliance demonstration procedures for the other sources at the facility. Therefore, it will be impossible for Spiralkote to submit complete applications for operating permits within a time frame that would allow for processing of the application and issuance of the operation permits prior to the expiration date of the construction permits. The requested time extension should allow adequate time for processing the complete permit applications upon submittal.

We are advised that representatives of Post, Buckley, Schuh & Jernigan have conferred with Bruce Mitchell concerning the need for this extension.

If you have any questions concerning this matter, please contact me as soon as possible.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs

cc: Mr. Bruce Mitchell
Gary Early, Esquire
Mr. Robert Kindorf
Mr. William Kindorf
Bruno A. Ferraro

24777-3L7/2:87

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 5, 1986

Certified Mail - Return Receipt Requested

Mr. Jerome J. Guidry
Manager, EAD Division
Post, Buckley, Schuh and Jernigan, Inc.
889 N. Orange Avenue
Orlando, Florida 32801-1088

Dear Mr. Guidry:

Re: Construction Permit No. AC 48-8273~~3~~5 for Kidder I;
Proposal for Alternate Procedure to Demonstrate Compliance

The department has received your letter dated May 29, 1986, which spoke of an alternate testing methodology (material balance scheme) to demonstrate compliance of Kidder I. There was a mention of this alternate testing methodology between Mr. Ferraro and Mr. Mitchell during a phone conversation; however, the details were not fully discussed. Therefore, provide the department with a description and details on the material balance scheme that you propose to use to demonstrate compliance.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/BM/s

cc: Tom Sawicki
Bob Kindorf
Rob Rhodes

POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

June 17, 1986

Mr. C. H. Fancy, P.E.
Deputy Chief, BAQM
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

RE: Construction Permit No. AC48-82733 for Kidder I
alternate procedure to demonstrate compliance.

Dear Mr. Fancy:

In response to your June 5, 1986 letter to me, we have considered a number of methods available for determining material balance. We propose that a combination of monthly inventory of inks, varnish, solvents and hazardous waste correlated to the production output of each press would be the most representative and practical for this facility. Each month Spiralkote receives a summary of the previous month's ink and varnish purchases. The difference between the amount received and the inventory at the end of the month will be the amount of ink/varnish used for that month. An average ink/varnish weight of 8.2 lbs/gal and an average VOC content of 63% or 5.17 lbs/gal will be used in calculating emissions.

Similarly, solvents are purchased in bulk and the amount purchased during each month will be recorded. At the end of the month, Spiralkote will determine the volume of each solvent remaining and the difference will be the amount used for that month. Not all of the solvent used will be emitted as VOC: some will be disposed of as hazardous solvent waste. Calculated solvent usage will be reduced by this amount. The actual weights of each solvent will be used for calculating emissions.

Production information for each press is recorded and compiled for the month. From these production data, we can determine the percentage produced by each press and estimate the fraction of raw materials used at each press. This will allow us to verify emission on a 24-hour basis, if needed, and give us a monthly inventory of emissions for the facility. This material balance scheme will be used for the cyrel plate room operation also as the method for demonstrating compliance.

Attached is a hand sketched flow diagram summarizing this material balance scheme. If you have any further questions, please contact Bruno Ferraro or me at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.
Manager, EAD Division

JJG:BAF:daa

cc: Bob Kindorf
Rob Rhodes

Certified Mail No. P 677 497 306

21-023.00

Bill T 6/19

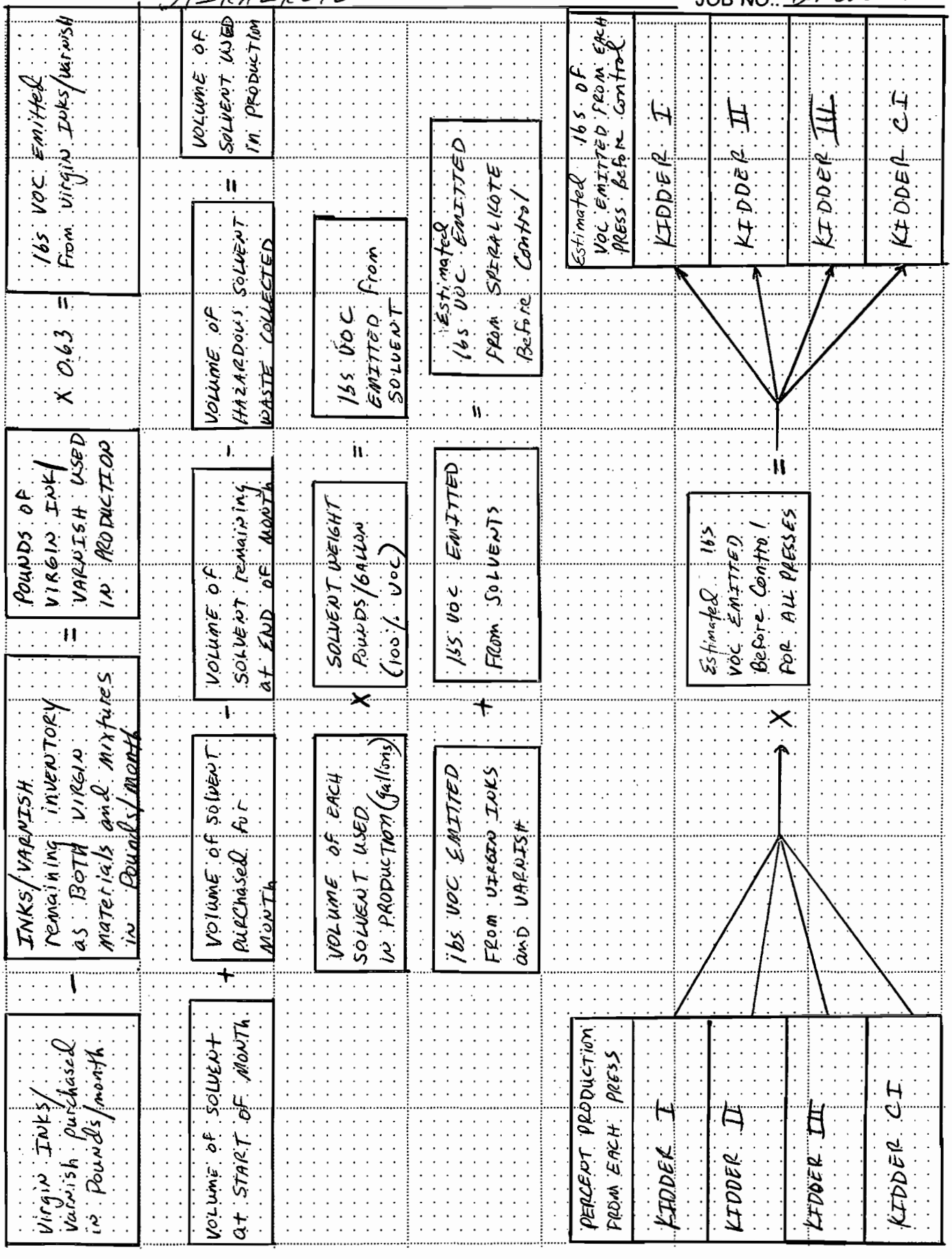
This should be elected and a brief response should be given

Rich 7-8-96 Rom

PBSJ POST, BUCKLEY, SCHUH & JERNIGAN, INC.

COMP. BY: Bruno Ferraro
CHK. BY:
DATE: 6-17-86
SHEET NO.:
JOB NO.: 21-023.00

SUBJECT: Material Balance Scheme
SPIRALKOTE



FORM NO. EN/070-01

LAW OFFICES

HOLLAND & KNIGHT

406 THIRTEENTH STREET WEST
P. O. BOX 1669
BRADENTON, FLORIDA 33506
(813) 746-7107

110 EAST BROWARD BLVD.
P. O. BOX 14005
FORT LAUDERDALE, FLORIDA 33302
(305) 525-1000

92 LAKE WIRE DRIVE
P. O. DRAWER B W
LAKELAND, FLORIDA 33802
(813) 682-1161

1200 BRICKELL AVENUE
P. O. BOX 015441
MIAMI, FLORIDA 33101
(305) 374-8500

255 SOUTH ORANGE AVENUE
P. O. BOX 1526
ORLANDO, FLORIDA 32802
(305) 425-8500

2033 WOOD STREET
P. O. DRAWER 49768
SARASOTA, FLORIDA 33578
(813) 365-3321

BARNETT BANK BLDG.
P. O. DRAWER 810
TALLAHASSEE, FLORIDA 32302
(904) 224-7000

600 NORTH FLORIDA AVE.
P. O. BOX 1288
TAMPA, FLORIDA 33601
(813) 223-1621

PLEASE REPLY TO: Tallahassee

888 SEVENTEENTH STREET, N. W.
SUITE 400
WASHINGTON, D. C. 20006
(202) 955-5550

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

June 13, 1986

Gary Early, Esquire
Office of General Counsel
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Re: fp Spiralkote, Inc.--Orlando Facility
OGC File No. 84-0641 (Our File No. 24777-1)

Dear Gary:

We have now been advised by Spiralkote's consultants, Post, Buckley, Schuh & Jernigan, that it will take three to four weeks to obtain the results from the compliance tests on the new incinerator systems. Therefore, we request that Paragraph 16(d) of the Consent Order be amended to autorize the submission of written compliance test results by no later than July 14, 1986.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs
cc: Mr. Bruce Mitchell
Carol Forthman, Esquire
Mr. Robert Kindorf
Mr. William Kindorf
24777-1L6/13:87

Main File
Spiralkote, Inc

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 5, 1986

Certified Mail - Return Receipt Requested

Mr. Jerome J. Guidry
Manager, EAD Division
Post, Buckley, Schuh and Jernigan, Inc.
889 N. Orange Avenue
Orlando, Florida 32801-1088

Dear Mr. Guidry:

Re: Construction Permit No. AC 48-8273~~3~~5 for Kidder I;
Proposal for Alternate Procedure to Demonstrate Compliance

The department has received your letter dated May 29, 1986, which spoke of an alternate testing methodology (material balance scheme) to demonstrate compliance of Kidder I. There was a mention of this alternate testing methodology between Mr. Ferraro and Mr. Mitchell during a phone conversation; however, the details were not fully discussed. Therefore, provide the department with a description and details on the material balance scheme that you propose to use to demonstrate compliance.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/BM/s

cc: Tom Sawicki
Bob Kindorf
Rob Rhodes

PBS&J
POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275

May 29, 1986

DER
JUN 2 1986
BAQM

Mr. Bruce Mitchell
Bureau of Air Quality
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

RE: Spiralkote, Orlando, FL. Construction Permit No. AC 48-82733 Kidder I

Dear Bruce:

This letter is in response to your May 29, 1986 telephone conversation with Bruno Ferraro of our staff. As discussed, we are requesting that an alternate method be used to demonstrate compliance of Kidder I instead of an EPA Method 25. The method we propose is a material balance scheme to account for VOC emissions involving a combination of inventory, production and material usage. Spiralkote agrees to maintain records on this source to account for VOC emissions monthly, verifiable on a 24-hour basis, as required by specific condition No. 8 of the construction permit. We feel that this will be more representative of actual emissions while compiling a data base for the phase out of this press.

We will be requesting an extension of this construction permit, through Rob Rhodes, to account for the phase-out period for Kidder I. If you have any additional questions concerning this request, please call me or Bruno Ferraro at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.
Manager, EAD Division

JJG:BAF:daa

cc: A. T. Sawicki, P.E.
Bob Kindorf
Rob Rhodes

Certified Mail No. P 677 497 300

21-023.00

LAW OFFICES

HOLLAND & KNIGHT

406 Thirteenth Street West
P. O. Box 1669
Bradenton, Florida 33506
(813) 746-7107

110 East Broward Blvd.
P. O. Box 14005
Fort Lauderdale, Florida 33302
(305) 525-1000

92 Lake Wire Drive
P. O Drawer B W
Lakeland, Florida 33802
(813) 682-1161

1200 Brickell Avenue
P. O. Box 015441
Miami, Florida 33101
(305) 374-8500

255 South Orange Avenue
P. O. Box 1526
Orlando, Florida 32802
(305) 425-8500

2033 Wood Street
P. O. Drawer 49768
Sarasota, Florida 33578
(813) 365-3321

Barnett Bank Bldg.
P. O. Drawer 810
Tallahassee, Florida 32302
(904) 224-7000

600 North Florida Ave.
P. O. Box 1288
Tampa, Florida 33601
(813) 223-1621

PLEASE REPLY TO: Tallahassee

888 Seventeenth Street, N. W.
Suite 400
Washington, D. C. 20006
(202) 955-5550

Cable Address
Hnd Knight Tpa
H&K Mia
Telex 5-2830-Tampa
Telex 52-2233-Miami

May 27, 1986

Gary Early, Esquire
Office of General Counsel
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: fp Spiralkote, Inc.--Orlando Facility
OGC File No. 84-0641 (Our File 24777-1)

Dear Gary:

In accordance with paragraph 16(b) of the Consent Order entered in connection with the matter referenced above, this is to inform you that we have been advised by Bob Kindorf of Spiralkote that the construction and installation of pollution control units for Kidder II, Kidder III, and Kidder Central Impression, was completed and the units were operating as of May 23, 1986. Compliance testing is scheduled for the week of May 30, 1986.

Should you have any questions, please give me a call.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRjr/cs
cc: Bruce Mitchell
Carol Forthman, Esquire
Robert Kindorf
William Kindorf

LAW OFFICES

HOLLAND & KNIGHT

406 THIRTEENTH STREET WEST
P. O. BOX 1669
BRADENTON, FLORIDA 33506
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MIAMI, FLORIDA 33101
(305) 374-8500

255 SOUTH ORANGE AVENUE
P. O. BOX 1526
ORLANDO, FLORIDA 32802
(305) 425-8500

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P. O. DRAWER 49768
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(904) 224-7000

600 NORTH FLORIDA AVE.
P. O. BOX 1288
TAMPA, FLORIDA 33601
(813) 223-1621

PLEASE REPLY TO: Tallahassee, FL

888 SEVENTEENTH STREET, N. W.
SUITE 400
WASHINGTON, D. C. 20006
(202) 955-5550

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

May 9, 1986

BY HAND DELIVERY

DER
MAY 12 1986
BAQM

Gary Early, Esquire
Office of General Counsel
Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301

RE: fp Spiralkote, Inc. - Orlando Facility
OGC File No. 84-0641 (Our File 24777-1)

Dear Gary:

This will follow up on our letter of April 29, 1986. Unfortunately, additional delays have arisen in connection with the installation of the new incinerators. Mr. Bob Kindorf has advised me that the delays arise out of the fact that the delivered duct work had to be drilled on the site although it has been expected that the drilling would be done by the fabricator. In addition, a key project engineer was incapacitated by illness during the last week.

Bob has been advised that the installation project should now be completed by the middle of next week. He has scheduled the compliance testing for June 2-3, 1986.

Under the circumstances, Spiralkote requests that Paragraph 16 (b) of the Consent Order entered on November 26, 1985, be amended to require completion of construction and installation of pollution control units by no later than May 24, 1986. (We have asked for an extra week just to assure that construction is completed on a timely basis.) Spiralkote further requests that Paragraph 16 (c) be revised to provide that compliance testing of the control units be carried out by no later than June 10, 1986, and that Paragraph 16 (d) be amended to authorize the submission of written compliance test results by no later than June 25, 1986.

Once again, these revisions will not affect the ultimate compliance date of August 1, 1986, as set forth in Paragraph 16 (e).

Bob Kindorf has discussed these delays and the reasons therefor with Bruce Mitchell.

We would also appreciate your confirming to us that the failure to meet the deadlines referred to above results from events not within the control of Spiralkote and that Spiralkote has used all reasonable efforts to obtain alternative means of compliance so that the stipulated penalty, contemplated by Paragraph 17 of the Consent Order, will not be invoked in this case.

If you have any questions, please contact me.

Sincerely,

HOLLAND & KNIGHT

for Robert L. Rhodes, Jr.

RLRJr/dsl
cc: Mr. Bruce Mitchell
Carol Forthman, Esquire
Mr. Robert Kindorf
Mr. William Kindorf
fpS093085:25

The Orlando Sentinel

Published Daily
Orlando, Orange County, Florida

State of Florida } ss.
COUNTY OF ORANGE

ADVERTISING CHARGE $87.23

Before the undersigned authority personally appeared Catherine Deering, who on oath says that she is the Legal Advertising Representative of the Orlando Sentinel, a Daily newspaper published at Orlando, in Orange County, Florida; that the attached copy of advertisement, being a Notice of Proposed Agency Action in the matter of Permit to Spiralkote, Inc. in the ____ Court, was published in said newspaper in the issues of February 11, 1986

Affiant further says that the said Orlando Sentinel is a newspaper published at Orlando, in said Orange County, Florida; and that the said newspaper has heretofore been continuously published in said Orange County, Florida, each Week Day and has been entered as second-class mail matter at the post office in Orlando, in said Orange County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 12th day of February A.D., 19 86

Seal

Virginia A. Hollingsworth
Notary Public, State of Florida at Large
Notary Public
My Commission Expires July 13, 1989
Bonded Thru Brown & Brown, Inc.

FORM NO. AD-262

State of Florida
Department of Environmental Regulation
Notice of Proposed Agency Action on Permit Applications

The Department of Environmental Regulation gives notice of its intent to issue permits to Spiralkote, Inc. for four (4) operating flexographic printing and coating units with associated natural gas heaters and for the pollutant emitting sources that make up the Cyrel Plate Room operations at the applicant's existing facility in Orlando, Orange County, Florida. A determination of lowest achievable emission rate (LAER) was required.

Persons 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 conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing 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.

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 proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301.

FEB 18 1986 BAQM

Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Dept. of Environmental Regulation
St. Johns River District
3319 Maguire Blvd.,
Suite 232
Orlando, Florida 32803

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

CL-149 Feb. 11, 1986

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	Initial / Date
Mr. Jeff Pallas	
2. Southern Compliance Section	Initial / Date
Air, Pesticide & Toxic Management Division	
3. Region IV, US EPA	Initial / Date
345 Courtland Street, NE	
4.	Initial / Date
Atlanta, Georgia 30365	

REMARKS:

Per your request, please find the TE + PD + 4 x Draft Permits and the cover letter + Applications.

Spiralkote, Inc.

If there are any questions, please give me a call.

Sincerely,

INFORMATION

- [ ] Review & Return
- [ ] Review & File
- [ ] Initial & Forward
- [ ]

DISPOSITION

- [ ] Review & Respond
- [ ] Prepare Response
- [ ] For My Signature
- [ ] For Your Signature
- [ ] Let's Discuss
- [ ] Set Up Meeting
- [ ] Investigate & Report
- [ ] Initial & Forward
- [ ] Distribute
- [ ] Concurrence
- [ ] For Processing
- [ ] Initial & Return

FROM:

R. Bruce Mitchell

DATE
1-28-86

PHONE
904-488-1344

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

March 19, 1984

CERTIFIED MAIL - RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice-President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Re: Completeness Review for the Application to Construct Air Pollution Sources: Permit Nos. AC 48-82738, -82739, -82740, -82741

Dear Mr. Kindorf:

The bureau is in receipt of the above referenced applications for 4 pollutant sources located in the Cyrel Plate Room of the existing facility at the above address in Orange County. The sources are:

- o Tank Washout
- o Solvent Recovery Still
- o Finishing Tank
- o Dryer

The applications have been deemed incomplete and the following information, including all assumptions and calculations, shall be submitted before further processing will resume:

1. If there is any proprietary information required in any response(s) to the following requests, please identify and submit as a separate document and the bureau will maintain confidentiality.

2. Submit an approved compliance schedule for meeting the requirements of FAC Rule 17-2.510(4)(b).

3. Submit a methodology that will be used to show compliance with the VOC allowable emissions on a 24-hour basis.

4. For each source, submit the annual consumption, in gallons,of VOC materials since each source was installed.

5. Propose LAER and submit with an amended application if it is applicable.

6. Will an incineration system which oxidizes 90 percent of the VOC (measured as total combustible carbon) to carbon dioxide and water be installed on each source referenced above or will there be an incineration system installed to control the entire Cyrel Plate Room operations?

7. Quantify, in gallons, and identify the hazardous wastes generated and what is your RCRA number?

8. Are tank covers placed on the VOC and acid tanks when not in use? If not, describe how the VOC and acid emissions are kept at a minimum.

9. Quantify, in gallons, and identify each type of clean-up solvent(s) used on a 24-hour and annual basis.

10. What kind of combustion fuel will be used in the dryer? Quantify the pollutant potential emissions from the maximum firing of the fuel and resumbit all data in the appropriate sections of an amended application.

If there are any questions, please call Bruce Mitchell or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

CHF/BM/s

cc: Chuck Collins
Tom Bessa
Leonard Kozlov
Nancy Wright
Frank L. Cross, Jr.

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4780

70-4
711

PAY

Febuary 16, 1984 250.00
DATE AMOUNT

TO THE ORDER OF

State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Kidder CI	250.00		

EMPLOYEE _____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 76016

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Spralcote, Inc. Date Feb. 21, 1984

Address 1200 Central Florida Parkway, Orlando, Fla. 32809 Dollars $ 1400.00

Applicant Name & Address Same as above

Source of Revenue

Revenue Code 001001 Application Number AC48-82733, AC48-82734, AC48-82736, AC48-82737, AC48-82738, AC48-82739, AC48-82740, AC48-82741

By Patricia E. Adams

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4781

70-4
711

PAY

Febuary 16, 1984
DATE

250.00
AMOUNT

TO THE ORDER OF

State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Kidder I	250.00		

EMPLOYEE _____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4782

70-4
711

PAY

Febuary 16, 1984
DATE

250.00
AMOUNT

TO THE ORDER OF

State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Kidder II	250.00		

EMPLOYEE _____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4783

70-4
711

PAY

Febuary 16, 1984 250.00
DATE AMOUNT

TO THE ORDER OF State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Kidder III	250.00		

EMPLOYEE_____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4784

70-4
711

PAY

Febuary 16, 1984
DATE

100.00
AMOUNT

TO THE ORDER OF

State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

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DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Washout	100.00		

EMPLOYEE _____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4786

70-4
711

PAY

Febuary 16, 1984 — DATE
100.00 — AMOUNT

TO THE ORDER OF
State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

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DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Recovery Still	100.00		

EMPLOYEE _____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4787

70-4
711

PAY

Febuary 16, 1984 100.00
DATE AMOUNT

TO THE ORDER OF

State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

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DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Dryer	100.00		

EMPLOYEE_____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

fp SPIRALKOTE, INC.
1200 CENTRAL FLORIDA PKWY.
ORLANDO, FLA. 32809

Commercial National Bank
OF PEORIA
PEORIA, ILLINOIS

4788

70-4
711

PAY

Febuary 16, 1984 — DATE
100.00 — AMOUNT

TO THE ORDER OF

State of Florida
Department of Environmental Regulation

fp SPIRALKOTE, INC.

[redacted]

DELUXE CHECK PRINTERS

FP SPIRALKOTE, INC.
ORLANDO, FLA.

DETACH AND RETAIN THIS STATEMENT
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IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM TWC-3 V-5

DATE	DESCRIPTION	AMOUNT	DISTRIBUTIONS	
			ACCT. NO.	AMOUNT
	Finishing Tank	100.00		

EMPLOYEE_____

PERIOD ENDING	TOTAL EARNINGS	DEDUCTIONS								TOTAL DEDUCTIONS	NET PAY
		SOCIAL SECURITY TAX	WITHHOLDING U. S. INC. TAX	STATE INCOME TAX							

CROSS/TESSITORE & ASSOCIATES, P.A.
4759 S. CONWAY ROAD, SUITE D
ORLANDO, FLORIDA 32812
305/851-1484

February 16, 1984

DER
FEB 20 1984
BAQM

Mr. Clair Fancy, Air Permitting
State of Florida, Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

RE: Orange County AP
SpiralKote, Inc.

Dear Mr. Fancy:

Enclosed are eight (8) sets of four (4) copies each of permit applications for air sources at SpiralKote, Inc., which is located in the Central Florida Industrial Park.

Due to the fact that the combined operation exceeds 100 tons per year of emissions, Mr. Caldwell of the St. Johns River District has told us that the applications should go directly to your office. SpiralKote, Inc. requests a limitation on the permit annual operating times as listed in each application.

Also enclosed are eight (8) checks for fees.

Because of the nature and extent of the emissions, we would suggest a meeting to discuss the applications after your staff has had an opportunity to review them.

Sincerely,

Frank L. Cross, Jr., P.E.
President

FLC:kim
Enc.a/s
cc: St. Johns RD/w enc.
Mr. Kindorf/w enc.
S. MacLellan

AC 48-82733

$250 paid 2/20/84

DER

FEB 20 1984

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Kidder Central Impression Printing Press

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 08 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

I certify that the statements made in this application for a operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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, that 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.

(Affix Seal)

FRANK L. CROSS, JR. REGISTERED CERTIFICATE NO. 9716 STATE OF FLORIDA REGISTERED ENGINEER

Signed: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 9716 Date 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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 is an existing flexographic printing plant that produces composite can labels. The Kidder C1 Unit emits VOC from printing and coating. No controls are presently installed on the unit.

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

Start of Construction February 1982 Completion of Construction February 1982

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.)

No pollution control equipment is installed on the Kidder C1 exhausts.

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

Not applicable

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes X No

F. Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? YES
   a. If yes, has "offset" been applied? NO
   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO
   c. If yes, list non-attainment pollutants. Oxidants
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) requirements 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

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	None	--	250	Item 6
Coating KJ 902	VOC	86	8.3	"
" NB 1061	VOC	66	5.9	"
Ink	VOC	74	15.40	"

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

1. Total Process Input Rate (lbs/hr): 279.5

2. Product Weight (lbs/hr): 249.9

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	22.42	44.8	17-2.650(1)(f)	13.58	22.42	44.8	Item 6
			(3)				
			2.9 lbs/gallon				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Not applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption* (MMCF)		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	681 x 10^{-6}	1600 x 10^{-6}	1.6
(2- 800,000 BTU/hour Maxon Burners)			

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not applicable

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum _____

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

Solvent wastes (have RCRA Generator permit). Wastes are manifested and shipped to Oldover Corporation at Green Cove Springs, where it is burned in their boilers.

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

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ 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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

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 Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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.

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 Used

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 on 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.

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

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.

2/81 H. Emission Stack Geometry and Flow Characteristics

Twin Color Dryer

Stack height: 30 ft. Stack Diameter: 10½" x 14" ft.

Gas Flow Rate: 3150 ACFM Gas Exit Temp.: 130 °F

Water Vapor Content: neg % Velocity: 51 FPS

Overhead Dryer

Stack height: 30 ft. Stack Diameter: 12" x 16" ft.

Gas Flow Rate: 3150 ACFM Gas Exit Temp.: 200 °F

Water Vapor Content: neg % Velocity: 39 FPS

Coating Sta. Dryer

Stack height: 30 ft Stack Diameter: 10" x 14" ft.

Gas Flow Rate: 3150 ACFM Gas Exit Temp.: 300 °F

Water Vapor Content: neg % Velocity: 54 FPS

SpiralKote, Inc.

Kidder Cl

JLT 2/3/84

(1) Total process input rate and product weight

Input Material	Rate (lbs/hr)	Rate (gal/hr)
Paper	250.00	--
Coating KJ 902	8.30	1.46
Coating NB 1061	5.90	1.17
Ink	15.40	2.05
Total	279.60	4.68

Product Weight = Input Material - Emissions (VOC)

= 279.6 - 29.6 = 250.0 lb/hr

(3) Potential Emission Estimates

See attached table showing VOC emissions

	VOC Emissions (lb/hr)
Coating KJ 902	7.16
Coating NB 1061	3.90
Ink	11.36
	22.42

Annual Emissions = (22.42) $\frac{\text{lbs}}{\text{hr}}$ x (16) $\frac{\text{hrs}}{\text{day}}$ x (5) $\frac{\text{days}}{\text{week}}$ x (50) $\frac{\text{weeks}}{\text{year}}$

= $\frac{\text{ton}}{(2000)\text{lb}}$ = 44.84 T/year

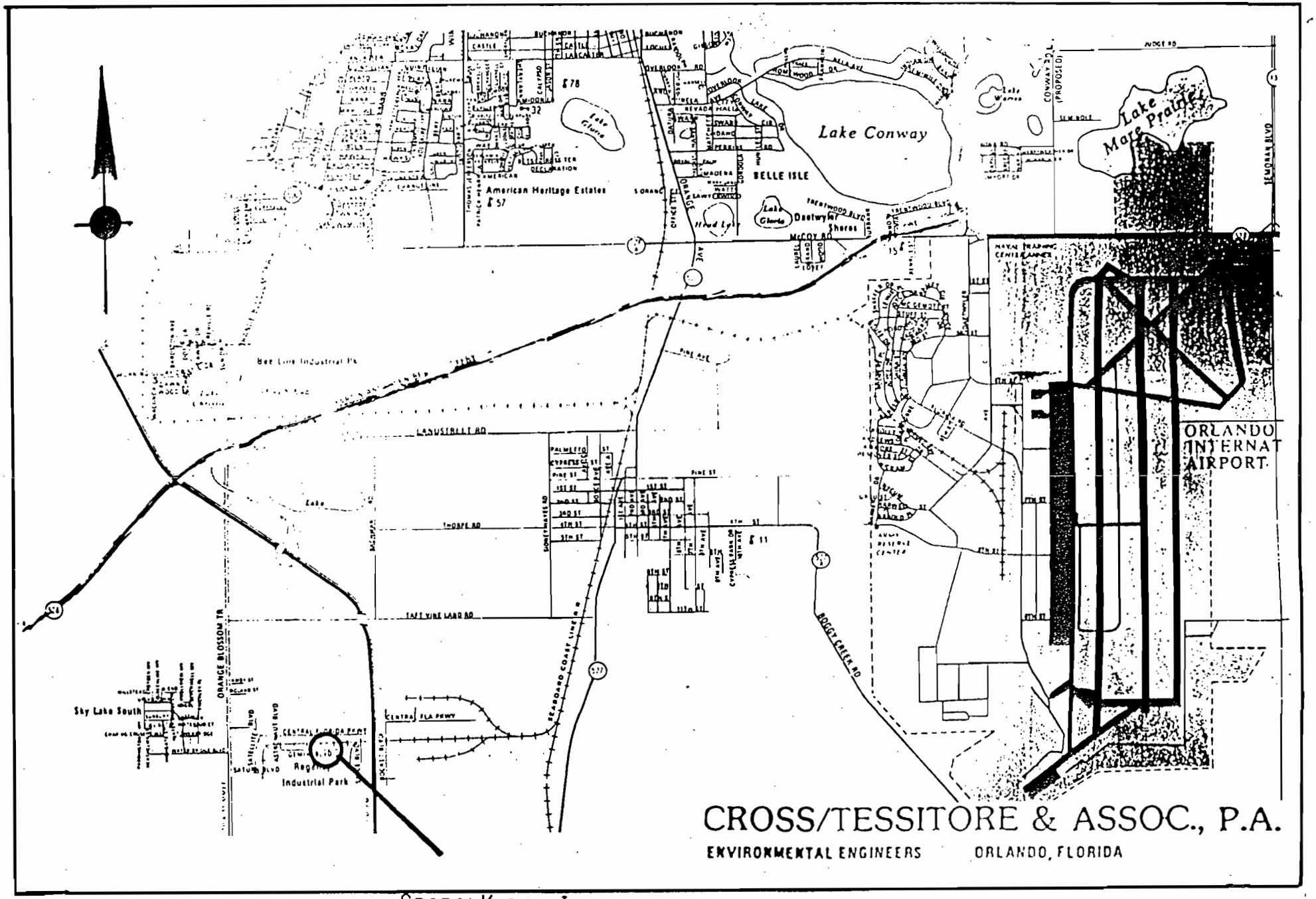
(2) Emission Limitations

17-2.650 (1)(f)(3)

Allowble VOC Emissions = 2.9 lbs/gal

4.68 gallons/hour (See Item No. 1)

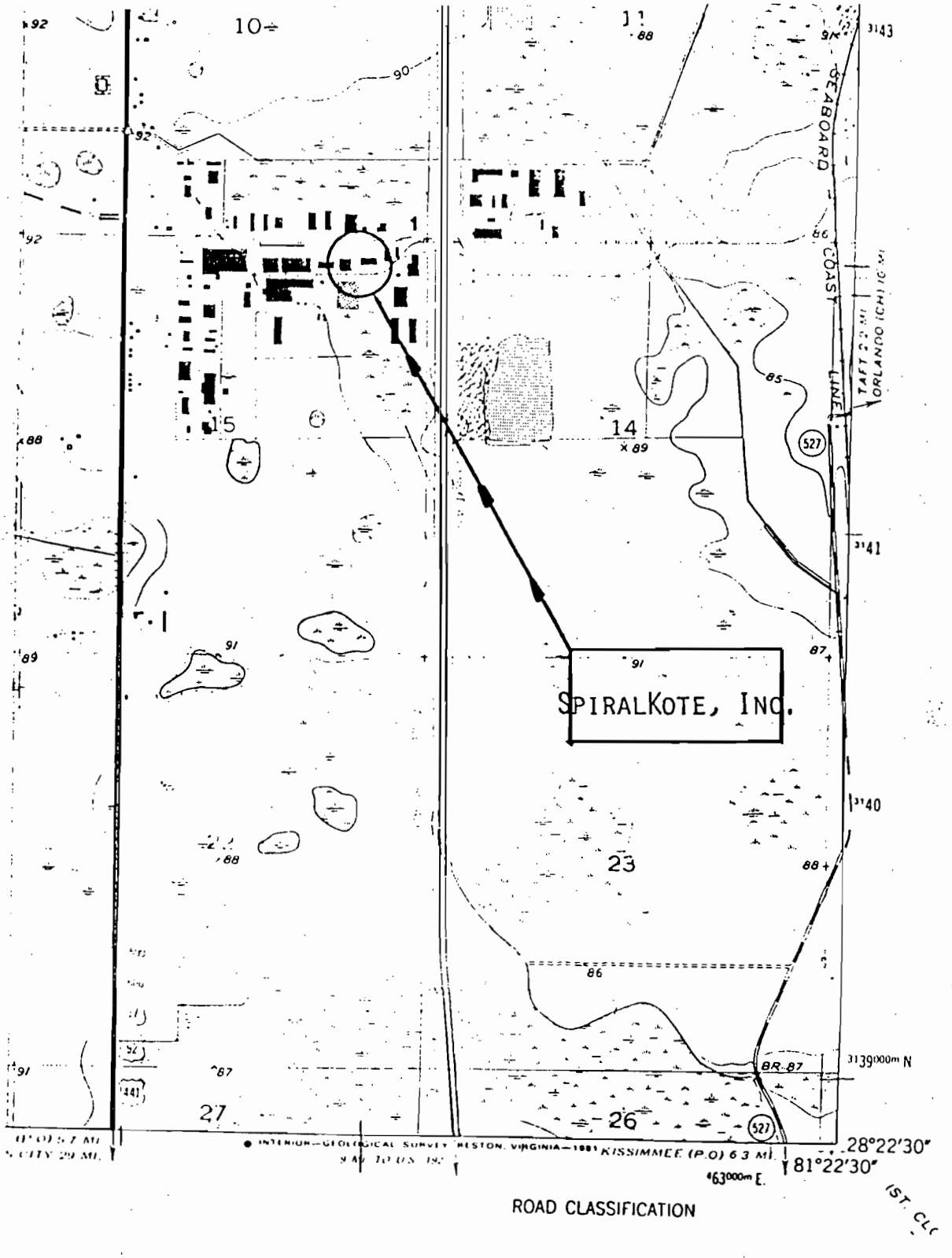
Allowable = (4.68) x (2.9) = 13.58 lbs/hour



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

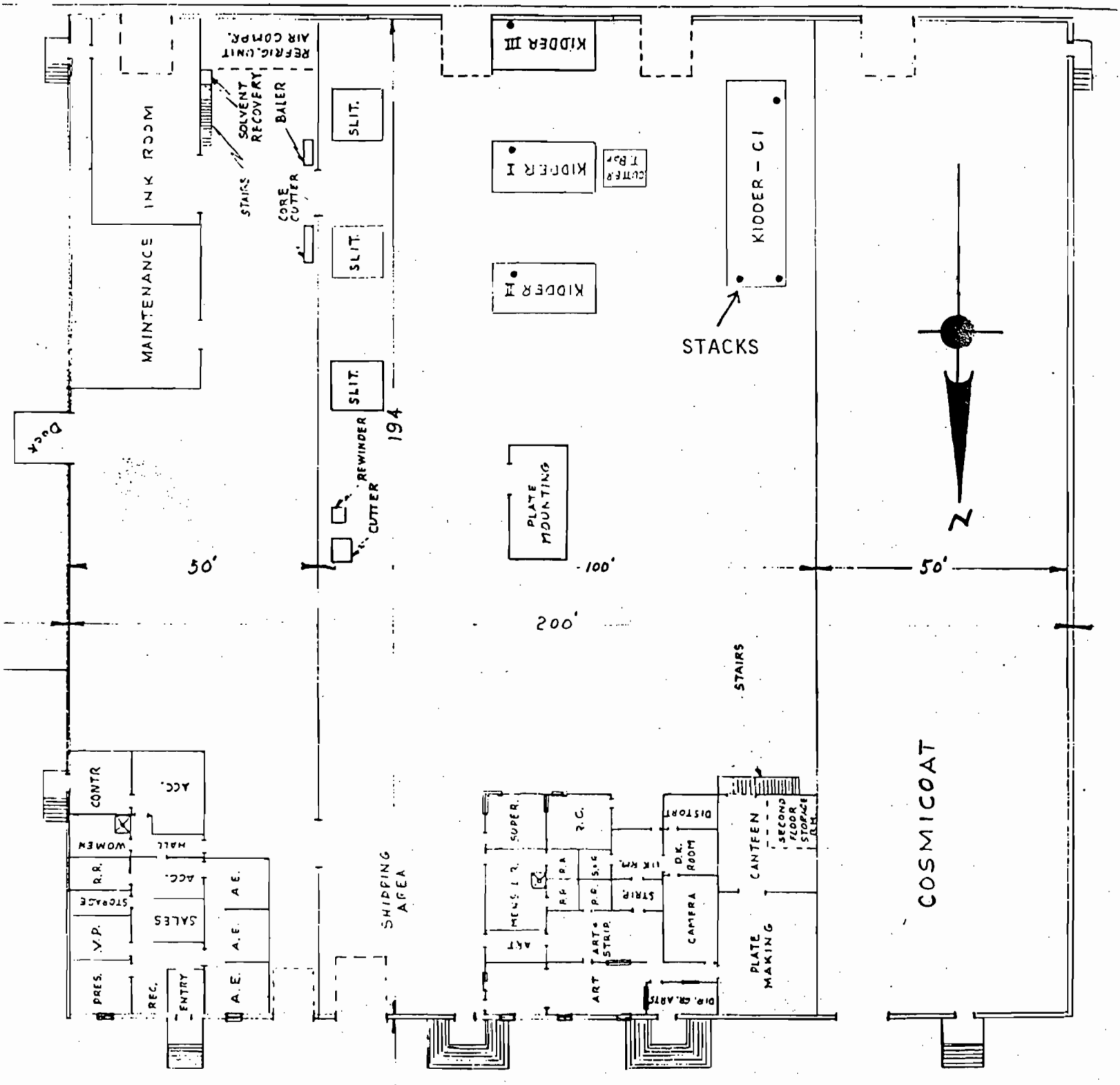
SPIRALKOTE, INC.



ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

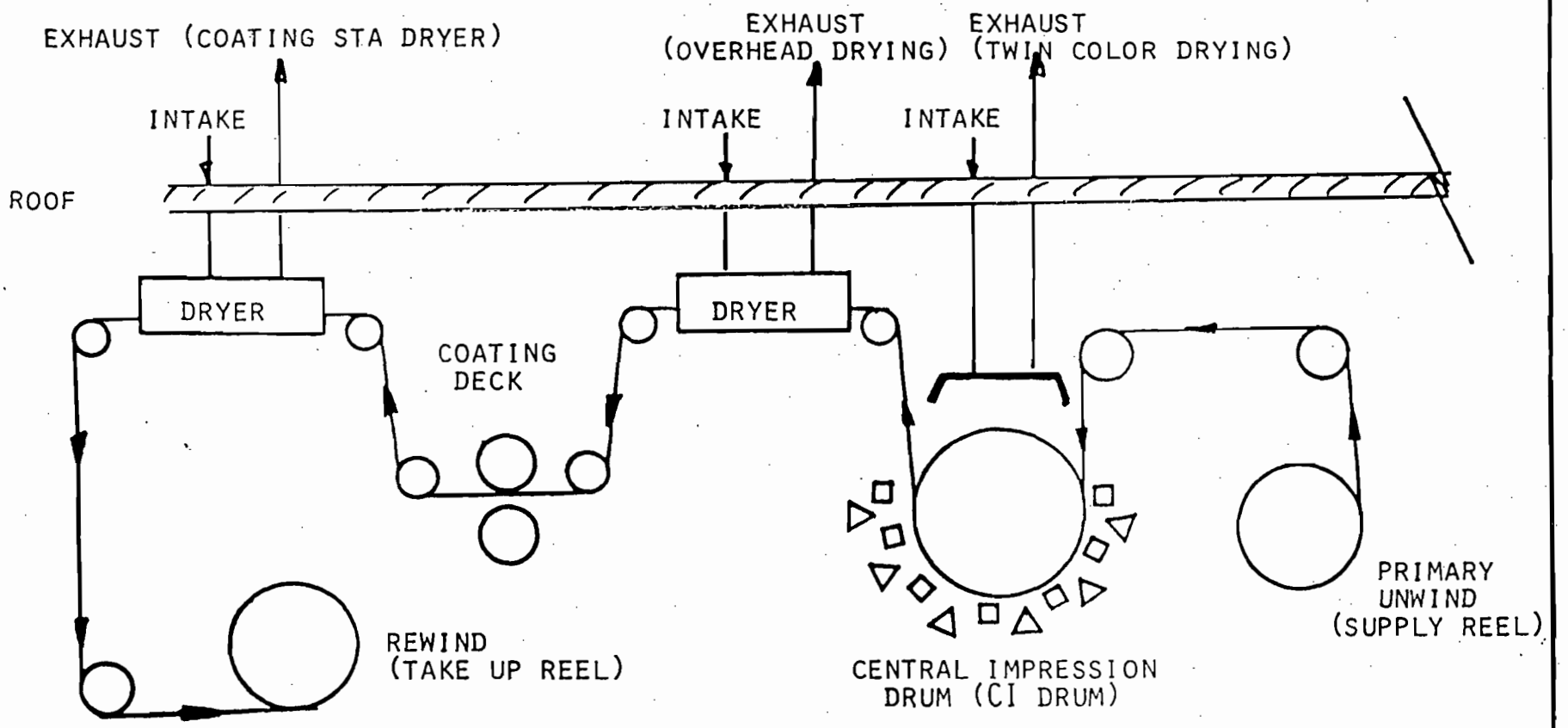
PLOT PLAN OF FACILITY SPIRALKOTE, INC.



(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CONCEPTUAL FLOW DIAGRAM SPIRALKOTE, INC.



□ COLOR PRINTING DECK

▷ BETWEEN COLOR DRYERS

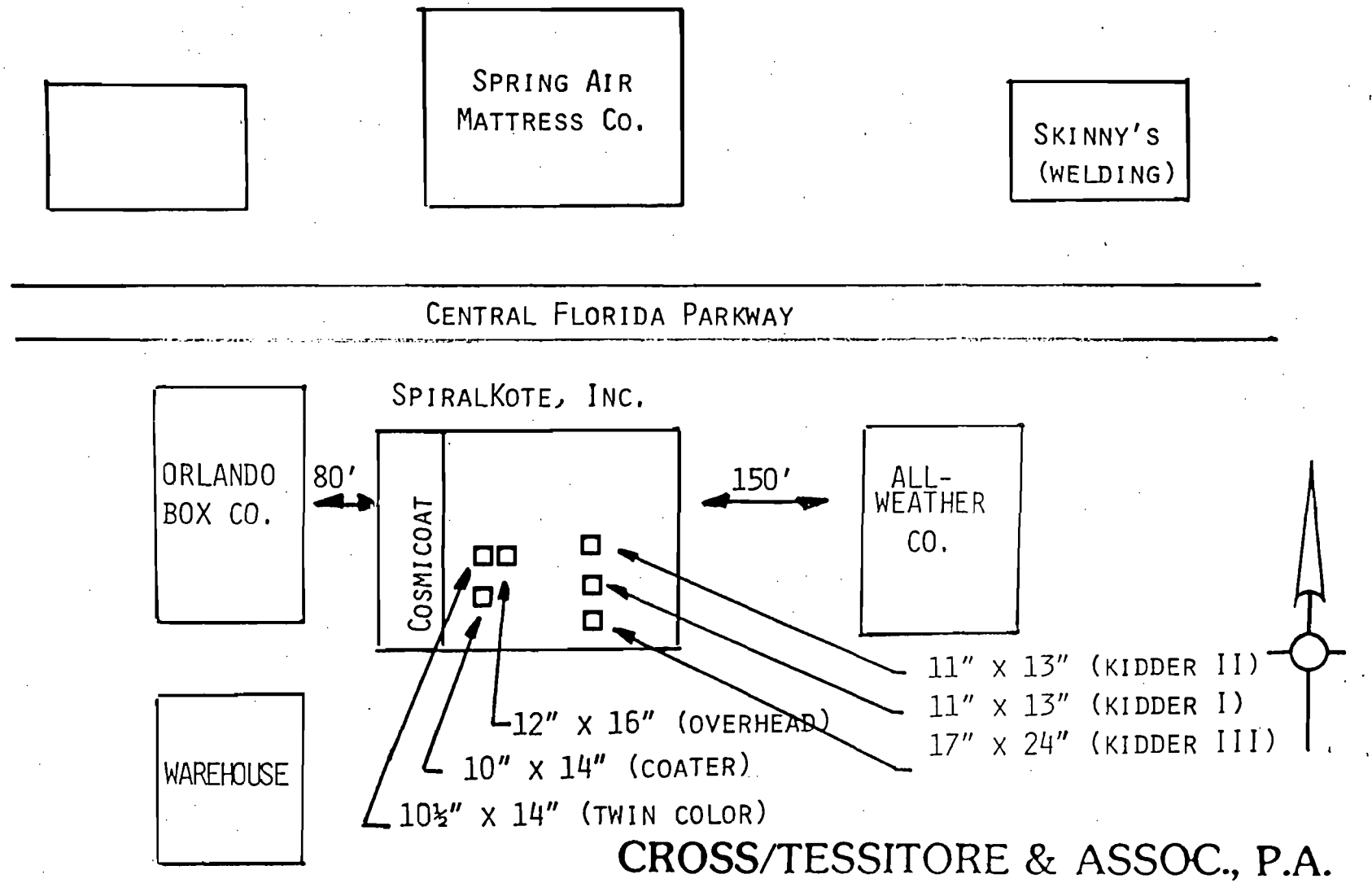
NOTE: ALL COMPONENTS ARE BUILT INTO A SINGLE MACHINE.

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF AREA/ROOF SKETCH SPIRALKOTE, INC.

LOCATED IN THE
REGENCY INDUSTRIAL PARK

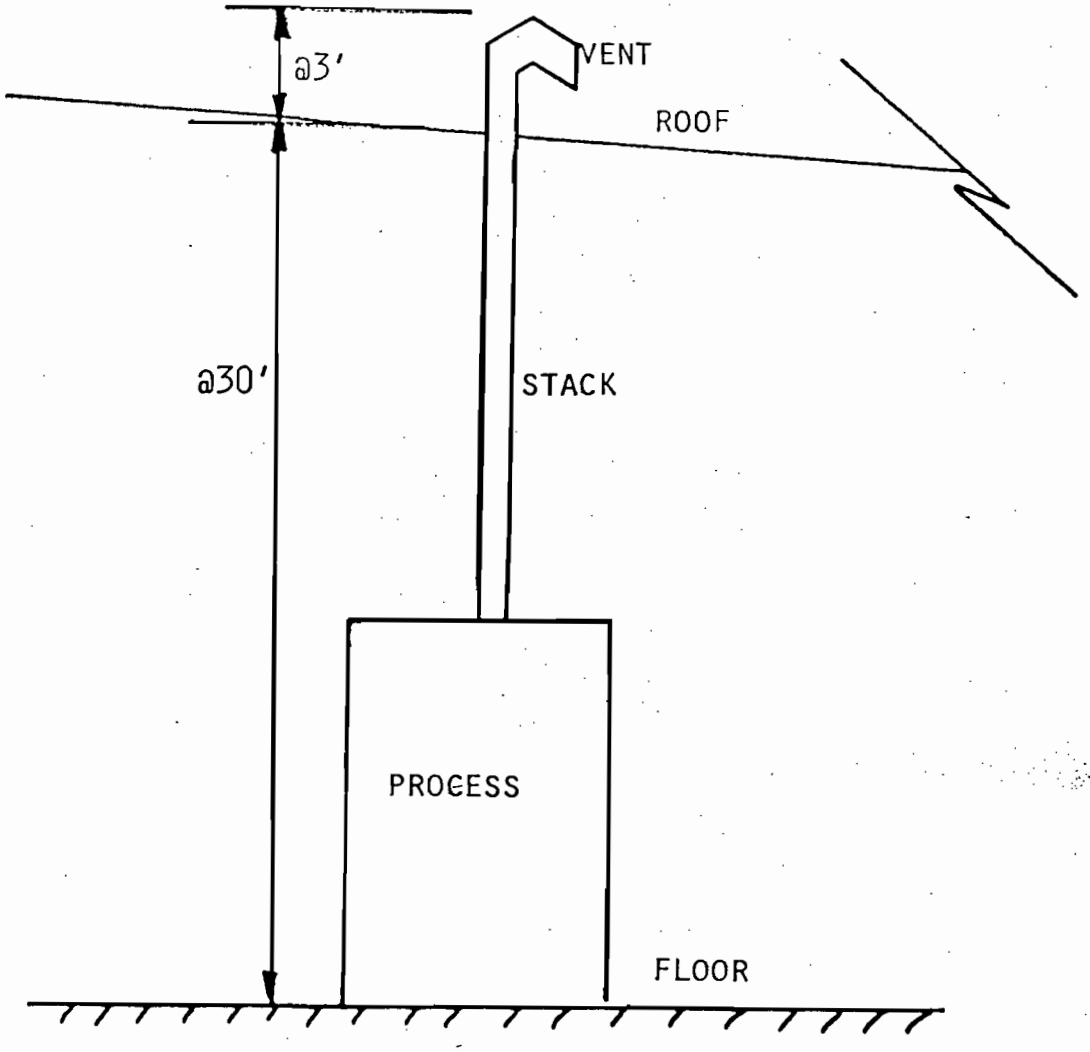


CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

NOT TO SCALE

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: 1x10^6	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: 1.2x10^6			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

AC48-82737

A250 paid 2/20/84

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

FEB 20 1984

BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Kidder Stack Printing Press No. 3

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 08 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

I certify that the statements made in this application for a operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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, that 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.

(Affix Seal)

FRANK L. CROSS, JR. CERTIFICATE NO. 7916 STATE OF FLORIDA REGISTERED ENGINEER

Florida Registration No.

Signed: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812
Mailing Address (Please Type)

Date: 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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 is an existing flexographic printing plant that produces composite can labels. The kidder 3 Unit emits VOC from printing & coating. No controls are presently installed on the unit.

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

Start of Construction February 1983 Completion of Construction February 1983

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.)

No pollution control devices presently employed.

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

NONE

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes __X__ No

F. Requested permitted
~~Normal~~ equipment operating time: hrs/day 17 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? YES
   a. If yes, has "offset" been applied? NO
   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO
   c. If yes, list non-attainment pollutants.
      Oxidants
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) requirements 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

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	None	--	173	Item 6
Coating KJ 902	VOC	86	8.3	Item 6
Coating NB 1061	VOC	66	5.9	Item 6
Ink	VOC	74	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 202.60
2. Product Weight (lbs/hr): 180.18

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	22.42	47.2	17-2.650(1)(f)(3)	13.58	22.42	47.2	Item 6
			2.9 lbs/gallons				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5]
Not Applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption* MMCF		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural gas	320×10^{-6}	1200×10^{-6}	1.2
(1-1.2 x 10^6BTU Eclipse	Burner)		

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not applicable

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.

Solvent wastes (have RCRA Generator permit). Wastes are manifested and shipped to Oldover Corporation at Green Cove Springs where they are burned in their boiler.

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

Stack Height: 30 ft. Stack Diameter: 17" x 24" ft.

Gas Flow Rate: 3100 ACFM Gas Exit Temperature: 250-275 °F.

Water Vapor Content: Neg. % Velocity: 18 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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

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

Stack Height: _____ ft. Stack Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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.

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 Used

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 on 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.

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

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.

(1) Process Weight Derivation

Material	Process Rate (lb/hr)	Process Rate (gal/hr)	VOC Emissions (lb/hr)
Paper	173.0	---	---
Coating KJ 902	8.3	1.46	7.16
Coating NB 1061	5.9	1.17	3.90
Ink	15.4	2.05	11.36
	202.6	4.68	22.42

Product Weight = Process Weight - VOC Emissions

= 202.6 - 22.42 = 180.18 lbs/hour

(3) Potential Emissions

VOC Emissions From Attached Table,

VOC = 22.42 lbs/hour

Annual Emissions = (22.42) lbs/hour x (4208) $\frac{\text{hrs}}{\text{yr}}$ $(\frac{1}{2000})$ $\frac{\text{ton}}{\text{lbs}}$

= 47.2 tons/year

(2) Emission Limitations

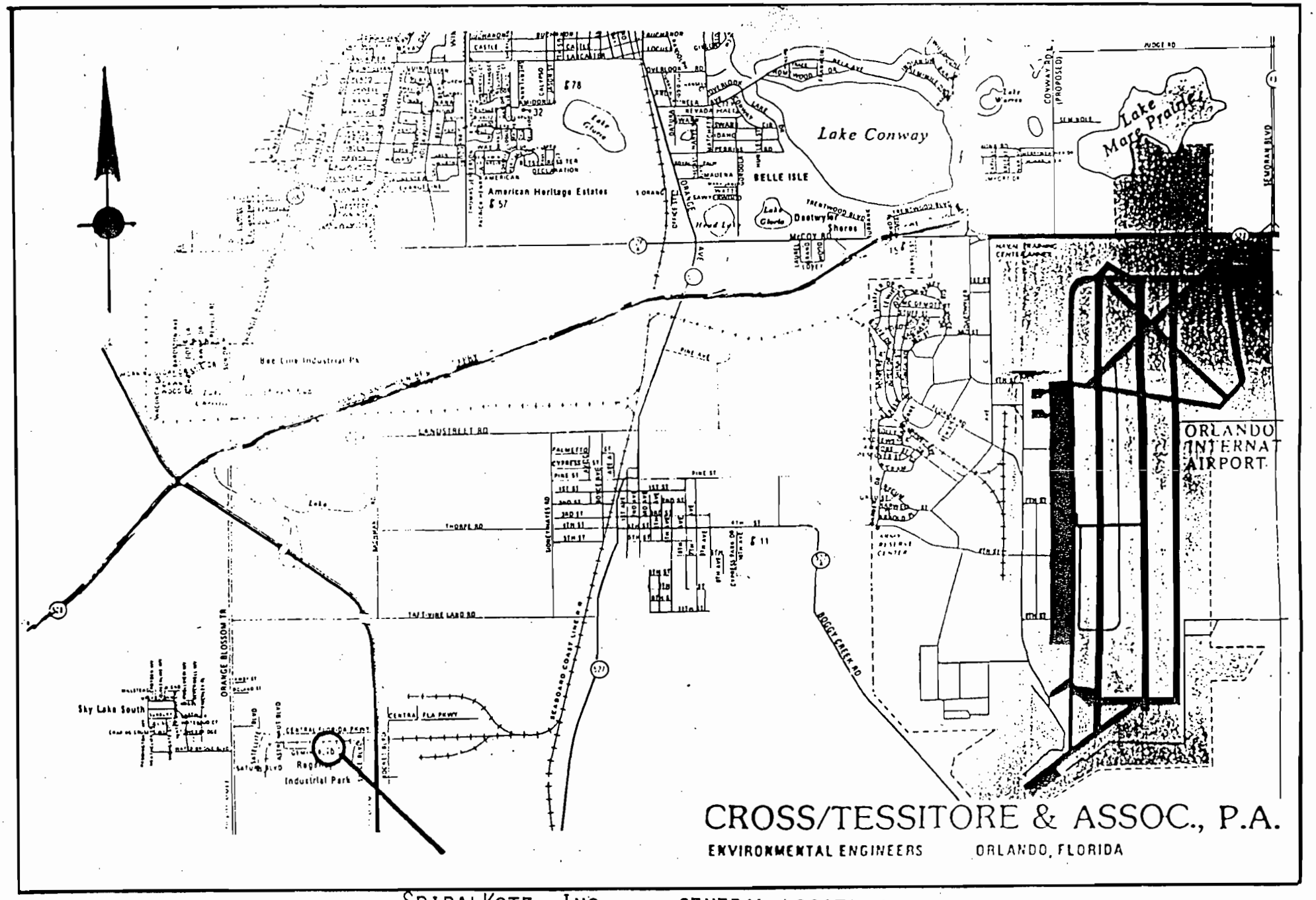
17.2.650(1)(f)(3)

Allowable VOC Emissions = 2.9 lbs/gallon

Process Weight = 4.68 gallons/hour (See Item No. 1)

Allowable = (4.68) x (2.9) = 13.58 lbs/hour.

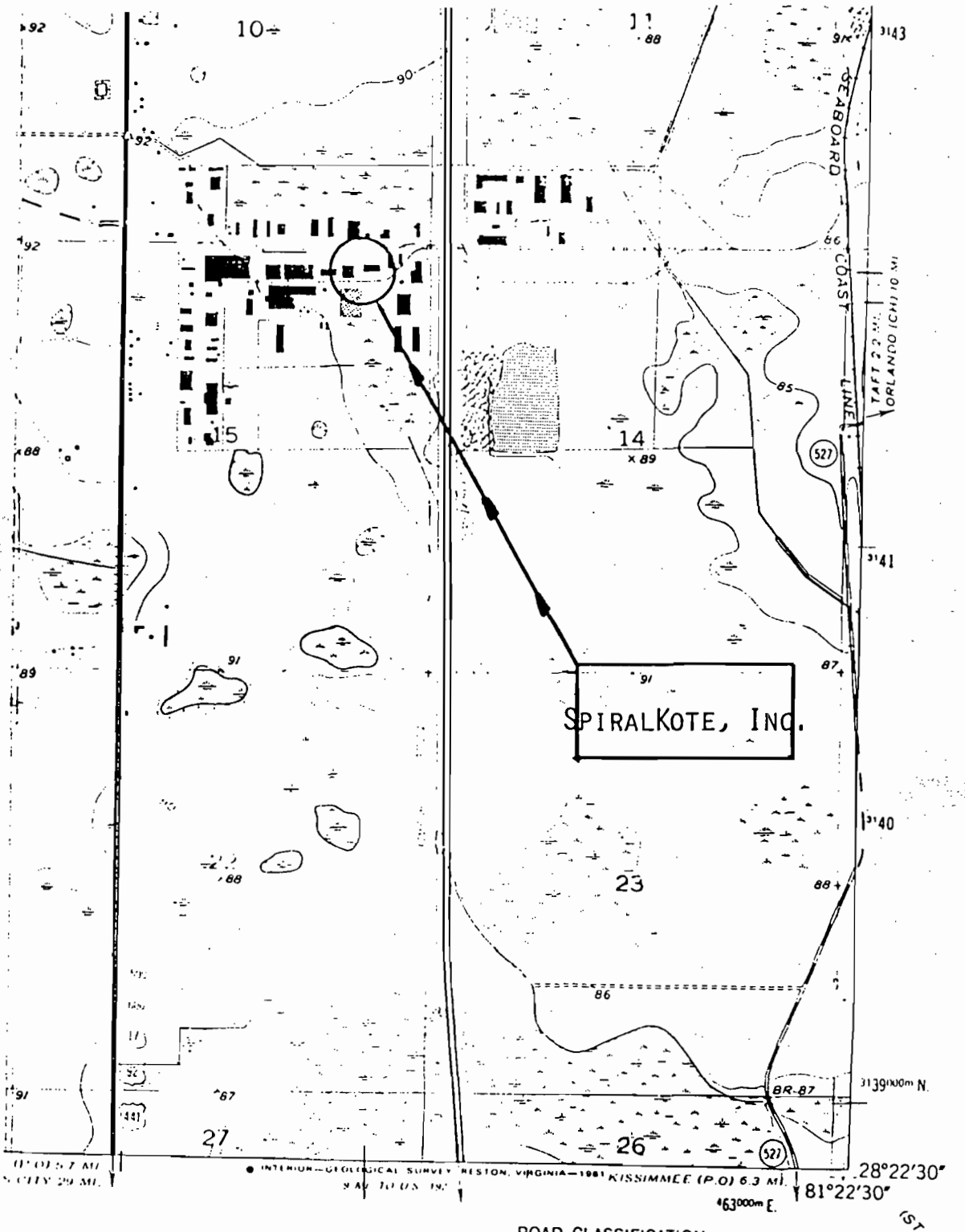
BEST AVAILABLE COPY



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

SPIRALKOTE, INC.

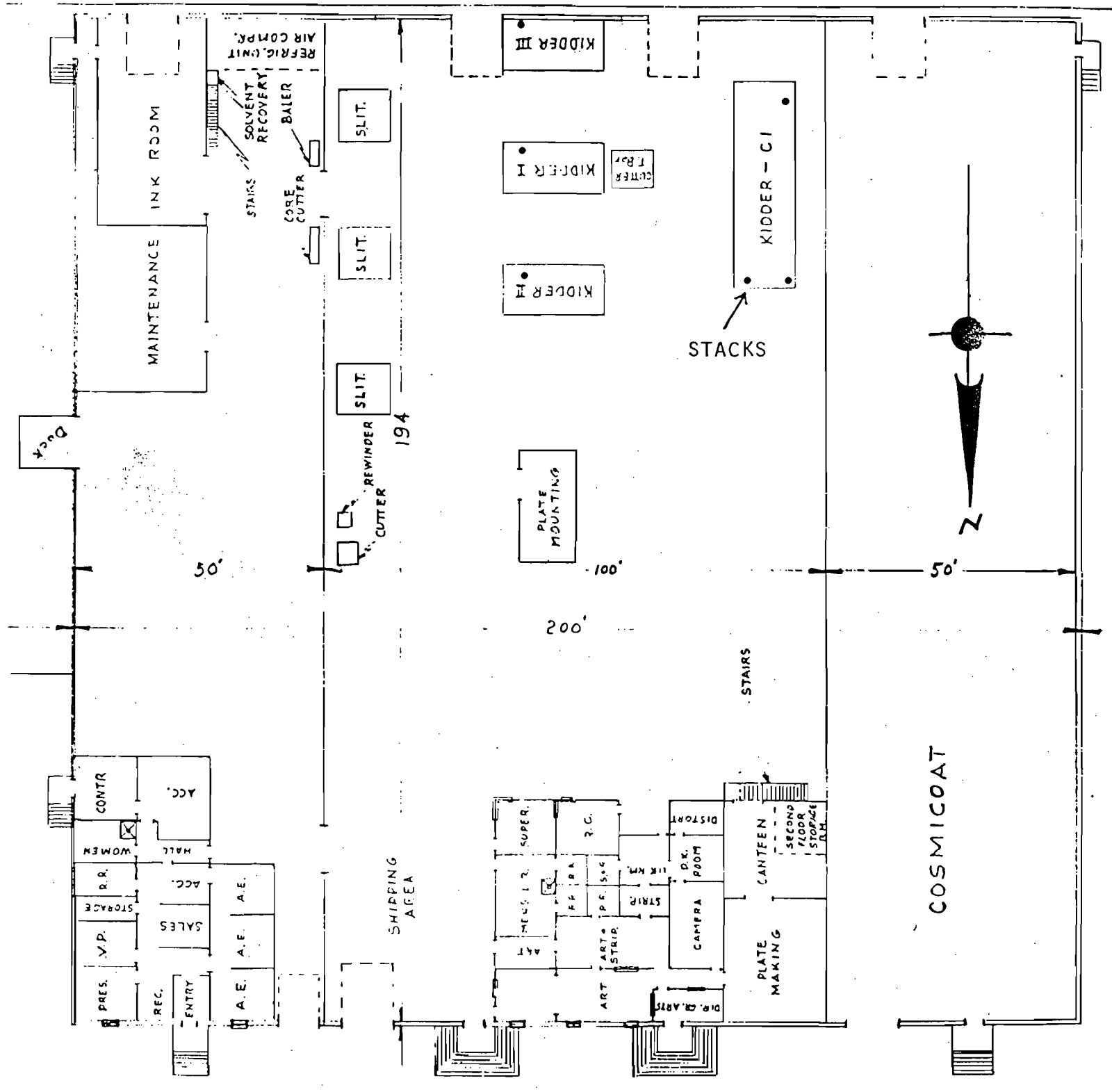


ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

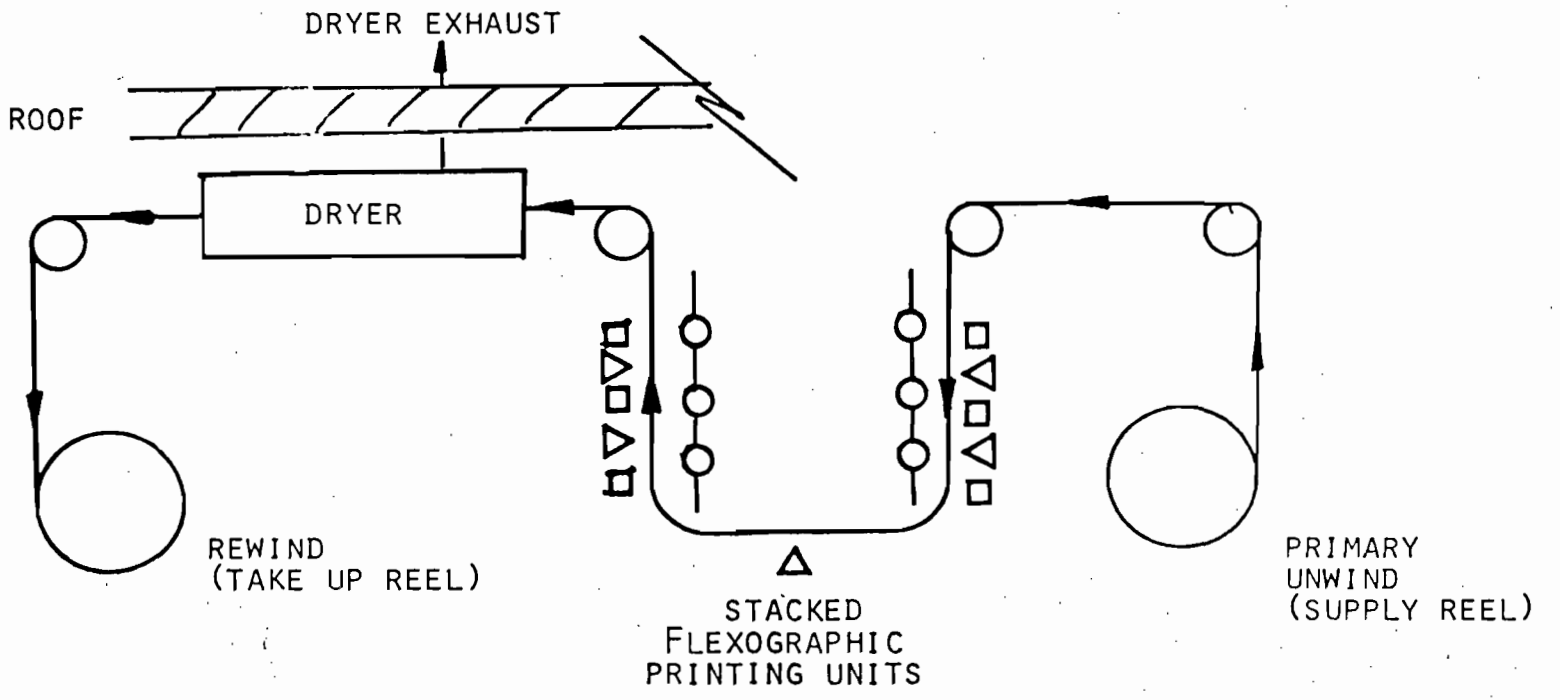


(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CONCEPTUAL PROCESS FLOW DIAGRAM

SPIRALKOTE, INC.



KEY

▷ BETWEEN COLOR DRYERS

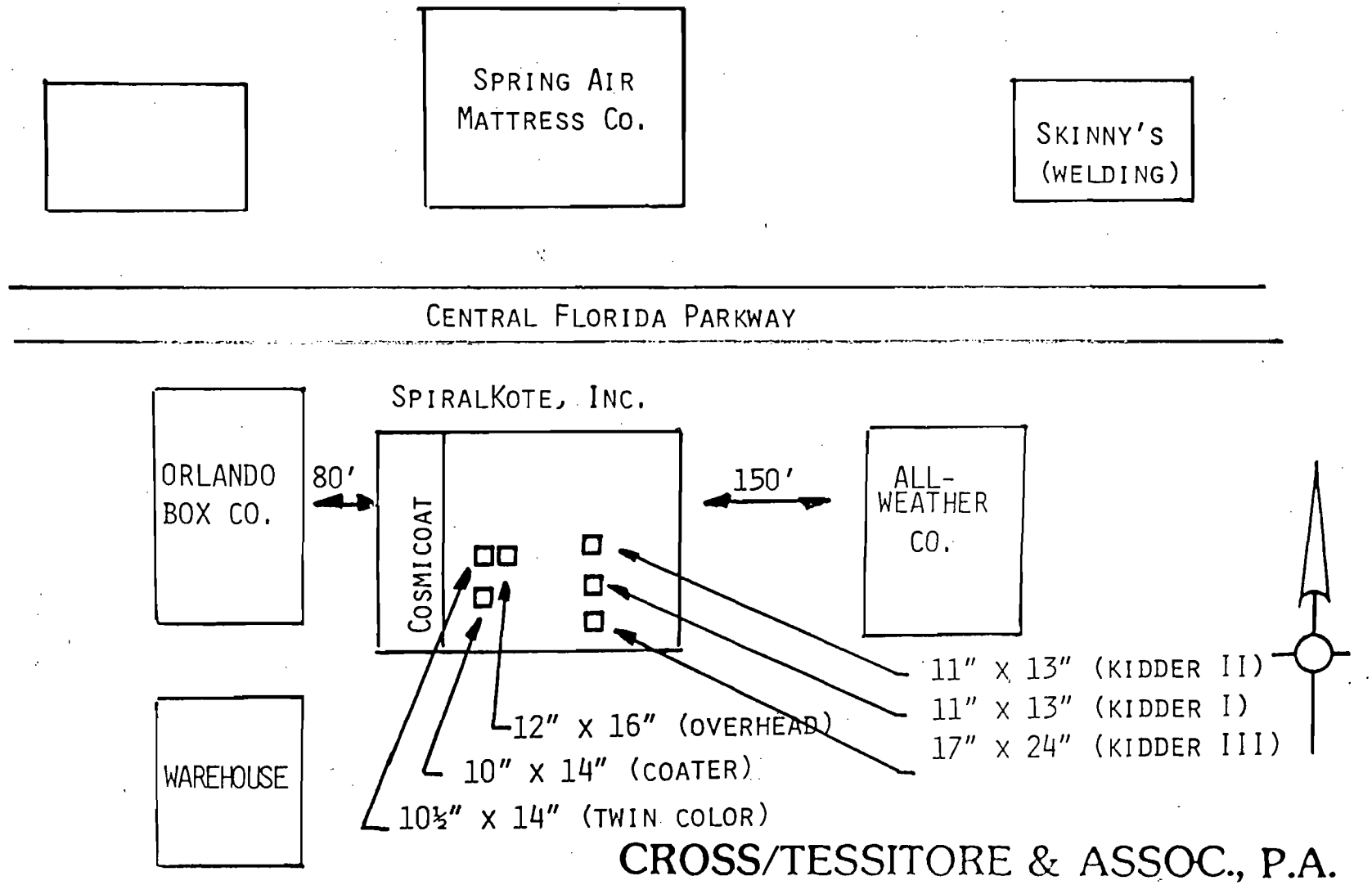
□ COLOR PRINTING DECK

NOTES: ALL COMPONENTS ARE PART OF A SINGLE MACHINE.

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF AREA/ROOF SKETCH SPIRALKOTE, INC.

LOCATED IN THE
REGENCY INDUSTRIAL PARK

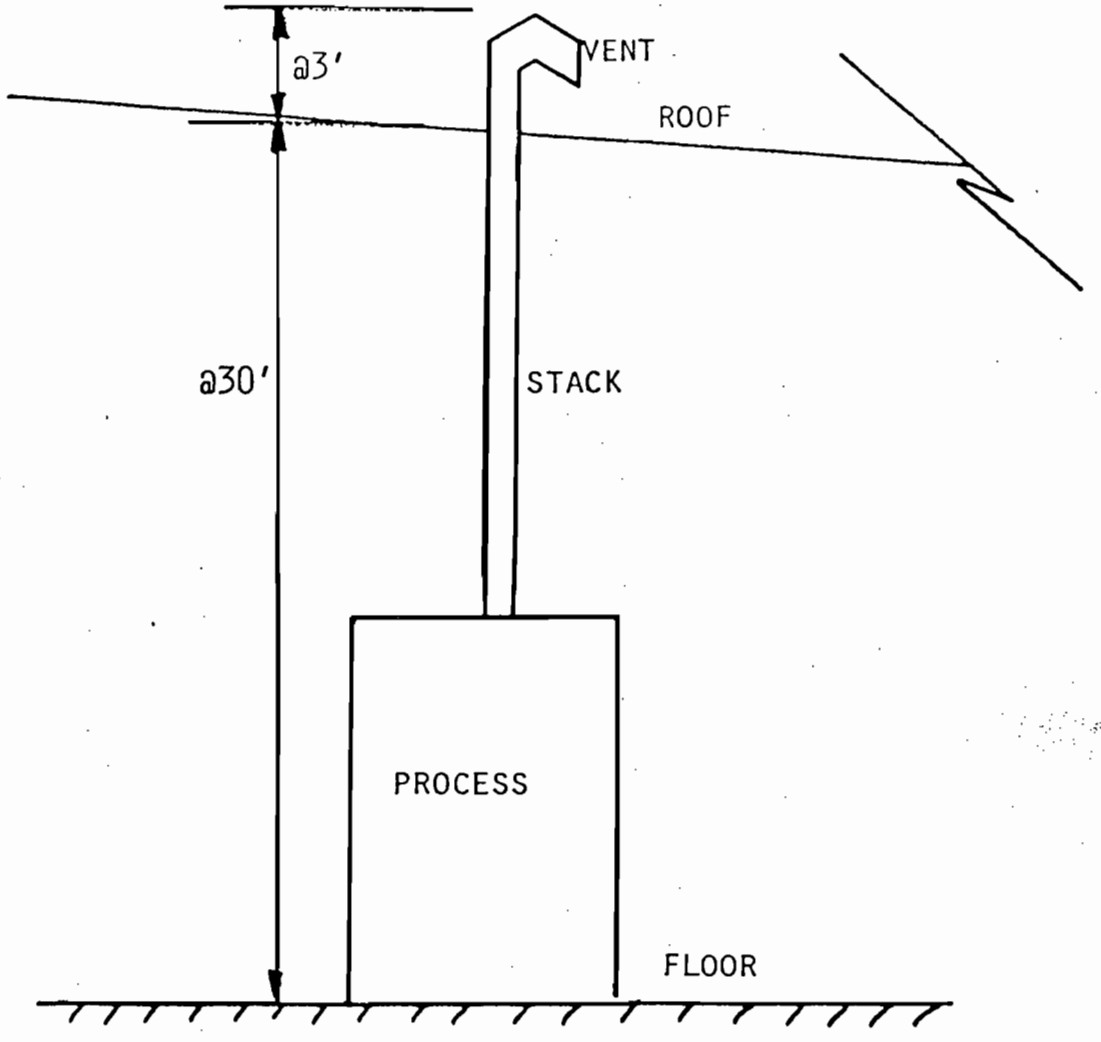


CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

NOT TO SCALE

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: $1x10^6$	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: $1.2x10^6$			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

#250 paid 2/20/84

AC 48-82735

DER

FEB 20 1984

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Kidder Stack Printing Press No. 1

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 08 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida 32809

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I certify that the statements made in this application for a operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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(Affix Seal)

Signed: Frank L. Cross, Jr.

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando FL 32812
Mailing Address (Please Type)

Florida Registration No. 9116 Date: 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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 is an existing flexographic printing plant that produces composite can labels. The Kidder I unit emits VOC from printing and coating. No controls are presently installed on the unit.

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

Start of Construction October 1977 Completion of Construction October 1977

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.)

No pollution control devices presently employed on this press.

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

None

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes _x_ No

F. ~~Normal~~ Requested permitted equipment operating time: hrs/day 17 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? Yes
   a. If yes, has "offset" been applied? No
   b. If yes, has "Lowest Achievable Emission Rate" been applied? No
   c. If yes, list non-attainment pollutants. Oxidants
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) requirements 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

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	None	--	173	Item 6
Coating KJ 902	VOC	86	8.3	Item 6
Coating NB 1061	VOC	66	5.9	Item 6
Ink	VOC	74	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 202.60
2. Product Weight (lbs/hr): 180.18

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	22.42	47.2	17-2.650(1)(f)(3)	13.58	22.42	47.2	Item 6
			2.9 lbs/gallons				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Not Applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural gas	320×10^{-6}	1000×10^{-6}	1.0
($1-1.0 \times 10^{6}$ BTU/hour	Eclipse burner)		

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not applicable

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.

Solvent wastes (have RCRA generator permit). Wastes are manifested and shipped to Oldover Corporation at Green Cove Springs, where they are burned in its boilers.

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

Stack Height: 30 ft. Stack Diameter: 11" x 13" ft.

Gas Flow Rate: 3100 ACFM Gas Exit Temperature: 250-275 °F.

Water Vapor Content: Negligible % Velocity: 52 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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

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 Used

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.

PROCESS AND EMISSION DATA

Process Rate

Hours operated per day:	16
Days operated per week:	3
Emissions per hour:	2.85 lbs/hr
Emissions per day operated:	45.60 lbs/day
Emissions per year:	6840 lbs/hr

Explanation of Process

Spiralkote manufactures its own painting plates which are made of a photopolymer material. The blank material is exposed to a high intensity light and the unexposed material must be washed away to form the relief in the printing plate. This is performed in the washout unit which requires a wash solvent. The wash solvent is comprised of 75% perchlorethylene and 25% normal butyl alcohol by volume.

The spent solvent which contains these two solvents plus dissolved photopolymer is then processed through a still to reclaim the solvent for reuse; the remaining still bottoms are shipped out as hazardous waste.

Description of Emissions

Solvent emitted: Perchlorethylene

Perchlorethylene Emission Rate:

$$.2116 \text{ gals/hr} = \frac{\text{total emissions - 1524 gals}}{(\text{hrs open/day})(\text{days open/wk})(\text{weeks open/yr})(\text{yrs open})}$$

$$.2116 \text{ gals/hr} = \frac{}{16 \times 3 \times 50 \times 3}$$

2.85 lbs/hr = .2116 gals/hr

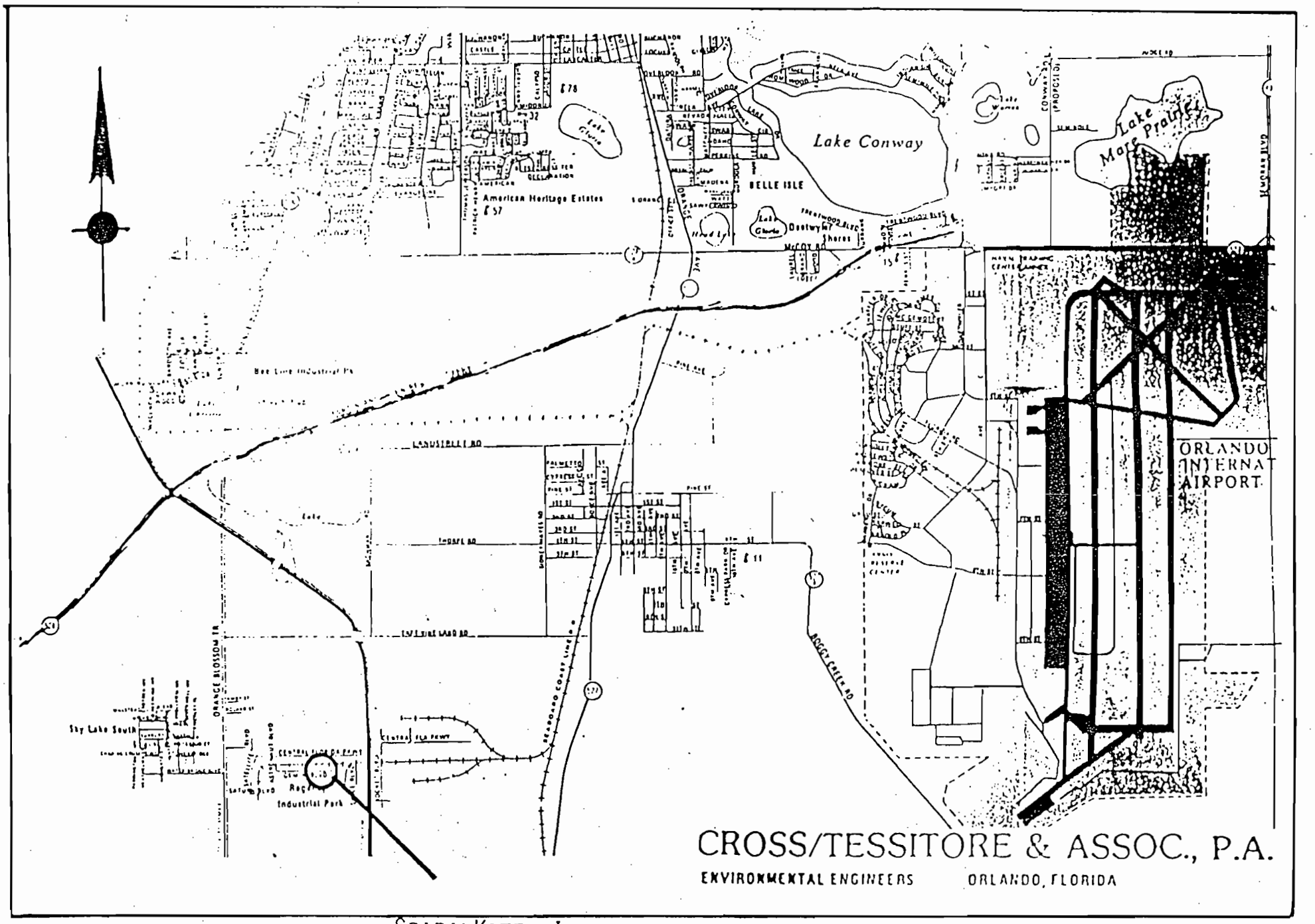
Total Emissions from Still: The difference between total purchases minus inventory on hand minus hazardous waste shipments* minus emissions from washout unit minus emissions from dryer minus spills.

	Perchlorethylene	Normal Butyl Alchol
Total purchases since Feb 1981	3905 gals.	935 gals.
On hand	732	565
Emissions from washout unit	405	
Emissions from still unit	1524	
Emissions from dryer	45	
Hazardous waste*	1089	363
Spills	110	
Unaccounted for	-	8

*The hazardous waste consists of 60% solvent (75% perchlorethylene and 25% normal butyl alchol) and 40% solids (photopolymer and wax).

These numbers were arrived at by performing solids analysis of still bottoms. The scale used was Mettler H30 accurate to one ten-thousandths of a gram. Still bottom was weighed before and after solvent was boiled off; the net difference represents the % solvent.

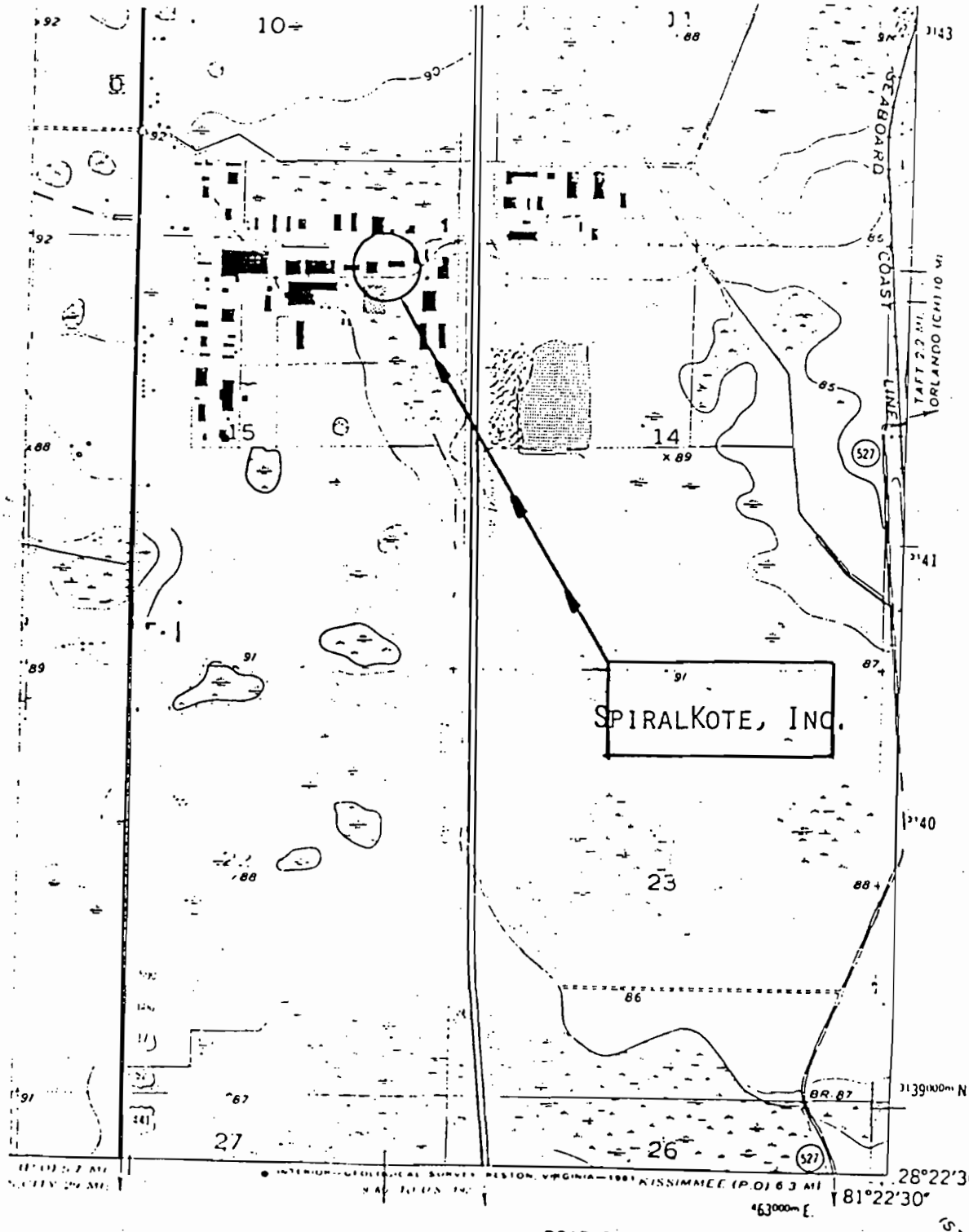
We are in the process of trying lower flow rates in our washout unit to reduce the amount of spent solvent that would be processed through the still. This may reduce emissions from this unit by as much as 25%.



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

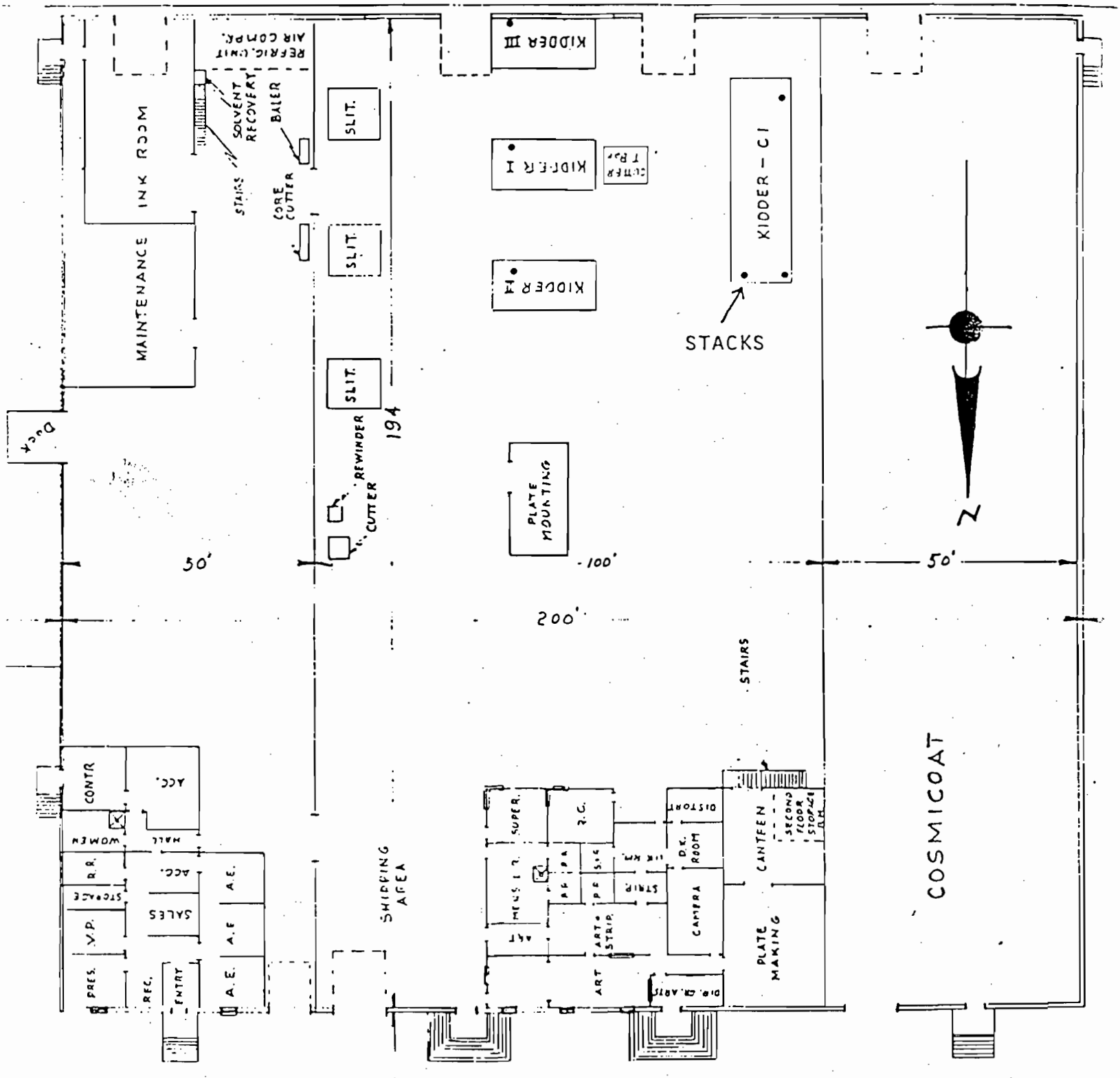
SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

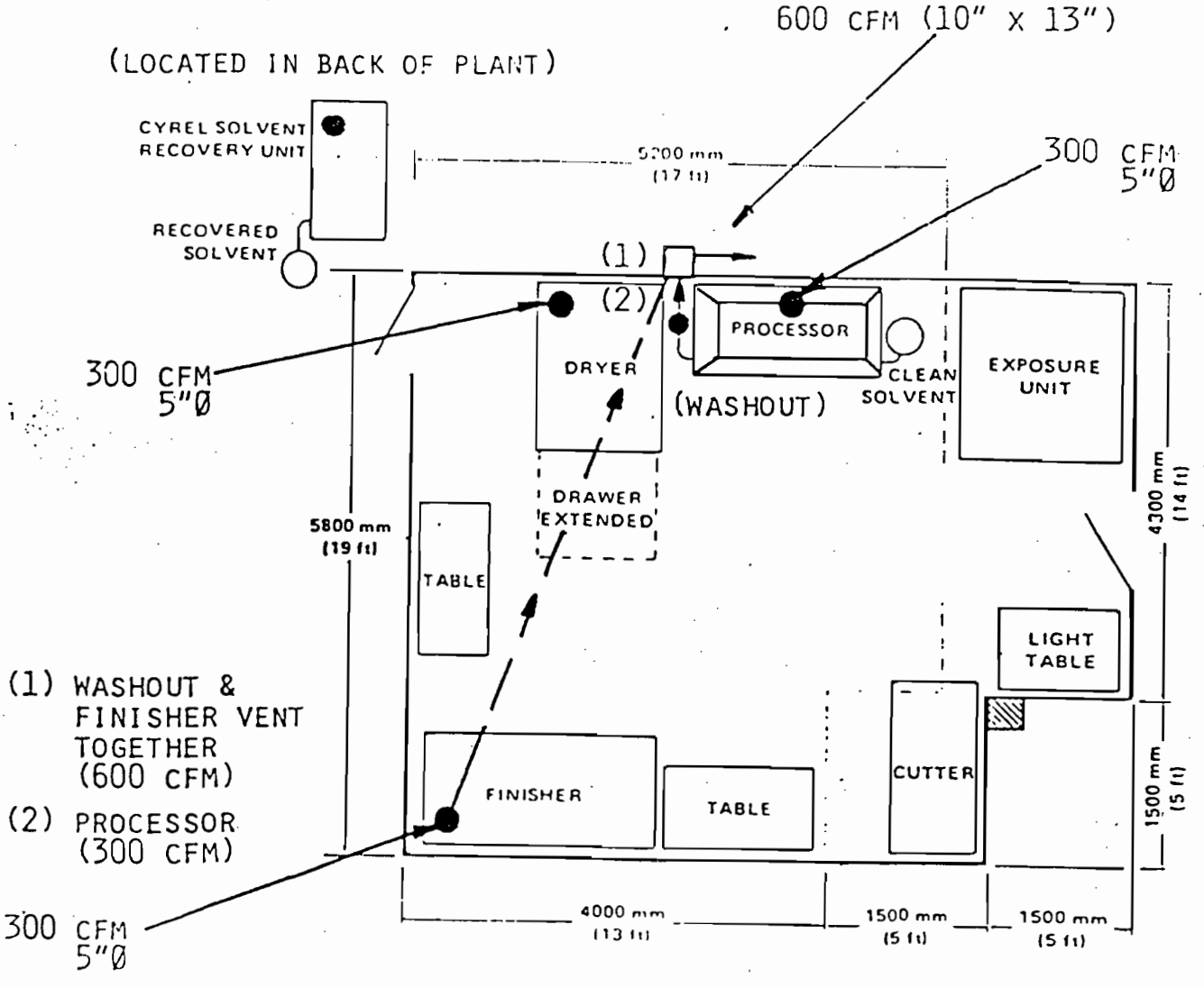


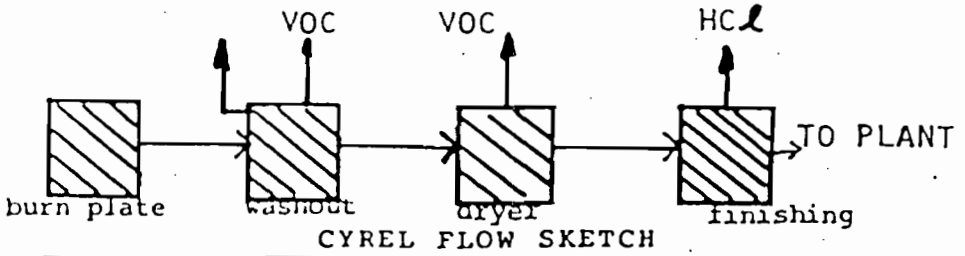
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





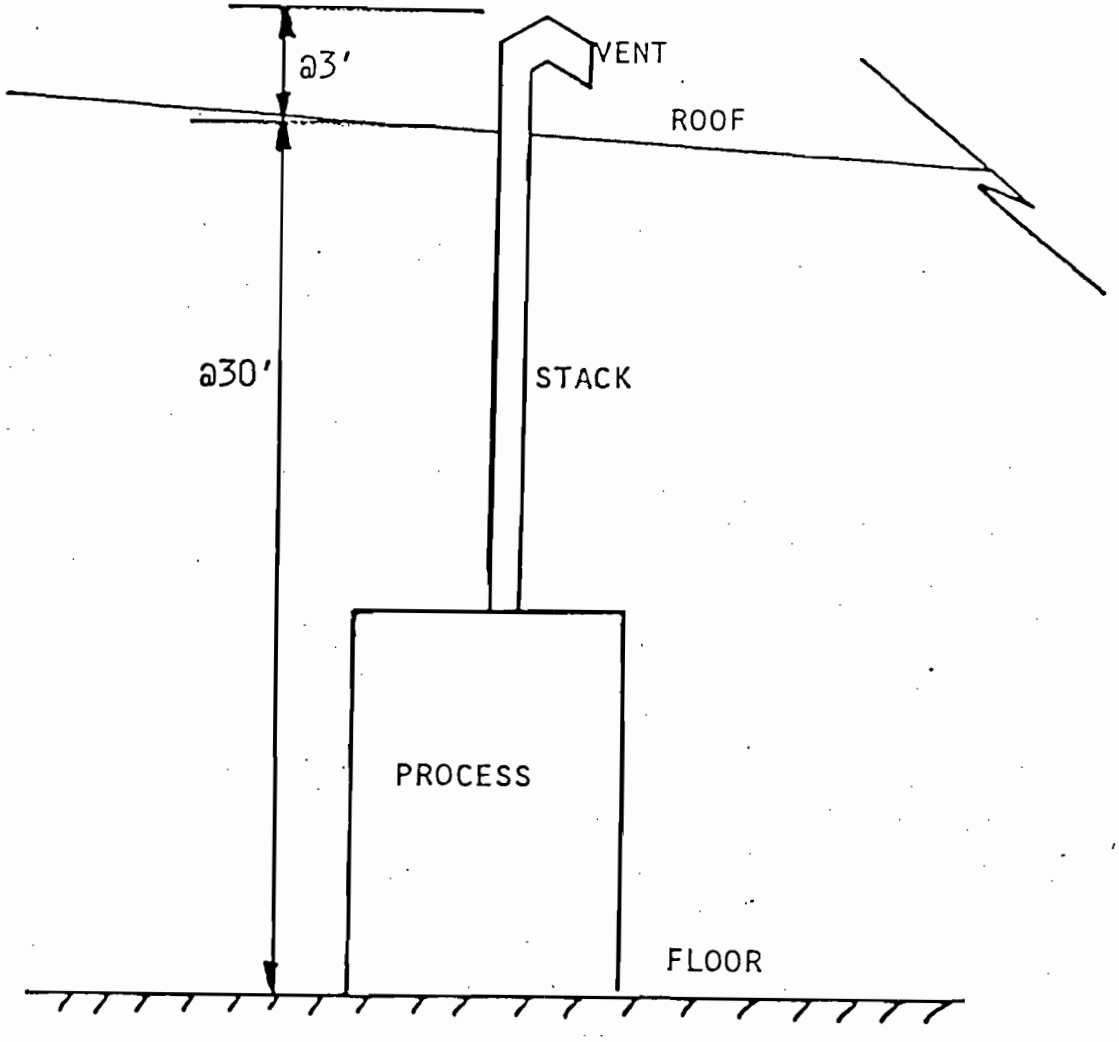
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

AC48-82740

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

MAY 29 1984

BAQM

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

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) Cyrel Plate Room Finishing Tank

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 68 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf V.P. of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

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: Robert E. Kindorf

Robert E. Kindorf, V.P.
Name and Title (Please Type)

Date: _____ Telephone No 305/859-7780

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, that

[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: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Assoc., P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: _____ Telephone No. 305/851-1484

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.

The finishing tank is the last step in the plate making process. The ventilation system exhausts HCl fumes and connects to the wash-out unit vent exhaust.

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

Start of Construction Feb. 1981 Completion of Construction Feb. 1981

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.)

No pollution control devices are presently installed on the finishing tank.

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

None

E. Requested permitted equipment operating time: hrs/day 4 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr N/A ; if seasonal, describe: N/A

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? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   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		
Plate Stock	None	---	182	
HCl		1	.148	
Clorox		9	1.34	
Water		90	13.39	

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

1. Total Process Input Rate (lbs/hr): 15.70

2. Product Weight (lbs/hr): .82

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/yr	T/yr	
Chlorine	.068	.034			68	.034	

[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).

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)
N/A				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

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

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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.

Mixture of water, HCl, Clorox, is buffered with baking soda and flushed into sewer.

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

Stack Height: 30 ft. Stack Diameter: .42 ft.

Gas Flow Rate: 300 ACFM _____ DSCFM Gas Exit Temperature: 70 °F.

Water Vapor Content: Neg. % Velocity: 22 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

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 [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 Used

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.

PROCESS

DESCRIPTION

One 27-liter batch of finishing fluid is utilized per day, during a 4-hour processing period. The composition, weight, and utilization rate of this fluid is shown below. This combination produces .27 lb. of chlorine vapors per 4-hour period, according to the manufacturer of the finishing tank (Dupont).

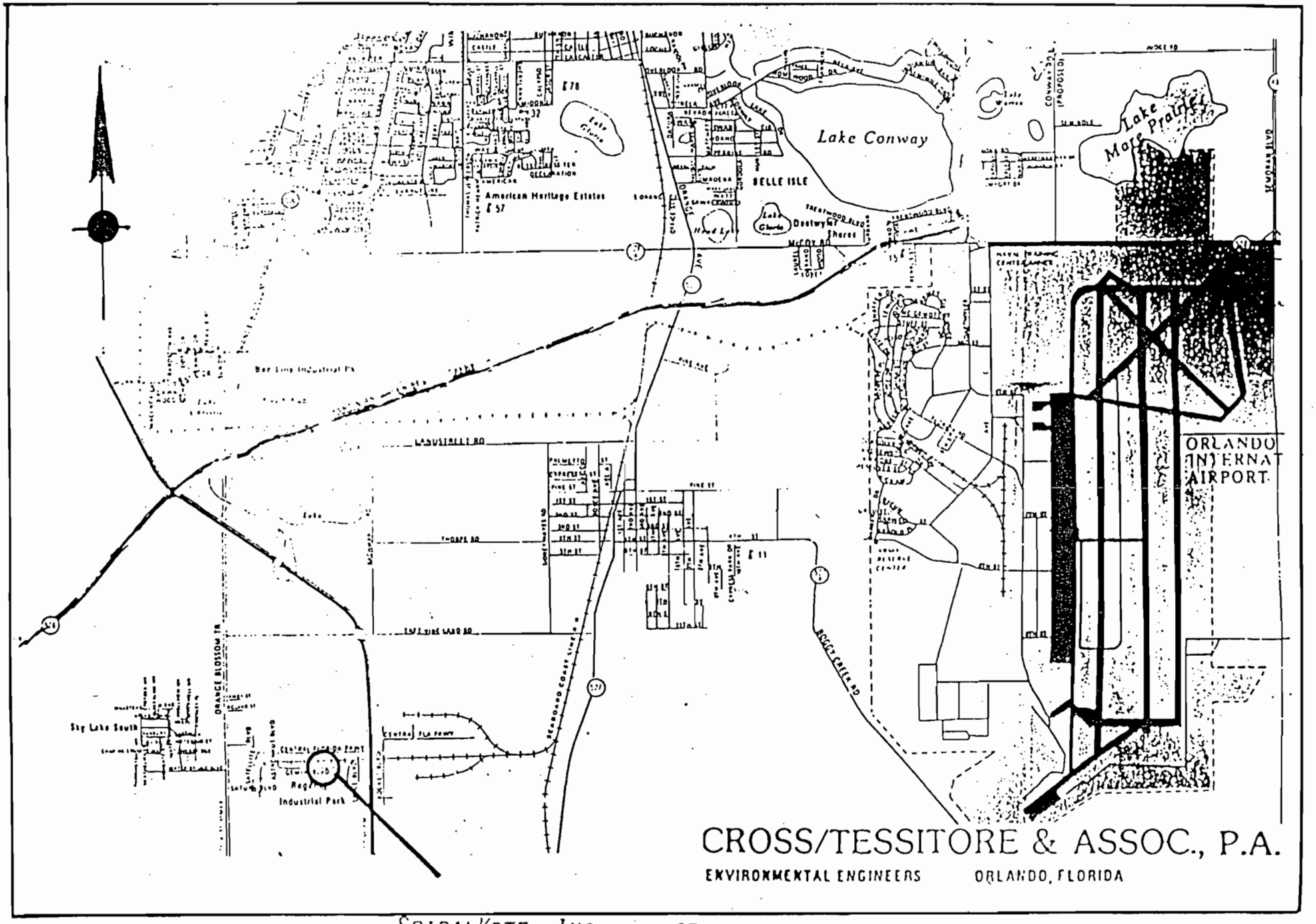
After the batch has been used, it is buffered with sodium bicarbonate and flushed into drain with plenty of water.

PROCESS RATE DERIVATION

	WEIGHT	% OF BATCH	UTILIZATION RATE**
Water	53.55 lbs.	90%	13.39 lbs/hr.
Clorox	5.35 lbs.	9%	1.34 lbs/hr.
HCl	.59 lbs.	1%	.15 lbs/hr.
Total Batch*	59.49 lbs.	100%	14.88 lbs/hr.

*One batch per 4 hour process period

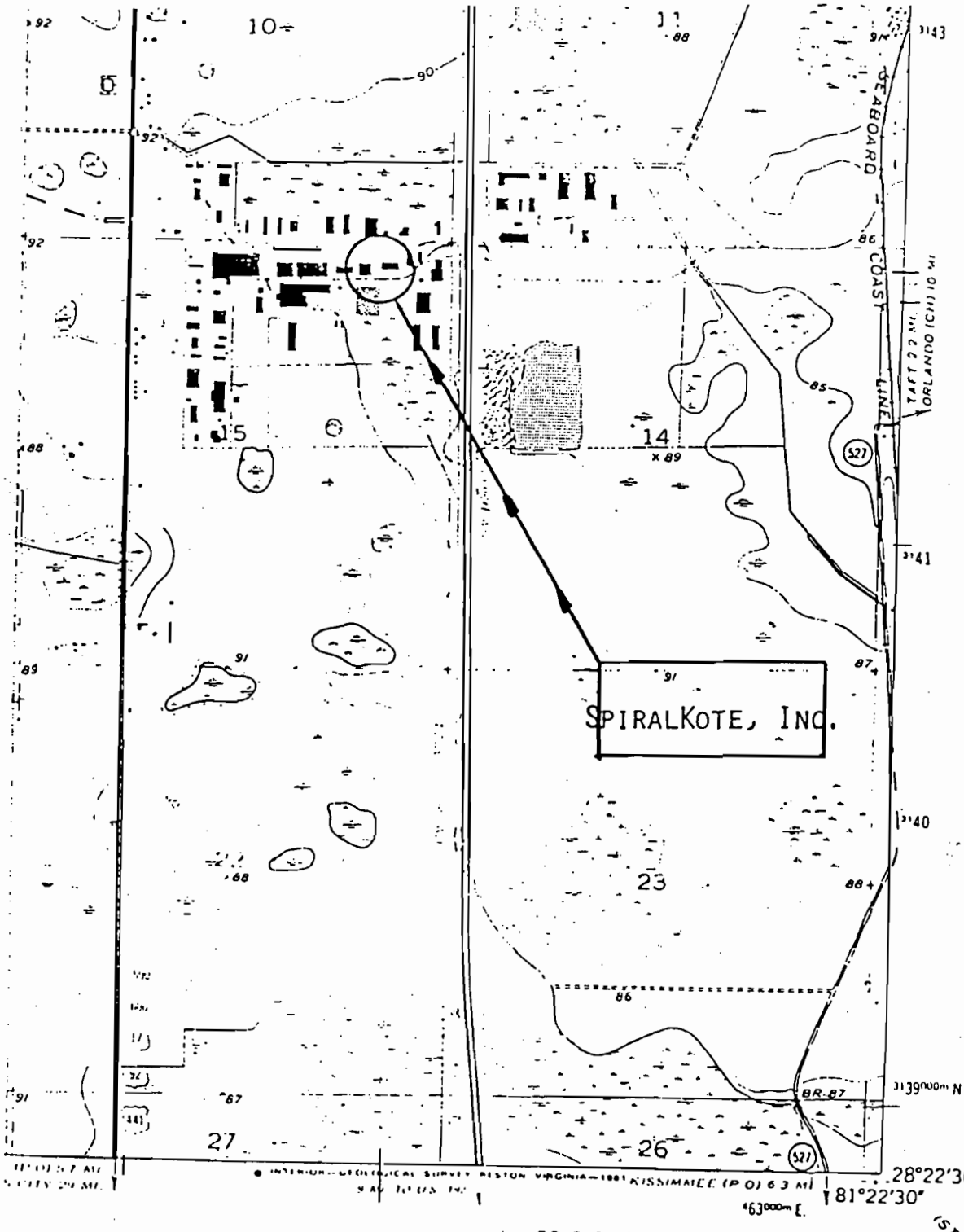
**Weight divided by 4



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

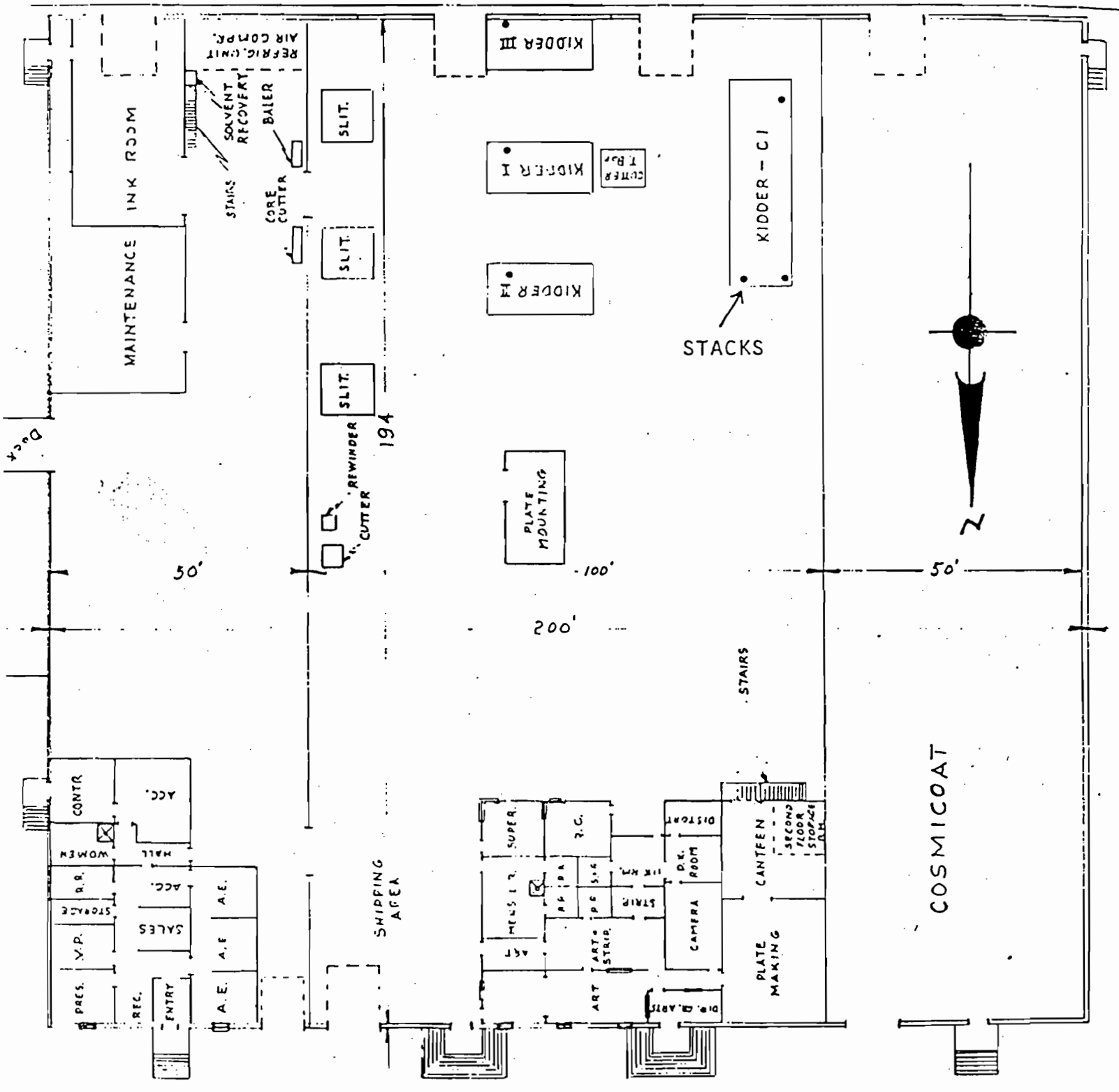
SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.



(FRONTS ON CENTRAL FLORIDA PARKWAY)

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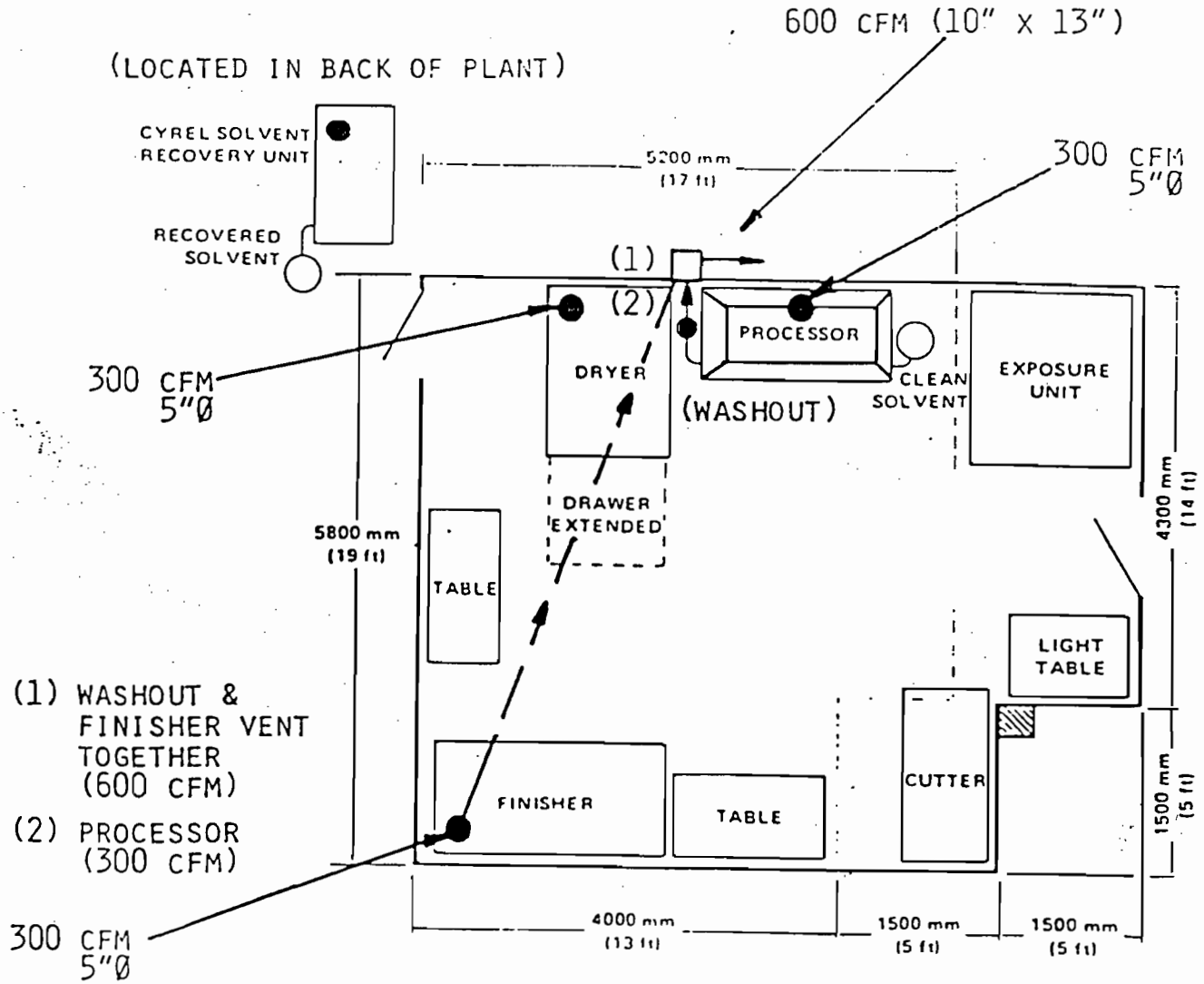
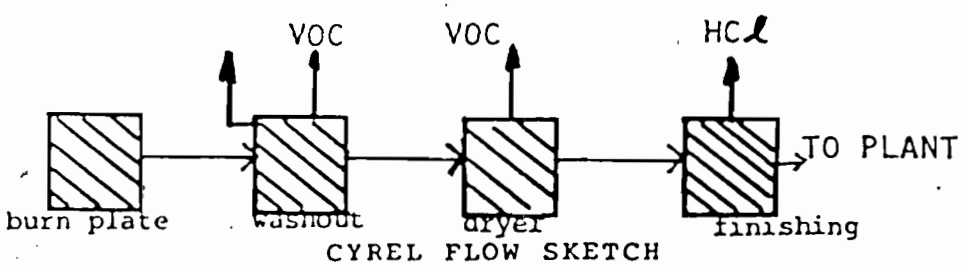
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





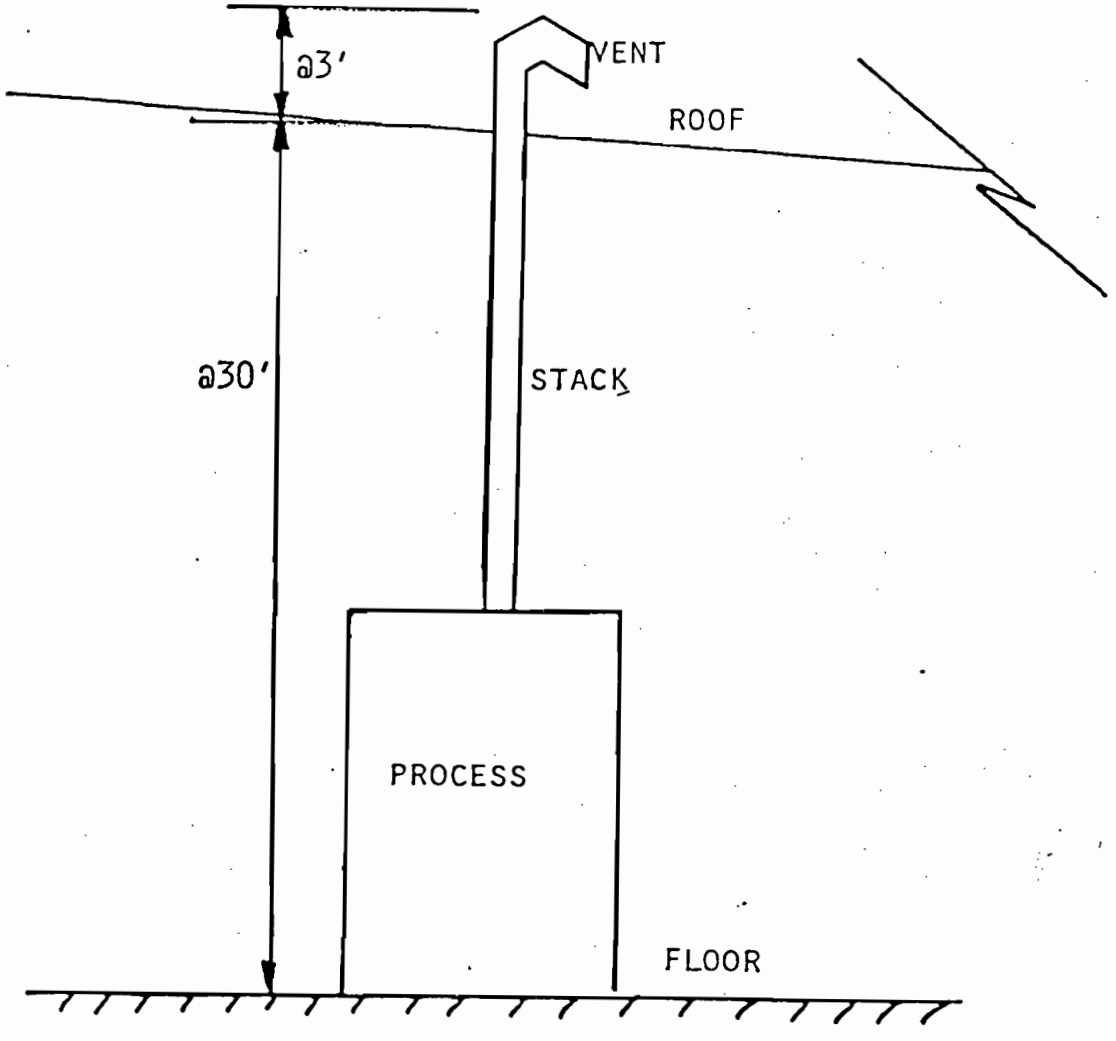
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

AC48-82741

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

MAY 29 1984

BAQM

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

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) Cyrel Plate Room Dryer Unit

SOURCE LOCATION: Street 1200 Central Florida Pkwy. City Orlando

UTM: East 461370 North 314250

Latitude 28 ° 33 ' 68 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf V.P. of Production

APPLICANT ADDRESS: 1200 Central Florida Pkwy. Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, Inc.

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: Robert E. Kindorf

Robert E. Kindorf, V.P.
Name and Title (Please Type)

Date: _____ Telephone No 305/859-7780

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, that

[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: Frank L. Cross, Jr.

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Assoc., P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: _____ Telephone No. 305/851-1484

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.

The dryer is one step in the plate making process for flexographic printing. The unit exhausts VOC through a roof vent. There are no controls presently installed on the system.

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

Start of Construction Feb. 1981 Completion of Construction Feb. 1981

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.)

No pollution control devices are presently installed on this process.

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

None

E. Requested permitted equipment operating time: hrs/day 6 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr N/A ; if seasonal, describe: N/A

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. oxidants

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		
Plate Stock	None		.55	
Perchloroethylene	VOC	100	.135	
N. Butyl Alcohol	VOC	100	.012	

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

1. Total Process Input Rate (lbs/hr): .697

2. Product Weight (lbs/hr): .55/hr

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/yr	T/yr	
VOC	.147	.11	17.2.65(1)	1.33	221	.11	
			(f) (3) 2.9 #/gal.				

[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).

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)
N/A				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

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

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): N/A

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.

N/A

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

Stack Height: 30 ft. Stack Diameter: .42 ft.

Gas Flow Rate: 300 ACFM _____ DSCFM Gas Exit Temperature: .200 °F.

Water Vapor Content: Neg. % Velocity: 22 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

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 [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 Used

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.

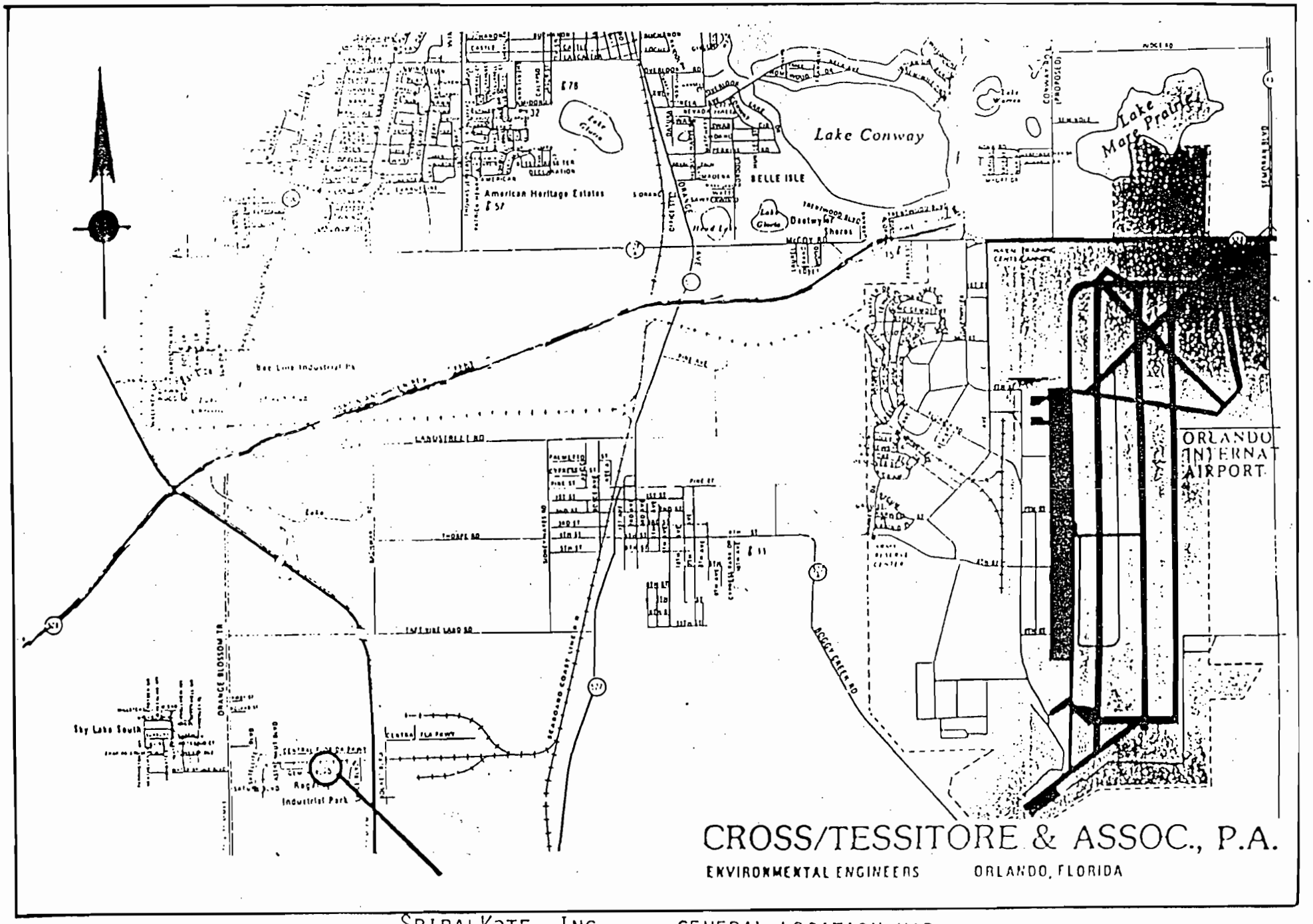
H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

PROCESS WEIGHT DERIVATION

	Perchloroethylene (Gals.)		Normal Butyl Alcohol (Gals.)
Total Purchases since Feb. 1981	3905		935
On Hand since March 1984	732		565
Hazardous Waste Shipments (2420 gals.)	1089		363
Emitted from Wash-out Unit	405		-
Emitted from Dryer Unit (606#)	45	(54#)	8
Emitted from Still Unit	1524		-
Spills	110		

Breakdown by unit was established by actual batch analysis. The analysis consists of weighing the batches before and after processing. The difference is solvent emitted into the atmosphere.

Emissions--660# (Total 3 years Emissions) divided by 4500 hours. (Total 3 years/hours operated) equals .147 pounds per hour.



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

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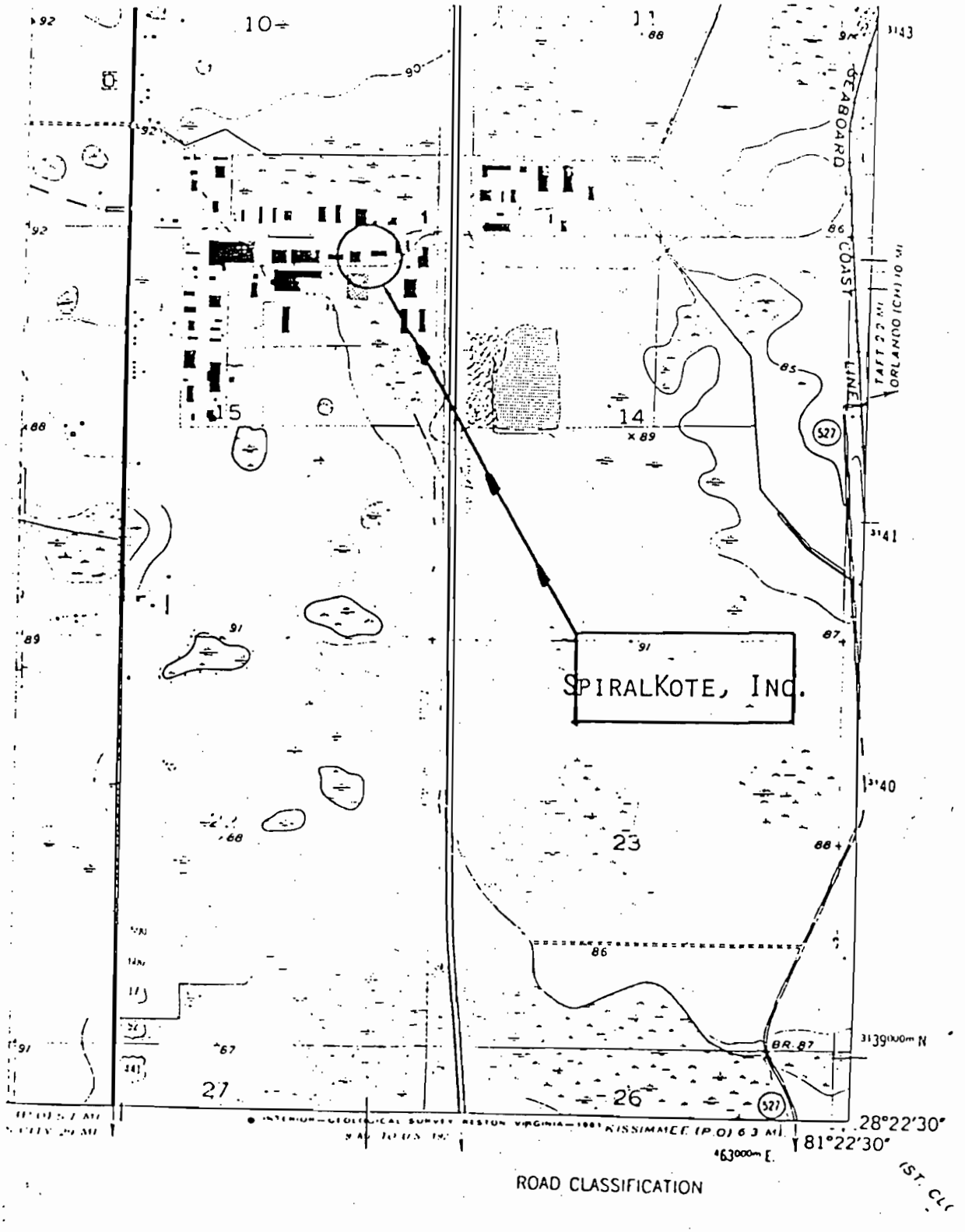
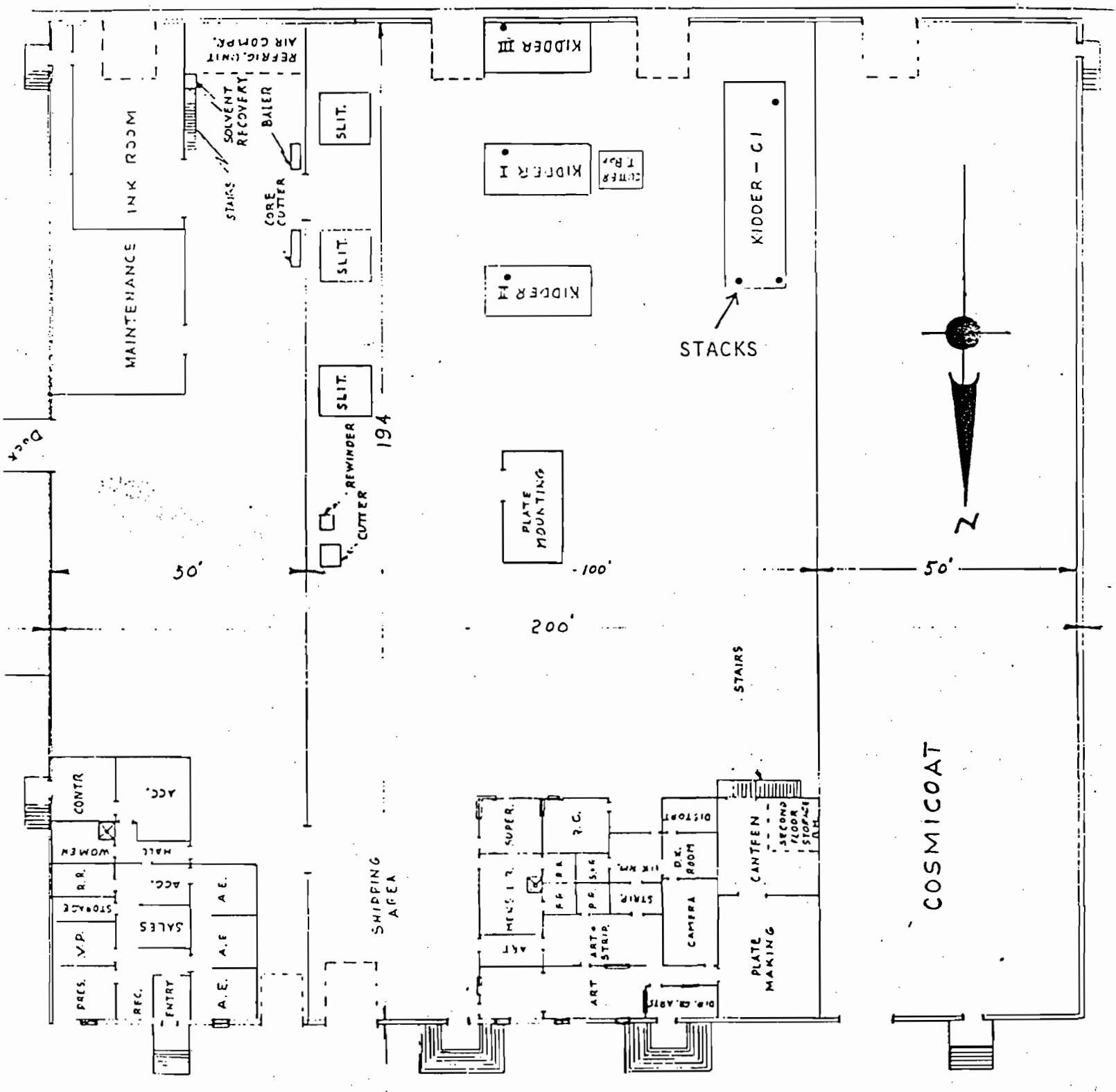


CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

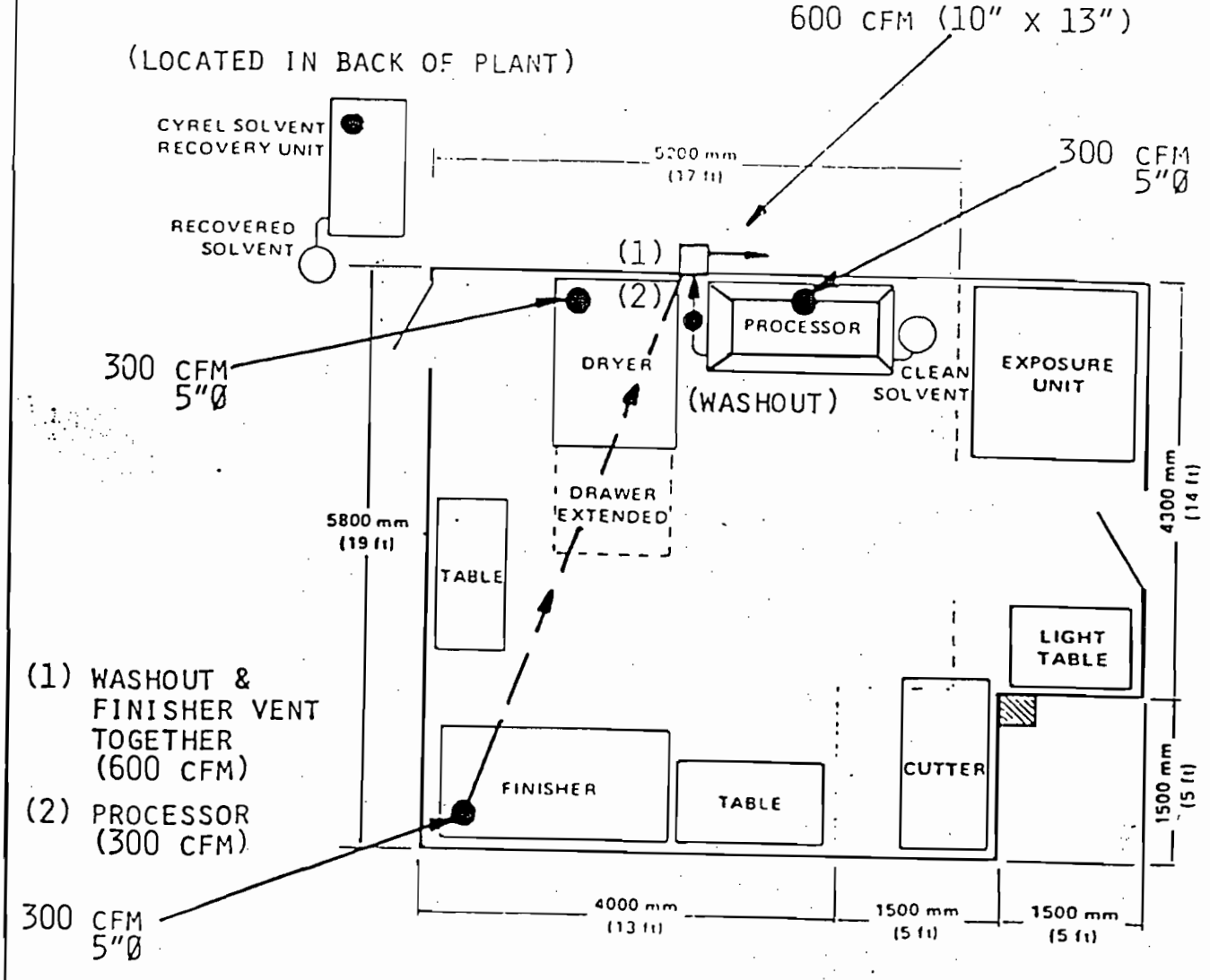


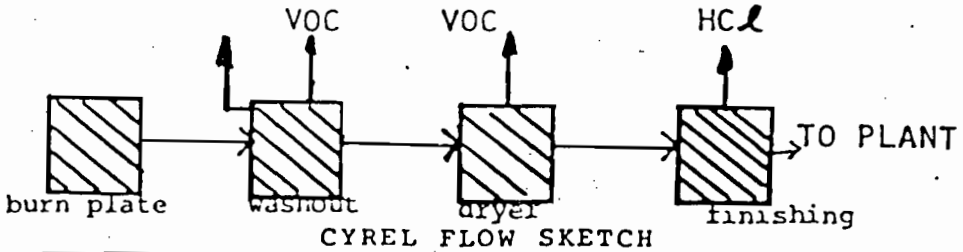
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





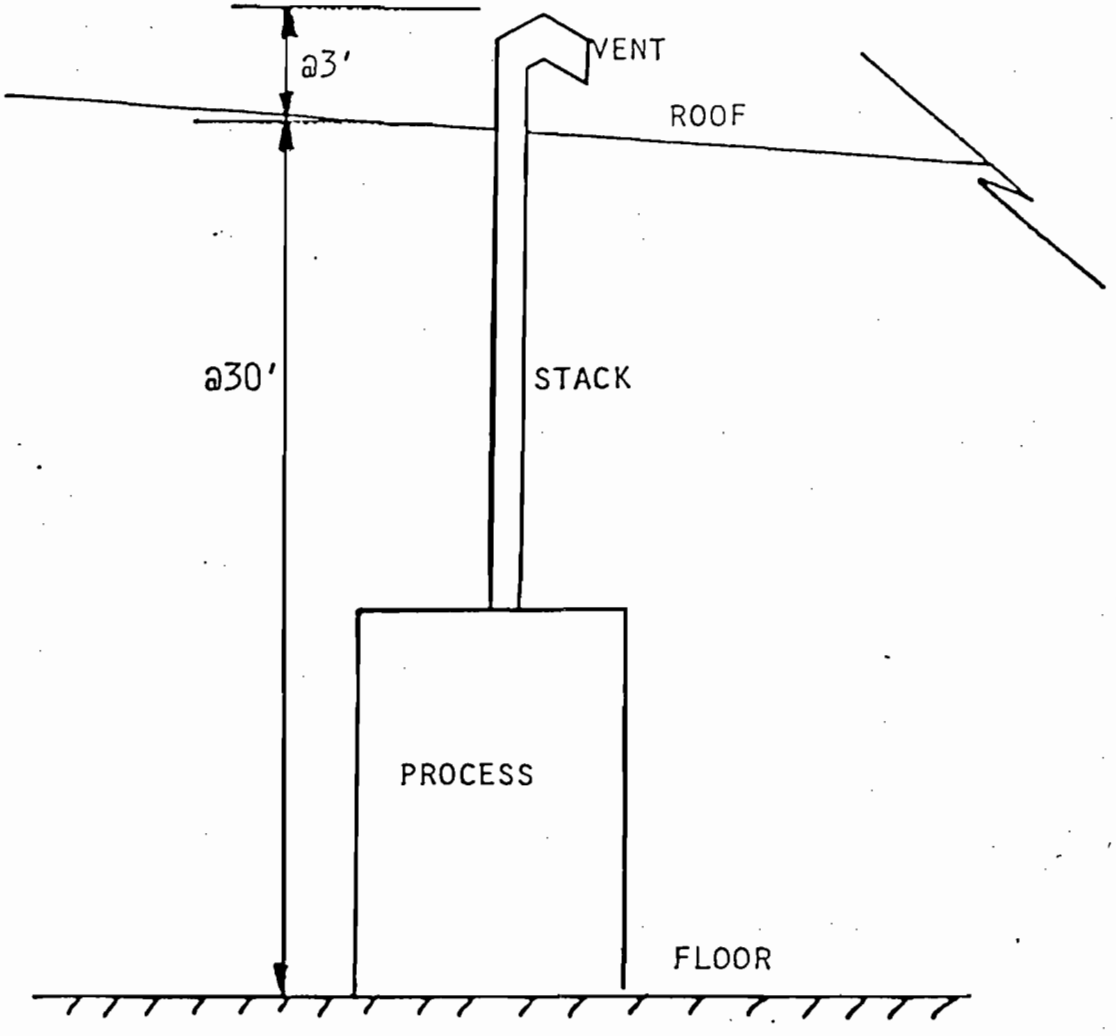
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

May 23, 1984

CERTIFIED MAIL - RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice-President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Re: Completeness Review for the Application to Construct Air Pollution Sources: Permit Nos. AC 48-82738, -82739, -82740, -82741

Dear Mr. Kindorf:

The bureau is receipt of your letter and supplementary data dated April 19, 1984, in response to an incompleteness letter dated March 19, 1984. The bureau still finds the above referenced applications and supplementary data to be incomplete and the following information will have to submitted before further processing will resume:

1. Submit an approved compliance schedule for meeting the requirements of FAC Rule 17-2.510(4)(b).

2. Propose LAER and submit an amended application if it is applicable.

3. In order to acquire an approved compliance schedule (see #1), call the DER's St. Johns River District Office at (305) 894-7555 or write to Mr. Len Kozlov at the following address:

   Mr. Len Kozlov
   Environmental Supervisor II
   St. Johns River District Office
   3319 Maguire Boulevard
   Suite 232
   Orlando, Florida 23803

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

CHF/BM/s

cc: N. Wright
L. Kozlov
C. Collins
F. Cross, Jr.
T. Bessa

No. 0158262

RECEIPT FOR CERTIFIED MAIL

**NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL**

(See Reverse)

SENT TO
Mr. Robert E. Kindorf

STREET AND NO.

P.O., STATE AND ZIP CODE

POSTAGE		$
CONSULT POSTMASTER FOR FEES — OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE

3/21/84

PS Form 3800, Apr. 1976

PS Form 3811, Jan. 1978

SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
   - ☒ Show to whom and date delivered..... ¢
   - ☐ Show to whom, date and address of delivery..... ¢
   - ☐ RESTRICTED DELIVERY
     Show to whom and date delivered..... ¢
   - ☐ RESTRICTED DELIVERY.
     Show to whom, date, and address of delivery.$

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
Mr. Robert Kindorf
1200 Central Florida Parkway
Orlando, FL 32809

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	0158262	

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE ☐Addressee ☐Authorized agent

4. DATE OF DELIVERY: 3-25-84 POSTMARK

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6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

FILED ORLANDO, FLORIDA MAR 23 1984 SPS

☆GPO: 1979-300-459

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

March 19, 1984

CERTIFIED MAIL-RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice-President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Re: Completeness Review for the Applications to Contruct Air Pollution Sources: Permit Nos. AC 48-82733, -82735, -82736, -82737

Dear Mr. Kindorf:

The bureau is in receipt of the above referenced applications for four existing flexographic printing and coating presses at the applicant's existing facility located at the above address in Orange County. The applications have been deemed incomplete and the following information, including all assumptions and calculations, shall be submitted before further processing will resume:

1. If there is any proprietary information required in any response(s) to the following requests, please indentify and submit as a separate document and the bureau will maintain confidentiality.

2. Submit an approved compliance schedule for meeting the requirements of FAC Rule 17-2.510(4)(b).

3. Identify the presses by facility identification numbers that will employ low solvent techniques (LST) to reduce VOC (volatile organic compounds) emissions. LST means that the volatile fraction of ink, as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water.

4. Identify the presses by facility identification numbers that will use ink as it is applied to the substrate, less water, containing 60 percent by volume or more non-volatile material.

5. Identify the presses by facility identification numbers that will employ an incineration system which oxides at least 90 percent of the VOC (measured as total combustible carbon) to carbon dioxide and water.

6. Using EPA Methods 24 and/or 24A, whichever is/are applicable and are attached, determine the volatile matter content, water content, density, volume solids, and weight solids for each type of coating material and ink used by the presses and as purchased.

7. Quantify the amount, in gallons, of each type of coating material and ink to be used per press on a 24-hour and annual basis.

8. Quantify the amount, in gallons, of each type of make-up solvent per press that will be used in each of the coating materials and inks on a 24-hour and annual basis.

9. Quantify the amount, in gallons, of each type of clean-up solvent that will be used on a 24-hour and annual basis.

10. Quantify the pollutant potential emissions from the maximum firing of the natural gas and resubmit in the appropriate section(s) of a permit.

11. What is the heat capacity in Btu/cf for the natural gas?

12. Quantify and identify the hazardous wastes generated and what is your RCRA number?

13. In the Kidder Cl application, it was indicated that there are 3 dryers with only 2 burners. Is this correct and if so, explain?

14. For each press, submit the annual consumption, in gallons, of VOC materials used since each one was installed.

15. Submit a methodology that will be used to show compliance with the VOC allowable emissions on a 24-hour basis.

16. Propose LAER and submit with an amended application if it is applicable.

17. Identify the presses by facility identification number that manufacture/process pressure sensitive tape and/or label materials.

18. Do you produce and/or manufacture any adhesive cements at the existing facility? Will there be any production and/or manufacturing of any adhesive cements? If the answer is yes, quantify on an annual basis the amount(s) (rounded to the nearest gallon) to be produced and/or manufactured, identifying the constituents on a "% by weight" basis and including the density of any liquid constituent.

19. Will any of the presses (identify by facility identification number) be used for the manufacture/process of:

    a) Catalogues, including mail order and premium,

    b) Direct mail advertisements, including circulars, letters, pamphlets, cards and printed envelopes,

    c) Display advertisements, including general posters, outdoor advertisements, car cards, window posters; counter and floor displays; point-of-purchase, and other printed display material,

    d) Magazines,

    e) Miscellaneous advertisements, including brochures, pamphlets, catalogue sheets, circular folders, announcements, package inserts, book jackets, market circulars, magazine inserts, and shopping news,

    f) Newspapers, magazine and comic supplements for newspapers, and preprinted newspaper insets, including hi-fi and spectacolor rolls and sections,

    g) Periodicals, and

    h) Telephone and other directories, including business reference services?

If there are any questions, please call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Bureau Chief
Bureau of Air Quality Management

CHF/dt

cc: Chuck Collins
Tom Bessa
Leonard Kozlov
Nancy Wright
Frank L. Cross, Jr.

Method 24—Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings

117

1. Applicability and Principle

1.1 Applicability. This method applies to the determination of volatile matter content, water content, density, volume solids, and weight solids of paint, varnish, lacquer, or related surface coatings.

1.2 Principle. Standard methods are used to determine the volatile matter content, water content, density, volume solids, and weight solids of the paint, varnish, lacquer, or related surface coatings.

2. Applicable Standard Methods

Use the apparatus, reagents, and procedures specified in the standard methods below:

2.1 ASTM D 1475–60. Standard Method of Test for Density of Paint, Lacquer, and Related Products.

2.2 ASTM D 2369–81. Provisional Method of Test for Volatile Content of Paints.

2.3 ASTM D 3792–79. Standard Method of Test for Water in Water Reducible Paint by Direct Injection into a Gas Chromatograph.

2.4 ASTM Provisional Method of Test for Water in Paint or Related Coatings by the Karl Fischer Titration Method.

3. Procedure

3.1 Volatile Matter Content. Use the procedure in ASTM D 2369–81 to determine the volatile matter content (may include water) of the coating. Record the following information:

W_1 = Weight of dish and sample before heating, g.

W_2 = Weight of dish and sample after heating, g.

W_3 = Sample weight, g.

Run analyses in pairs (duplicate sets) for each coating until the criterion in section 4.3 is met. Calculate the weight fraction of the volatile matter (W_v) for each analysis as follows:

$$W_v = \frac{W_1 - W_2}{W_3} \quad \text{Eq. 24-1}$$

Record the arithmetic average (W_v).

3.2 Water Content. For waterborne (water reducible) coatings only, determine the weight fraction of water (W_w) using either "Standard Method of Test for Water in Water Reducible Paint by Direct Injection into a Gas Chromatograph" or "Provisional Method of Test for Water in Paint or Related Coatings by the Karl Fischer Titration Method." A waterborne coating is any coating which contains more than 5 percent water by weight in its volatile fraction. Run duplicate sets of determinations until the criterion in section 4.3 is met. Record the arithmetic average (W_w).

3.3 Coating Density. Determine the density (D_c, kg/liter) of the surface coating using the procedure in ASTM D 1475–60.

Run duplicate sets of determinations for each coating until the criterion in section 4.3 is met. Record the arithmetic average (D_c).

3.4 Solids Content. Determine the volume fraction (V_s) solids of the coating by calculation using the manufacturer's formulation.

4. Data Validation Procedure

4.1 Summary. The variety of coatings that may be subject to analysis makes it necessary to verify the ability of the analyst and the analytical procedures to obtain reproducible results for the coatings tested. This is done by running duplicate analyses on each sample tested and comparing results with the within-laboratory precision statements for each parameter. Because of the inherent increased imprecision in the determination of the VOC content of waterborne coatings as the weight percent water increases, measured parameters for waterborne coatings are modified by the appropriate confidence limits based on between-laboratory precision statements.

4.2 Analytical Precision Statements. The within-laboratory and between-laboratory precision statements are given below:

	Within-laboratory	Between-laboratory
Volatile matter content, W_v	1.5 pct W_v	4.7 pct W_v
Water content, W_w	2.9 pct W_w	7.5 pct W_w
Density, D_c	0.001 kg/liter	0.002 kg/liter

4.3 Sample Analysis Criteria. For W_v and W_w, run duplicate analyses until the difference between the two values in a set is less than or equal to the within-laboratory precision statement for that parameter. For D_c run duplicate analyses until each value in a set deviates from the mean of the set by no more than the within-laboratory precision statement. If after several attempts it is concluded that the ASTM procedures cannot be used for the specific coating with the established within-laboratory precision, the Administrator will assume responsibility for providing the necessary procedures for revising the method or precision statements upon written request to: Director, Emission Standards and Engineering Division, (MD–13) Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

4.4 Confidence Limit Calculations for Waterborne Coatings. Based on the between-laboratory precision statements, calculate the confidence limits for waterborne coatings as follows:

To calculate the lower confidence limit, subtract the appropriate between-laboratory precision value from the measured mean value for that parameter. To calculate the upper confidence limit, add the appropriate between-laboratory precision value to the measured mean value for that parameter. For W_v and D_c, use the lower confidence limits, and for W_w, use the upper confidence limit. Because V_s is calculated, there is no adjustment for the parameter.

5. Calculations

5.1 Nonaqueous Volatile Matter.

5.1.1 Solvent-borne Coatings.

$W_o = W_v$ Eq. 24-2

Where:

W_o = Weight fraction nonaqueous volatile matter, g/g.

5.1.2 Waterborne Coatings.

$W_o = W_v - W_w$ Eq. 24-3

5.2 Weight fraction solids.

$W_s = 1 - W_v$ Eq. 24-4

Where: W_s = Weight solids, g/g.

6. Bibliography

6.1 Provisional Method Test for Volatile Content of Paints. Available from: Chairman, Committee D–1 on Paint and Related Coatings and Materials, American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. ASTM Designation D 2369–81.

6.2 Standard Method of Test for Density of Paint, Varnish, Lacquer, and Related Products. In: 1980 Book of ASTM Standards, Part 27. Philadelphia, Pennsylvania, ASTM Designation D 1475–60. 1980.

6.3 Standard Method of Test for Water in Water Reducible Paint by Direct Injection into a Gas Chromatograph. Available from: Chairman, Committee D–1 on Paint and Related Coatings and Materials, American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. ASTM Designation D 3792–79.

6.4 Provisional Method of Test Water in Paint or Related Coatings by the Karl Fischer Titration Method. Available from: Chairman, Committee D–1 on Paint and Related Coatings and Materials, American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Appendix A—Reference Methods

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Method 24A—Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings

1. *Applicability and Principle.*

1.1 Applicability. This method applies to the determination of the volatile organic compound (VOC) content and density of solvent-borne (solvent reducible) printing inks or related coatings.

1.2 Principle. Separate procedures are used to determine the VOC weight fraction and density of the coating and the density of the solvent in the coating. The VOC weight fraction is determined by measuring the weight loss of a known sample quantity which has been heated for a specified length of time at a specified temperature. The density of both the coating and solvent are measured by a standard procedure. From this information, the VOC volume fraction is calculated.

2. *Procedure.*

2.1 Weight Fraction VOC.

2.1.1 Apparatus.

2.1.1.1 Weighing Dishes. Aluminum foil, 58 mm in diameter by 18 mm high, with a flat bottom. There must be at least three weighing dishes per sample.

2.1.1.2 Disposable syringe, 5 ml.

2.1.1.3 Analytical Balance. To measure to within 0.1 mg.

2.1.1.4 Oven. Vacuum oven capable of maintaining a temperature of 120±2°C and an absolute pressure of 510 ±51 mm Hg for 4 hours. Alternatively, a forced draft oven capable of maintaining a temperature of 120 ± 2°C for 24 hours.

2.1.1.5 Analysis. Shake or mix the sample thoroughly to assure that all the solids are completely suspended. Label and weigh to the nearest 0.1 mg a weighing dish and record this weight (M_{a1}).

Using a 5-ml syringe without a needle remove a sample of the coating. Weigh the syringe and sample to the nearest 0.1 mg and record this weight (M_{cv1}). Transfer 1 to 3 g of the sample to the tared weighing dish. Reweigh the syringe and sample to the nearest 0.1 mg and record this weight (M_{cv2}). Heat the weighing dish and sample in a vacuum oven at an absolute pressure of 510 ±51 mm Hg and a temperature of 120 ±2°C for 4 hours. Alternatively, heat the weighing dish and sample in a forced draft oven at a temperature of 120 ±2°C for 24 hours. After the weighing dish has cooled, reweigh it to the nearest 0.1 mg and record the weight (M_{a2}). Repeat this procedure for a total of three determinations for each sample.

2.2 Coating Density. Determine the density of the ink or related coating according to the procedure outlined in ASTM D 1475–60 (Reapproved 1980), which is incorporated by reference. It is available from the American Society of Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. It is also available for inspection at the Office of the Federal Register, Room 8401, 1100 L Street, NW., Washington, D.C. This incorporation by reference was approved by the Director of the Federal Register on November 8, 1982. This material is incorporated as it exists on the date of approval and a notice of any change in these materials will be published in the Federal Register.

2.3 Solvent Density. Determine the density of the solvent according to the procedure outlined in ASTM D 1475–60 (reapproved 1980). Make a total of three determinations for each coating. Report the density D_o as the arithmetic average of the three determinations.

3. *Calculations.*

3.1 Weight Fraction VOC. Calculate the weight fraction volatile organic content W_o using the following equation:

$$W_o = \frac{M_{a1} - M_{cv1} - M_{cv2} + M_{a2}}{M_{cv1} - M_{cv2}}$$

Report the weight fraction VOC W_o as the arithmetic average of the three determinations.

3.2 Volume Fraction VOC. Calculate the volume fraction volatile organic content V_o using the following equation:

$$V_o = \frac{\overline{W}_o \overline{D}_c}{\overline{D}_o}$$

4. *Bibliography.*

4.1 Standard Test Method for Density of Paint, Varnish, Lacquer, and Related Products. ASTM Designation D 1475–60 (Reapproved 1980).

4.2 Teleconversation. Wright, Chuck, Inmont Corporation with Reich, R. A., Radian Corporation. September 25, 1979. Gravure Ink Analysis.

4.3 Teleconversation. Oppenheimer, Robert, Gravure Research Institute with Burt, Rick, Radian Corporation, November 5, 1979. Gravure Ink Analysis.

[FR Doc. 82-30410 Filed 11-5-82; 9:45 am]

BILLING CODE 6560-50-M

PS Form 3811, Jan. 1979

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

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Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
- ☒ Show to whom and date delivered..... ¢
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- ☐ RESTRICTED DELIVERY
  Show to whom and date delivered..... ¢
- ☐ RESTRICTED DELIVERY.
  Show to whom, date, and address of delivery.$

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
Mr. Robert E. Kindorf
1200 Central Florida Parkway
Orlando, FL 32809

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	0158266	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent

4. DATE OF DELIVERY 3-23-84 POSTMARK MAR 23 1984 ORLANDO FLA. USPS

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

☆GPO : 1979-300-459

No. 0158266

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO Mr. Robert Kindorf
STREET AND NO.
P.O., STATE AND ZIP CODE

POSTAGE		$
CONSULT POSTMASTER FOR FEES — OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE
3/22/84

PS Form 3800, Apr. 1976

P 408 533 661

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Robert E. Kindorf	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 1/22/86	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983

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:
Mr. Robert E. Kindorf
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, FL 32809

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
P 408 533 661

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X [signature]

6. Signature – Agent
X

7. Date of Delivery
1-24-86

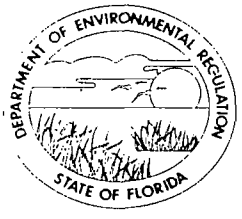
8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

January 21, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Mr. Kindorf:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permits to construct four flexographic printing and coating units and the Cyrel Plate Room operations at your facility in Orlando, Orange County, Florida.

Before final action can be taken on your draft permits, you are required by Florida Administrative Code Rule 17-103.150 to publish the attached Notice of Proposed Agency Action in the legal advertising section of a newspaper of general circulation in Orange County no later than fourteen days after receipt of this letter. The department must be provided with proof of publication within seven days of the date the notice is published. Failure to publish the notice may be grounds for denial of the permits.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/pa

Attachments

cc: Jerome J. Guidry, P.E.
Tom Sawicki

State of Florida
Department of Environmental Regulation
Notice of Proposed Agency Action
on Permit Applications

The Department of Environmental Regulation gives notice of its intent to issue permits to Spiralkote, Inc. for four (4) operating flexographic printing and coating units with associated natural gas heaters and for the pollutant emitting sources that make up the Cyrel Plate Room operations at the applicant's existing facility in Orlando, Orange County, Florida. A determination of lowest achievable emission rate (LAER) was required.

Persons 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 conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period constitutes a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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 proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Dept. of Environmental Regulation
St. Johns River District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of Application for Permit by:	)	
Spiralkote, Inc.	)	DER File No. AC 48-82733
1200 Central Florida Parkway	)	AC 48-82735
Orlando, Florida 32809	)	AC 48-82736
	)	AC 48-92738

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its Intent to Issue, and proposed order of issuance for, permits pursuant to Chapter 403, Florida Statutes, for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Spiralkote, Inc., applied on February 20, 1984, to DER for permits for four operating flexographic printing and coating units with natural gas heaters and for the pollutant emitting sources that make up the Cyrel Plate Room operations at the applicant's facility in Orlando, Orange County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The applicant was officially notified by the Department that air construction permits were required for the proposed work.

This intent to issue shall be placed before the Secretary for final action unless an appropriate petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes, is filed within fourteen (14) days from receipt of this letter or

publication of the public notice (copy attached) required pursuant to Rule 17-103.150, Florida Administrative Code, whichever occurs first. The petition must comply with the requirements of Section 17-103.155 and Rule 28-5.201, Florida Administrative Code (copy attached) and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32301.

Petitions which are not filed in accordance with the above provisions are subject to dismissal by the Department. In the event a formal hearing is conducted pursuant to Section 120.57(1), all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel. If an informal hearing is requested, the agency, in accordance with its rules of procedure, will provide affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer, written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes.

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 proposed agency action. Therefore, persons who may not wish to file a petition, may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of

Administrative Hearings, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

Executed the 22 day of JAN, 1986, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

Mr. Robert E. Kindorf
Mr. Jerome J. Guidry, P.E.
Mr. Tom Sawicki

CERTIFICATION

This is to certify that the foregoing Intent to Issue and all copies were mailed before the close of business on 22 JAN, 1986.

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management
2600 Blair Stone Road
Tallahassee, Florida 32301

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

Patricia G. Adams — Clerk

Jan. 22, 1986 — Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

Technical Evaluation
and
Preliminary Determination

Spiralkote Inc.
Orange County
Orlando, Florida

Permit Numbers:
AC 48-82733
82735
82736
82738

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

January 20, 1986

I. PROJECT DESCRIPTION

A. Applicant

Spiralkote Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

B. Project Description

The applicant has made application to obtain permits for four (4) operating flexographic printing and coating units with associated natural gas heaters. Three of the units will be retrofitted with catalytic incinerators to control pollutant emissions. One catalytic incinerator will be controlling the pollutant emissions from two of the units through a common header. Also, the applicant has submitted applications to obtain permits for the pollutant emitting sources that make up the Cyrel Plate Room (CPR) operations.

The SIC (standard industrial codes) for the facility are: Major Group 27 - Printing/Publishing; Group No. 275 - Commercial Printing; Industrial No. 2751 - Commercial Printing, Letterpress and Screen.

The UTM coordinates are Zone 17-461.37 km East and 3142.05 km North.

C. Process and Controls

The flexographic printing and coating units are used to produce composite can labels. The maximum rated production capacities are 9.17 reams per hour for Kidders I, II, and III, and 12.83 reams per hour for the Kidder CI (based on 3000 square feet per ream). The following control strategies will be instituted at the facility to minimize pollutant emissions and to comply with Chapter 403, Florida Statutes, and Florida Administrative Code (FAC) Rules 17-2 and 17-4:

- o Kidder I - dedicate as much RACT compliance jobs that attain the desired quality product
- o Kidder II & III - will be retrofitted with a catalytic incinerator, connected through a common header, and shall meet LAER (lowest achievable emission rate)
- o Kidder CI - will be retrofitted with a catalytic incinerator and shall meet LAER

The CPR operation is an integral part of the flexographic printing and coating operations. The pollutant emissions are exhausted through vent stacks in the roof. The only control measure employed is crew efficiency to prevent excessive pollutant emissions.

II. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and FAC Rules 17-2 and 17-4.

The application packages were deemed complete November 14, 1985.

The existing facility is located in Orange County, which is an area designated nonattainment for the pollutant ozone pursuant to FAC Rule 17-2.410(1)(b). The existing facility's operation emits as its major pollutant VOC (volatile organic compounds), which are defined pursuant to FAC Rule 17-2.100(209) and are considered to be precursors to ozone. The following table will reflect the projected current annual potential VOC emissions from the facility and each source's installation date:

Table 1

Source	Projected Current Annual Potential VOC Emissions (TPY)	Installation Date
Kidder I	47.6	October '77
Kidder II	47.6	April '80
Kidder CI	44.8	February '82
Kidder III	47.6	February '83
Cyrel Plate Room		February '81
o Tank-Washout	4.3	
o Solvent Recovery Still	21.2	
o Dryer	1.4	
Total:	214.5	

Note: o Kidders I, II & III emissions are based on 4250 hr/yr operation; Kidder CI emissions are based on 4000 hr/yr operation; Cyrel Plate Room hours of operation are variable per source.

o There are currently no pollutant emission control systems associated with the printing and coating units.

Since the applicant cannot adequately quantify and qualify each source's actual historical hours of operation, the federal policy to establish annual potential pollutant emissions is to assume that the facility (State's source) could have operated 8760 hours. Therefore, each printing and coating unit would potentially emit approximately 98 TPY of VOC. Consequently, this value is to be used to assess rule applicability.

There will be small amounts of pollutants emitted from the combustion of natural gas (NG) in the dryers associated with the printing and coating units. The projected annual potential pollutant emissions expected from these sources in pounds per year (lb/yr) are:

Table 2

	Projected Annual Potential Pollutant Emissions (lb/yr)				
	PM	SO_2	NOx	CO	NMHC
4 Printing & Coating Units (32.95×10^6 cf/yr - total NG usage)	165	20	3295	659	175

Note: Emissions based on Table 1.4-1, Uncontrolled Emission Factors For Natural Gas Combustion, AP-42 Emission Factors:

- o PM - particulate matter: 5 lb/10^6 cf NG
- o SO_2 - sulfur dioxide: 0.6 lb/10^6 cf NG
- o NO_x - nitrogen oxides: 100 lb/10^6 cf NG
- o CO - carbon monoxide: 20 lb/10^6 cf NG
- o NMHC - nonmethane hydrocarbon: 5.3 lb/10^6 cf NG

All of the sources' VOC emissions are initially subject to review under FAC Rule 17-2.510, New Source Review for Nonattainment Areas. All of the other pollutant emissions are initially subject to review under FAC Rule 17-2.500, Prevention of Significant Deterioration (PSD). If any source's pollutant emissions are exempt from review under either of these two rules, then the emissions are subject to review under FAC Rule 17-2.520, Sources Not Subject to PSD or Nonattainmeant Requirements.

The rules for existing and certain new and modified flexographic printing presses in ozone nonattainment areas are contained in FAC Rule 17-2.650(1)(f)16, Graphic Arts Systems. The effective date of this rule was March 14, 1979. For the purpose of FAC Rule 17-2.650(1), existing sources are those which were constructed or for which a construction permit was issued prior to July 1, 1979, in accordance with FAC Rule 17-2.100(67).

Kidder I is an existing minor emitting source and facility in accordance with FAC Rules 17-2.100(116) and (115), respectively, because the potential emissions are less than 100 TPY of any pollutant. The source's VOC emissions are not subject to the provisions of FAC Rule 17-2.510(4), Preconstruction Review Requirements, in accordance with FAC Rule 17-2.510(2)(d)1. Therefore, its emissions shall be subject to the provisions of FAC Rule 17-2.520. Because the potential VOC emissions are less than 100 TPY, the source is not subject to the provisions of FAC Rule 17-2.650(1)(f)(16). Therefore, Kidder I shall be permitted

in accordance with FAC Rule 17-2.620, General Pollutant Emission Limiting Standards.

Kidder II is considered a new minor source and would constitute a modification to a minor facility. Therefore, the emissions are not subject to FAC Rule 17-2.510(4) in accordance with FAC Rule 17-2.510(2)(d)3. Consequently, the emissions are subject to review in accordance with FAC Rule 17-2.520. Because the combined potential VOC emissions of Kidder I and II exceeds 100 TPY, Kidder II is subject to the provisions of FAC Rule 17-2.650(1)(f)1.b.

The Cyrel Plate Room (CPR) operations were installed in February, 1981. The following table will reflect the projected annual potential pollutant emissions from the CPR operations, but will not reflect the pollutant emissions already contained in Table 1:

Table 3

	Pollutant	Projected Annual Potential Emissions (lb)
Cyrel Plate Room		
o Finishing Tank	HCl	248.0 lb/yr
	Bleach	32.3 lb/yr

Note: Emissions were estimated to be 2% of the total usage.

The installation of the CPR operations would constitute a minor modification to a major facility. Based on the total projected VOC emissions from the CPR operations of 27.0 TPY, the emissions are less than the VOC significant emission rate of 40 TPY contained in Table 500-2 pursuant to FAC Rule 17-2.510(2)(e)2. The CPR sources' emissions are not subject to FAC Rule 17-2.510(4) in accordance with FAC Rule 17-2.510(2)(d)4.a. Therefore, the emissions are subject to the provisions of FAC Rule 17-2.520. Since there is not a specific source emission limiting standard contained in FAC Rule 17-2.650, the CPR sources shall be permitted in accordance with FAC Rule 17-2.620.

Kidder Central Impression (CI) is a new minor source and would constitute a modification to a major facility. Since the installation of the CPR operations, the facility only needed to increase its VOC emissions by approximately 13.0 TPY to exceed the significant emission rate contained in Table 500-2, thus requiring review of the affected source's emissions under FAC Rule 17-2.510(4) pursuant to FAC Rule 17-2.510(2)(d)4.a. Therefore, the VOC emissions of Kidder CI are subject to the provisions of FAC Rule 17-2.510(4), which includes the

requirement to meet the Lowest Achievable Emission Rate (LAER) as set forth in FAC Rule 17-2.640.

Kidder III is a new minor source and would constitute a modification to a major facility. Because the VOC emissions are greater than the significant emission rate contained in Table 500-2, the emissions are subject to the provisions of FAC Rule 17-2.510(4) in accordance with FAC Rule 17-2.510(2)(d)4.a., which includes the requirement to meet the LAER as set forth in FAC Rule 17-2.640.

As required by FAC Rule 17-2.510(4)(a), the applicant proposed LAER for the Kidder III and Kidder CI units in accordance with FAC Rule 17-2.640. Since the VOC emissions from the Kidder II unit will be controlled with the same catalytic incinerator controlling the VOC emissions from the Kidder III unit, Kidder II will be required to meet the same VOC emission rate imposed on Kidder III through the determination of LAER. The applicant proposed a VOC capture efficiency of 70% and a destruction efficiency of 95% of the VOC captured/delivered to the inlet of the incinerator for each of the proposed catalytic incinerator systems.

Upon issuance of construction permits for all of the air pollution sources located at the existing facility, the applicant will be in statewide compliance with all applicable rules and regulations pursuant to FAC Rule 17-2.510(4)(b).

In accordance with Table 510-1, pursuant to FAC Rule 17-2.510(5), there is adequate new source allowance in Orange County to allow the permitting of the air pollution sources at the existing facility and satisfies the requirements of FAC Rules 17-2.510(4)(c) and (d).

According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

All air pollution sources are subject to the provisions of FAC Rule 17-2.250, Excess Emissions.

According to FAC Rule 17-2.620(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 emission control devices or systems deemed necessary and ordered by the Department.

According to 17-2.620(2), no person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. An 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 unreasonabaly interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance according to 17-2.100(130). Therefore, objectionable odors shall not be allowed off plant property.

For Kidder CI, compliance testing shall be conducted on the new catalytic incinerator system to establish the VOC capture and destruction efficiencies. The compliance test method to demonstrate the destruction efficiency shall be EPA Method 25 in accordance with Appendix A, 40 CFR 60. The applicant proposes to demonstrate the capture efficiency by comparing the amount of VOC used during a test and the VOC concentration measured at the inlet of the incinerator over the same period of time. The compliance tests shall be conducted while the unit is operating at 100% of its rated production capacity. Future compliance testing shall be conducted while the unit is operating at 90-100% of the rated production capacity.

For Kidder II and III, compliance testing shall be conducted on the new catalytic incinerator system to establish the VOC capture and destruction efficiencies. A compliance test shall be conducted while only one of the units is operating. Then, a compliance test shall be conducted while both units are operating. The compliance test method to demonstrate the destruction efficiency shall be EPA Method 25 in accordance with Appendix A, 40 CFR 60. The compliance tests shall be conducted while the unit(s) are operating at 100% of their rated production capacity. Future compliance testing shall be conducted while the unit(s) are operating at 90-100% of their rated production capacity.

For Kidder I, the applicant shall account for the VOC emissions from this unit. Accounting of the VOC emissions shall be maintained on a monthly basis and, due to EPA policy for ozone nonattainment areas, shall be verifiable on a 24-hour basis. VOC emissions from Kidder II, CI, and III shall be maintained on a monthly basis and verifiable on a 24-hour basis. The annual VOC emissions per unit from the facility shall be submitted in an AOR (annual operating report) within sixty (60) days after the anniversary date of the operating permits once they are acquired and shall be submitted to the DER's St. Johns River District office. Cleaning solvents shall be accounted for and included in the AOR.

A material balance scheme is an acceptable methodology for accounting for VOC emissions from the Cyrel Plate Room operations. Accounting shall be maintained monthly, verifiable on a 24-hour basis, and shall be included in the AOR.

III. SUMMARY OF EMISSIONS AND AIR QUALITY ANALYSIS

A. Emission Limitations

The regulated pollutant emissions from the facility are VOC. The following table will reflect the maximum allowable VOC emissions from the facility:

Table 4

Source	Maximum Allowable VOC Emissions lb/hr	TPY
Kidder I	22.4	47.7
Kidder II and III	15.0	31.9
Kidder CI	8.1	16.1
Cyrel Plate Room		
o Tank-Washout	3.9	4.3
o Solvent Recovery Still	7.1	21.2
o Dryer	1.9	1.4

Note: Kidder I, II, and III emissions based on 4250 hr/yr operation; Kidder CI emissions based on 4000 hr/yr operation; Tank-Washout emissions based on 2250 hr/yr operation and 4% loss of the total usage; Solvent Recovery Still emissions based on 6000 hr/yr operation, 75% Perchloroethylene and 25% n-Butyl Alcohol, and 65% projected recovery efficiency; Dryer emissions based on 1500 hr/yr operation and the emissions are estimated to be 2% of the total tank-washout usage.

The permitted emissions are in compliance with all applicable requirements of FAC Rules 17-2 and 17-4.

B. Air Quality Analysis

From a technical review of the application, an air quality analysis was not required for the proposed construction and the proposed changes will not interfere with reasonable further progress toward attaining the ambient air quality standards.

IV. CONCLUSION

Through the imposition of LAER, a significant reduction of VOC emissions will occur once the catalytic incinerators have been installed and operating properly. There will be 122.6 tons (approximately 14%) of the Orange County's allotted new source allowance assigned to this facility.

The permitted emissions from the proposed changes should not cause any violation of Florida's ambient air quality standards.

The General and Specific Conditions listed in the proposed permits (attached) will assure compliance with all applicable requirements of FAC Rules 17-2 and 17-4.

ATTACHMENT 1

AC 48-82738

List of Attachments

2. Applications to Construct Air Pollution Sources, DER Form 17-1.202 (1), and Frank L. Cross' cover letter dated February 16, 1984.
3. C. H. Fancy's letter dated March 19, 1984.
4. Robert E. Kindorf's letter with attachments dated April 19, 1984, (confidential).
5. C. H. Fancy's letter dated May 23, 1984.
6. Applications to Construct Air Pollution Sources, DER Form 17-1.202(1), and Frank L. Cross' cover letter dated May 23, 1984.
7. C. H. Fancy's letter dated October 4, 1984.
8. Carol A. Forthman's letter dated April 8, 1985.
9. Robert E. Kindorf's letter dated April 12, 1985.
10. Winston A. Smith's letter with attachment dated June 14, 1985.
11. Robert L. Rhodes' letter dated June 21, 1985.
12. Carol A. Forthman's letter dated June 27, 1985.
13. Attendee list of a meeting held at Region IV EPA in Atlanta, Georgia, on July 3, 1985.
14. Robert E. Kindorf's letter dated August 9, 1985.
15. Robert E. Kindorf's letter with attachments dated July 17, 1985, (confidential).
16. Robert E. Kindorf's letter dated August 9, 1985.
17. Robert L. Rhodes' letter with attachment dated October 2, 1985.
18. Carol A. Forthman's letter with attachment dated October 11, 1985.
19. Robert E. Kindorf's letter dated October 17, 1985.
20. Applications to Construct Air Pollution Sources, DER Form 17-1.202(1), and Jerome J. Guidry's cover letter dated November 13, 1985.
21. Consent Order, OGC Case No. 84-0641, filed by Carol A. Forthman, Assistant General Counsel-DER, and signed December 2, 1985.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82738
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N/
81° 21' 05"W
Project: Cyrel Plate Room

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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 permitting of four air pollution sources that make-up the Cyrel Plate Room operation at the permittee's existing facility. The tank washout, solvent recovery still (65% projected recovery efficiency), and dryer (electrically heated) emit volatile organic compounds and the finishing tank emits hydrochloric acid fumes through stacks in the roof. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group Number 275 - Commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The sources shall be as reflected in the permit applications, plans documents, drawings and amendments, except as otherwise noted on pages 5-8 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82738
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

A. Finishing Tank

1. The projected annual pollutant potential emissions are:

o HCl-248.0 lb/yr

2. The projected annual hours of operation are 1000.

B. Dryer

1. The maximum allowable VOC emissions shall not exceed the following:

o Perchloroethylene	1.7	lb/hr	1.2 TPY
o n-Butyl Alcohol	0.3	lb/hr	0.2 TPY

SPECIFIC CONDITIONS:

2. The permitted annual hours of operation are 1500.

C. Tank-Washout

1. The maximum allowable VOC emissions shall not exceed the following:

o Perchloroethylene	3.3	lb/hr	3.7	TPY
o n-Butyl Alcohol	0.6	lb/hr	0.6	TPY

2. The permitted annual hours of operation are 2250.

D. Solvent Recovery Still

1. The maximum allowable VOC emissions shall not exceed 7.1 lb/hr and 21.2 TPY (75% Perchloroethylene and 25% n-Butyl Alcohol)

2. The permitted annual hours of operation are 6000.

E. Cyrel Plate Room Operations

1. Objectionable odors shall not be allowed off plant property.

2. All air pollution sources are subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

3. According to FAC Rule 17-2.620(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 emission control devices or systems deemed necessary and ordered by the department. Currently, there are no control strategies associated with this operation other than crew efficiency to minimize pollutant emissions. The following procedures shall be utilized to minimize pollutant emissions, but shall not be limited to:

- o maintain tightly fitting covers, lids, etc., on all containers of VOC when they are not being handled, tapped, etc.,;
- o 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;

SPECIFIC CONDITIONS:

- o all fittings, valves, lines, etc., shall be properly maintained;
- o prevent excessive turbulence across exposed VOC;
- o all VOC spills shall be attended to immediately and the discardings properly disposed of, recycled, etc.; and,
- o maintain a monthly accounting of the VOC per type such that the beginning inventory and deliveries are accounted for.

4. A material balance scheme will be used to account for the VOC emissions, which involves the following:

Beginning Inventory	+	Inventory Received	-	Recycled Material	-	Final Inventory	=	Pollutant Emissions Released Into The Atmosphere

The annual VOC emissions per source shall be accounted for monthly, verifiable on a 24-hour basis, and shall be submitted in an AOR (annual operating report) within 60 days after the anniversary date of the operating permit(s) once acquired and shall be submitted to the DER's St. Johns River District office. All clean-up solvents shall be accounted for also.

5. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82738
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

Issued this_____day of_____, 19__

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

ATTACHMENT 1

AC 48-82733
AC 48-82735
AC 48-82736

List of Attachments

2. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), and Frank L. Cross's cover letter dated February 16, 1984.
3. C. H. Fancy's letter dated March 19, 1984.
4. Robert E. Kindorf's letter with attachments dated April 19, 1984, (confidential).
5. C. H. Fancy's letter dated June 8, 1984.
6. Robert E. Kindorf's letter with attachments dated June 28, 1984.
7. Frank L. Cross's document entitled "Air Emission Compliance Plan for VOC's" received August 21, 1984 by DER OGC.
8. Frank L. Cross's letter with attachments dated August 30, 1984.
9. Frank L. Cross's letter dated September 10, 1984.
10. C. H. Fancy's letter dated October 4, 1984.
11. Robert E. Kindorf's letter with attachments dated October 23, 1984.
12. Robert E. Kindorf's letter dated October 31, 1984, (confidential).
13. Robert L. Rhodes' letter dated November 1, 1984, (confidential).
14. Robert E. Kindorf's letter dated November 29, 1984.
15. Carol A. Forthman's letter dated April 8, 1985.
16. Robert E. Kindorf's letter dated April 12, 1985.
17. Robert E. Kindorf's letter with attachments dated May 8, 1985, (confidential).
18. Winston A. Smith's letter with attachment dated June 14, 1985.
19. Robert L. Rhodes' letter dated June 21, 1985.
20. Carol A. Forthman's letter dated June 27, 1985.
21. Spiralkote document submitted to Region IV EPA on July 3, 1985, (confidential).
22. Attendee list of a meeting held at Region IV EPA in Atlanta, Georgia, on July 3, 1985.
23. Robert E. Kindorf's letter with attachments dated July 17, 1985, (confidential).
24. Robert E. Kindorf's letter dated August 9, 1985.
25. Robert L. Rhodes' letter with attachment dated October 2, 1985.
26. Carol A. Forthman's letter with attachment dated October 11, 1985.
27. Robert E. Kindorf's letter dated October 17, 1985.
28. Applications to Construct Air Pollution Sources, DER Form 17-1.202(1), and Jerome J. Guidry's cover letter dated November 13, 1985.
29. Consent Order, OGC Case No. 84-0641, filed by Carol A. Forthman, Assistant General Counsel-DER, and signed December 2, 1985.
30. Proposed LAER determination, which was noticed in the FAW on January 17, 1986 issue.
31. Robert E. Kindorf's letter dated January 17, 1986.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

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PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82733
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N
81° 21' 05"W/
Project: Kidder CI and Catalytic Incinerator System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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:

The Oylmpia Model 726 Kidder CI (Central Impressions) is a flexographic printing and coating unit with three associated natural gas dryers: a 1.4×10^6 Btu/hr - overhead dryer, a 1.2×10^6 Btu/hr flexographic dryer, and a 0.8×10^6 Btu/hr coating dryer. A catalytic incinerator will be retrofitted and required to meet LAER (lowest achievable emission rate: minimum 70% capture efficiency and 95% destruction efficiency). The incinerator will be custom designed by Etter Engineering Company, Inc., and is a 2500 CFM natural gas fired (0.8×10^6 Btu/hr) unit utilizing an Eclipse model 80-AHO burner. The duct work and collection system will be designed by Dec-E-Tech Industrial Design Engineering. The source emits volatile organic compounds. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group No. 275 - commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The source shall be as reflected in the permit application, plans documents, drawings and amendments, except as otherwise noted on pages 5-7 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82733
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

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

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The annual hours of operation shall not exceed 4000.

2. The maximum allowable VOC (volatile organic compounds-organic solvents) emission limit shall not exceed 8.1 pounds per hour and 16.1 tons per year (based on LAER-minimum 70% capture efficiency and 95% destruction efficiency). The maximum rated production capacity is 12.83 reams per hour (based on 3000 square feet per ream).

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82733
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

3. A compliance test shall be conducted to determine the control system's capture efficiency and the incinerator's destruction efficiency. The compliance test shall be conducted while operating at 100% of the rated production capacity. All subsequent compliance test(s) can be conducted while the unit is operating at 90-100% of the rated production capacity.

- o Destruction efficiency determination

  The test method shall be EPA Method 25, Appendix A, 40 CFR 60, or other test method(s) approved by the department.

- o Capture efficiency determination

  The procedure proposed by the permittee involves the determination and comparison of the amount of VOC used during the test and the VOC concentration measured at the inlet of the incinerator over the same period of time.

4. All compliance tests shall require written notification to the DER's St. Johns River District office fifteen (15) days prior to the day of a test. All test(s) results shall be submitted to the DER's St. Johns River District office forty-five (45) days after completion of the last test run.

5. Objectionable odors shall not be allowed off plant property.

6. The units are subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

7. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

8. All VOC emissions shall be accounted for monthly and verifiable on a 24-hour basis, and should include clean-up solvents. The annual amount of VOC emissions shall be submitted in an AOR (annual operating report) to the DER's St. Johns River District office within sixty (60) days after the anniversary date of the operating permit once acquired.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82733
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

9. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this_____day of_____, 19__

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82735
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N/
81° 21' 05"W
Project: Kidder I

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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:

The Kidder I is an existing flexographic printing and coating unit with one associated 1 x 10^6 Btu per hour natural gas burner. The source emits volatile organic compounds. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group Number 275 - Commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The source shall be as reflected in the permit application, plans documents, drawings and amendments, except as otherwise noted on pages 5-7 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82735
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The annual hours of operation shall not exceed 4250.

2. The maximum allowable VOC emissions shall not exceed 22.4 lbs/hr and 47.7 tons/yr. The maximum rated production capacity is 9.17 reams per hour (based on 3000 square feet per ream).

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82735
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

3. A compliance test(s) shall be conducted to determine the VOC emissions. The method to be used is EPA Method 25, Appendix A, 40 CFR 60, or other tests method(s) approved by the department. The compliance test(s) shall be conducted while the unit is operating at 100% of the rated capacity. All subsequent compliance test(s) can be conducted while the unit is operating at 90-100% of the rated production capacity.

4. All compliance tests shall require written notification to the DER's St. Johns River District office fifteen (15) days prior to the day of a test. All test(s) results shall be submitted to the DER's St. Johns River District office forty-five (45) days after completion of the last test run.

5. Objectionable odors shall not be allowed off plant property.

6. The unit is subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

7. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

8. All VOC emissions shall be accounted for monthly and verifiable on a 24-hour basis, and should include clean-up solvents. The annual amount of VOC emissions shall be submitted in an AOR (annual operating report) to the DER's St. Johns River District office within sixty (60) days after the anniversary date of the operating permit once acquired.

9. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82735
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this_____day of_____, 19__

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Spiralkote, Inc.
1200 Central Fla. Parkway
Orlando, Florida 32809

Permit Number:AC 48-82736
Expiration Date: August 31, 1986
County: Orange
Latitude/Longitude: 28° 33' 08"N/ 81° 21' 05"W
Project: Kidders II & III and Catalytic Incinerator System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 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 permitting of Kidder II with an associated natural gas (NG) heater (0.8×10^6) Btu/hr) and Kidder III with an associated NG heater (1.2×10^6 Btu/hr). A catalytic incinerator will be retrofitted and required to meet LAER (lowest achievable emission rate: minimum 70% capture efficiency and 95% destruction efficiency). The incinerator will be custom designed by Etter Engineering Company, Inc., and is a 2500 CFM NG fired (0.8×10^6 Btu/hr) unit utilizing an Eclipse model 80-AHO burner. The duct work and collection system will be designed by Dec-E-Tech Industrial Design Engineering. The sources emit volatile organic compounds. The UTM coordinates are Zone 17, 461.37 km East and 3142.05 km North.

The Standard Industrial Codes are: Major Group 27 - Printing/ Publishing; Group Number 275 - Commercial Printing; Industrial Number 2751 - Commercial Printing, Letterpress and Screen.

The source shall be as reflected in the permit application, plans documents, drawings and amendments, except as otherwise noted on pages 5-7 of the "Specific Conditions."

Attachments:

1. List of Attachments.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82736
Expiration Date: August 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

GENERAL CONDITIONS:

6. The permittee shall at all times 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.

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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

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

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

GENERAL CONDITIONS:

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

10. The permittee agrees to comply with changes in department 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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

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

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The annual hours of operation per unit, Kidder II or III, shall not exceed 4250.

2. The maximum allowable VOC (volatile organic compounds-organic solvents) emission limit, total from both units, shall not exceed 15.0 pounds per hour and 31.9 tons per year (based on LAER-minimum 70% capture efficiency and 95% destruction efficiency). The maximum rated production capacity per unit is 9.17 reams per hour (based on 3000 square feet per ream).

SPECIFIC CONDITIONS:

3. Compliance test(s) shall be conducted to determine the control system's capture efficiency and the incinerators destruction efficiency. A compliance test shall be conducted with only one unit in operation and a compliance test shall be conducted with both units in operation. Compliance test(s) shall be conducted while operating at 100% of the rated production capacity. All subsequent compliance test(s) can be conducted while the unit(s) is/are operating at 90-100% of the rated capacity.

- o Destruction efficiency determination

  The test method shall be EPA Method 25, Appendix A, 40 CFR 60, or other test method(s) approved by the department.

- o Capture efficiency determination

  The procedure proposed by the permittee involves the determination and comparison of the amount of VOC used during a test run and VOC concentration measured at the inlet of the incinerator over the same period of time.

4. All compliance test(s) shall require written notification to the DER's St. Johns River District office fifteen (15) days prior to the day of a test(s). All test(s) results shall be submitted to the DER's St. Johns River District office forty-five (45) days after completion of the last test run.

5. Objectionable odors shall not be allowed off plant property.

6. The units are subject to the provisions of FAC Rule 17-2.250, Excess Emissions. When a report of excess emissions is required, notify the DER's St. Johns River District office.

7. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

PERMITTEE:
Spiralkote, Inc.

Permit Number: AC 48-82736
Expiration Date: August 31, 1986

SPECIFIC CONDITIONS:

8. All VOC emissions per source shall be accounted for monthly and verifiable on a 24-hour basis, and should include clean-up solvents. The annual amount of VOC emissions shall be submitted in an AOR (annual operating report) to the DER's St. Johns River District office within sixty (60) days after the anniversary date of the operating permit once acquired.

9. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rule 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this_____day of_____, 19__

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

Lowest Achievable Emission Rate (LAER) Determination
Spiralkote, Inc.
Orange County

The applicant has installed three (3) flexographic printing presses at their facility in Orlando, Florida. The units will consist of a Kidder Central Impression (CI) Printing Press and two Kidder Presses (II and III). The units are used for printing labels on composite cans. The Kidder CI and Kidder units II and III will operate 4000 and 4250 hours per year respectively.

The flexographic printing process uses a rubber image carrier located above the surface of the plate, is usually web fed, and runs on a variety of substrates. Basically, the process is the application of an alcohol based ink to the surface of a moving web or film, then rapid solvent evaporation using heated air. The solvent laden air is currently exhausted from the system directly into the atmosphere.

The solvent vapors are defined as volatile organic compounds (VOC's) and when discharged to the atmosphere contribute significantly to air pollution, which may reasonably be anticipated to endanger public health or welfare. VOC emissions are most significant as air pollutants in their role of photocemical oxidant precursors.

The dryer is the major source of VOC emissions with a lesser amount emitted at the ink fountain, the press, and the chill rolls. Vapor capture systems are necessary to minimize VOC vapor loss around the ink fountain and at the chill rolls. VOC emissions can also be reduced by using low solvent technology inks, if compatible with the planned line substrate.

The Spiralkote printing facility is located in Orange County, which is classified nonattainment for the pollutant ozone, Rule 17-2.410. The installation of the Kidder II unit caused the facility ozone (VOC) emissions to exceed 100 tons per year thus becoming major and requiring employment of Lowest Achievable Emission Rate (LAER) as a review requirement. The installation of the Central Impression and the Kidder III unit each resulted in VOC emissions that exceeded the 40 ton per year significant emission rate; Table 500-2 Regulated Air Pollutants - Significant Emission Rates.

The printing press installations have resulted in Spiralkote, Inc. becoming a major facility for ozone (VOC) in a nonattainment area for ozone (VOC) and for modifications to a major facility to occur, thus becoming subject to the provisions of Rule 17-2.510 (2)(d) 4.a. LAER has been applied for each aforementioned printing press in accordance with the regulations (Rule 17-2.510 (4)(a)). The procedure for determining LAER is set forth in Rule 17-2.640.

Date of Receipt of LAER application:

November 19, 1985

Date of Publication in the Florida Administrative Weekly:

January 17, 1986

Review Group Members:

This determination was based upon comments received from the Stationary Source Control Section and the St. Johns River District.

LAER Determined by DER:

Pollutant	Emission Limit
Ozone (VOC)	70 percent capture efficiency of the VOC vapors emitted at the press and 95 percent destruction of the collected vapors by the catalytic incinerator.

LAER Determination Rationale:

In flexographic printing from stationary sources, volatile organic compounds (VOC's) can be released to the atmosphere by evaporation from the inking, cleaning, and curing operations. Hydrocarbons comprise a class of VOC's containing only carbon and their by-products are considered poisonous, but most are harmful only in very high concentrations. Hydrocarbons can react with other chemicals, notably in the photochemical reaction, which results in the oxidants commonly called smog.

To control VOC emissions the applicant first considered using waterborne inks instead of organic solvent inks. They experimented with waterborne inks but concluded that, even though promising, water borne inks are not yet well enough developed for their printing requirements. Only add-on control devices remain for consideration.

The three most popular types of add-on devicies are those for thermal and catalytic incineration and carbon adsorption. The applicant will use a catalytic incinerator to reduce by 95% the amount of VOC's delivered to the inlet of the incinerator when the printing presses described in this determination are operating. The incineration system is to be custom built by the Etter Engineering Company, Inc. The applicant will install the necessary enclosures and ducting for the printing presses to capture 70 percent of the vapors generated. The planned incinerator and press ducting modifications will result in 95 less tons of VOC's discharged into the atmosphere per year.

The Department, when preparing a Lowest Achievable Emission Rate (LAER) determination, shall give consideration to and make a determination that reflects: 1) information published by the USEPA including the BACT/LAER Clearinghouse, 2) the most stringent emission limitation which is contained in the implementation plan of any state, 3) the most stringent emission limitation which is achieved in practice, and 4) all scientific, engineering, technical material, or other relevant information available to the department.

The latest (June 1985) BACT/LAER Clearinghouse summary lists data for sixteen facilities which use printing presses, half of which are rotogravure systems. Most of the efficiencies reported were based on a stack test for the control device and did not include the capture efficiency of the vapors generated at the emission point. At one of the listed facilities a material balance around the control device and vapor collection system was done. The control device destruction efficiency was 95% and the capture efficiency was 73%. This facility did not have to meet LAER.

The literature research indicates that a 95% destruction efficiency of a catalytic incinerator and vapor system capture efficiency between 70-73 percent are the most stringent limits that meet the LAER requirements as set for the in Rule 17-2.510(4)(b). The department agrees that the VOC emission limit for the printing presses, as proposed by the applicant, is LAER.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended by:

_____
C. H. Fancy, P.E., Deputy Chief, BAQM

_____
Date

Approved by:

_____
Victoria J. Tschinkel, Secretary

_____
Date

Fed. Exp.
1-17-86

SPIRALKOTE INC.
A Subsidiary of Fleming Packaging Corporation

DER
JAN 20 1986
BAQM

January 17, 1986

Mr. Bruce Mitchell
Bureau of Air Quality Management
State of Florida
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Bruce:

Per your request for the maximum utilization rate per hour of our equipment, I am supplying the following information. K-I, K-II, and K-III process 9.17 reams of paper per hour and K-CI processes 12.83 reams per hour.

I hope this information is helpful.

Sincerely,

fp SPIRALKOTE, INC.

Bob Kindorf

BOB KINDORF

BK:jac

1200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32821 PHONE (305) 859-7780 TELEX 56-6543

FAW
1-17-86

Lowest Achievable Emission Rate (LAER) Determination

Spiralkote, Inc.

Orange County

The applicant has installed three (3) flexographic printing presses at their facility in Orlando, Florida. The units ~~will~~ consist of a Kidder Central Impression (CI) printing press and two (Kidder Presses II and III). They are used for printing labels on composite cans. The Kidder CI and Kidder II and III will operate 4000 and 4250 hours per year ~~respectively~~.

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The solvent vapors are defined as volatile organic compounds (VOC's) and when discharged to the atmosphere contribute significantly to air pollution, which may reasonably be anticipated to endanger public health or welfare. VOC emissions are most significant as air pollutants in their role of photocemical oxidant precursors.

The dryer is the major source of VOC emissions with a lesser amount emitted at the ink fountain, the press, and the chill rolls. Vapor capture systems are necessary to minimize VOC vapor loss around the ink fountain and at the chill rolls. VOC

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Date of Receipt of LAER application:

November 19, 1985

Review Group Members:

This determination was based upon comments received from the Stationary Source Control Section and the St. Johns River District.

LAER Determined by DER:

Pollutant	Emission Limit
Ozone (VOC)	70 percent capture efficiency of the VOC vapors emitted at the press and 95 percent destruction of the collected vapors by the catalytic incinerator.

LAER Determination Rationale:

In flexographic printing from stationary sources, volatile organic compounds (VOC's) can be released to the atmosphere by evaporation from the inking, cleaning, and curing operations. Hydrocarbons comprise a class of VOC's containing only carbon and their by-products are considered poisonous, but most are harmful only in very high concentrations. Hydrocarbons can react with other chemicals, notably in the photochemical reaction, which results in the oxidants commonly called smog.

To control VOC emissions the applicant first considered using waterborne inks instead of organic solvent inks. They experimented with waterborne inks but concluded that even though promising, waterborne inks are not yet well enough developed for their printing requirements. Only add-on control devices remain for consideration.

The three most popular types of add-on devicies are those for thermal and catalytic incineration and carbon adorption. The applicant will use a catalytic incinerator to reduce by 95% the amount of VOC's ~~discharged to the atmosphere~~ delivered to the inlet of the incinerator when the printing presses described in this determination are operating. The incineration system is to be custom built by the Etter Engineering Company, Inc. The applicant will install the necessary enclosures and ducting for the printing presses to capture 70 percent of the vapors generated. ~~The VOC destruciton efficiency of the catalytic incinerator will be 95%~~. The planned incinerator and press ducting modifications will result in 95 less tons of VOC's discharged into the atmosphere per year.

The Department, when preparing a Lowest Achievable Emission Rate (LAER) determination, shall give consideration to and make a determination that reflects: 1) and information published by the USEPA including the BACT/LAER Clearinghouse, 2) the most strigent emission limitation which is contained in the implementation plan of any state, 3) the most stringent emission limitation which is achieved in practice, and 4) all scientific, engineering, technical material, or other relevant information available to the department.

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Details of the Analysis May be Obtained by Contacting:

Barry Andrews, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended by:

_____
C. H. Fancy, Deputy Chief, BAQM

_____
Date

Approved by:

_____
Victoria J. Tschinkel, Secretary

_____
Date

LAW OFFICES

HOLLAND & KNIGHT

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PLEASE REPLY TO: Lakeland, Florida

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(202) 955-5550

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

January 7, 1986

BY FEDERAL EXPRESS

Winston A. Smith, Director
Air, Pesticides, and Toxics
Management Division
United States Environmental
Protection Agency - Region IV
345 Courtland Street
Atlanta, Georgia 30308

DER
JAN 08 1986
BAQM

RE: fp Spiralkote, Inc.

Dear Mr. Smith:

The following is in response to your letter, dated December 19, 1985, to Mr. Robert Kindorf, Vice President and General Manager of fp Spiralkote, Inc. (Spiralkote). Your letter provided notice pursuant to Section 113(a)(1) of the Clean Air Act concerning certain alleged violations of the federally-approved Florida state implementation plan.

The history leading up to the issuance of your December 19 letter is outlined in our letter of January 7, 1986, to Secretary Victoria J. Tschinkel of the Florida Department of Environmental Regulation (DER). A copy of this letter is attached for your information.

A copy of the Consent Order entered into between DER and Spiralkote is also attached. Spiralkote now awaits issuance of the necessary DER permits to install RACT incinerator control technology on the press designated as "Kidder II" and to install LAER incinerator control technology on the presses designated as "Kidder CI" and "Kidder III." Upon receipt of the permits, Spiralkote will complete installation in accordance with the compliance schedule set forth in the Consent Order.

The background information document attached to your letter of December 19 states: "Consent Order is not acceptable to EPA." Based upon our discussions with EPA re-

presentatives, it is our understanding that the only reason that the Consent Order is not acceptable is that it does not require the press designated as "Kidder I" to meet RACT requirements.

DER, the state agency primarily responsible for implementing and enforcing the federally-approved state implementation plan has formally concluded that RACT requirements do not apply to Kidder I. We are advised by EPA representatives that EPA-Region IV considers this interpretation to be inconsistent with federal policy. We would appreciate very much if you or a member of your staff would contact me and provide me with copies of any federal policy statements that support the interpretation that RACT controls must be installed on Kidder I.

Spiralkote does not understand why this matter has been raised to a level of potential "overfiling." We would very much like to have an opportunity to meet with you and other appropriate representatives of EPA-Region IV (hopefully in conjunction with DER representatives) to discuss this matter. We believe that DER's interpretation of the rule is correct and, furthermore, that this interpretation will not interfere with reasonable progress toward attainment of ambient air quality standards in Orange County or at other locations in Florida or other states.

As noted in our letter to Secretary Tschinkel, Spiralkote came forth voluntarily to advise DER of its permitting difficulties and has worked in good faith to reach compliance. We are hopeful that further discussions with you will avoid the need for any litigation.

I would appreciate it if you or a member of your staff would contact me so we can set up an appropriate time for a meeting.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRJr/rm
Attachment

24777L01066:25

cc: Jack Ravan
Regional Administrator
Victoria J. Tschinkel
Secretary, DER
Jewel Harper, Esquire
Office of Regional Counsel, Region IV
Mr. Steve Smallwood, Chief
Bureau of Air Quality Management, DER
Mary Smallwood, Esquire
General Counsel, DER
Dan Thompson, Esquire
Office of General Counsel, DER
Carol Forthman, Esquire
Office of General Counsel, DER
Mr. Bob Kindorf
Mr. Bill Kindorf

LAW OFFICES

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January 7, 1986

BY HAND DELIVERY

Victoria J. Tschinkel,
Secretary
Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301

RE: fp Spiralkote, Inc.; OGC Case No. 84-0641

Dear Vicki:

The purpose of this letter is to enlist your assistance on behalf of my client, fp Spiralkote, Inc. (Spiralkote).

On November 26, 1985, the Department entered into a consent order with Spiralkote that requires the company to install incinerator control technology to limit VOC emissions from three flexographic printing presses operated at its Orlando facility. In addition, Spiralkote was required to pay a settlement amount of $30,000. EPA Region-IV has now issued a Section 113(a)(1), Clean Air Act, notice of violation to Spiralkote presumably as a prerequisite to commencing a civil action pursuant to Section 113(b) of the Act. In other words, it appears that EPA is preparing to "overfile" your entry of the state consent order.

A complete understanding of the problems now faced by Spiralkote requires a brief review of the history that led to the entry of the consent order.

Spiralkote operates four presses at its facility in Orange County, Florida: Kidder I (installed in October, 1977), Kidder II (installed in April, 1980), Kidder Central Impression (CI) (installed in February, 1982), and Kidder III (installed in February, 1983). Spiralkote pri-

marily produces labels for composite cans used for citrus and other food products.

In the early years of operation, Spiralkote employees were unaware that installation and operation of the presses required DER air pollution source permits. Spiralkote was well aware of the water pollution and hazardous waste regulatory requirements of DER and took steps to establish and maintain compliance with those programs. DER representatives visited the Spiralkote facility on a number of occasions.

In 1983, in a chance coversation with a vendor, Spiralkote employees became aware of possible DER permitting requirements through reports of difficulties being encountered by another printing company located in Jacksonville. Spiralkote immediately contacted first DER headquarters and then the St. Johns District Office to determine what it must do to comply with applicable regulations. By June of 1984, Spiralkote had been advised by EPA and by DER that reasonably available control technology (RACT) and lowest achievable emission rate (LAER) rules may apply to its facility because of the VOC nonattainment compliance status of Orange County.

Our firm was retained by Spiralkote in July, 1984, to assist the company in compliance efforts. While the undersigned and counsel for DER discussed formal settlement, Spiralkote implemented a detailed engineering study and test program designed to allow Spiralkote to convert to low solvent (water-based) inks and coatings technology. (RACT rules authorize (a) water-based technology, (b) "high solids" technology, or (c) incineration.)

The initial test results were quite favorable and Spiralkote was confident that it would be able to implement water-based technology by mid-1985. Unfortunately, by March of that year, it had become apparent that the available water-based inks and coatings simply would not work at production and quality levels necessary for Spiralkote to remain competitive in the market place.

Spiralkote then initiated a program to evaluate the possibility of using high solids inks and coatings in its operation. This option looked attractive for a brief period of time. By May of 1985, however, it was determined that the available inks and coatings were not of sufficiently high solids content to comply with the applicable regulations. Spiralkote, therefore, initiated discussions

with representatives of DER concerning installing incineration technology on certain of the presses.

At this time, EPA-Region IV entered the picture by issuing a Section 114 information request and by calling Spiralkote representatives to Atlanta for a July 3, 1985 show cause meeting. Apparently, EPA was concerned with the length of time being taken to resolve the alleged violations. Three-way discussions then ensued concerning the most appropriate procedures for bringing Spiralkote into compliance. Negotiations became rather convoluted, but the "bottom line" is that a dispute arose as to the regulatory status of Kidder I. DER staff concluded, and you found in the consent order, that Kidder I was an existing minor source not subject to RACT requirements notwithstanding the subsequent construction of the remaining sources of VOC emissions at the Spiralkote facility. EPA-Region IV, on the other hand, insisted that Kidder I must be "controlled" to meet RACT requirements.

Spiralkote believes that DER's interpretation of the RACT rule is consistent with both the letter and spirit of the regulation. Accordingly, the company agreed to settle this matter with DER by entering into a consent order that required installation of RACT incinerator technology on Kidder II and LAER incinerator technology on Kidder CI and Kidder III. In addition, the company agreed to pay $30,000 in settlement of the alleged violations. Finally, because Spiralkote was sensitive to the EPA-Region IV position, the company agreed to use its best efforts to implement high solids technology on Kidder I taking into account customer product quality requirements.

It is our understanding that the only objection EPA-Region IV expressed to the settlement with DER was the company's failure to commit to control Kidder I. EPA-Region IV did not insist upon the use of incinerator technology, but did require a commitment to implement high solids or water-based technology. Spiralkote could not economically justify incineration of Kidder I (especially in light of DER's interpretation of the RACT rule). Furthermore, the company could not, in good faith, commit to use high solids or water-based technology since its prior experience demonstrated that compliance inks and coatings did not work in the Spiralkote process.

Spiralkote is now faced with the threat of a federal lawsuit seeking injunctive relief and civil penalties plus possible administrative assessment of noncompliance penalties because it has not committed to control a minor

source of VOC (47.6 tons/year). This is so even though DER has explicitly interpreted the state implementation plan not to require such controls for this source. Our only explanation for this action has been the statement by counsel for EPA that DER's interpretation is "inconsistent with federal policy."

My client, a relatively small business, is understandably confused and frustrated by the fact that it is now being faced with the threat of federal proceedings after it has attempted in good faith to resolve this matter. We are sending a copy of this letter to EPA-Region IV. In addition, in a separate direct response to the latest notice of violation, we are requesting a meeting with federal agency representatives in the hope of bringing this matter to a resolution short of litigation.

We hope that you or an appropriate member of your staff such as Steve Smallwood would be in a position to attend this meeting to support DER's interpretation of the state implementation plan. In addition, should negotiations prove fruitless, we would hope that the Department will seriously consider intervening in any court action since Spiralkote would no doubt defend its action, at least in part, on the basis of DER's interpretation of the RACT rule.

Thank you very much for bearing with me through this lengthy explanation of Spiralkote's dilemma. I look forward to hearing from you with regard to the Department's position in this matter.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRJr/dsl

cc: Jack Ravan, Regional Administrator,
EPA-Region IV
Winston A. Smith, Director,
Air, Pesticides, and Toxics
Management Division - Region-IV
Jewell Harper, Esquire, Office of
Regional Counsel - Region-IV
Mr. Steve Smallwood, Chief,
Bureau of Air Quality Management, DER
Mary Smallwood, Esquire
General Counsel, DER
Dan Thompson, Esquire
Office of General Counsel, DER
Carol Forthman, Esquire,
Office of General Counsel, DER
Mr. Robert Kindorf
Mr. William Kindorf
fpS010685:25

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION, Complaintant, vs. fp SPIRALKOTE, INC., a Florida Corporation, Respondent.	IN THE OFFICE OF THE ST. JOHNS RIVER DISTRICT OGC FILE NO. 84-0641

CONSENT ORDER

This Consent Order is made and entered into between the State of Florida Department of Environmental Regulation ("Department") and fp Spiralkote, Inc. ("Respondent"), a Florida corporation, 1200 Central Florida Parkway, Orlando, Florida.

The Department finds the following:

1. Respondent is a Florida corporation with a facility located at 1200 Central Florida Parkway, Orlando, Florida 32809. At the Orlando facility, Respondent is engaged in the business of flexographic printing primarily for the production of composite can labels. Respondent currently operates four flexographic presses (Kidder I, Kidder II, Kidder III and Kidder Central Impression) at the Orlando facility, as well as a Cyrel plate room with washout tank, solvent recovery still, finishing tank and dryer.

2. In the printing process, each press uses inks which contain organic solvents, resulting in the emission of volatile organic compounds ("VOCs") into the atmosphere. VOCs are precursors to the formation of the air pollutant, ozone, and are subject to regulation by the Department.

3. The fp Spiralkote facility is in Orange County, an area designated nonattainment for the air pollutant ozone by the Department and the U. S. Environmental Protection Agency.

4. The rules for existing and certain new and modified flexographic printing presses in ozone nonattainment areas are

contained in Florida Administrative Code Rule 17-2.650(1)(f)16, Graphic Arts Systems. The effective date of this rule was March 14, 1979.

5. Of the four presses at the fp Spiralkote Orlando facility, Kidder I was installed in October of 1977 and is considered to be an existing source. Kidder II, Kidder Central Impression and Kidder III were installed on April, 1980; February, 1982; and February 1983, respectively. Therefore they are considered to be new sources.

6. Kidder I is in the source category regulated by 17-2.650(1)(f)16, F.A.C., but because its potential emissions of VOCs are less than 100 tons per year, it is exempt from regulation under that section notwithstanding the subsequent construction of the remaining sources of VOC emissions at the facility.

7. Kidder II is a new source that is not subject to review pursuant to Rule 17-2.510, F.A.C., and therefore, pursuant to Rule 17-2.650(1)(a), F.A.C., it is subject to regulation under Rule 17-2.650(1)(f)16, F.A.C. The combined potential emissions of Kidder I and II exceeds 100 tons per year. Therefore, Kidder II must meet the standards in Rule 17-2.650(1)(f)16.b.

8. Kidder Central Impression and Kidder III are new sources subject to the provisions of Rule 17-2.510(4), F.A.C., Preconstruction Review Requirements, which includes the requirement to meet the Lowest Achievable Emission Rate ("LAER") as set forth in Rule 17-2.640, F.A.C.

9. Respondent has constructed and operated the VOC sources listed above at its Orlando facility without having applied for or received either construction or operation permits from the Department as required by Section 403.087, Florida Statutes and Chapter 17-4, F.A.C.

10. Approximate annual emissions of VOCs from each of the sources are estimated to have been: Kidder I, 47.6 tons per year; Kidder II, 47.6 tons per year; Kidder Central Impression, 44.8 tons per year; and Kidder III, 47.6 tons per year.

11. As of the date of this Order, Respondent has failed to comply with applicable regulations governing VOC emissions from

its facility.

12. Respondent voluntarily, through its representatives, brought the above referenced matters to the attention of the Department in February, 1983 and has since that time cooperated with the Department in supplying information and attempting to develop acceptable solutions so that the matter might be resolved.

13. Respondent and the Department have met in an attempt to correct all violations of air pollution laws and regulations at that facility and have agreed to methods for achieving compliance with all such laws and regulations. These methods are described in Paragraphs 16-19, below.

14. Respondent has agreed to submit amended construction permit applications for all VOC sources at its Orlando facility and to install pollution control equipment on Kidder II, Kidder Central Impression and Kidder III.

15. Respondent anticipates full compliance with VOC regulations for each source no later than 180 days from issuance of an air construction permit for that source.

THEREFORE, having reached resolution of the matter, pursuant to Florida Administrative Code Rule 17-103.110(3), Respondent and the Department mutually agree and it is:

ORDERED:

16. Respondent shall immediately begin to bring its facility into compliance with applicable rules and regulations of the Department according to the following time schedule.

(a)	Submission of amended air construction permit applications for Kidder I, Kidder II, Kidder Central Impression and Kidder III, and Cyrel plate-room (include all activities)	11/15/85
(b)	Construction and installation of pollution control units completed for Kidder II, Kidder III, and Kidder Central Impression, and written notice of such fact given to the Department.	45 days from issuance of an air construction permit for the source, but not later than March 15, 1986
(c)	Compliance testing of pollution control units	90 days from issuance of an air construc-

	for Kidder II, Kidder III, and Kidder Central Impression completed and written notice of such fact given to the Department.	tion permit for the source, but not later than May 1, 1986.
(d)	Submission of written compliance test results to the department.	120 days from issuance of an air construction permit for the source, but not later than June 1, 1986
(e)	Pollution control units installed and operating within compliance limits, and written notice of such fact given to the Department.	180 days from issuance of an air construction permit for the source, but not later than August 1, 1986

17. Failure to comply with any of the deadlines set forth in Paragraph 16 shall result in a stipulated penalty of $100 per day for each noncomplying source for each day of noncompliance past the applicable deadline unless the Respondent can demonstrate that such noncompliance is due to events not within its control and that it has used all reasonable efforts to obtain alternative means of compliance.

18. Respondent shall comply with the applicable rules of the Department for control of VOCs by installation of incineration equipment on Kidder II, Kidder III, and Kidder Central Impression. Such incineration units will meet the standards set forth in Florida Administrative Code Rule 17-2.650(1)(f)16 for VOC emissions from Kidder II and Florida Administrative Code Rule 17-2.510(4) for VOC emissions from Kidder III and Kidder Central Impression. Such installation shall be in accordance with the dates set forth in Paragraph 16.

19. Respondent agrees to use its best efforts to use on Kidder I inks and coatings with as high a percentage of solids content as is technically feasible taking into account customer product quality requirements. Beginning on January 15, 1987, and annually thereafter, Respondent shall submit to the Department a report of the percentage of solids contained in the inks and coatings used in Kidder I for the next preceding calendar year. This requirement will cease when Kidder I is either using low solvent or high solids inks as described in Florida Administrative Code Rule 17-2.650(1)(f)16 or is taken out of service.

20. Respondent shall make payment to the Department in the amount of $30,000 in settlement of the violations alleged in this Consent Order as follows: $7,500 to be paid within twenty (20) days of the entry of this Consent Order, and three consecutive semi-annual payments in the amount of $7,500 thereafter until the full amount of $30,000 is paid. The payments required by this paragraph shall be made payable to the order of the "State of Florida Department of Environmental Regulation Pollution Recovery Fund" and shall be submitted to the District Manager, St. Johns River District, Department of Environmental Regulation, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803.

21. The Department, for and in consideration of the complete and timely performance by the Respondent of the obligations agreed to in this Consent Order, hereby waives its right to seek administrative or judicial imposition of damages, or further civil or criminal penalties for the alleged violations outlined in this Consent Order. This waiver shall apply to such violations that occurred prior to the effective date of this Order and to any future activities authorized under this Consent order. Respondent waives its right to an administrative hearing or judicial review of the terms of this Order.

22. Respondent shall allow authorized representatives of the Department access to the property at reasonable times for purposes of determining compliance with this Consent Order and the rules and regulations of the Department.

23. The Department hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit the future violation of applicable statutes, or the rules promulgated thereunder, other than those allowed by this Consent Order.

24. Entry of this Consent Order does not relieve Respondent of the need to comply with the applicable federal, state, or local laws, regulations, or ordinances not addressed herein.

25. Persons not parties to this Consent Order whose substantial interests are affected by this Consent Order have a

right, pursuant to Section 120.57, Florida Statues, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301, within 14 days of receipt of this notice. Failure to file petition within the 14 days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

26. The terms and conditions set forth in the Consent Order may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

27. Repondent is fully aware that a violation of the terms of this Consent Order, other than as is specifically covered in the penalty provisions thereof, may subject Respondent to judicial imposition of damages, civil penalties of up to $10,000 per offense, and criminal penalties.

28. In the event of a legal challenge to this Consent Order by a party not subject to this Consent Order, the parties shall comply with the terms and conditions herein unless and until such time as the resolution of the challenge results in agency action inconsistent with this Consent Order.

29. The terms of this Consent Order shall be in effect for Kidder II, Kidder III, and Kidder Central Impression until Respondent provides the documentation of compliance as specified in Paragraphs 16 and 18. Paragraph 19 shall have continuing effect as specified therein.

30. All reports, plans and data required by this Consent Order to be submitted to the Department shall be sent to the District Air Engineer, Department of Environmental Regulation, St. Johns River District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803, and to Deputy Bureau Chief for Compliance, Bureau of

Air Quality Management, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

31. This Consent Order is a compromise of disputed claims and, by entering into the Consent Order and complying with its terms, Respondent does not admit any of the factual allegations or legal conclusions set forth in this Consent Order.

32. This Consent Order may only be modified by the written agreement of both parties.

33. This Consent Order is final agency action of the Department pursuant ot Section 120.69, Florida Statutes, and Florida Administrative Code Rule 17-103.110(3), and it is final and effective on the date filed with the Clerk of the Department unless a Petition for Administrative Hearing is filed in accordance with Chapter 120, Florida Statutes.

FOR THE RESPONDENT

DATE: 11-18-85

DONE AND ORDERED this 26th day of Nov, 1985, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL
Secretary

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301
(904) 488-9730

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

Peggy L. Blair — Clerk
11-26-85 — Date

Copies furnished to:

Diane Nelson, Office of General Counsel, DER, Tallahassee
Office of Public Information, DER, Tallahassee
Bureau of Air Quality Managment, DER, Tallahassee
U.S. Environmental Protection Agency, Air Program, Atlanta
St. Johns River District

PBS&J
POST, BUCKLEY, SCHUH & JERNIGAN, INC.
889 NORTH ORANGE AVENUE
ORLANDO, FLORIDA 32801-1088
305/423-7275
TELEX 808435

November 13, 1985

Mr. Clair Fancy
Air Permitting
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

RE: Orange County AP
Spiralkote, Inc.
OGC File No. 84-0641

Dear Mr. Fancy:

Enclosed are four (4) copies of each of the following corrected and updated Air Pollution Construction Permit applications:

Source I.D.	DER Application No.
Central Impressions Press	AC48-82733
Kidder I Press	AC48-82735
Kidder II & III (combined)	AC48-82736 and AC48-82737
Washout Tank	AC48-82738
Recovery Still	AC48-82739
Finishing Tank	AC48-82740
Dryer	AC48-82741

Some of the supplemental information required in Section V of the application has been submitted in the first set of applications. This information included the following:

- Application Fee (may need amending)
- Flow diagrams of the processes.
- Plot plan showing plant location.
- Facility diagram identifying stack locations, and
- VOC data sheets on inks and coatings.

We have included some additional information in these applications. Information on the stack test facility (platform, ports, etc.) will be forwarded to your department when the designs are completed.

DER
DER NOV 13 1985
NOV 14 1985 BAQM
BAQM

We are waiting for information on the incinerators from Etter Engineering. They will be sending us a flow diagram and description of the incinerators as required in Supplement 4, Section V of the application. This information will be forwarded as soon as we obtain it.

If you need additional information or have any questions, please call me or Bruno Ferraro at (305) 423-7275.

Sincerely,

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Jerome J. Guidry, P.E.
Manager, EAD Division

JJG:BAF:daa

cc: Bob Kindorf, with originals
Rob Rhodes, with originals
Tom Sawicki, two originals

21-023.00

~~Clair~~ - Bill 11/14
Spiralkote's response
Bruce has copy
Please return for file.

Patty

AC 48-82735

DER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NOV 14 1985

BAQM

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Spiralkote, Inc. COUNTY: Orange

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) Kidder No. I Flexographic Printing Pres

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, FL 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, Inc.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 11-13-85 Telephone No. 305-859-7780

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

[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 applicsnt a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed _____

Jerome J. Guidry, P.E.
Name (Please Type)

Post, Buckley, Schuh & Jernigan, Inc.
Company Name (Please Type)

889 N. Orange Avenue, Orlando, FL 32801
Mailing Addreaa (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. 305-423-7275

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 source is an existing flexographic printing press that produces composite can lables. Kidder I emits VOC's from inks and coatings. This project will result in full compliance with 17-2-FAC.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

Application No. AC48-82735

E. Requested permitted equipment operating time: hrs/day 17 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____ ; if seasonal, describe: 4250 hrs./yr.

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Ozone

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? N/A

   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	None	---	173	Item 6
Coating KJ 902	VOC	86	8.3	Item 6
Coating NB 1061	VOC	66	5.9	Item 6
Ink	VOC	74	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 202.60

2. Product Weight (lbs/hr): 180.17

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	22.4	47.7	17-2.620	N/A	22.4	47.7	Item 6

[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).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural gas	320×10^{-6}	1000×10^{-6}	1.0

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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

Annual Average N/A Maximum N/A

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

Solvent wastes are shipped to a hazardous waste landfill along with all hazardous wastes generated by this facility.

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

Stack Height: 30 ft. Stack Effective Diameter: 1.13 ft.

Gas Flow Rate: 3100 ACFM 2430 DSCFM Gas Exit Temperature: 275 °F.

Water Vapor Content: 1 % Velocity: 51.5 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 Used

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.

SUPPLEMENTAL REQUIREMENTS

Supplement 1: Total process input weight is equal to the weight of paper, inks, solvent and coatings used per hour. The product weight is equal to the paper, coatings and ink less the solvent weight.

	lbs./hr.
Paper	173
KJ 902	8.3
NB 1061	5.9
Ink	15.4
	202.6
VOC	-22.43
	180.17 product weight

Supplement 2: Attached are emission calculation sheets. Compliance will be demonstrated by supplying the DER with solvent usage calculations in the annual operation report and by a VOC content data sheet (ASTM D2369).

Supplement 3: Attached.

Supplement 4, 5: N/A

Supplement 6, 7, 8, 9: Previously submitted

Supplement 10: N/A

EMISSION SUMMARY

Chemical	Potential lbs./hr.	Potential tons/hr.	Actual lbs./hr.	Actual tons/yr.
Coating KJ 902	7.138	15.168	7.138	15.168
Coating NB 1061	3.894	8.2747	3.894	8.2747
Ink	11.396	24.216	11.396	24.216
Total	22.428	47.6587	22.428	47.6587

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: KIDDER I

Chemical name: COATING KJ 902

Chemical density:		0.6812	grams per cubic centimeter
	or	5.68	pounds per gallon
VOC concentration:		4.8848	pounds per gallon
	or	86.0	per cent
Usage rate:		1.4612	gallons per hour
	or	8.3	pounds per hour
VOC control efficiency:		0	per cent

Operating shedule:	17	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	4250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (1.4612) x (4.8848)

= 7.138 lb per hr x 4250 hr per year

x (1 ton / 2000 pounds)

= 15.168 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (7.138) x (1 - 0)

= 7.138 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 7.138 lb/hr x 4250 hrs/year

x (1 ton / 2000 pounds)

= 15.168 tons per year

06-Nov-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: KIDDER I

Chemical name: COATING NB 1061

Chemical density:		0.6048	grams per cubic centimeter
	or	5.0427	pounds per gallon
VOC concentration:		3.3281	pounds per gallon
	or	66.0	per cent
Usage rate:		1.1700	gallons per hour
	or	5.9	pounds per hour
VOC control efficiency:		0	per cent

Operating shedule:	17	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	4250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (1.1700) x (3.3281)

= 3.894 lb per hr x 4250 hr per year

x (1 ton / 2000 pounds)

= 8.2747 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (3.894) x (1 - 0)

= 3.894 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 3.894 lb/hr x 4250 hrs/year

x (1 ton / 2000 pounds)

= 8.2747 tons per year

06-Nov-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: KIDDER I

Chemical name: INK

Chemical density:		0.9021	grams per cubic centimeter
	or	7.5213	pounds per gallon
VOC concentration:		5.5657	pounds per gallon
	or	74.0	per cent
Usage rate:		2.0475	gallons per hour
	or	15.4	pounds per hour
VOC control efficiency:		0	per cent

Operating shedule:	17	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	4250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (2.0475) x (5.5657)

= 11.396 lb per hr x 4250 hr per year

x (1 ton / 2000 pounds)

= 24.216 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (11.396) x (1 - 0)

= 11.396 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 11.396 lb/hr x 4250 hrs/year

x (1 ton / 2000 pounds)

= 24.216 tons per year

06-Nov-85

AC 48-82741

DER

NOV 14 1985

BAQM

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Spiralkote, INC. COUNTY: Orange

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) Cyrel Plate Room Dryer

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, INC.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

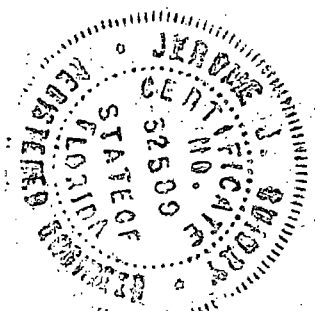
Date: 11-13-85 Telephone No. (305) 859-7780

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

[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 Jerome J. Guidry

Jerome J. Guidry, P.E.
Name (Please Type)

Post, Buckley, Schuh & Jernigan, INC.
Company Name (Please Type)

889 N. Orange Avenue, Orlando, Florida 32801
Mailing Address (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. (305) 423-7275

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.

During the plate manufacturing process, the plates treated with the butyl alcohol/perchloroethylene mixture are dried in a dryer. VOC's are vented to the atmosphere. This project will result in full compliance with 17-2 FAC.

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

Start of Construction N/A Completion of Construction N/A

C. Costs of pollution control syatem(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.)

N/A

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

AC48-82741 - Existing application number - Dryer

E. Requested permitted equipment operating time: hrs/day 6 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____ ; if seasonal, deacribe: 1500 hrs/yr

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Ozone

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? N/A

   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		
Plate Stock	None	N/A	0.54	
Perchloroethylene	VOC	100	1.65	
n-Butyl Alcohol	VOC	100	0.27	

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

1. Total Process Input Rate (lbs/hr): 2.46

2. Product Weight (lbs/hr): 0.54

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	1.92	1.44	17-2.620	N/A	1.92	1.44	

[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).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels N/A

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

_____

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.

N/A

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM 238 DSCFM Gas Exit Temperature: 200 °F.

Water Vapor Content: 1 % Velocity: 36 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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 Type	Fuel BTU/hr	Temperature (°F)
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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conetruction materials and proceas chemicals:

j. Applicability to manufacturing processea:

k. Ability to conatruct with control device, inatall in available apace, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Lifs:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and proceaa chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 Used

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.

SOURCE DESCRIPTION

In the manufacturing process of photopolymer plates, the plates treated with the solution of n-Butyl Alcohol and Perchloroethylene are dried in an oven. VOC's are emitted as a result of this procedure. Based on the usage and recovery figures for these chemicals, it is assumed that 2% of the chemical loss is a result of "drag out". VOC emission calculations are included in the supplemental attachments. This source is exempt from RACT.

SUPPLEMENTAL REQUIREMENTS

Supplement 1: Total process input rate is calculated based on chemical usage in the washout tank (Application No. AC48-82738) and the total amount recovered. It has been determined that 94% of the chemicals used in the washout tank are recovered during the washout procedure. Of the remaining 6%, 4% is lost out the washout vent and 2% is carried into the dryer (on the plates) and vented to the atmosphere. The calculations are as follows:

Perchloroethylene - Total usage in washout tank is 82.724 lbs./hr.

82.724 lbs./hr. x 0.02 = 1.654 lbs./hr. in dryer.

n-Butyl Alcohol - Total usage in washout tank is 13.693 lbs./hr.

13.693 lbs./hr. x 0.02 = 0.274 lbs./hr. in dryer

Plate stock usage is equal to the plate stock used in the washout tank, 0.54 lbs./hr.

Total utilization rate is:

		lbs./hr.
Plate Stock	=	0.54
Perchloroethylene	=	1.65
n-Butyl Alcohol	=	0.27
Total		2.46

Product weight is equal to the plate stock weight since the process is for drying only.

Supplement 2: Emissions are equal to the amount of solvent remaining on the plate stock and introduced into the dryer. Therefore, potential are equal to actual emissions since all of the solvent is volatilized. Compliance will be demonstrated by usage calculations annually.

Supplement 3: Attached

Supplement 4,5: N/A

Supplement 6,7,8,9: Previously submitted with first application.

VOC EMISSION SUMMARY

Chemical	Potential lbs./hr.	Potential tons/yr.	Actual lbs./hr.	Actual t/yr.
n-Butyl Alcohol	0.27	0.2025	0.27	0.2025
Perchloreothylene	1.65	1.2375	1.65	1.2375
Total	1.92	1.44	1.92	1.4400

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: CYREL PLATE ROOM - DRYER

Chemical name: n - BUTYL ALCOHOL

Chemical density:		0.81	grams per cubic centimeter
	or	6.7529	pounds per gallon
VOC concentration:		6.7529	pounds per gallon
	or	100.0	per cent
Usage rate:		0.0399	gallons per hour
	or	0.27	pounds per hour
VOC control efficiency:		0	per cent

Operating shedule:	6	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	1500	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (0.0399) x (6.7529)

= 0.27 lb per hr x 1500 hr per year

x (1 ton / 2000 pounds)

= 0.2025 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (0.27) x (1 - 0)

= 0.27 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 0.27 lb/hr x 1500 hrs/year

x (1 ton / 2000 pounds)

= 0.2025 tons per year

04-Nov-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: CYREL PLATE ROOM - DRYER

Chemical name: PERCHLOROETHYLENE

Chemical density:	1.631	grams per cubic centimeter
or	13.598	pounds per gallon
VOC concentration:	13.598	pounds per gallon
or	100.0	per cent
Usage rate:	0.1213	gallons per hour
or	1.65	pounds per hour
VOC control efficiency:	0	per cent

Operating shedule:	6	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	1500	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (0.1213) x (13.598)

= 1.65 lb per hr x 1500 hr per year

x (1 ton / 2000 pounds)

= 1.2375 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (1.65) x (1 - 0)

= 1.65 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 1.65 lb/hr x 1500 hrs/year

x (1 ton / 2000 pounds)

= 1.2375 tons per year

04-Nov-85

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 Jerome J. Guidry

Jerome J. Guidry, P.E.
Name (Please Type)

889 N. Orange Avenue
Company Name (Please Type)

Orlando, FL 32801
Mailing Address (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. 305-423-7275

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.

The finishing tank is the last step in the plate manufacturing process (associated with the flexographic printing plant). This finishing tank vent exhausts HCL fumes and connects to the washout tank vent exhaust. This project will result in full compliance with 17-2 FAC.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

AC48-82740 - Existing application number and is vented through the same vent as AC48-82738 (washout tank)

AC 48-82740

DER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NOV 14 1985

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

BAUM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Spiralkote, Inc. COUNTY: Orange

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) Cyrel Plate Room Finishing Tank

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, Inc.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 11-13-85 Telephone No. 305-859-7780

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 hav been ~~designed~~ examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

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

E. Requested permitted equipment operating time: hrs/day 4 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____ ; if seasonal, describe: 1,000 hrs./yr.

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Ozone

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? N/A

   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		
HCL	Acid fumes	1	0.248	
Bleach	Caustic fumes	10	1.617	
Water	None	--	14.86	
Plate Stock	None	--	0.82	

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

1. Total Process Input Rate (lbs/hr): 17.545

2. Product Weight (lbs/hr): 0.82

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	
Acid Fume	0.005	0.0025	17-2.610(2)(a)	0% Opacity	0.25	0.12	
Caustic fumes	0.03	0.017	17-2.610(2)(a)	0% Opacity	1.62	0.81	

[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).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels N/A

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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

Annual Average N/A Maximum N/A

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

This weak solution is neutralized with sodium bicarbonate and discharged to the sewer

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM 290 DSCFM Gas Exit Temperature: 80 °F.

Water Vapor Content: 1 % Velocity: 36 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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 emisaions 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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 Used

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.

PROCESS DESCRIPTION

During the plate manufacturing process, the plates are soaked in a weak solution of Hydrochloric Acid (HCl), bleach and water. This solution may emit some fumes. A worse case is estimated to be 2% of the total chemical usage, and is based on the low vapor pressure of the solution. This solution is neither areated nor agitated so evaporation is minimal.

SUPPLEMENTAL REQUIREMENTS

Supplement 1: Total process input weight is calculated by the sum of HCl, bleach, water and plate stock used daily.

HCl usage rate:

$$9.92 \text{ lbs/gal} \times 0.1 \text{ gal/day} \times \frac{1 \text{ day}}{4 \text{ hrs}} = 0.248 \text{ lbs/hr}$$

Bleach usage rate:

$$9.11 \text{ lbs/gal} \times 0.71 \text{ gal/day} \times \frac{1 \text{day}}{4 \text{ hrs}} = 1.617 \text{ lbs/hr}$$

Water usage rate:

$$8.34 \text{ lbs/gal} \times 7.13 \text{ gal/day} \times \frac{1 \text{ day}}{4 \text{ hrs}} = 14.86 \text{ lbs/hr}$$

Total Process Input Rate =

	0.248
	1.617
	14.86
	0.82 (plate stock)
Total	17.545 lbs/hr

Total product weigh is equal to the weight of the plate stock only.

Supplement 2: Emissions are calculated from the usage rates of bleach and HCl. Emissions were estimated to be 2% of the total usage.

Acid Fume Emissions

Potential Emissions

$$0.248 \text{ lbs/hr} \times 1000 \text{ hrs/yr} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.124 \text{ t/yr}$$

Actual Emissions

$$0.248 \text{ lbs/hr} \times 0.02 = 0.00496 \text{ lbs/hr}$$

$$0.00496 \text{ lbs/hr} \times 1000 \text{ hrs/yr} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.00248 \text{ t/yr}$$

Caustic Fume Emissions

Potential Emissions

$$1.617 \text{ lbs/hr} \times 1000 \text{ hrs/yr} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.8085 \text{ t/yr}$$

Actual Emissions

1.617 lbs/hr x 0.02 = 0.03234 lbs/hr

$$0.03234 \text{ lbs/hr} \times 1000 \text{ hrs/yr} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.01617 \text{ t/yr}$$

Supplement 3: Basis for potential discharge assumes complete evaporation of both the HCl and bleach. This, however, does not occur since these solutions are diluted and changed daily.

Supplement 4, 5: N/A

Supplement 6, 7, 8, 9: Previously submitted with original applications.

AC 48-82738 ER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NOV 14 1985

BAQM

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing

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

COMPANY NAME: Spiralkote, Inc. COUNTY: Orange

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) Cyrel Plate Room Tank-Washout

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, FL 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, Inc.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 11-13-85 Telephone No. 305-859-7780

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

[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 _____

Jerome J. Guidry, P.E.
Name (Please Type)

Post, Buckley, Schuh & Jernigan, Inc.
Company Name (Please Type)

889 N. Orange Avenue, Orlando, FL 32801
Mailing Address (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. 305-423-7275

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.

During the plate manufacturing process, printing plates are treated in a washout tank containing a solution of 25% Butylalcohol and 75% Perchloroethylene. VOC's from this process are vented to the atmosphere. This project will result in full compliance with 17-2 FAC

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

Start of Construction N/A Completion of Construction N/A

C. Costs of pollution control syatem(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.)

N/A

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

AC48-82738 - existing application number-washout tank AC48-82740-Finishing tank (all stacks combined into one stack.)

E. Requested permitted equipment operating time: hrs/day 9 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____ ; if seasonal, describe: 2,250 hrs./yr.

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Ozone

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? N/A

   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		
Plate Stock	None	N/A	0.36	Item 6
Perchloroethylene	VOC	100	82.724	
n-Butyl Alcohol	VOC	100	13.693	

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

1. Total Process Input Rate (lbs/hr): 96.777

2. Product Weight (lbs/hr): 0.36

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	3.86	4.34	17-2.620	N/A	96.4	108.5	

[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).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels N/A

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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.

Waste solvent is collected and reclaimed on site by distillation. The waste from the still is shipped with all other hazardous wastes to Oldover Corporation at Green Cove Springs.

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM 290 DSCFM Gas Exit Temperature: 80 °F.

Water Vapor Content: 1 % Velocity: 36 FPS

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type 0 (Plastice)	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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 Used

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.

PROCESS DESCRIPTION

Associated with flexographic printing is the manufacturing of photopolymer plates. During this manufacturing procedure, the photopolymer plates are treated in a washout tank containing a solution of 25% n-butyl alcohol and 75% perchloroetheylene. Maximum daily usage of this solution is 1 1/3 drums or 73 gallons per day. This equates to 18.25 gallons of n-butyl alcohol and 54.75 gallons of perchloroetheylene. Of the 73 gallons, approximatley 94% is recovered. Approximately 4% volatilizes to the atmosphere and 2% is carried over to the dryer via dragout. The recovered "spent" solvent is processed in the recovery still for reuse.

This stack is combined with the stack from the finishing tank (AC48-82740) and we are requesting one permit to cover both sources.

SUPPLEMENTAL REQUIREMENTS

Supplement 1: Maximum daily usage is 73 gallons per day of 25% n-butyl alcohol and 75% perchloroethylene.

n-butyl alcohol = 18.25 gal/day x 6.729 lbs/gal
x $\frac{1 \text{ day}}{9 \text{ hrs}}$ = 13.693 lbs/hr

Perchloroethylene = 54.75 gal/day x 13.5985
x $\frac{1 \text{ day}}{9 \text{ hrs}}$ = 82.724 lbs/hr

Plate Stock = 0.36 lbs./hr.

Total process input rate = 13.693
82.724
0.360
96.777 lbs./hr.

Product weight is the weight of the Plate Stock or 0.36 lbs/hr. The solvent is recovered and reclaimed.

Supplement 2: Emissions are based on 4% loss of solvent to the atmosphere. Emissions are summarized as follows:

Chemical	Potential Emissions lbs./hr.	Potential Emissions Tons/hr.	Actual Emissions lbs./hr.	Actual Emissions Tons/Yr.
n-butyl alcohol	13.693	15.405	0.5477	0.6161
Perchloroethylene	82.724	93.064	3.3089	3.7225
Total	96.417	108.469	3.8566	4.3386

This source is exempt from RACT. Compliance will be demonstrated by solvent usage calculations in the annual operation report.

Supplement 3, 4, 5: Attached

Supplement 7, 8, 9: Previously submitted with first application.

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: CYREL PLATE ROOM - WASHOUT TANK

Chemical name: PERCHLOROETHYLENE

Chemical density:		1.6310	grams per cubic centimeter
	or	13.598	pounds per gallon
VOC concentration:		13.598	pounds per gallon
	or	100.0	per cent
Usage rate:		6.0835	gallons per hour
	or	82.724	pounds per hour
VOC control efficiency:		96	per cent

Operating shedule:	9	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	2250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (6.0835) x (13.598)

= 82.724 lb per hr x 2250 hr per year

x (1 ton / 2000 pounds)

= 93.064 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (82.724) x (1 - 0.96)

= 3.3089 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 3.3089 lb/hr x 2250 hrs/year

x (1 ton / 2000 pounds)

= 3.7225 tons per year

04-Nov-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: CYREL PLATE ROOM - WASHOUT TANK

Chemical name: n -BUTYL ALCOHOL

Chemical density:		0.81	grams per cubic centimeter
	or	6.7529	pounds per gallon
VOC concentration:		6.7529	pounds per gallon
	or	100.0	per cent
Usage rate:		2.0276	gallons per hour
	or	13.693	pounds per hour
VOC control efficiency:		96	per cent

Operating shedule:	9	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	2250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (2.0276) x (6.7529)

= 13.693 lb per hr x 2250 hr per year

x (1 ton / 2000 pounds)

= 15.404 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (13.693) x (1 - 0.96)

= 0.5477 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 0.5477 lb/hr x 2250 hrs/year

x (1 ton / 2000 pounds)

= 0.6161 tons per year

04-Nov-85

AC 48-82739 DER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NOV 14 1985

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing

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

COMPANY NAME: Spiralkote, INC. COUNTY: Orange

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) Cyrel Plate Room Solvent Recovery Still

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida (32809)

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, INC.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

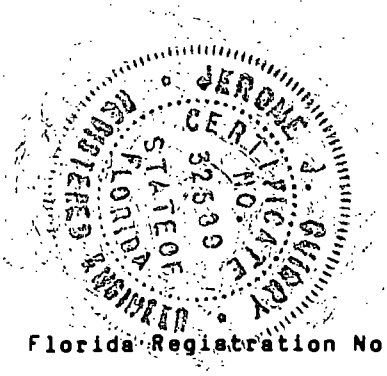
Date: 11-13-85 Telephone No. (305) 859-7780

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

[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 _____

Jerome J. Guidry, P.E.
Name (Please Type)

Post, Buckley, Schuh & Jernigan, INC.
Company Name (Please Type)

889 N. Orange Avenue, Orlando, Florida 32801
Mailing Address (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. (305) 423-7275

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 solvent recovery still used to recover the Butyl alcohol/perchloroethylene mixture used in the Cyrel Plate room. This project will result in full compliance with 17-2 FAC.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

AC48-82739 - Existing application number

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____; if seasonal, describe: 6000 hrs/yr

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Ozone

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? N/A

   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		
Waste Solvent	VOC	100	27.24	
25% n-Butyl ALcohol				
and 75% perchloroethylene				

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

1. Total Process Input Rate (lbs/hr): 27.24

2. Product Weight (lbs/hr): 17.71

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	7.06	21.17	17-2.620	N/A	7.06	21.17	

[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).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels N/A e- (12-13-95)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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.

Still bottoms are shipped to a hazardous waste landfill along with all hazardous wastes generated by this facility.

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 200 ACFM 138 DSCFM Gas Exit Temperature: 300 °F.

Water Vapor Content: 1 % Velocity: 24 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 Used

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.

SOURCE DESCRIPTION

Spent solvent from the Cyrel plate room operation is reclaimed in a solvent recovery still. The 25% Butyl alcohol and 75% perchloroethylene mixture is recovered by distallation as a mixture. The still can process a maximum of 55 gallons per day. Any additional solvent is recovered by an outside contractor.

The still recovers 65% of clean solvent or 35.75 gallons out of 55 gallons of spent solvent. Approximately 5 gallons of still bottom (sludge) is produced and 14.25 gallons evaporates to the atmosphere.

SUPPLEMENT REQUIREMENTS

Supplement 1: Total process input rate is 55 gallons/day of spent solvent mixture (25% n-Butyl alcohol, 75% perchloroethylene)

Solution weight = 11.8871 lbs/gal

$$11.8871 \text{ lbs/gal} \times 55 \text{ gal/day} \times \frac{1 \text{ day}}{24 \text{ hrs}} = 27.24 \text{ lbs/hr}$$

Product rate is equal to the amount of solvent recovered per hour. The still recovery efficency is 65%.

$$27.24 \text{ lbs/hr} \times 0.65 = 17.706 \text{ lbs/hr (product weight)}$$

Supplement 2: Emissions are based on the solvent that evaporates during distillation. This is estimated to be 14.25 gallons/day.

$$14.25 \text{ gal/day} \times 11.8871 \text{ lbs/gal} \times \frac{1 \text{ day}}{24 \text{ hrs}} = 7.058 \text{ lbs/hr}$$

(See attached calculation sheet)

Proof of compliance will be demonstrated by calculations of solvent process rates submitted with the annual operation report.

Supplement 3: Attached

Supplement 4, 5: N/A

Supplement 6, 7, 8, 9: Previously submitted with original application.

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: CYREL PLATE ROOM - SOLVENT RECOVERY STILL

Chemical name: 25% BUTYL ALCOHOL/ 75% PERCHLOROETHYLENE

Chemical density:		1.4246	grams per cubic centimeter
	or	11.877	pounds per gallon
VOC concentration:		11.877	pounds per gallon
	or	100.0	per cent
Emission rate:		0.5942	gallons per hour
	or	7.058	pounds per hour
VOC control efficiency:		0	per cent

Operating shedule: 24 Hours per day
5 Days per week
50 Weeks per year

TOTAL 6000 Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (0.5942) x (11.877)

= 7.058 lb per hr x 6000 hr per year

x (1 ton / 2000 pounds)

= 21.174 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (7.058) x (1 - 0)

= 7.058 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 7.058 lb/hr x 6000 hrs/year

x (1 ton / 2000 pounds)

= 21.174 tons per year

07-Nov-85

AC 44-82933 DER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NOV 14 1985

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Spiralkote, Inc. COUNTY: Orange

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) Central Impression Printing Press-Olympia Model 726 with Catalytic Incinerator

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida 3280

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, INC.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice Presiden
Name and Title (Please Type)

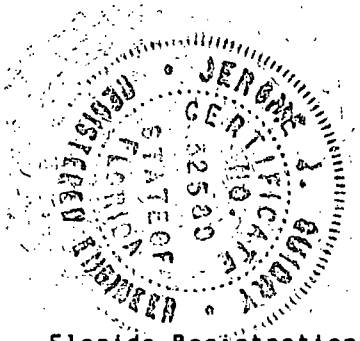
Date: 11-13-85 Telephone No. (305) 859-7780

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

[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 _____

Jerome J. Guidry, P.E.
Name (Please Type)

Post, Buckley, Schuh & Jernigan, INC.
Company Name (Please Type)

889 N. Orange Avenue, Orlando, Florida 32801
Mailing Address (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. (305) 423-7275

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 source is a new Flexographic printing press that produces composite can labels. This Olympia Model 726 Central Impressions printing press emits VOC's that will be controlled using an catalytic incinerator. This project will result in full compliance with 17-2 FAC.

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

Start of Construction N/A Completion of Conatruction N/A

C. Costs of pollution control syatem(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.)

Incinerator, ductwork and labor = $128,500.00

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

AC48-82733

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	None	N/A	250	Item 6
Coating KJ 902	VOC	86	8.3	"
Coating NB 1061	VOC	66	5.9	"
Ink	VOC	74	17.6	"

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

1. Total Process Input Rate (lbs/hr): 281.80

2. Product Weight (lbs/hr): 257.74

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	8.06	16.12	17-2.640	8.06	24.06	48.11	Item 6
			LAER				
			70% Capture				
			95% Destruction				

[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).

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____; if seasonal, describe: 4000 hrs/yr

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? Yes

   a. If yes, has "offset" been applied? No

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

   c. If yes, list non-attainment pollutants. Ozone

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? Yes

   a. If yes, for what pollutants? VOC

   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.

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)
2500 CFM - Catalytic Incineration System (Custom Built) by Etter Engineering Company, INC.	VOC	95% Minimum	N/A	Manufacturer Specifications

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Nat'l Gas (O.H. Dryer)	700×10^{-6}	1400×10^{-6}	1.4
Nat'l Gas (Flex Dryer)	600×10^{-6}	1200×10^{-6}	1.2
Nat'l Gas (Coating Dryer)	400×10^{-6}	800×10^{-6}	0.8
Nat'l Gas (Incinerator)	3×10^{-6}	800×10^{-6}	0.8

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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

Annual Average N/A Maximum _____

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

Solvent wastes will be manifested and shipped to Oldover Corporation, at Green Cove Springs, where it will be burned in their boilers. They currently have a RCRA generator permit and handle their other solvent wastes in this manner.

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

Stack Height: 30 ft. Stack Diameter: 1.26 ft.

Gas Flow Rate: 2500 ACFM 1504 DSCFM Gas Exit Temperature: 400 °F.

Water Vapor Content: 2 % Velocity: 33.33 FPS

SECTION IV: INCINERATOR INFORMATION N/A - See Section 3 D & E

Type of Waste	Type 0 (Plastice)	Type I (Rubbish)	Type II (Refuae)	Type III (Garbage)	Type IV (Patholog-ical)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Inciner-ated							
Uncon-trolled (lbs/hr)							

Description of Waste _____

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

Approximate Number of Houra 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 emissiona rate in grains per standard cubic foot dry gas corrected to 50% excesa 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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 inatrumentation 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 Used

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.

SOURCE DESCRIPTION

The Central Impression (CI) Printing Press, prints labels for composite cans, using coatings and inks which contain organic solvents. These coatings and inks release VOC's into the atmosphere. To control VOC emissions from this source, Spiralkote will install a catalytic incinerator, or after-burner, to destroy the VOC's and convert them to carbon dioxide and water. The CI printing press will have its own incinerator to control emissions. Associated with this incinerator is a VOC collection system which will "capture" the VOC's from the fugitive emission points around the press. The capture efficiency is estimated to be 70% as required by the FDER. Compliance with this capture efficiency will be demonstrated during the VOC stack test, by determining the amount of solvent used during the test and the concentration collected at the inlet of the incinerator.

The catalytic incinerator is custom designed by Etter Engineering Company, INC., located in Chelmsford, Massachusetts. It is a 2500 CFM natural gas fired incinerator utilizing an Eclips model 80-AHO burner. The duct work and collection system (and installation) will be done by Dec-E-Tech Industrial Design Engineering of Tyngsborough, Maine. Enclosed in this application are the following:

- Stack test report on the incinerator

- Drawings of the duct work

- Flow diagram of the incinerator

The stack test platform and sampling port location will be installed once the system is installed. Exact drawings and specifications are not yet available but will comply with all requirements outlined in 17-2.700 FAC. Drawings of the testing facility will be forwarded to the FDER upon completion of the design.

VOC EMISSION SUMMARY

	Potential Emission		Actual Emissions	
Coating/Ink	Lbs/hr	Tons/yr	Lbs/hr	Tons/yr
KJ 902	7.138	14.276	2.3912	4.7824
NB 1061	3.894	7.788	1.3044	2.6089
Ink	13.024	26.048	4.3630	8.7260
Total	24.056	48.112	8.0586	16.1173

SUPPLEMENTAL REQUIREMENTS

Supplement 1: Process input rate was determined through actual production data and is a combination of the ink, coatings and paper used. The product weight is the weight of the printed paper less the solvent weight.

Supplement 2: Emissions were calculated from the solvent content of the inks and coatings assuming 70% capture of VOC's and 95% destruction.

Total control efficiency is:

$$0.7 \times 0.95 \times 100 = 66.5\%$$

Compliance will be demonstrated by an EPA Method 25 VOC, Stack test (or the latest approved method) with capture efficiency being determined by the amount of solvent being used during the test and the concentration of VOC's collected at the inlet of the incinerator.

Supplement 3, 4, 5: Attached

Supplement 6, 7, 8, 9: Previously submitted with first appli-

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: SPIRALKOTE - CI PRESS

Chemical name: COATING KJ 902

Chemical density:		0.6812 grams per cubic centimeter
	or	5.68 pounds per gallon
VOC concentration:		4.8848 pounds per gallon
	or	86.0 per cent
Usage rate:		1.4612 gallons per hour
	or	8.3 pounds per hour
VOC control efficiency:		66.5 per cent

Operating shedule: 16 Hours per day
5 Days per week
50 Weeks per year

TOTAL 4000 Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (1.4612) x (4.8848)

= 7.138 lb per hr x 4000 hr per year

x (1 ton / 2000 pounds)

= 14.276 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (7.138) x (1 - 0.665)

= 2.3912 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 2.3912 lb/hr x 4000 hrs/year

x (1 ton / 2000 pounds)

= 4.7824 tons per year

31-Oct-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: SPIRALKOTE - CI PRESS

Chemical name: COATING NB 1061

Chemical density:		0.6048	grams per cubic centimeter
	or	5.0427	pounds per gallon
VOC concentration:		3.3281	pounds per gallon
	or	66.0	per cent
Usage rate:		1.1700	gallons per hour
	or	5.9	pounds per hour
VOC control efficiency:		66.5	per cent

Operating shedule: 16 Hours per day
5 Days per week
50 Weeks per year

TOTAL 4000 Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (1.1700) x (3.3281)

= 3.894 lb per hr x 4000 hr per year

x (1 ton / 2000 pounds)

= 7.788 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (3.894) x (1 - 0.665)

= 1.3044 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 1.3044 lb/hr x 4000 hrs/year

x (1 ton / 2000 pounds)

= 2.6089 tons per year

31-Oct-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: SPIRALKOTE - CI PRESS

Chemical name: INK

Chemical density:		0.9021 grams per cubic centimeter
	or	7.5213 pounds per gallon
VOC concentration:		5.5657 pounds per gallon
	or	74.0 per cent
Usage rate:		2.3400 gallons per hour
	or	17.6 pounds per hour
VOC control efficiency:		66.5 per cent

Operating shedule: 16 Hours per day
5 Days per week
50 Weeks per year

TOTAL 4000 Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (2.3400) x (5.5657)

= 13.024 lb per hr x 4000 hr per year

x (1 ton / 2000 pounds)

= 26.048 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (13.024) x (1 - 0.665)

= 4.3630 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 4.3630 lb/hr x 4000 hrs/year

x (1 ton / 2000 pounds)

= 8.7260 tons per year

31-Oct-85

File

EPA

ETTER ENGINEERING COMPANY, INC.

4 KIDDER ROAD • CHELMSFORD, MASSACHUSETTS 01824
TELEPHONE: (617) 256-0980

REC'D

1985

January 8, 1985

Fleming Packaging Corp.
Spiralkote, Inc.
1200 Central Florida Pkwy.
Orlando, FL 32809

Attention: Robert Kindorf--Vice-President, Production

Reference: Catalytic Reactor Test

Dear Robert,

Enclosed is a copy of the test report done by Affiliated Environmental Services, Inc. of Sandusky, Ohio for Pillar Corporation at their C.B. Henschel Company installation in New Berlin, Wisconsin. They applied the Method 25 EPA stack test for Volotile Organic Compounds to the Pillar 15,000SCFM catalytic reactor. The reactor was connected to the 7 gravure laminating and coating machines employing the following solvents: ethyl acetate, I.P. acetate, isopropanol, and xyol alcohol. The sampling equipment and method was as follows:

a) VOC test consisted of simultaneous sampling at the "inlet" and "outlet" for 60 minutes
b) the VOC was sampled using two sets of EPA method 25 type
c) Byron model 90 sample collection units, consisting of probes, heavy hydrocarbon traps, pump mass flow rate/integrator and Tedlar bag
d) the heavy hydrocarbon trap sample is treated using Byron model 75 hydrocarbon converter
e) introduced into a Byron 401 analyzer gas chromatograph (flame ionization detector)

The results of the test are as follows:

a) at a preset inlet air temperature of 450°F, the efficiency is 98.8%
b) at a preset inlet air temperature of 525°F, the efficiency is 98.9%
c) at a preset inlet air temperature of 575°F, the efficiency is 99.3%

Catalytic Reactor Test

As you can see, the BTU/hr. required for pre-heats of 575°F versus 450°F doesn't derive any significant benefit in terms of efficiency i.e. 98.8% versus 99.3%. Therefore, a pre-heat of 450°F at 98.8% efficiency is more than adequate to meet EPA standards.

Further information on our design modifications and test results at Union Industries will be forthcoming as information is made available.

If I can be of further assistance, please let me know.

Sincerely,

Roger Decelles
Vice-President, Manufacturing

Enclosures

RED/ef

AFFILIATED ENVIRONMENTAL SERVICES, inc.

219 FREMONT AVENUE, SANDUSKY, OHIO 44870 (419) 627-1976

REPORT TO PILLER CORP.

ON

STACK V.O.C. SAMPLES
COLLECTED AT
C.B. HENSCHEL
15805 OVERLAND DR.
NEW BERLIN, WI

SUBMITTED BY

A.E. SERVICES, INC.
219 FREMONT AVENUE
SANDUSKY, OHIO 44870

DATE OF TESTING: Nov. 14, 1984

DATE OF REPORT: Nov. 23, 1984

FIELD TEST ENGINEER

I. INTRODUCTION

This report contains the results of Volotile Organic Carbon (VOC) testing performed on the inlet gases the outlet gases from a 15,000 cfm Pillar catalytic unit installed at the C.B. Henschel plant in New Berlin Wisc. This test was reviewed by and witnessed by the Wisc. State and the Federal EPA. Mr. Dick Dalton, the EPA Region V VOC expert, was present as was Mr. Frank Ecman of Region V to witness the test. The operations tested at C.B. Henschell consists of printing and lamination. The facility has 6 out of the 7 lines (#6 not operational yet) available however only 4 or 5 lines are normally in use on any given day. On the day of the test lines 2,4,5 and 7 were in use during all 3 tests. Line 1 was in operation during the 2nd test only. Line 1 was a waterbase coating and should not produce any significant V.O.C. A summary of the make up of the coating for each line is attached to this report. Testing was only performed during full production (no testing during breaks or at lunch time. The VOC's from each line are captured by a series of hoods and exhaust take offs. Each line has its own local exhaust system (separate exhaust units) which then feed to a common plenum: The gases in this plenum next go to a gas fired preheat zone then to the catalytic unit.

The effluent from the catalytic unit is used (via counter flow heat exchange) to heat the plant and air to the lines (presses). A portion of this effluent is vented to atmosphere with the balance returning through the plenum to the preheat then the catalytic unit. The two test points were: inlet to the preheat and the outlet from the catalytic (plenum from which effluent is diverted to atmosphere or through the heat exchangers for the plant). Three sets of V.O.C. tests were performed. Each set consisted of simultaneous sampling at the "inlet" and "outlet" for 60 minutes. Test I was ran with the temperature of the gas to the catalytic incinerator (after preheat) at 450°F, Test II at 525°F and Test III at 575°F. This temperature, the temperature after the incinerator, the temperatures at each sample point and a listing of lines with exhausts fans on was monitored every 5 minutes (sheets attached). The V.O.C. was sampled using two sets of method 25 type stack trains. This consists of a Byron Model 90 sample collection unit which is made up of a probe, a heavy hydrocarbon trap, the pump and mass flow rate/integrator, and a Tedlar Bag. The sample is drawn into the probe and the heavy hydrocarbons are removed by the trap and the flow rate and volume are monitored by a mass flow meter. The light hydrocarbons and CO and CO_2 are collected in the Tedlar Bag. Analysis of the sample is performed using a Byron Model 401 analyzer. The Tedlar Bag fraction of the sample is analyzed directly on this analyzer. The heavy hydrocarbon trap requires treatment first using a Byron Model 75 heavy hydrocarbon converter. This converter

first removes at high temperature the hydrocarbons from the trap then converts the hydrocarbons to CO_2 which is then introduced into the 401 analyzer. The 401 analyzer is a gas chromatograph (flame ionization detector) system specially equipped to separate the gas introduced into the following components; CO, CO_2, CH_4, C_2's and NMHC (none methane hydrocarbons). After separation all the individual components go through a catalytic oxidizer (converted to CO_2) then reduced to CH_4 by a catalytic reducer then they are measured by the FID as methane. Since all components follow through the same path (oxidizer/reducer/detector) greater system accuracy is assured. All measurements made in the detector are made on CH_4 which is precisely proportional to the carbon content of the original hydrocarbon. The unit is calibrated using a minimum of two gases. The first is a 4 component mixture of CH_4, CO, CO_2 and propane. This mixture checks out the catalytic oxidizer and reducer plus the condition of the gas chromatograph columns. It also is used to verify the calibration of each component (CH_4, CO, CO_2 and NMHC). The second gas is a special zero gas that contains less than 0.1 ppm hydrocarbon. On the date of this test three additional gas mixtures were used as quality control checks. The first QC gas was mixture of CO_2 in zero gas, the second QC gas was CH_4 in zero gas, and the third gas was a different concentration of the same 4 components as in the primary calibration mixture. All the calibration gases and the QC gases were in specification (1% of scale). Two sets of

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organic solvents were taken during VOC test II using charcoal absorption tubes which were ran (FID gas chromatograph/CS_2 desorbtion) to look for new organics formed by the catalytic incinerator; none were found. In addition 2 thirty minute samples were taken at the "outlet" point during V.O.C. test II to determine concentrations of formaldehyde and other low molecular weight (C_1-C_5) aldehydes. The method used was Inter Society Committee 110; collection in 1% $NaHSO_3$ solution. The results were as follows (ppm):

COMPOUND	Run A	Run B
Formaldehyde	.26	.22
Acrolein	$<$.02	$<$.02
C_2-C_5	$<$.05	$<$.05

The formaldehyde method is subject to some inter ferences. In order to see if this was a problem a test was ran simultaneously with Run A using a "spiked" solution that would yield 0.54 ppm formaldehyde if no inter ference. It resulted in 0.59 ppm.

II. V.O.C. TEST RESULTS

The V.O.C. test results are presented in Tables I,II and III.

The incinerator efficiency was:

Test I	98.8%
Test II	98.9%
Test III	99.3%

III. EMISSIONS

During Test III the volume of air being exhausted from the system was measured at a 2' x 6' opening using an Alnor series 6000 velometer with a pitot probe. The opening was divided into 12 equal areas and the meter reading (ft/min) recorded. The top 4 openings were all less than 200; the 2nd row of 4 were 850,600, 250 and 200 with the bottom row of 4 being 1600,1550,1450 and 1200. After correcting for temperature this results in an emission rate of 9950 cfm. Based on an emission concentration of 6.4 ppm of NMHC (as methane) this results in an emission of 0.12 lb/hr.

TABLE I

SUMMARY OF TEST DATA OBTAINED
DURING TEST I
PRESET TEMPERATURE 450°F

	Inlet	Outlet
Sampling Date	11-14-84	11-14-84
Barometric Pressure	29.88	29.88
Time Sampled	1044-1145	1046-1147
Volume (Liters)	6.094	7.294
Concentration of Gases in ppm)		
Carbon Monoxide	17	26
Carbon Dioxide	425	990
Methane	3	2
NMHC (1)	739	9.2

NMHC = non-methane hydrocarbon

TABLE II

SUMMARY OF TEST DATA OBTAINED
DURING TEST II
PRESET TEMPERATURE 525°F

	Inlet	Outlet
Sampling Date	11-14-84	11-14-84
Barometric Pressure	29.88	29.88
Time Sampled	1324-1424	1325-1425
Volume (Liters)	6.318	7.304
Concentration of Gases in ppm		
Carbon Monoxide	22	31
Carbon Dioxide	390	1125
Methane	3	3
NMHC (1)	760	8.0

NMHC = non-methane hydrocarbon

(1) NMHC is reported in ppm as methane

TABLE III

SUMMARY OF TEST DATA OBTAINED
DURING TEST III
PRESET TEMPERATURE 575°F

	Inlet	Outlet
Sampling Date	11-14-84	11-14-84
Barometric Pressure	29.88	29.88
Time Sampled	1532-1632	1534-1634
Volume (Liters)	6.311	7.528
Concentration of Gases in ppm		
Carbon Monoxide	24	27
Carbon Dioxide	460	1680
Methane	2	3
NMHC (1)	872	6.4

NMHC = non-methane hydrocarbon

(1) NMHC is reported in ppm as methane

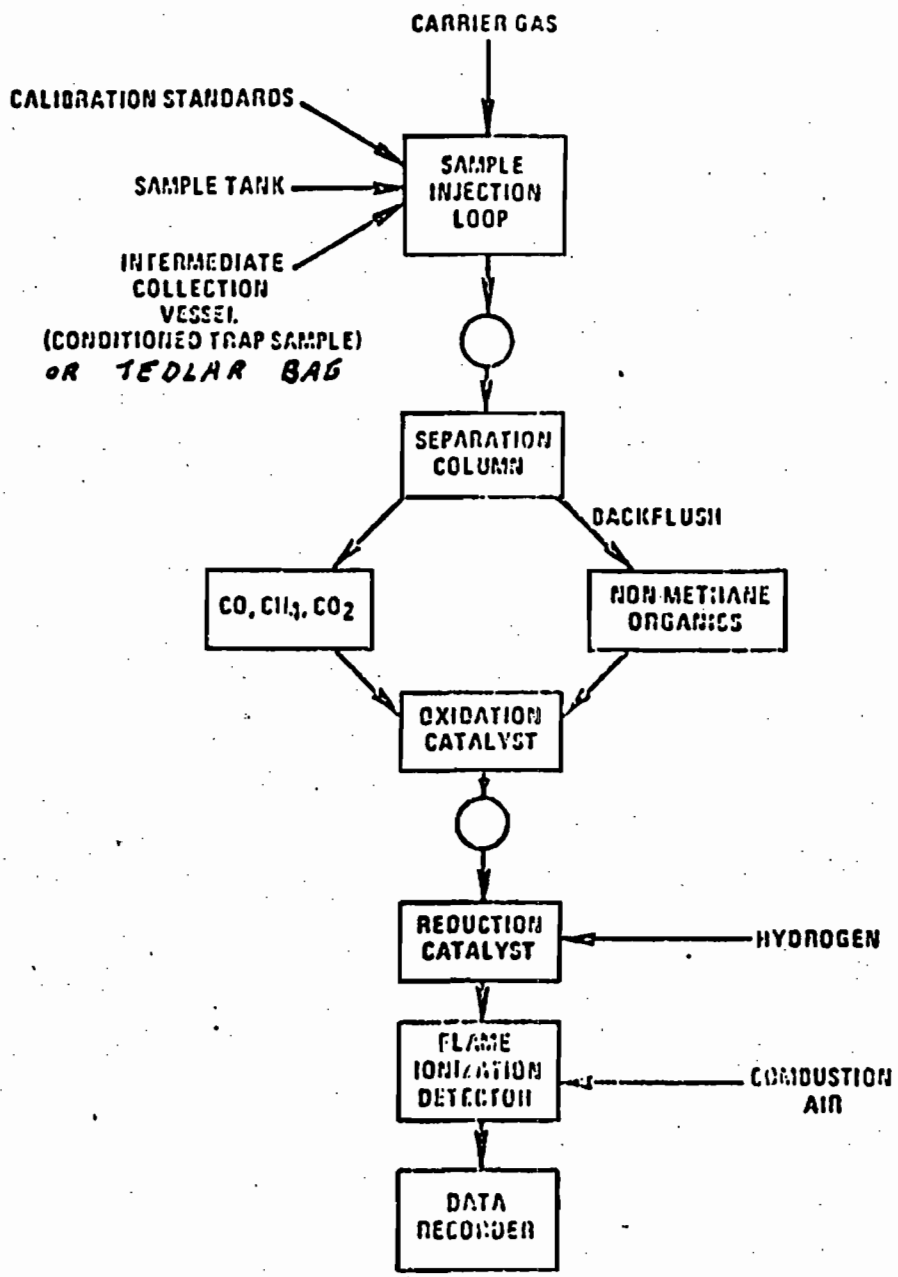

Figure 2. Simplified schematic of non-methane organic (NMO) analyze

COATING RUN 11/14/84 CURING EPA TEST

LINE #1 - WATERBASE COATING - NO SOLVENT

LINE #2 - #8760 - 1/2 GAL of MIX PER HOUR

4 GAL of MIX = 1/2 GAL I.P. ALCOHOL
1/2 GAL NAPTHA-VMP
3 GAL 8760 BASE

8760 BASE = 8.0 LBS PER GALLON
42% VOC By WEIGHT

THE 42% VOC ARE IN THESE PROPORTIONS:

ALCOHOL	45%
AROMATIC	9%
VMP NAPTHA	46%

LINE #3 UV LACQUER - NO SOLVENT

LINE #4 PC-15 COATING - 3½ GAL MIX PER HOUR

5 GAL of MIX = 1 GAL I.P. ALCOHOL
4 GAL PC-15 BASE

PC-15 BASE = 8.1 LBS. PER GALLON
35% VOC By WEIGHT

THE VOLATILES INCLUDE: ISOPROPANOL
VMP NAPTHA
XYLOL

(NO PROPORTION AVAILABLE -
MFG - PROPRIETARY)

LINE #5 76FS93 ADHESIVE - 4 GAL MIX PER HOUR

5 GAL MIX - 3 GAL I.P. ACETATE
2 GAL 76FS93 BASE

76FS93 BASE = 8.8 LBS PER GALLON
40% VOC By WEIGHT

THE VOLATILE IN 76FS93 IS
100% ETHYL ACETATE

LINE #7 76FS93 ADHESIVE - 12 GAL MIX PER HOUR
(SAME MIX AS LINE #5)

AC 48-82736
AC 48-82737

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Spiralkote, Inc. COUNTY: Orange

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) Kidder II and Kidder III flexographic printing presses with one catalytic incinerator

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 24 ' 21 "N Longitude 81 ° 23 ' 40 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Productions

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Florida 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Spiralkote, Inc.

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 contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 11-13-85 Telephone No. (305) 859-7780

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

[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 _____

Jerome J. Guidry P.E.
Name (Please Type)

Post, Buckley, Schuh & Jernigan, Inc.
Company Name (Please Type)

889 N. Orange Avenue, Orlando, Florida 32801
Mailing Address (Please Type)

Florida Registration No. 32589 Date: 11-13-85 Telephone No. (305) 423-7275

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.

Kidder II and Kidder III are Flexographic printing presses that use coatings and Inks that emit VOC's during drying. Emissions from these two presses will be controlled by a common catalytic incinerator. This project will result in full compliance with 17-2 FAC.

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

Start of Construction N/A Completion of Construction N/A

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.)

Cost of Incinerator, duct work and labor = $128,500

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates. AC48-82736 and AC48-82737 (Kidder II and Kidder III respectively); we are combining these sources into one application because this project will result in a single emission point.

E. Requested permitted equipment operating time: hrs/day 17 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr ____ ; if seasonal, describe: 4250 hrs/yr

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? Yes

   a. If yes, has "offset" been applied? No

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

   c. If yes, list non-attainment pollutants. Ozone

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? N/A

   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	None	N/A	346	Item 6
Coating KJ 902	VOC	86	16.6	"
Coating NB 1061	VOC	66	11.8	"
Ink	VOC	74	30.8	"

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

1. Total Process Input Rate (lbs/hr): 405.20

2. Product Weight (lbs/hr): 360.34

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	15.03	31.93	17-2.640	15.03	44.86	95.32	Item 6
			Laer				
			70% capture				
			95% destruction				

[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).

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)
2500 CFM - Catalytic	VOC	95% minimum	N/A	Manufactuer
Incineration System				Specification
(Custom built) by				
Etter ENgineering				
Company, Inc.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Nat'l Gas - Kidder II	320×10^{-6}	800×10^{-6}	0.8
Nat'l Gas - Kidder III	320×10^{-6}	1200×10^{-6}	1.2
Nat'l Gas - Incinerator	3×10^{-6}	800×10^{-6}	0.8

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): N/A

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

Annual Average N/A Maximum N/A

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

Solvent wastes will be manifested and shipped to Oldover Corporation, at Green Cove Springs, were it will be burned in their boilers. They currently have a RCRA generator permit and handle their other solvent wastes in this manner

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

Stack Height: 30 ft. Stack Diameter: 1.26 ft.

Gas Flow Rate: 2500 ACFM 1504 DSCFM Gas Exit Temperature: 400 °F.

Water Vapor Content: 2 % Velocity: 33.33 FPS

SECTION IV: INCINERATOR INFORMATION N/A See Section 3 D & E

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 N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conetruction materials and process chemicals:

j. Applicability to manufacturing processee:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conatruction materials and process chemicals:

j. Applicability to manufacturing processee:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emisaions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 N/A

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 Used

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.

SOURCE DESCRIPTION

Kidder II and Kidder III are flexographic printing presses, which print labels for composite cans, using coatings and inks that contain organic solvents. These coatings and inks release VOC's into the atmosphere.

Kidder II is regulated by BACT while Kidder III is regulated by LAER. Spiralkote has decided to install one common incinerator for both presses which results in Kidder II being regulated by LAER. Therefore both Kidder II and III will be controlled by the same incinerator (which is 95% efficient for destroying VOC's) and a collection system (which will be 70% effective at capturing fugitive VOC emissions,) as required by FDER. Compliance with this capture efficiency will be demonstrated, during the VOC stack test, by determining the amount of solvent used during the test and the concentration collected at the inlet of the incinerator.

The catalytic incinerator is designed by Etter Engineering Company, INC. located in Chelmsford, Massachusettts. It is a 2500 CFM natural gas fired incinerator utilizing an Eclips model 80-AHO burner. The duct work and collection system (and installation) will be done by Dec-E-Tech Industrial Design Engineering of Tyngsborough, Maine.

Enclosed in this application are the following:

- Stack test report on the incinerator

- Drawings of the duct work

- Flow diagram of the incinerator

The stack test platform and sampling port location will be installed once the system is installed. Exact drawings and specifications are not yet available but will comply with all requirements outlined in 17-2.700 FAC. The exact drawings will be forwarded to the Department as soon as they are finalized.

SUPPLEMENTAL REQUIREMENTS

Supplement 1: Process input rate was determined through actual production data, and is a combination of the ink, coatings and paper used. The product weight is the weight of the printed paper less the solvent weight.

Supplement 2: Emissions were calculated from the solvent content of the inks and coatings assuming 70% capture of VOC's and 95% destruction.

Total control efficiency is:

$$0.7 \times 0.95 \times 100 = 66.5\%$$

Compliance will be demonstrated by an EPA Method 25 VOC stack test (or the latest approved method) with capture efficiency being determined by the amount of solvent being used during the test and the concentration of VOC's collected at the inlet of the incinerator.

Supplement 3, 4, 5: Attached

Supplement 6, 7, 8, 9: Previously submitted with first application.

EMISSION SUMMARY

	Potential Emissions		Actual Emissions	
Coating/Ink	Lbs/hr	Tons/yr	Lbs/hr	Tons/yr
KJ 902	14.276	30.336	4.7824	10.162
NB 1061	7.788	16.549	2.6089	5.5440
Ink	22.792	48.433	7.6353	16.225
Total	44.856	95.318	15.0266	31.931

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: SPIRALKOTE - KIDDER I & KIDDER II PRESSES

Chemical name: COATING KJ 902

Chemical density:		0.6812	grams per cubic centimeter
	or	5.68	pounds per gallon
VOC concentration:		4.8848	pounds per gallon
	or	86.0	per cent
Usage rate:		2.9225	gallons per hour
	or	16.6	pounds per hour
VOC control efficiency:		66.5	per cent

Operating shedule:	17	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	4250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (2.9225) x (4.8848)

= 14.276 lb per hr x 4250 hr per year

x (1 ton / 2000 pounds)

= 30.336 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (14.276) x (1 - 0.665)

= 4.7824 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 4.7824 lb/hr x 4250 hrs/year

x (1 ton / 2000 pounds)

= 10.162 tons per year

31-Oct-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: SPIRALKOTE - KIDDER I & KIDDER II PRESSES

Chemical name: COATING NB 1061

Chemical density:		0.6048	grams per cubic centimeter
	or	5.0427	pounds per gallon
VOC concentration:		3.3281	pounds per gallon
	or	66.0	per cent
Usage rate:		2.3400	gallons per hour
	or	11.8	pounds per hour
VOC control efficiency:		66.5	per cent

Operating shedule:	17	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	4250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (2.3400) x (3.3281)

= 7.788 lb per hr x 4250 hr per year

x (1 ton / 2000 pounds)

= 16.549 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (7.788) x (1 - 0.665)

= 2.6089 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 2.6089 lb/hr x 4250 hrs/year

x (1 ton / 2000 pounds)

= 5.5440 tons per year

31-Oct-85

EMISSION CALCULATIONS FOR VOLATILE ORGANIC COMPOUNDS

Comment: SPIRALKOTE - KIDDER I & KIDDER II PRESSES

Chemical name: INK

Chemical density:		0.9021	grams per cubic centimeter
	or	7.5213	pounds per gallon
VOC concentration:		5.5657	pounds per gallon
	or	74.0	per cent
Usage rate:		4.0950	gallons per hour
	or	30.8	pounds per hour
VOC control efficiency:		66.5	per cent

Operating shedule:	17	Hours per day
	5	Days per week
	50	Weeks per year
TOTAL	4250	Hours per year

Potential emissions = (Usage rate) x (VOC Concentration)

= (4.0950) x (5.5657)

= 22.792 lb per hr x 4250 hr per year

x (1 ton / 2000 pounds)

= 48.433 Tons per year

Maximum emissions = Potential emissions x (1 - Efficiency)

= (22.792) x (1 - 0.665)

= 7.6353 pounds per hour

Actual emissions = Maximum emissions x Operating schedule

= 7.6353 lb/hr x 4250 hrs/year

x (1 ton / 2000 pounds)

= 16.225 tons per year

31-Oct-85

FILE

EPA

ETTER ENGINEERING COMPANY, INC.

4 KIDDER ROAD • CHELMSFORD, MASSACHUSETTS 01824
TELEPHONE: (617) 256-0980

REC[illegible]

1985

January 8, 1985

Fleming Packaging Corp.
Spiralkote, Inc.
1200 Central Florida Pkwy.
Orlando, FL 32809

Attention: Robert Kindorf--Vice-President, Production

Reference: Catalytic Reactor Test

Dear Robert,

Enclosed is a copy of the test report done by Affiliated Environmental Services, Inc. of Sandusky, Ohio for Pillar Corporation at their C.B. Henschel Company installation in New Berlin, Wisconsin. They applied the Method 25 EPA stack test for Volotile Organic Compounds to the Pillar 15,000SCFM catalytic reactor. The reactor was connected to the 7 gravure laminating and coating machines employing the following solvents: ethyl acetate, I.P. acetate, isopropanol, and xyol alcohol. The sampling equipment and method was as follows:

a) VOC test consisted of simultaneous sampling at the "inlet" and "outlet" for 60 minutes
b) the VOC was sampled using two sets of EPA method 25 type
c) Byron model 90 sample collection units, consisting of probes, heavy hydrocarbon traps, pump mass flow rate/integrator and Tedlar bag
d) the heavy hydrocarbon trap sample is treated using Byron model 75 hydrocarbon converter
e) introduced into a Byron 401 analyzer gas chromatograph (flame ionization detector)

The results of the test are as follows:

a) at a preset inlet air temperature of 450°F, the efficiency is 98.8%
b) at a preset inlet air temperature of 525°F, the efficiency is 98.9%
c) at a preset inlet air temperature of 575°F, the efficiency is 99.3%

January 8, 1985

Catalytic Reactor Test

As you can see, the BTU/hr. required for pre-heats of 575°F versus 450°F doesn't derive any significant benefit in terms of efficiency i.e. 98.8% versus 99.3%. Therefore, a pre-heat of 450°F at 98.8% efficiency is more than adequate to meet EPA standards.

Further information on our design modifications and test results at Union Industries will be forthcoming as information is made available.

If I can be of further assistance, please let me know.

Sincerely,

Roger Decelles
Vice-President, Manufacturing

Enclosures

RED/ef

AFFILIATED ENVIRONMENTAL SERVICES, inc.

219 FREMONT AVENUE, SANDUSKY, OHIO 44870 (419) 627-1976

REPORT TO PILLER CORP.

ON

STACK V.O.C. SAMPLES
COLLECTED AT
C.B. HENSCHEL
15805 OVERLAND DR.
NEW BERLIN, WI

SUBMITTED BY

A.E. SERVICES, INC.
219 FREMONT AVENUE
SANDUSKY, OHIO 44870

DATE OF TESTING: Nov. 14, 1984

DATE OF REPORT: Nov. 23, 1984

FIELD TEST ENGINEER

I. INTRODUCTION

This report contains the results of Volotile Organic Carbon (VOC) testing performed on the inlet gases the outlet gases from a 15,000 cfm Pillar catalytic unit installed at the C.B. Henschel plant in New Berlin Wisc. This test was reviewed by and witnessed by the Wisc. State and the Federal EPA. Mr. Dick Dalton, the EPA Region V VOC expert, was present as was Mr. Frank Ecman of Region V to witness the test. The operations tested at C.B. Henschell consists of printing and lamination. The facility has 6 out of the 7 lines (#6 not operational yet) available however only 4 or 5 lines are normally in use on any given day. On the day of the test lines 2,4,5 and 7 were in use during all 3 tests. Line 1 was in operation during the 2nd test only. Line 1 was a waterbase coating and should not produce any significant V.O.C. A summary of the make up of the coating for each line is attached to this report. Testing was only performed during full production (no testing during breaks or at lunch time. The VOC's from each line are captured by a series of hoods and exhaust take offs. Each line has its own local exhaust system (separate exhaust units) which then feed to a common plenum. The gases in this plenum next go to a gas fired preheat zone then to the catalytic unit.

The effluent from the catalytic unit is used (via counter flow heat exchange) to heat the plant and air to the lines (presses). A portion of this effluent is vented to atmosphere with the balance returning through the plenum to the preheat then the catalytic unit. The two test points were: inlet to the preheat and the outlet from the catalytic (plenum from which effluent is diverted to atmosphere or through the heat exchangers for the plant). Three sets of V.O.C. tests were performed. Each set consisted of simultaneous sampling at the "inlet" and "outlet" for 60 minutes. Test I was ran with the temperature of the gas to the catalytic incinerator (after preheat) at 450°F, Test II at 525°F and Test III at 575°F. This temperature, the temperature after the incinerator, the temperatures at each sample point and a listing of lines with exhausts fans on was monitored every 5 minutes (sheets attached). The V.O.C. was sampled using two sets of method 25 type stack trains. This consists of a Byron Model 90 sample collection unit which is made up of a probe, a heavy hydrocarbon trap, the pump and mass flow rate/integrator, and a Tedlar Bag. The sample is drawn into the probe and the heavy hydrocarbons are removed by the trap and the flow rate and volume are monitored by a mass flow meter. The light hydrocarbons and CO and CO_2 are collected in the Tedlar Bag. Analysis of the sample is performed using a Byron Model 401 analyzer. The Tedlar Bag fraction of the sample is analyzed directly on this analyzer. The heavy hydrocarbon trap requires treatment first using a Byron Model 75 heavy hydrocarbon converter. This converter

first removes at high temperature the hydrocarbons from the trap then converts the hydrocarbons to CO_2 which is then introduced into the 401 analyzer. The 401 analyzer is a gas chromatograph (flame ionization detector) system specially equipped to separate the gas introduced into the following components; CO, CO_2, CH_4, C_2's and NMHC (none methane hydrocarbons). After separation all the individual components go through a catalytic oxidizer (converted to CO_2) then reduced to CH_4 by a catalytic reducer then they are measured by the FID as methane. Since all components follow through the same path (oxidizer/reducer/detector) greater system accuracy is assured. All measurements made in the detector are made on CH_4 which is precisely proportional to the carbon content of the original hydrocarbon. The unit is calibrated using a minimum of two gases. The first is a 4 component mixture of CH_4, CO, CO_2 and propane. This mixture checks out the catalytic oxidizer and reducer plus the condition of the gas chromatograph columns. It also is used to verify the calibration of each component (CH_4, CO, CO_2 and NMHC). The second gas is a special zero gas that contains less than 0.1 ppm hydrocarbon. On the date of this test three additional gas mixtures were used as quality control checks. The first QC gas was mixture of CO_2 in zero gas, the second QC gas was CH_4 in zero gas, and the third gas was a different concentration of the same 4 components as in the primary calibration mixture. All the calibration gases and the QC gases were in specification (1% of scale). Two sets of

first removes at high temperature the hydrocarbons from the trap then converts the hydrocarbons to CO_2 which is then introduced into the 401 analyzer. The 401 analyzer is a gas chromatograph (flame ionization detector) system specially equipped to separate the gas introduced into the following components; CO, CO_2, CH_4, C_2's and NMHC (none methane hydrocarbons). After separation all the individual components go through a catalytic oxidizer (converted to CO_2) then reduced to CH_4 by a catalytic reducer then they are measured by the FID as methane. Since all components follow through the same path (oxidizer/reducer/detector) greater system accuracy is assured. All measurements made in the detector are made on CH_4 which is precisely proportional to the carbon content of the original hydrocarbon. The unit is calibrated using a minimum of two gases. The first is a 4 component mixture of CH_4, CO, CO_2 and propane. This mixture checks out the catalytic oxidizer and reducer plus the condition of the gas chromatograph columns. It also is used to verify the calibration of each component (CH_4, CO, CO_2 and NMHC). The second gas is a special zero gas that contains less than 0.1 ppm hydrocarbon. On the date of this test three additional gas mixtures were used as quality control checks. The first QC gas was mixture of CO_2 in zero gas, the second QC gas was CH_4 in zero gas, and the third gas was a different concentration of the same 4 components as in the primary calibration mixture. All the calibration gases and the QC gases were in specification (1% of scale). Two sets of

first removes at high temperature the hydrocarbons from the trap then converts the hydrocarbons to CO_2 which is then introduced into the 401 analyzer. The 401 analyzer is a gas chromatograph (flame ionization detector) system specially equipped to separate the gas introduced into the following components; CO, CO_2, CH_4, C_2's and NMHC (none methane hydrocarbons). After separation all the individual components go through a catalytic oxidizer (converted to CO_2) then reduced to CH_4 by a catalytic reducer then they are measured by the FID as methane. Since all components follow through the same path (oxidizer/reducer/detector) greater system accuracy is assured. All measurements made in the detector are made on CH_4 which is precisely proportional to the carbon content of the original hydrocarbon. The unit is calibrated using a minimum of two gases. The first is a 4 component mixture of CH_4, CO, CO_2 and propane. This mixture checks out the catalytic oxidizer and reducer plus the condition of the gas chromatograph columns. It also is used to verify the calibration of each component (CH_4, CO, CO_2 and NMHC). The second gas is a special zero gas that contains less than 0.1 ppm hydrocarbon. On the date of this test three additional gas mixtures were used as quality control checks. The first QC gas was mixture of CO_2 in zero gas, the second QC gas was CH_4 in zero gas, and the third gas was a different concentration of the same 4 components as in the primary calibration mixture. All the calibration gases and the QC gases were in specification (1% of scale). Two sets of

organic solvents were taken during VOC test II using charcoal absorption tubes which were ran (FID gas chromatograph/CS_2 desorbtion) to look for new organics formed by the catalytic incinerator; none were found. In addition 2 thirty minute samples were taken at the "outlet" point during V.O.C. test II to determine concentrations of formaldehyde and other low molecular weight (C_1-C_5) aldehydes. The method used was Inter Society Committee 110; collection in 1% $NaHSO_3$ solution. The results were as follows (ppm):

COMPOUND	Run A	Run B
Formaldehyde	.26	.22
Acrolein	$<$.02	$<$.02
C_2-C_5	$<$.05	$<$.05

The formaldehyde method is subject to some inter ferences. In order to see if this was a problem a test was ran simultaneously with Run A using a "spiked" solution that would yield 0.54 ppm formaldehyde if no inter ference. It resulted in 0.59 ppm.

II. V.O.C. TEST RESULTS

The V.O.C. test results are presented in Tables I,II and III.

The incinerator efficiency was:

Test I	98.8%
Test II	98.9%
Test III	99.3%

III. EMISSIONS

During Test III the volume of air being exhausted from the system was measured at a 2' x 6' opening using an Alnor series 6000 velometer with a pitot probe. The opening was divided into 12 equal areas and the meter reading (ft/min) recorded. The top 4 openings were all less than 200; the 2nd row of 4 were 850,600, 250 and 200 with the bottom row of 4 being 1600,1550,1450 and 1200. After correcting for temperature this results in an emission rate of 9950 cfm. Based on an emission concentration of 6.4 ppm of NMHC (as methane) this results in an emission of 0.12 lb/hr.

TABLE I

SUMMARY OF TEST DATA OBTAINED
DURING TEST I
PRESET TEMPERATURE 450°F

	Inlet	Outlet
Sampling Date	11-14-84	11-14-84
Barometric Pressure	29.88	29.88
Time Sampled	1044-1145	1046-1147
Volume (Liters)	6.094	7.294
Concentration of Gases in ppm)		
Carbon Monoxide	17	26
Carbon Dioxide	425	990
Methane	3	2
NMHC (1)	739	9.2

NMHC = non-methane hydrocarbon

TABLE II

SUMMARY OF TEST DATA OBTAINED
DURING TEST II
PRESET TEMPERATURE 525°F

	Inlet	Outlet
Sampling Date	11-14-84	11-14-84
Barometric Pressure	29.88	29.88
Time Sampled	1324-1424	1325-1425
Volume (Liters)	6.318	7.304
Concentration of Gases in ppm		
Carbon Monoxide	22	31
Carbon Dioxide	390	1125
Methane	3	3
NMHC (1)	760	8.0

NMHC = non-methane hydrocarbon

(1) NMHC is reported in ppm as methane

TABLE III

SUMMARY OF TEST DATA OBTAINED
DURING TEST III
PRESET TEMPERATURE 575°F

	Inlet	Outlet
Sampling Date	11-14-84	11-14-84
Barometric Pressure	29.88	29.88
Time Sampled	1532-1632	1534-1634
Volume (Liters)	6.311	7.528
Concentration of Gases in ppm		
Carbon Monoxide	24	27
Carbon Dioxide	460	1680
Methane	2	3
NMHC (1)	872	6.4

NMHC = non-methane hydrocarbon

(1) NMHC is reported in ppm as methane

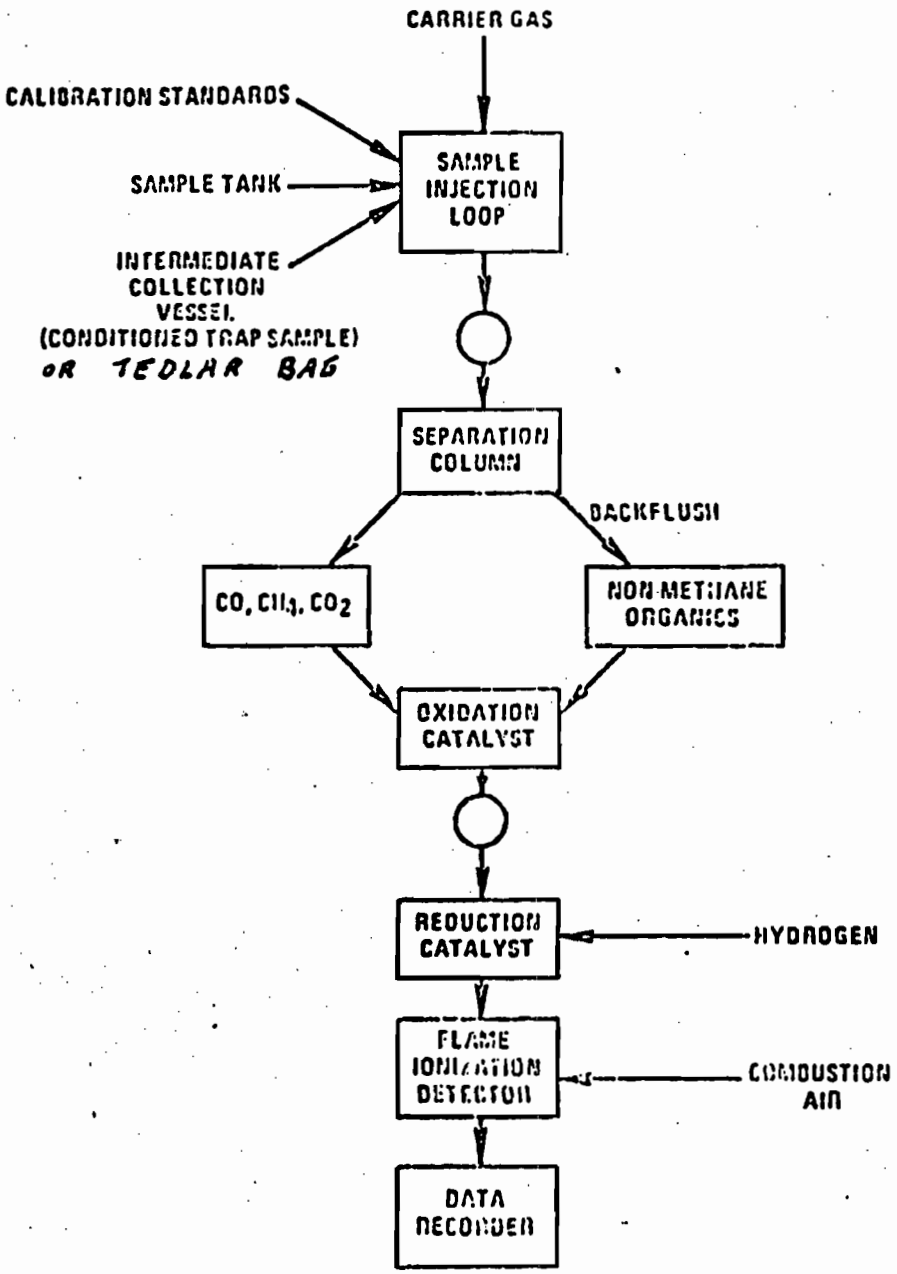

Figure 2. Simplified schematic of non-methane organic (NMO) analyze

COATING RUN 11/14/84 CURING EPA TEST

LINE #1 - WATERBASE COATING - NO SOLVENT

LINE #2 - #8760 - 1/2 GAL of MIX PER HOUR

4 GAL of MIX = 1/2 GAL I.P. ALCOHOL
1/2 GAL NAPTHA-VMP
3 GAL 8760 BASE

8760 BASE = 8.0 LBS PER GALLON
42% VOC By WEIGHT

THE 42% VOC ARE IN THESE PROPORTIONS:

ALCOHOL	45%
AROMATIC	9%
VMP NAPTHA	46%

LINE #3 UV LACQUER - NO SOLVENT

LINE #4 "1" PC-15 COATING - 3½ GAL MIX PER HOU

5 GAL OF MIX = 1 GAL I.P. ALCOHOL
4 GAL PC-15 BASE

PC-15 BASE = 8.1 LBS. PER GALLON
35% VOC BY WEIGHT

THE VOLATILES INCLUDE: ISOPROPANOL
VMP NAPTHA
XYLOL

(NO PROPORTION AVAILABLE -
MFG - PROPRIETARY)

LINE #5 76FS93 ADHESIVE - 4 GAL MIX PER HOUR

5 GAL MIX - 3 GAL I.P. ACETATE
2 GAL 76FS93 BASE

76FS93 BASE = 8.8 LBS PER GALLON
40% VOC BY WEIGHT

THE VOLATILE IN 76FS93 IS
100% ETHYL ACETATE

LINE #7 76FS93 ADHESIVE - 12 GAL MIX PER HOUR
(SAME MIX AS LINE #5)

D-10

SUMMARY

EMISSION ESTIMATES FROM FIRING OF NATURAL GAS AT SPIRALKOTE

SOURCE	Burner(s) Natural Gas Maximum Firing Rate (ft^3/hr)	Oper. Hours			EMISSION ESTIMATES X 10^{-3}									
		h/d	d/w	w/y	PART.		SO_x		CO		HC		NO_x	
					#/hr	TPY	#/hr	TPY	#/hr	TPY	#/hr	TPY	#/hr	TPY
Kidder CI	1600	16	5	50	24.0	48.0	0.96	1.9	32.0	64.0	12.8	25.6	192.0	398.0
Kidder #1	1000	17	5	50	15.0	31.9	0.66	1.4	20.0	42.5	8.0	17.0	120.0	255.0
Kidder #2	800	17	5	50	12.0	25.5	0.48	1.02	16.0	34.0	6.4	13.6	96.0	204.0
Kidder #3	1200	17	5	50	18.0	38.3	0.72	1.53	24.0	51.0	9.6	20.4	144.0	306.0
Total From Natural Gas Firing	4600	/	/	/	69.0	143.7	2.82	5.85	92.0	191.5	36.8	76.6	552.0	1163.0

TYPICAL CALCULATION

EMISSIONS FROM NATURAL GAS FROM KIDDER CI SYSTEM (SPIRALKOTE)

*Particulate Emission = $\frac{1600 \text{ ft}^3}{\text{hr}} \times \frac{15 \text{ lb part}}{10^6 \text{ ft}^3} = 0.024$ lbs/hr part.

$$\frac{0.024 \text{ lbs}}{\text{hr}} \times 16 \times 5 \times 50 \times \frac{\text{ton}}{2000 \text{ lb}} = 0.048 \text{ TPY particulates}$$

*SO_2 Emission = $1600 \times \frac{0.6}{10^6} = 0.00096$ lbs/hr SO_2

$$\frac{0.00096 \times 16 \times 5 \times 50}{2000} = 0.0019 \text{ TPY } SO_2$$

*CO Emission = $1600 \times \frac{20}{10^6} = 0.032$ lb/hr CO

$$\frac{0.032 \times 16 \times 5 \times 50}{2000} = 0.064 \text{ TPY CO}$$

*HC Emission = $1600 \times \frac{8}{10^6} = 0.0128$ lb/hr HC

$$\frac{0.0128 \times 16 \times 5 \times 50}{2000} = 0.0256 \text{ TPY HC}$$

*NO_x = $1600 \times \frac{120}{10^6} = 0.192$ lb/hr NO_x

$$\frac{0.192 \times 16 \times 5 \times 50}{2000} = 0.384 \text{ TPY } NO_x$$

1.4 NATURAL GAS COMBUSTION

Revised by Thomas Lahre

1.4.1 General [1,2]

Natural gas has become one of the major fuels used throughout the country. It is used mainly for power generation, for industrial process steam and heat production, and for domestic and commercial space heating. The primary component of natural gas is methane, although varying amounts of ethane and smaller amounts of nitrogen, helium, and carbon dioxide are also present. The average gross heating value of natural gas is approximately 1050 Btu/stdft^3 (9350 kcal/Nm^3), varying generally between 1000 and 1100 Btu/stdft^3 (8900 to 9800 kcal/Nm^3).

Because natural gas in its original state is a gaseous, homogenous fluid, its combustion is simple and can be precisely controlled. Common excess air rates range from 10 to 15 percent; however, some large units operate at excess air rates as low as 5 percent to maximize efficiency and minimize nitrogen oxide (NO_x) emissions.

1.4.2 Emissions and Controls [3-16]

Even though natural gas is considered to be a relatively clean fuel, some emissions can occur from the combustion reaction. For example, improper operating conditions, including poor mixing, insufficient air, etc., may cause large amounts of smoke, carbon monoxide, and hydrocarbons to be produced. Moreover, because a sulfur-containing mercaptan is added to natural gas for detection purposes, small amounts of sulfur oxides will also be produced in the combustion process.

Nitrogen oxides are the major pollutants of concern when burning natural gas. Nitrogen oxide emissions are a function of the temperature in the combustion chamber and the rate of cooling of the combustion products. Emission levels generally vary considerably with the type and size of unit and are also a function of loading.

In some large boilers, several operating modifications have been employed for NO_x control. Staged combustion, for example, including off-stoichiometric firing and/or two-stage combustion, can reduce NO_x emissions by 30 to 70 percent. In off-stoichiometric firing, also called "biased firing," some burners are operated fuel-rich, some fuel-lean, while others may supply air only. In two-staged combustion, the burners are operated fuel-rich (by introducing only 80 to 95 percent stoichiometric air) with combustion being completed by air injected above the flame zone through second-stage "NO-ports." In staged combustion, NO_x emissions are reduced because the bulk of combustion occurs under fuel-rich, reducing conditions.

Other NO_x-reducing modifications include low excess air firing and flue gas recirculation. In low excess air firing, excess air levels are kept as low as possible without producing unacceptable levels of unburned combustibles (carbon monoxide, hydrocarbons, and smoke) and/or other operational problems. This technique can reduce NO_x emissions by 10 to 30 percent primarily because of the lack of availability of oxygen during combustion. Flue gas recirculation into the primary combustion zone, because the flue gas is relatively cool and oxygen deficient, can also lower NO_x emissions by 20 to 60 percent depending on the amount of gas recirculated. At present only a few systems have this capability, however.

Combinations of the above combustion modifications may also be employed to further reduce NO_x emissions. In some boilers, for instance, NO_x reductions as high as 70 to 90 percent have been produced as a result of employing several of these techniques simultaneously. In general, however, because the net effect of any of these combinations varies greatly, it is difficult to predict what the overall reductions will be in any given unit.

Emission factors for natural gas combustion are presented in Table 1.4-1. Flue gas cleaning equipment has not been utilized to control emissions from natural gas combustion equipment.

Table 1.4-1. EMISSION FACTORS FOR NATURAL-GAS COMBUSTION
EMISSION FACTOR RATING: A

Pollutant	Type of unit: Power plant		Industrial process boiler		Domestic and commercial heating	
	lb/10^6 ft^3	kg/10^6 m^3	lb/10^6 ft^3	kg/10^6 m^3	lb/10^6 ft^3	kg/10^6 m^3
Particulates[a]	5-15	80-240	5-15	80-240	5-15	80-240
Sulfur oxides (SO_2)[b]	0.6	9.6	0.6	9.6	0.6	9.6
Carbon monoxide[c]	17	272	17	272	20	320
Hydrocarbons (as CH_4)[d]	1	16	3	48	8	128
Nitrogen oxides (NO_2)[e]	700[f-h]	11,200[f-h]	(120-230)[i]	(1920-3680)[i]	(80-120)[i]	(1280-1920)[i]

[a] References 4,7,8,12.
[b] Reference 4 (based on an average sulfur content of natural gas of 2000 gr/10^6 $stdft^3$ (4600 g/10^6 Nm^3).
[c] References 5, 8-12.
[d] References 8, 9, 12.
[e] References 3-9, 12-16.
[f] Use 300 lb/10^6 $stdft^3$ (4800 kg/10^6 Nm^3) for tangentially fired units.
[g] At reduced loads, multiply this factor by the load reduction coefficient given in Figure 1.4-1.
[h] See text for potential NO_x reductions due to combustion modifications. Note that the NO_x reduction from these modifications will also occur at reduced load conditions.
[i] This represents a typical range for many industrial boilers. For large industrial units (> 100 MMBtu/hr) use the NO_x factors presented for power plants.
[j] Use 80 (1280) for domestic heating units and 120 (1920) for commercial units.

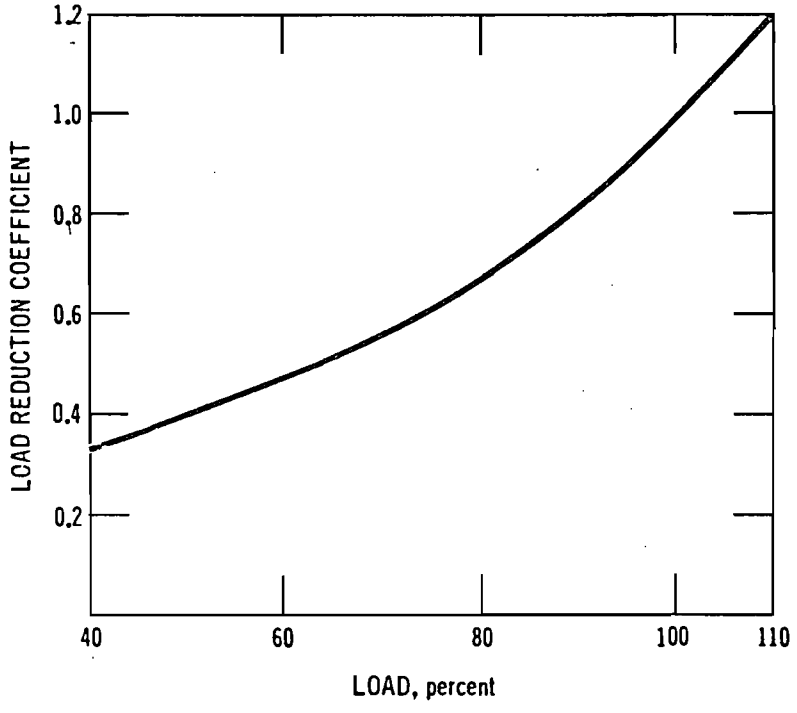

Figure 1.4-1. Load reduction coefficient as function of boiler load. (Used to determine NO_x reductions at reduced loads in large boilers.)

PERMIT NO'S.

K-I AC48 - 82733
K-II AC48 - 82735
K-III AC48 - 82736
K-CI AC48 - 82737

48
49
50

NOTE: 902 AND 1061 REFERENCE OVERPRINT COATINGS

Q-6

	KJ902	NB1061	White Ink	Colored Ink
V.O.C Content By Weight	69.7%	41.2%	37%	58.1%
V.O.C Content By Volume	84.5%	30.8%	62.5%	73.7%
Water Content	0	0	0	0
Density	.97	.99	1.34	1.01
Volume Solids	30.3%	58.8%	63%	41.9%
Weight Solids	15.5%	49.1%	37.5%	26.3%

Q-7

COATINGS & INK
CONSUMPTION ON 24 HR & ANNUAL BASIS
(GALLONS)

			1983 PER YEAR	1983 PER DAY	1982 PER YEAR	1982 PER DAY	1981 PER YEAR	1981 PER DAY	1980 PER YEAR	1980 PER DAY	1979 PER YEAR	1979 PER DAY	1978 PER YEAR	1978 PER DAY
1	K-I	INK	5189	2076	9665	3866	8536	3414	5865	2346	7684	3074	9376	1750
2	K-I	COATING (902)	2803	1122	5152	2060	7746	3098	6889	2756	6914	2765	2370	948
3	K-I	COATING (1061)	2395	958	1438	575	51	20						
4														
5														
6	K-II	INK	5189	2076	9665	3866	8536	3414	3595	1918				
7	K-II	COATING (902)	2803	1122	5152	2060	7746	3098	4222	1689				
8	K-II	COATING (1061)	2396	958	1438	575	51	20						
9														
10														
11	K-III	INK	5189	2076										
12	K-III	COATING (902)	2803	1122										
13	K-III	COATING (1061)	2395	958										
14														
15														
16	K-CC	INK	5189	2076	9665	3866								
17	K-CC	COATING (902)	2803	1122	5152	2060								
18	K-CC	COATING (1061)	2396	958	1438	575								
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29			1977 PER YEAR	1977 PER DAY										
30														
31	K-I	INK	1088	435										
32	K-I	COATING (902)	938	375										
33	K-I													
34														
35														
36														
37														
38														

Q-8

MAKE UP SOLVENTS
SOLVENT CONSUMPTION OF COATINGS & INKS IN GALLONS PER DAY

	Press #	SOLVENT	1983	1982	1981	1980	1979	1978	1977	
1	K-I	ETHYL ACETATE	4.25	5.60	8.01	6.21	5.39	44	22	INK
2	K-I	ETHYL ACETATE	2.55	4.48	8.01	6.21	5.39	44	22	902
3	K-I	ETHYL ACETATE	1.70	1.12	—	—	—	—	—	1061
4										
5	K-I	ETHYL ALCOHOL	20.98	17.58	26.67	21.64	10.89	1.76	77	INK
6	K-I	ETHYL ALCOHOL	12.58	14.06	26.67	21.64	10.89	1.76	77	902
7	K-I	ETHYL ALCOHOL	8.38	2.81	—	—	—	—	—	1061
8										
9	K-I	NORMA PROPYL ALCOHOL	1.38	3.14	1.76	7.53	16.28	44	1.10	INK
10	K-I	NORMA PROPYL ALCOHOL	—	—	1.76	—	—	44	1.10	902
11	K-I	NORMA PROPYL ALCOHOL	—	—	—	—	—	—	—	1061
12										
13	K-I	NORMA PROPYL ACETATE	3.93	1.69	4.03	4.91	4.82	44	1.10	INK
14	K-I	NORMA PROPYL ACETATE	2.36	1.35	1.00	4.91	2.00	44	1.10	902
15	K-I	NORMA PROPYL ACETATE	1.57	.34	—	—	—	—	—	1061
16										
17	K-I	GLYCOL ETHER EE	1.29	7.02	7.48	2.86	4.18	3.52	1.32	INK
18	K-I	EKTASOLVE EP	2.75	—	—	—	—	—	—	INK
19										
20										
21	K-II	ETHYL ACETATE	4.25	5.60	9.01	3.81	INK			
22	K-II	ETHYL ACETATE	2.55	4.48	8.01	3.81	902			
23	K-II	ETHYL ACETATE	1.70	1.12	0	0	1061			
24										
25	K-II	ETHYL ALCOHOL	20.98	17.58	26.66	13.27	INK			
26	K-II	ETHYL ALCOHOL	12.58	14.06	26.66	13.27	902			
27	K-II	ETHYL ALCOHOL	8.38	2.81	0	0	1061			
28										
29	K-II	NORMA PROPYL ALCOHOL	1.38	3.14	1.76	4.61	INK			
30	K-II	NORMA PROPYL ALCOHOL	0	0	1.76	0	902			
31	K-II	NORMA PROPYL ALCOHOL	0	0	0	0	1061			
32										
33	K-II	NORMA PROPYL ACETATE	3.93	1.69	9.03	3.01	INK			
34	K-II	NORMA PROPYL ACETATE	2.36	1.35	1.00	3.01	902			
35	K-II	NORMA PROPYL ACETATE	1.57	.34	0	0	1061			
36										
37	K-II	GLYCOL ETHER EE	1.29	7.02	7.48	1.76	INK			
38	K-II	EKTASOLVE EP	3.75	0	0	0	INK			

CX-0

MAKE UP SOLVENTS
SOLVENT CONSUMPTION OF COATING & INKS IN GALLONS PER DAY

	Press #	Solvent	1983	1982	
1	K-III	ETHYL ACETATE	425		INK
2	K-III	ETHYL ACETATE	255		902
3	K-III	ETHYL ACETATE	170		1061
4					
5	K-III	ETHYL ALCOHOL	2098		INK
6	K-III	ETHYL ALCOHOL	1258		902
7	K-III	ETHYL ALCOHOL	838		1061
8					
9	K-III	NORMA PROPYL ALCOHOL	138		INK
10	K-III	NORMA PROPYL ALCOHOL	0		902
11	K-III	NORMA PROPYL ALCOHOL	0		1061
12					
13	K-III	NORMA PROPYL ACETATE	393		INK
14	K-III	NORMA PROPYL ACETATE	236		902
15	K-III	NORMA PROPYL ACETATE	157		1061
16					
17	K-III	GLYCOL ETHER EE	129		INK
18	K-III	EKTASOLVE EP	275		INK
19					
20					
21	K-II	ETHYL ACETATE	425	560	INK
22	K-II	ETHYL ACETATE	255	448	902
23	K-II	ETHYL ACETATE	170	112	1061
24					
25	K-II	ETHYL ALCOHOL	2098	1758	INK
26	K-II	ETHYL ALCOHOL	1258	1406	902
27	K-II	ETHYL ALCOHOL	838	281	1061
28					
29	K-II	NORMA PROPYL ALCOHOL	138	314	INK
30	K-II	NORMA PROPYL ALCOHOL	0	0	902
31	K-II	NORMA PROPYL ALCOHOL	0	0	1061
32					
33	K-II	NORMA PROPYL ACETATE	393	149	INK
34	K-II	NORMA PROPYL ACETATE	236	135	902
35	K-II	NORMA PROPYL ACETATE	157	34	1061
36					
37	K-II	GLYCOL ETHER EE	129	702	INK
38	K-II	EKTASOLVE EP	275	0	INK
39					

MAKE UP SOLVENTS

SOLVENT CONSUMPTION OF COATINGS & INKS IN GALLONS PER YEAR

Press #	SOLVENT	1983	1982	1981	1980	1979	1978	1977	
K-I	ETHYL ACETATE	1063	1401	2003	1553	1348	110	55	INK
K-I	ETHYL ACETATE	638	1120	2003	1553	1347	110	55	902
K-I	ETHYL ACETATE	425	280	0	0	0	0	0	1061
K-I	ETHYL ALCOHOL	5245	4394	6665	5411	2723	440	193	INK
K-I	ETHYL ALCOHOL	3147	3515	6665	5411	2722	440	192	902
K-I	ETHYL ALCOHOL	2098	703	0	0	0	0	0	1061
K-I	NORMA PROPYL ALCOHOL	344	785	440	1882	4070	110	275	INK
K-I	NORMA PROPYL ALCOHOL	0	0	440	0	0	110	275	902
K-I	NORMA PROPYL ALCOHOL	0	0	0	0	0	0	0	1061
K-I	NORMA PROPYL ACETATE	982	422	1007	1228	1205	110	275	INK
K-I	NORMA PROPYL ACETATE	589	337	250	1228	500	110	275	902
K-I	NORMA PROPYL ACETATE	393	84	0	0	0	0	0	1061
K-I	GLYCOL ETHER EE	323	1756	1870	716	1045	880	330	INK
K-I	EKTASOLVE EP	688	0	0	0	0	0	0	
K-II	ETHYL ACETATE	1063	1402	2003	952	INK			
K-II	ETHYL ACETATE	638	1121	2003	952	902			
K-II	ETHYL ACETATE	425	280	0	0	1061			
K-II	ETHYL ALCOHOL	5245	4394	6665	3317	INK			
K-II	ETHYL ALCOHOL	3147	3515	6665	3317	902			
K-II	ETHYL ALCOHOL	2098	703	0	0	1061			
K-II	NORMA PROPYL ALCOHOL	344	785	440	1153	INK			
K-II	NORMA PROPYL ALCOHOL	0	0	440	0	902			
K-II	NORMA PROPYL ALCOHOL	0	0	0	0	1061			
K-II	NORMA PROPYL ACETATE	982	421	1006	752	INK			
K-II	NORMA PROPYL ACETATE	590	337	250	752	902			
K-II	NORMA PROPYL ACETATE	393	84	0	0	1061			
K-II	GLYCOL ETHER EE	322	1756	1870	439	INK			
K-II	EKTASOLVE EP	689	0	0	0	INK			

MAKE UP SOLVENTS

SOLVENT CONSUMPTION OF COATINGS & INKS IN GALLONS PER YEAR

	PRESS #		1983	1982	1981	
1	K-III	ETHYL ACETATE	1062			INK
2	K-III	ETHYL ACETATE	637			902
3	K-III	ETHYL ACETATE	425			1061
4						
5	K-III	ETHYL ALCOHOL	5245			INK
6	K-III	ETHYL ALCOHOL	3147			902
7	K-III	ETHYL ALCOHOL	2098			1061
8						
9	K-III	NORMA PROPYL ALCOHOL	345			INK
10	K-III	NORMA PROPYL ALCOHOL	0			902
11	K-III	NORMA PROPYL ALCOHOL	0			1061
12						
13	K-III	NORMA PROPYL ACETATE	982			INK
14	K-III	NORMA PROPYL ACETATE	589			902
15	K-III	NORMA PROPYL ACETATE	393			1061
16	/					
17	K-III	GLYCOL ETHER EE	322			INK
18	K-III	EXTASOLVE EP	688			INK
19						
20						
21	K-CI	ETHYL ACETATE	1062	1402		INK
22	K-CI	ETHYL ACETATE	637	1120		902
23	K-CI	ETHYL ACETATE	425	280		1061
24						
25	K-CI	ETHYL ALCOHOL	5246	4393		INK
26	K-CI	ETHYL ALCOHOL	3147	3515		902
27	K-CI	ETHYL ALCOHOL	2098	703		1061
28						
29	K-CI	NORMA PROPYL ALCOHOL	345	785		INK
30	K-CI	NORMA PROPYL ALCOHOL	0	0		902
31	K-CI	NORMA PROPYL ALCOHOL	0	0		1061
32						
33	K-CI	NORMA PROPYL ACETATE	982	421		INK
34	K-CI	NORMA PROPYL ACETATE	589	337		902
35	K-CI	NORMA PROPYL ACETATE	393	84		1061
36						
37	K-CI	GLYCOL ETHER EE	322	1755		INK
38	K-CI	EXTASOLVE EP	688	0		INK
39						

Clean Up Solvents

Gallons

			1 Ethyl Alcohol	3 Ethyl Acetate	5 Norma Propyl Acetate	7 Norma Propyl Alcohol
1	1983	Annual	4249	3196	422	457
2	1983	Daily	17	12.78	1.69	1.83
3						
4						
5	1982	Annual	11093	1479	1479	740
6	1982	Daily	44.37	5.92	5.92	2.96
7						
8						
9	1981	Annual	6300	788	787	
10	1981	Daily	25.20	3.15	3.15	
11						
12						
13	1980	Annual	1300	325		
14	1980	Daily	5.20	1.30		
15						
16						
17	1979	Annual	880	220		
18	1979	Daily	3.52	.88		
19						
20						
21	1978	Annual	440	110		
22	1978	Daily	1.76	.44		
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						

HAZARDOUS WASTE SHIPMENTS
FLD 084186600
GALLONS

	EPA CLASS		1983	1982	1981	1980	1979	1978
1	F003	FLAMMABLE SOLVENTS	23490	14790	7875	1615	1100	550
2								
3								
4								
5	F002	HAZARDOUS WASTE - PERCHLORETHYLENE	1595	825				
6								
7								
8								
9								
10			NOTE: PERCHLORETHYLENE HAZARDOUS WASTE					
11								
12			SHIPMENTS ARE A BY-PRODUCT OF					
13								
14			OUR CYREL PLATE SYSTEM AND WILL					
15								
16			APPEAR AGAIN UNDER PERMIT NO's.					AC48-82738
17								82739
18								82740
19								82741
20								
21								
22								
23								
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31								
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34								
35								
36								
37								
38								
39								

ANNUAL CONSUMPTION OF VOC MATERIALS

GALLONS

	Press #	Year	Ethyl Alcohol	Ethyl Acetate	Glycol Ether EE Ektasolve	Norma Propyl Alcohol	Norma Propyl Acetate	Toluene
1	K-I	1983	14583	2125	322	1493	3047	476
2	K-I	1982	15301	2801	1755	2881	2798	486
3	K-I	1981	22520	4006	1870	1610	3016	
4	K-I	1980	18400	3106	716	3085	3562	
5	K-I	1979	13646	2695	1045	4517	3949	
6	K-I	1978	4486	220	880	1065	745	
7	K-I	1977	1517	110	330	741	723	
8								
9								
10	K-II	1983	14584	2126	322	1493	3048	476
11	K-II	1982	15301	2801	1755	2881	2798	486
12	K-II	1981	22519	4006	1870	1610	3016	
13	K-II	1980	11040	1904	439	1890	2183	
14								
15								
16	K-III	1983	14583	2126	323	1494	3047	476
17								
18								
19	K-CI	1983	14584	2125	322	1494	3047	476
20	K-CI	1982	15301	2801	1755	2881	2797	486
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								

NOTE: GLYCOL ETHER EE HAS BEEN REPLACED BY EKTASOLVE EP

PERMIT NO's.

K-I AC 48-82733
K-II AC 48-82735
K-III AC 48-82736
K-CI AC 48-82737

SPIRALKOTE INC.
A Subsidiary of Fleming Packaging Corporation

October 17, 1985

Mr. Bruce Mitchell
Bureau of Air Quality Management
State of Florida
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Dear Bruce:

We have retained the firm of Post, Buckley, Schuh & Jernigen, Inc. to assist us in the permitting process. Jerome J. Guidry will be the engineer of record.

It will take us a couple of weeks to familiarize Mr. Guidry with our operation. However, we do not expect to have any problem amending our permitting applications by November 15, 1985.

I am enclosing a copy of Mr. Guidry's business card should you need to contact him.

Sincerely,

Robert Kindorf
Vice President/Production

RK/gg

Enclosure

cc: C. Forthman
R. Rhodes

1200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32821 PHONE (305) 859-7780 TELEX 56-6543

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

October 11, 1985

Robert Rhodes
Holland & Knight
Post Office Drawer BW
Lakeland, Florida 33802

DER
OCT 2? 1985
BAQM

Re: DER v. Spiralkote
OGC File No. 84-0641

Dear Rob:

Thank you for your prompt follow-up on the Spiralkote settlement proposal. In general, we agree with the proposal to incinerate the sources in order to comply with Department regulations. However, there are some considerations that are not addressed in your proposal that need to be resolved before a final Consent Order is drafted.

One of the concerns is the proposed "removal" standards for incineration. The RACT standard applicable to K-II is 90 percent destruction with a reasonable capture rate. Your statement proposing 90 percent "removal" seems to imply a much higher rate that, in our experience, is not generally achievable. The other concern is that KCI and K-III must meet LAER standards and therefore a LAER determination must be made for these sources. Currently LAER for similar sources has been determined to be 70 percent capture and 95 percent destruction of captured VOCs. I have enclosed a copy of the address for the BACT/LAER Clearinghouse which Spiralkote can use to determine whether any more stringent determinations have been made. I note also that you propose to gang K-II with K-III. This would affect the requirements for K-II which in a practical sense will probably mean that K-II must meet LAER also.

Before we can make a final detemination of LAER for sources associated with KCI and K-III, and before we can permit any sources, we need to have in hand amended permit applications signed by a Florida registered Professional Engineer. The information that must be submitted should include:

- the name of the vendor for the incinerator
- the vendor equipment specifications
- calculations of projected pollutant emissions together with the assumptions on which they are based and relevant reference materials
- projected capture efficiencies and projected destruction efficiencies
- Suggested expiration date for construction permits (should include 90 days for obtaining operation permits)

We believe that we can review the construction permit applications expeditiously if all of the above information is forwarded to us quickly.

Because we cannot predict exactly the time by which we will have the Intents to Issue a Construction Permits ready to publish, I propose the following time schedule for inclusion in the Consent Order:

1.	Submission of complete permit application	11/15/85
2.	Installation of pollution control units completed	45 days from issuance of permit to construct
3.	Pollution control units tested for compliance	60 days from issuance of permit to construct
4.	Pollution control units operational within compliance limits	180 days from issuance of permit to construct

I have incorporated this, in more detail, and other provisions into a draft Consent Order, which is enclosed. Please review it with your client and advise me if it is acceptable. Bruce Mitchell will be glad to help either you or Bob Kindorf with the permitting details. Please contact him directly on these issues.

I am hopeful that we will soon reach a final resolution of this case.

Sincerely,

Carol A. Forthman
Assistant General Counsel

CAF/plb

Enclosures

cc: Bruce Mitchell w/enclosures
Jewell Harper, EPA w/enclosures

Foreword

This list is intended to assist those persons involved in making best available control technology (BACT) and lowest achievable emission rate (LAER) determinations. Persons associated with permitting air pollution sources under the prevention of significant deterioration (PSD) program or the new source review (NSR) program in areas not attaining the ambient air quality standard(s) should find it helpful in identifying their colleagues in other agencies who may be able to share valuable information.

This directory contains names, addresses, and telephone numbers of individuals in various air pollution control agencies that wish to actively participate in such an information exchange program.

The support for this effort by State and Territorial Air Pollution Program Administrators (STAPPA) and Association of Local Air Pollution Control Officials (ALAPCO) is greatly appreciated.

Corrections or additions to this list are welcome at any time. Please send them along with any other suggestions for this directory to the following address:

BACT/LAER Clearinghouse
Control Programs Operations Branch (MD-13)
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
FTS 629-5571
(919) 541-5571

DRAFT

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION, Complaintant, vs. SPIRALKOTE, INC., a Florida Corporation, Respondent.	IN THE OFFICE OF THE ST. JOHNS RIVER DISTRICT OGC FILE NO. 84-0641

CONSENT ORDER

This Consent Order is made and entered into between the State of Florida Department of Environmental Regulation ("Department") and Spiralkote, Inc. ("Respondent"), a Florida corporation, 1200 Central Florida Parkway, Orlando, Florida.

The Department finds and Respondent admits the following:

1. Spiralkote, Inc. is a Florida corporation with a facility located at 1200 Central Florida Parkway, Orlando, Florida 32809. At the Orlando facility, Respondent is engaged in the business of flexographic printing primarily for the production of composite can labels. Respondent currently operates four flexographic presses (Kidder I, Kidder II, Kidder III and Kidder Central Impression) at the Orlando facility, as well as a Cyrel plate room with washout tank, solvent recovery still, finishing tank and dryer.

2. In the printing process, each press uses inks which contain organic solvents, resulting in the emission of volatile organic compounds ("VOCs") into the atmosphere. VOCs are precursors to the formation of the air pollutant, ozone, and are subject to regulation by the Department.

3. The Spiralkote facility is in Orange County, an area designated nonattainment for the air pollutant ozone by the Department and the U. S. Environmental Protection Agency.

4. The rules for existing and certain new and modified flexographic printing presses in ozone nonattainment areas are

contained in Florida Administrative Code Rule 17-2.650(1)(f)16, Graphic Arts Systems. The effective date of this rule was March 14, 1979.

5. Of the four presses at the Spiralkote facility, Kidder I was installed in October of 1977 and is considered to be an existing source. Kidder II, Kidder Central Impression and Kidder III were installed on April, 1980; February, 1982; and February 1983, respectively. Therefore they are considered to be new sources.

6. Kidder I is in the source category regulated by 17-2.650(1)(f)16, F.A.C., but because its potential emissions of VOCs are less than 100 tons per year, it is exempt from regulation under that section.

7. Kidder II is a new source that is not subject to review pursuant to Rule 17-2.510, F.A.C., and therefore, pursuant to Rule 17-2.650(1)(a), F.A.C., it is subject to regulation under Rule 17-2.650(1)(f)16, F.A.C. The combined potential emissions of Kidder I and II exceeds 100 tons per year. Therefore, Kidder II must meet the standards in Rule 17-2.650(1)(f)16.b.

8. Kidder Central Impression and Kidder III are new sources subject to the provisions of Rule 17-2.510(4), F.A.C., Preconstruction Review Requirements, which includes the requirement to meet the Lowest Achievable Emission Rate ("LAER") as set forth in Rule 17-2.640, F.A.C.

9. Respondent has constructed and operated the VOC sources listed above at its Orlando facility without having applied for or received either construction or operation permits from the Department as required by Section 403.087, Florida Statutes and Chapter 17-4, F.A.C.

10. Approximate annual emissions of VOCs from each of the sources are estimated to have been: Kidder I, 47.6 tons per year; Kidder II, 47.6 tons per year; Kidder Central Impression, 44.8 tons per year; and Kidder III, 47.6 tons per year.

11. As of the date of this Order, Respondent has failed to comply with applicable regulations governing VOC emissions from

its facility.

12. Respondent voluntarily, through its representatives, brought the above referenced matters to the attention of the Department in _____ 1983 and has since that time cooperated with the Department in supplying information and attempting to develop acceptable solutions so that the matter might be resolved.

13. Respondent and the Department have met in an attempt to correct all violations of air pollution laws and regulations at that facility and have agreed to methods for achieving compliance with all such laws and regulations. These methods are described in Paragraphs 16-19, below.

14. Respondent has agreed to submit construction permit applications for all VOC sources at its Orlando facility and to install pollution control equipment on Kidder II, Kidder Central Impression and Kidder III.

15. Respondent anticipates full compliance with VOC regulations for each source no later than 180 days from issuance of an air construction permit for that source.

THEREFORE, having reached resolution of the matter, pursuant to Florida Administrative Code Rule 17-103.110(3), Respondent and the Department mutually agree and it is:

ORDERED:

16. Respondent shall immediately begin to bring its facility into compliance with applicable rules and regulations of the Department according to the following time schedule.

(a)	Submission of complete, air construction permit applications for Kidder I, Kidder II, Kidder Central Impression and Kidder III, and Cyrel plate-room (include all activities)	11/15/85
(b)	Construction and installation of pollution control units completed for Kidder II, Kidder III, and Kidder Central Impression, and written notice of such fact given to the Department.	45 days from issuance of an air construction permit for the source
(c)	Compliance testing of pollution control units	60 days from issuance of an air construc-

	for Kidder II, Kidder III, and Kidder Central Impression completed and written notice of such fact given to the Department.	tion permit for the source
(d)	Submission of written compliance test results to the department.	75 days from issuance of an air construction permit for the source
(e)	Pollution control units installed and operating within compliance limits, and written notice of such fact given to the Department.	180 days from issuance of an air construction permit for the source

17. Failure to comply with any of the deadlines set forth in Paragraph 16 shall result in a stipulated fine of $100 per day for each noncomplying source for each day of noncompliance past the applicable deadline unless the Respondent can demonstrate that such noncompliance is due to events not within its control and that it has used all reasonable efforts to obtain alternative means of compliance.

18. Respondent shall comply with the applicable rules of the Department for control of VOCs by installation of incineration equipment on Kidder II, Kidder III, and Kidder Central Impression. Such incineration units will meet the standards set forth in Florida Administrative Code Rule 17-2.650(1)(f)16 for VOC emissions from Kidder II and Florida Administrative Code Rule 17-2.510(4) for VOC emissions from Kidder III and Kidder Central Impression. Such installation shall be in accordance with the dates set forth in Paragraph 16.

19. Respondent agrees to use its best efforts to use on Kidder I inks and coatings with as high a percentage of solids content as is technically feasible taking into account customer product quality requirements. Beginning on January 15, 1987, and annually thereafter, Respondent shall submit to the Department a report of the percentage of solids contained in the inks and coatings used in Kidder I for the next preceding calendar year. This requirement will cease when Kidder I is either brought into compliance with Florida Administrative Code Rule 17-2.650(1)(f)16 or is taken out of service.

20. Respondent shall make payment to the Department in the amount of $30,000 in settlement of the violations alleged in this Consent Order as follows: $7,500 to be paid within twenty (20) days of the entry of this Consent Order, and five consecutive semi-annual payments in the amount of $7,500 thereafter until the full amount of $30,000 is paid. The payments required by this paragraph shall be made payable to the order of the "State of Florida Department of Environmental Regulation Pollution Recovery Fund" and shall be submitted to the District Manager, St. Johns River District, Department of Environmental Regulation, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803.

21. The Department, for and in consideration of the complete and timely performance by the Respondent of the obligations agreed to in this Consent Order, hereby waives its right to seek administrative or judicial imposition of damages, or further civil or criminal penalties for the alleged violations outlined in this Consent Order. This waiver shall apply to such violations that occurred prior to the effective date of this Order and to any future activities authorized under this Consent order. Respondent waives its right to an administrative hearing or judicial review of the terms of this Order. However, nothing herein shall be deemed to constitute an admission of liability by Respondent.

22. Respondent shall allow authorized representatives of the Department access to the property at reasonable times for purposes of determining compliance with this Consent Order and the rules and regulations of the Department.

23. The Department hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit the future violation of applicable statutes, or the rules promulgated thereunder, other than those allowed by this Consent Order.

24. Entry of this Consent Order does not relieve Respondent of the need to comply with the applicable federal, state, or local laws, regulations, or ordinances not addressed herein.

25. Persons not parties to this Consent Order whose substantial interests are affected by this Consent Order have a

right, pursuant to Section 120.57, Florida Statues, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301, within 14 days of receipt of this notice. Failure to file petition within the 14 days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

26. The terms and conditions set forth in the Consent Order may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

27. Repondent is fully aware that a violation of the terms of this Consent Order, other than as is specifically covered in the penalty provisions thereof, may subject Respondent to judicial imposition of damages, civil penalties of up to $10,000 per offense, and criminal penalties.

28. In the event of a legal challenge to this Consent Order by a party not subject to this Consent Order, the parties shall comply with the terms and conditions herein unless and until such time as the resolution of the challenge results in agency action inconsistent with this Consent Order.

29. The terms of this Consent Order shall be in effect for Kidder II, Kidder III, and Kidder Central Impression until Respondent provides the documentation of compliance as specified in Paragraphs 16 and 18. Paragraph 19 shall have continuing effect as specified therein.

30. All reports, plans and data required by this Consent Order to be submitted to the Department shall be sent to the District Air Engineer, Department of Environmental Regulation, St. Johns River District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803, and to Deputy Bureau Chief for Compliance, Bureau of

Air Quality Management, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

31. This Consent Order may only be modified by the written agreement of both parties.

32. This Consent Order is final agency action of the Department pursuant ot Section 120.69, Florida Statutes, and Florida Administrative Code Rule 17-103.110(3), and it is final and effective on the date filed with the Clerk of the Department unless a Petition for Administrative Hearing is filed in accordance with Chapter 120, Florida Statutes.

FOR THE RESPONDENT

DATE: _____ _____

DONE AND ORDERED this _____ day of _____, 1985, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL
Secretary

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301
(904) 488-9730

Copies furnished to:

Diane Nelson, Office of General Counsel, DER, Tallahassee
Office of Public Information, DER, Tallahassee
Bureau of Air Quality Managment, DER, Tallahassee
U.S. Environmental Protection Agency, Air Program, Atlanta
St. Johns River District

LAW OFFICES

HOLLAND & KNIGHT

106 THIRTEENTH STREET WEST
P. O. BOX 1669
BRADENTON, FLORIDA 33506
(813) 746-7107

110 EAST BROWARD BLVD.
P. O. BOX 14005
FORT LAUDERDALE, FLORIDA 33302
(305) 525-1000

92 LAKE WIRE DRIVE
P. O. DRAWER B W
LAKELAND, FLORIDA 33802
(813) 682-1161

1200 BRICKELL AVENUE
P. O. BOX 015441
MIAMI, FLORIDA 33101
(305) 374-8500

255 SOUTH ORANGE AVENUE
P. O. BOX 1526
ORLANDO, FLORIDA 32802
(305) 425-8500

2033 WOOD STREET
P. O. DRAWER 49768
SARASOTA, FLORIDA 33578
(813) 365-3321

BARNETT BANK BLDG.
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TALLAHASSEE, FLORIDA 32302
(904) 224-7000

600 NORTH FLORIDA AVE
P. O. BOX 1288
TAMPA, FLORIDA 33601
(813) 223-1621

PLEASE REPLY TO: Lakeland, FL

888 SEVENTEENTH STREET, N. W.
SUITE 400
WASHINGTON, D. C. 20006
(202) 955-5550

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

October 2, 1985

BY HAND DELIVERY

Carol Forthman, Esquire
Office of General Counsel
Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301

RE: fp Spiralkote - Orlando Facility

Dear Carol:

As promised to you in my letter of September 30, 1985, I have attached proposed language to be included in the Consent Order in this matter.

Bob Kindorf called me late yesterday to say that his vendor was going to try to have the incinerators installed by the end of 1985, but that they could not absolutely guarantee that this would take place. They were confident, however, that they would have the work done by the second week in January. Therefore, we have chosen the January 15 compliance date referred to in the attached draft language. Because the equipment has been ordered and design engineering is already underway, I was hard pressed to come up with interim compliance dates. The equipment will be delivered and installed within a relatively short period of time. Therefore, I have simply addressed the "end date."

After you have had a chance to review the proposed language, give me a call if you have any questions. Otherwise, if you will call my Tallahassee office when you have a proposed consent order for my review, they will pick it up and send it to me so that I can receive it the next day. I will then promptly turn around my comments back to you so that we can bring this matter to resolution.

Thank you very much for your continuing cooperation.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRJr/dsl
Attachment
cc: Mr. Robert Kindorf
Mr. William Kindorf
fpS093085:25

PROPOSED CONSENT ORDER LANGUAGE

fp Spiralkote - Orlando Facility

THEREFORE, having reached resolution of the matter, pursuant to Florida Administrative Code Rule 17-103.110(3), Respondent and the Department mutually agree and it is:

ORDERED:

___. Respondent shall purchase and cause to be installed at the Facility one catalytic incinerator unit to control VOC emissions on Press K-CI and one catalytic incinerator unit to control VOC emissions from Presses K-II and K-III. The catalytic incinerator units shall have a designed VOC removal efficiency of at least 90%. The catalytic incinerator units shall be installed and in operation by no later than January 15, 1986.

___. Respondent agrees to use its best efforts to use on Press K-I inks and coatings with as high a percentage of solids content as is technically feasible taking into account customer product quality requirements. Beginning on January 15, 1987, and annually thereafter, Respondent shall submit to the Department a report of the percentage of solids contained in the inks and coatings used in Press K-I for the next preceding calendar year.

___. Respondent shall make payment to the Department in the amount of $30,000 in settlement for the violations alleged in this Consent Order as follows: $7,500 to be paid within twenty (20) days of the entry of this Consent Order, and five consecutive semi-annual payments in the amount of $7,500 thereafter until the full amount of $30,000 is paid. The payments required by this paragraph shall be made payable to the order of the "State of Florida Department of Regulation" and shall be submitted to the District Manager, Southwest District, Department of Environmental Regulaton, 7601 Highway 301 North, Tampa, Florida 33610. For and in consideration of the complete and timely performance by Respondent of the obligations agreed to in this Consent Order, the Department hereby waives its right to seek administrative or judicial imposition of civil penalties, natural resources damages, or other monetary contributions or payments concerning the issues resolved by this Consent Order.

SPIRALKOTE INC.
A Subsidiary of Fleming Packaging Corporation

August 9, 1985

Carol Forthman
Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, FL 32301-8241

Dear Carol,

In the past we have been asked if any of the information submitted to the Florida Dept. of Environmental Regulation was proprietary information. We would now like to exercise our right to exclude all correspondence from the Freedom of Information Act. If it is not possible to blanket cover our entire file we would specifically want to protect all financial data and materials consumed in label production.

I would appreciate being notified if there is any problem complying with this request.

Sincerely,

Robert Kindorf

Robert E. Kindorf
Vice President

REK/lr

cc: Bruce Mitchell

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

DER

JUL 3 1985

BAQM

SPIRALKOTE, In. Show Cause
Meeting July 3, 1985

ATTENDEE	AFFILITATION	PHONE NUMBER
Bill Voshell	EPA - Air Compliance	(404) 881-7654
CAROL FORTHMAN	FL. - DER	904/488-9730
Bruce Mitchell	FL - DER	904/488-1344
Rob Rhodes	Holland & Knight for Spiralk-tel	813/682-1161
Bob Kindorf	SPIRALKOTE	305-859-7780
Jewell A. Harper	EPA - ORC	404-881-2335
Douglas Cook	EPA - Air Planning	404-881-2864
Dick DuBose	EPA - Air Compliance	404/881-4298

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 27, 1985

Robert L. Rhodes, Jr.
Holland and Knight
92 Lake Wire Drive
PO Drawer BW
Lakeland, FL 33802

In RE: Spiralkote, Inc. - VOC matter
File OSJ-EF-840205
OGC No. 84-0641

Dear Rob,

This letter is a follow-up to our meeting with you and Bob Kindorf last Wednesday. I must admit that I am disappointed that a response to our repeated requests for actual numbers concerning Spiralkote's operation was not provided at that meeting. I am hoping that the information will be available when we meet again on July 1. We must have this information to be able to clarify the rule applicability to the various presses and to determine the best course of action to resolve the situation.

As I mentioned to you Wednesday, we need to know the emissions of volatile organic compounds from each source at the Spiralkote facility as follows:

(a) The historic actual emissions of each source, the dates of operation of those sources, and the number of hours per week each was operated.
(b) The current emissions from each source with documentation of any partial control measures now being utilized, e.g., low solvent and high solids inks.
(c) The projected emissions from each source. This should include use of the technologies listed above as well as proposed incineration and the dates on which these will be accomplished.
(d) A description of LAER for Kidder III.

This information is substantially the same as that requested by EPA, except that the LAER determination in (d) is in addition to the EPA request. If you would forward the information to us in advance of the July 1 meeting I believe our discussions will be more fruitful.

I would point out that in the original permit applications the VOC estimates for the Spiralkote sources are based on 17 hour per day operation. Bob Kindorf stated that the presses ran for three shifts. Please be prepared to show the estimates based on the actual historic, as well as the proposed, hours of operation for each source.

For our part, we will be prepared to discuss our view of the applicability of the RACT or other rules to each source in hopes of reaching some sort of resolution to the problem.

Thank you for your cooperation in this matter.

Sincerely,

Carol A. Forthman

Carol A. Forthman
Assistant General Counsel

CAF/mid

LAW OFFICES

HOLLAND & KNIGHT

406 THIRTEENTH STREET WEST
P. O. BOX 1669
BRADENTON, FLORIDA 33506
(813) 746-7107

110 EAST BROWARD BLVD.
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(904) 224-7000

600 NORTH FLORIDA AVE.
P. O. BOX 1288
TAMPA, FLORIDA 33601
(813) 223-1621

PLEASE REPLY TO:

888 SEVENTEENTH STREET, N. W.
SUITE 400
WASHINGTON, D. C. 20006
(202) 955-5550

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

Lakeland, FL
June 21, 1985

Winston A. Smith, Director
Air, Pesticides and Toxic
Management Division
United States Environmental
Protection Agency
Region IV
345 Courtland Street
Atlanta, GA 30365

DER
JUN 25 1985
BAQM

RE: fp Spiralkote, Inc.

Dear Mr. Smith:

The following is in response to your letter of June 14, 1985, to Bob Kindorf of fp Spiralkote, Inc.

Mr. Kindorf and I will be happy to meet with you, other representatives of EPA, and representatives of the Florida Department of Environmental Regulation at the conference scheduled for 10:00 a.m. on July 3, 1985, in your offices.

Bob Kindorf will be responding to your Section 114 information requests under separate cover.

We look forward to the meeting in the hopes that through our mutual efforts a prompt and amicable resolution of this matter will be developed.

If you have any questions, please give me a call.

Sincerely,

HOLLAND & KNIGHT

Robert L. Rhodes, Jr.

RLRJr/dsl
cc: Mr. Robert Kindorf
Carol Forthman, Esquire
Mr. Steve Smallwood, P.E.
Mr. Alex Alexander, P.E.
Mr. Bruce Mitchell
SKote-062185:25

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JUN 1 4 1985

4APT-AM

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Robert Kindorf
Vice President and General Manager
fp Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32821

Dear Mr. Kindorf:

Based upon information obtained from the Florida Department of Environmental Regulation and during the EPA overview inspection conducted on February 28, 1984, EPA issued a federal Notice of Violation (NOV) dated May 29, 1984, to Spiralkote, Inc. The NOV notified Spiralkote, Inc., that flexographic Kidder press Nos. 1-3 and the Central Impression printing press were in violation of the Florida Administrative Code (FAC), Rule 17-2.650(1)(b)1.e.(ii) dealing with compliance schedules for Graphic Arts Systems, and Rule 17-2.650 (1)(f)(16.) - emission limiting regulations incorporating Reasonably Available Control for Graphic Arts Systems. EPA also notified Spiralkote that the Central Impression printing press may also be in violation of FAC, Rule 17-2.510 - New Source Review requirements dealing with the applicability determination for Best Available Control Technology. EPA staff then conducted a follow-up inspection to confirm a continuing violation on July 26, 1984.

Therefore, pursuant to Section 114(a) of the Clean Air Act (the Act), 42 U.S.C. §7414(a), as amended, you are required to submit the following information:

1. Identify the presses by facility identification number, the date of construction/installation and the initial startup date for each press located at the plant site.

2. Identify the presses by facility identification numbers that will employ low solvent techniques (LST) to reduce VOC (volatile organic compounds) emissions. LST means that the volatile fraction of ink, as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water.

3. Identify the presses by facility identification numbers that will use ink as it is applied to the substrate, less water, containing 60 percent by volume or more non-volatile material.

4. Identify the presses by facility identification numbers that will employ an incineration system which oxidizes at least 90 percent of the VOC (measured as total combustible carbon) to carbon dioxide and water.

5. Quantify the amount, in gallons, of each type of coating material and ink used per press on a 24-hour and annual basis for the calendar year 1984. Provide the same above requested information for the hours operated in 1985.

6. Quantify the amount, in gallons, of each type of make-up solvent per press that was used in each of the coating materials and inks on a 24-hour and annual basis for the calendar year 1984. Provide the same above requested information for the hours operated in 1985.

7. Using EPA Methods 24 and/or 24A, whichever is/are applicable and are attached, determine the volatile matter content, water content, density, volume solids, and weight solids for each type of coating material and ink used by the presses and as purchased. Provide a sample calculation for review for one coating or ink compound, including dilution solvents, that is used to determine compliance with the applicable Florida rules for VOC.

8. Certify that the information provided by Spiralkote, Inc., in a letter dated April 19, 1984, from Robert Kindorf, Vice President, to Mr. C. H. Fancy, P.E., Deputy Bureau Chief, is correct for Nos. 14, 15, 17, 18 and 19a-h (see enclosed copy). Should there be any change to the information provided to DER, submit the revised information.

The information required by this letter, along with proper documentation to support the information, shall be submitted to this office no later than ten (10) calendar days after the date of receipt of this letter. In addition, any change in the information submitted must be reported no later than ten (10) calendar days after such change occurs. This continuing requirement to provide notification of changes in the information covered by this letter shall remain in effect unless expressly terminated in writing by this office.

Please be advised that failure to comply with the above requirements within the specified time frames will constitute a violation of Section 114(a) of the Act and may result in the referral of this matter to the U.S. Attorney for the commencement of a civil action for injunctive relief and the assessment of civil penalties pursuant to Section 113(b) of the Act.

Also, to date EPA has not received any information indicating that the violations, referenced in the Notice of Violation issued to Spiralkote on May 29, 1984, regarding your Kidder presses and Central Impression printing press, have been corrected. Accordingly, we offer you the opportunity for a conference to show cause why this case should not be referred to the U.S. Attorney for the commencement of a civil action for injunctive relief and the assessment of civil penalties pursuant to Section 113(b) of the Act, 42 U.S.C. §7413(b), or a criminal prosecution pursuant to Section 113(c) of the Act, 42 U.S.C. §7413(c), or both. You will be afforded an opportunity to present information on the findings of violation and on specific steps you propose to take to remedy the violations. You have the right to be represented by legal counsel. If you elect to avail yourself of the opportunity for the conference, we have set aside 10:00 a.m. EST on July 3, 1985, to confer with representatives of Spiralkote. By copy of this letter, appropriate personnel of the Florida Department of Environmental Regulation will be invited to attend.

At the show cause meeting there will be a discussion of the economic savings as a result of noncompliance, therefore pursuant of 114 of the Act, 42 U.S.C. §7414, the company must provide the information specified in the enclosed form at or before the scheduled conference. Documentation to support this information should also be available at the meeting. Although all of the information requested herein must be submitted to EPA, you are entitled to assert a business confidentiality claim pursuant to the regulations set forth in 40 CFR 2.208(b). If the Agency determines that the information you have designated as confidential meets the criteria in 40 CFR 2.208, the information will be disclosed only to the extent and by means of the procedures specified in 40 CFR Part 2, Subpart B. Unless a confidentiality claim is asserted at the time the requested information is submitted, EPA may make the information available to the public without further notice to you.

Should you have any further questions regarding these matters, please feel free to write or call me at (404) 881-3043 or Mr. Richard S. DuBose, Chief, Air Compliance Section, of my staff, at (404) 881-4298.

Sincerely yours,

Winston A. Smith

Winston A. Smith, Director
Air, Pesticides and Toxics
Management Division

Enclosure

cc: See attached list

Mr. Steve Smallwood, P.E., Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation

Mr. Alex Alexander, P.E.
District Manager
St. Johns River District
Florida Department of Environmental
Regulation

Ms. Carol Forthman
Assistant General Counsel
Florida Department of Environmental
Regulation

Robert L. Rhodes, Esquire
Holland & Knight
P. O. Drawer B W
92 Lake Wire Drive
Lakeland, Florida

POLLUTION CONTROL EQUIPMENT
ECONOMIC INFORMATION

1. Capital cost estimated for control equipment necessary to achieve final compliance. _____

   (Date of this estimate). _____

2. Annual operation and maintenance cost of proposed control equipment (based on the amount of operations and maintenance expense which would have been incurred during the first year of non-compliance). _____

3. Investment tax credit. _____

4. Marginal income tax rate (total Federal/State/Local income tax rate on $1.00 of additional profit). _____

5. Inflation rate (annual rate at which both capital and operating and maintenance costs are expected to grow). _____

6. Discount rate (rate of return on equity or rate which is used to evaluate alternative investments within the company, must be greater than inflation rate). _____

7. Interest rate (rate paid on borrowed capital). _____

8. Preferred stock dividend rate. _____

9. Equity share of investment (common stock share). _____

10. Preferred stock ~~dividend rate~~ share). _____

11. Debt share of investment. _____

12. Depreciation method (straight line, sum of the year's digit or double-declining balance may be used). _____

13. Tax life for control equipment. _____

14. Useful life (useful life must equal or exceed tax life). _____

15. Rapid amortization (yes or no). _____

16. Estimated date to achieve compliance. _____

17. Percent financed by Industrial Development Bonds. _____

18. Dates of Expenditure to attain compliance and amount of expenditures. _____

SPIRALKOTE INC.
THE FLORIDA SUBSIDIARY OF FLEMING-POTTER CO., INC.

April 12, 1985

Mr. Bruce Mitchell
Dept. of Environmental Regulation
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Bruce,

As we discussed at our last meeting in Tallahassee, Spiralkote does not feel that it will be possible to make a total conversion to water base inks and coatings as outlined in our compliance plan. We do feel that we can achieve compliance by meeting the 60% by volume or more of non-volatile material.

We are in the process of amending our applications and we'll submit a new compliance schedule. I do not anticipate a completion date later than August 31, 1985.

Sincerely,

Bob Kindorf
Vice President

BK/lr

cc: Rob Rhodes
C. Forthman

1200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32809 PHONE (305) 859-7780 TELEX 56-6543

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

April 8, 1985

William Voshell
U.S. Environmental Protection
Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

Re: DER v. Spiralkote, OGC File No. 84-0641

Dear Bill:

Bruce Mithcell and Bill Thomas, of the Bureau of Air Quality Management, and I met with Robert Rhodes and Bob Knight of Spirlkote on March 22 to discuss a resolution of this case.

At that meeting Spiralkote stated that it had not been able to produce acceptable results using low solvent inks for all of its lines and therefore would not be able to meet its hoped-for goal of full conversion by June. As an alternative they are proposing to use high solids inks in some processes and water based coatings. This approach will bring them into compliance with the applicable RACT standards. They estimate that this will result in a net annual emissions of 115T of VOCs. They will submit technical data in support of this approach to Bruce Mitchell for evaluation.

We will continue to keep you up to date on the submissions from Spiralkote and will advise you when the Consent Order is finally executed.

Sincerely,

Carol A. Forthman

Carol A. Forthman
Assistant General Counsel

CAF/plb

cc: Bill Thomas
Bruce Mitchell
Rick Vail

DER
APR 8 1985
BAQM

SPIRALKOTE INC.
THE FLORIDA SUBSIDIARY OF FLEMING-POTTER CO., INC.

November 29, 1984

Nancy Wright
Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Dear Nancy,

In an effort to keep you up to date on Spiralkote's progress in VOC reduction I am enclosing the following outline of our progress.

1) We have received approval from our major customers to convert our solvent coatings to a water coating. Our customers tell us we are the only supplier with an acceptable water base overprint coating.

2) Production of labels with the new water base coating will begin in December.

3) Barring any major problems we are now projecting to be well ahead of the 3-15-85 date for the switch to water base coatings.

4) We will be placing an order for water base inks in mid-December. We plan on converting one press to water inks in January and to begin monitoring actual production problems. Other presses to follow as quickly as possible.

In summary, Spiralkote is on schedule with the compliance schedule we submitted. If more information is needed please don't hesitate to call.

Sincerely,

Bob Kindorf
Vice President

cc: B. Mitchell
R. Rhodes

1200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32809 PHONE (305) 859-7780 TELEX 56-6543

SPIRALKOTE INC.
THE FLORIDA SUBSIDIARY OF FLEMING-POTTER CO., INC.

October 23, 1984

Nancy Wright, Esquire
Office of General Counsel
Dept. of Environmental Regulation
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, Fla 32301

Dear Nancy,

This is an update of Spiralkote's water base development program. At this time we feel we are on target to achieve the goals we discussed.

1) Lab evaluation of water coatings has been completed.

2) Successful trials have been run on Spiralkote equipment.

3) Trial labels have been sent to major customers for evaluation. Our lab results are excellent.

4) Production winding trials are scheduled in November at one customer with trials by processors to follow. Other customers will schedule as lab tests are completed.

5) Preliminary ink evaluations and trials are completed.

6) We have narrowed potential suppliers to two. Very positive results have been obtained on paper, wet trapping needs to be improved on foil.

7) Production runs on one machine with water inks and coatings we hope to start in early January or sooner.

In summary, we are moving at a slightly faster pace than projected. At this point we are encouraged with our testing. I hope this information is useful and I will continue to send a monthly update.

1200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32809 PHONE (305) 859-7780 TELEX 56-6543

I also received a request from Mr. Fancy asking if there might be a change in VOC emissions should we convert to water base inks and coatings. He is correct in his assumption that we can eliminate solvent from this process by changing to water ink chemistry. We intend to begin testing after we become more experienced with water inks. I feel we may be slightly premature in amending the applications until we have done more research on this subject.

Sincerely,

Robert E. Kindorf
Vice President

cc: L. Kozlov
B. Mitchell
R. Rhodes

No. 0157907

RECEIPT FOR CERTIFIED MAIL

**NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL**

(See Reverse)

SENT TO Mr. Robert E. Kindorf			
STREET AND NO.			
P.O., STATE AND ZIP CODE			
POSTAGE			$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		¢
	OPTIONAL SERVICES: SPECIAL DELIVERY		¢
	RESTRICTED DELIVERY		¢
	RETURN RECEIPT SERVICE: SHOW TO WHOM AND DATE DELIVERED		¢
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		¢
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		¢
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢
TOTAL POSTAGE AND FEES			$
POSTMARK OR DATE 10/4/84			

PS Form 3800, Apr. 1976

PS Form 3811, Jan. 1979

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
   - ☒ Show to whom and date delivered..... ¢
   - ☐ Show to whom, date and address of delivery..... ¢
   - ☐ RESTRICTED DELIVERY
     Show to whom and date delivered..... ¢
   - ☐ RESTRICTED DELIVERY.
     Show to whom, date, and address of delivery.$ ____

   (CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
   Mr. Robert E. Kindorf
   1200 Central Florida Parkway
   Orlando, Florida 32809

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	0157907	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☒ Authorized agent
Dawnie Patterson

4. DATE OF DELIVERY 10-9-84 POSTMARK

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

☆GPO : 1979-300-459

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

October 4, 1984

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Mr. Kindorf:

Re: Completeness Review for the Air Source Applications Nos. AC 48-82733, -82735, -82736, -82737, -82738, -82739, -82740, -82741

The department is in receipt of your letter and supplementary material dated August 30, 1984, in response to a meeting with FDER's General Counsel on August 21, 1984. The bureau still finds the above referenced applications incomplete and the following information, including all assumptions, calculations, and referenced documents, will have to be submitted before further processing will resume:

1. Submit an approved compliance schedule for meeting the requirements of FAC Rule 17-2.510(4)(b).

2. Since the facility is pursuing water based technology, as stated in the cover letter dated August 30, 1984, will there be or not be a decrease in VOC emissions from the solvent recovery still, dryer, and washout tank in the cyrel plate room? If there is a change in potential VOC emissions, resubmit a revised package for the appropriate applications.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/BM/s

cc: N. Wright
L. Kozlov
C. Collins
T. Bessa
F. Cross, Jr.

CROSS/TESSITORE & ASSOCIATES, P.A.
4759 S. CONWAY ROAD, SUITE D
ORLANDO, FLORIDA 32812
305/851-1484

September 10, 1984

Mr. Bruce Mitchell
State of Florida
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Bruce:

This letter is intended to replace that of August 30, in which Nancy Wright's name was confused. With the correction, the letter is as follows:

As per our meeting with Nancy Wright in Tallahassee on August 21, 1984, C/TA is resubmitting the pages that have changed on Spiralkote's permit application for its presses. (Kidder CI Press, and Kidder Stack Presses 1, 2, and 3). These changes are due to the compliance program planned by Spiralkote in going to water based technology for coating and inks to reduce VOC emissions.

These changes are in Section II, III, and Section VII. Attachments include Air Emission Compliance Plan for VOC's, Permit Application Calculations, and Reply to Section VII, G and H.

If you need any additional information, please let us know.

Sincerely,

Frank L. Cross, Jr./m

Frank L. Cross, Jr., P.E.
President

FLC:kim
Enc.--included in 8/30/84 letter only.

cc: Nancy Wright, Esquire
Rob Rhodes
Bob Kindorf

CROSS/TESSITORE & ASSOCIATES, P.A.
4759 S. CONWAY ROAD, SUITE D
ORLANDO, FLORIDA 32812
305/851-1484

August 30, 1984

Mr. Bruce Mitchell
State of Florida
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Bruce:

As per our meeting with Mark Clark in Tallahassee on August 21, 1984, C/TA is resubmitting the pages that have changed on Spiralkote's permit application for its presses. (Kidder CI Press, and Kidder Stack Presses 1, 2, and 3). These changes are due to the compliance program planned by Spiralkote in going to water based technology for coating and inks to reduce VOC emissions.

These changes are in Section II, III, and Section VII. Attachments include Air Emission Compliance Plan for VOC's, Permit Application Calculations, and Reply to Section VII, G and H.

If you need any additional information, please let us know.

Sincerely,

Frank L. Cross, Jr., P.E.
President

FLC:kim
Enc.a/s

cc: Mary Clark
Rob Rhodes
Bob Kindorf

KIDDER CI PRESS

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 _____

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, FL, 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: 8/27/84 Telephone No. (305) 851-1484

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 is an existing flexographic printing plant that produces composite can labels. The unit emits VOC from printing and coating. No controls are presently installed on the unit. Water based technology to be applied. Reference August 16, 1984, compliance plan.

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

Start of Construction February 1982 Completion of Construction February 1982

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.)

No pollution control equipment is installed.

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

Not applicable

E. Requested permitted equipment operating time: hrs/day 18 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr N/A; if seasonal, describe: N/A

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?	Yes
a. If yes, has "offset" been applied?	No
b. If yes, has "Lowest Achievable Emission Rate" been applied?	Yes
c. If yes, list non-attainment pollutants.	VOC
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, aee Sections VI and VII.	Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	Yes
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?	Yes
a. If yes, for what pollutants?	VOC

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 II:
See Attachment "Compliance Plan" (Attachment H).

ATTACHMENT: SECTION II:H.

AIR EMISSION COMPLIANCE PLAN FOR VOC'S

SPIRALKOTE, INC.

REGENCY INDUSTRIAL PARK

ORLANDO, FLORIDA

AUGUST 16, 1984

Prepared for Discussions
with the
State of Florida
Department of Environmental Regulation
in Tallahassee
the week of August 20, 1984

Cross/Tessitore & Associates, P.A.
4759 South Conway Road, Suite D
Orlando, Florida 32812

(305) 851-1484

SPIRALKOTE COMPLIANCE SCHEDULE

Spiralkote intends on reaching compliance of Florida D.E.R. and U.S. E.P.A. rules and regulations with the following plan. The plan will revolve around our ability to convert to water base technology, and will be divided into two phases.

PHASE I

Phase I will involve replacement of the two over-print coatings presently in use. We will comply with the following timetable:

		COMPLETION DATE
1)	Lab Evaluation of Replacement Coatings	8-1-84
2)	Coating Trials on SpiralKote Equipment	8-17-84
3)	Lab Evaluation by Customers	8-31-84
4)	Production Winding Trials by Customer	9-14-84
5)	Production Trials by Processors	9-28-84
6)	Order For Production Quantity of New Coating Placed	10-12-84
7)	Lab Evaluation of Batch Consistency	11-2-84
8)	Removal of Present Solvent Inventory	12-3-84
9)	Production With New H_2O Base Chemistry Begins	12-3-84

Completion of this phase will yield the following results:

Present VOC (KJ902) (TPY)	Replacement Coating (TPY)	Total Reduction (TPY)
67.86	1.37	66.49

Present VOC (NB1061) (TPY)	Replacement Coating (TPY)	(TPY)
41.34	0.7	40.64

Total 107.13 TPY Reduction

PHASE II

Phase II of Spiralkote's compliance schedule will involve the replacement of the solvent ink system with H_2O base chemistry. The following is a schedule of our timetable. To achieve LAER control on these sources, it should be noted that several suppliers have been tested already.

	COMPLETION DATE
1) Ink Trials By Following Suppliers	10-26-84
a) Environmental Inks & Coatings Co.	
b) Bemis Ink Co.	
c) Inmount Printing Ink Co.	
d) Graphic Color Inc.	
e) Borden Ink Co.	
f) PPG Ink Co.	

		COMPLETION DATE
2)	Analyzation of best suppliers and testing of compatibility between suppliers should some have superior colors.	11-8-84
3)	Retesting of best inks with modifications if needed.	12-28-84
4)	Order placed for H_2O base ink system	1-2-85
5)	Production job produced and sent to customer for evaluation	2-1-85
6)	Replacement of solvent inventory to begin	2-1-85
7)	Conversion to H_2O chemistry complete	3-1-85

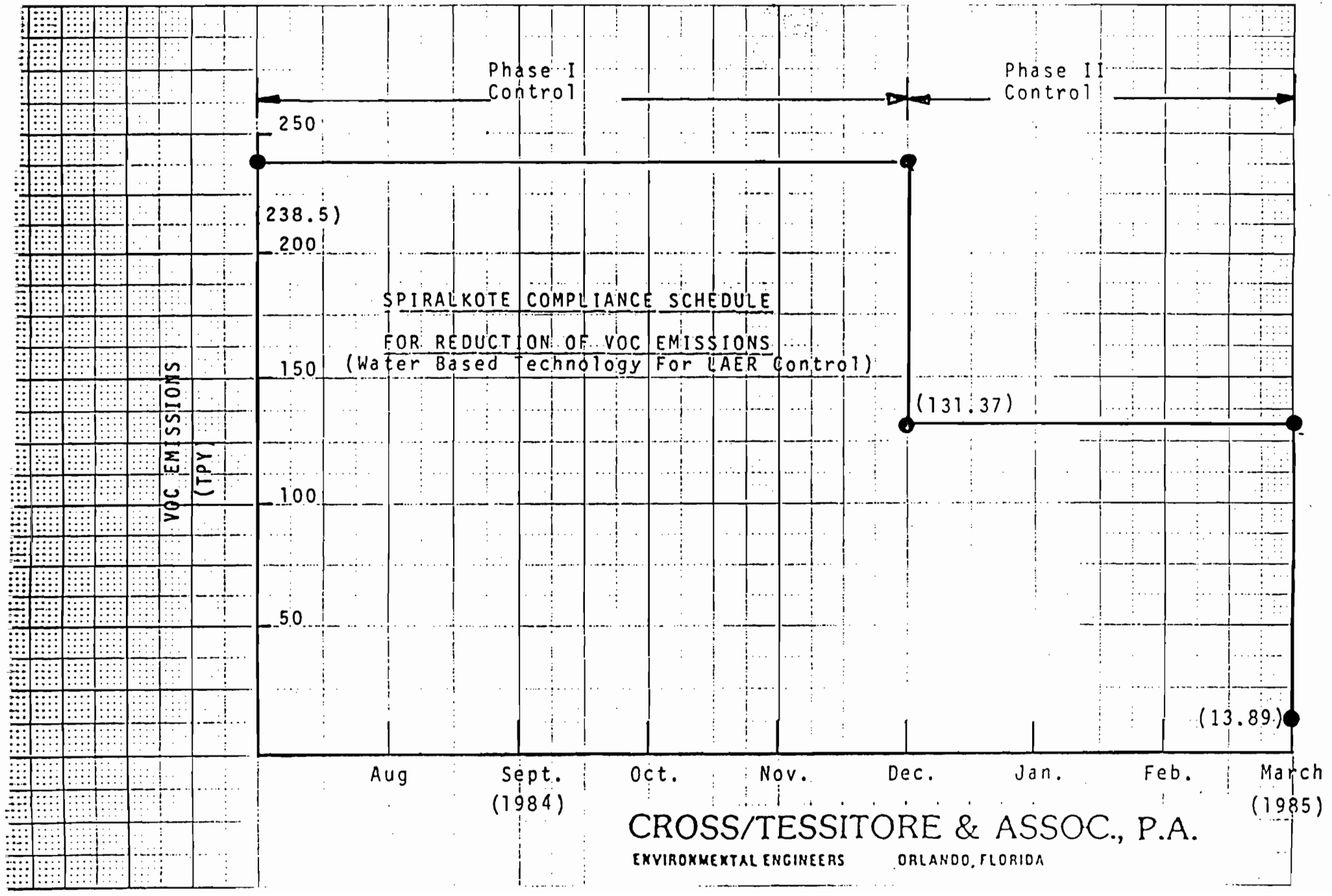
Completion of this phase will yield the following results:

Present VOC (Ink) (TPY)	Replacement Ink (TPY)	Total Reduction (TPY)
129.3	11.82	117.48

Total Facility 3-1-85

Present VOC (Solvent) (TPY)	VOC (TPY) (1)	Total Reduction (TPY)
238.5	13.89	224.61

Note: (1)Represents VOC in coatings at 4%, and inks at 10%



The emissions outlined in this report are based on 1983 production levels. Spiralkote, as all businesses, does expect to grow in the coming years. Obviously growth will result in subsequent increases of emissions.

As of the March 1 deadline, Spiralkote will be in compliance with both RACT and LAER laws. Our definition of LAER is the same as the control technology outlined in RACT for Graphic Arts Systems.

We do not know of any better controls than those outlined in 17-2.650(1)(F)16.b. At this time Spiralkote intends to comply with this regulation by meeting Part A. (The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water). If some unforeseeable problem prevents Spiralkote from meeting Part A, Spiralkote agrees to control emissions under Part C. (An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds to carbon dioxide and water).

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	None	--	250	Item 6
Coating	VOC	4%	14.2	Item 6
Ink	VOC	10%	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 279.6

2. Product Weight (lbs/hr): 249.9

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/yr	T/yr	
VOC	1.48	3.47	17-2.650	6.37	25.48	59.63	Item 6
			(1)(f)16B				

[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).

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)
Not Applicable as going to water based technology.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	681 x 10^{-6}	1600 x 10^{-6}	1.6
(2-800,000 BTU/hour Maxon Burners)			

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

Not applicable

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.

Spiralkote has a RCRA Generator permit. Wastes are manifested and shipped to Chemical Waste Management at Emelle, Alabama.

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

Stack Height: See Attachment. ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ 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) _____

SPIRALKOTE, INC.

Permit Application Calculations

(1) Total Process Input Rate and Product Weight

Input Material	Rate (lbs/hr)
Paper	250.0
Coating	14.2
Ink	15.4
Total	279.6

Product Weight = Input Materials - Emissions

= 279.6 - 29.6 = 250.0

(2) Emission Estimates

Maximum Emission (lbs/hr)

$$13.89 \frac{\text{Ton VOC}}{\text{Year}} \times \frac{1}{4 \text{ Mach}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{\text{Year}}{4680 \text{ Hours}} = \underline{1.48 \text{ lbs/hr}}$$

Actual Tons Per Year

$$\frac{4680 \text{ hours}}{\text{Year}} \times \frac{1.48 \text{ lbs}}{\text{Hour}} \times \frac{\text{Ton}}{2000 \text{ lbs}} = \underline{3.47 \text{ TPY}}$$

Potential Emissions

238.5 TPY ÷ 4 presses = 59.63 TPY

$$\frac{59.63 \text{ Ton}}{\text{Year}} \times \frac{\text{Year}}{4680 \text{ hours}} \times \frac{2000 \text{ lbs}}{\text{Ton}} = \underline{25.48 \text{ lbs/hr}}$$

(3) Emission Limitations (allowable emissions)

$$\frac{238.5 \text{ Tons}}{\text{Year}} \times \frac{1}{4 \text{ presses}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{\text{Year}}{4680 \text{ hours}} \times 0.25\% \text{ (75\% } H_2O\text{, 25\% VOC)}$$

= 6.37 lbs/hr

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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

See Compliance Plan Attached.

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).

Section VII, G

The compliance technique selected does not differ substantially from the control technology considered (i.e., incineration). No difference in the social and economic impact is anticipated.

The low emissions accomplished by going to water based technology should constitute an insignificant impact on the non-attainment area.

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 Used

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. See Attachment VII:G.

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.

See Attachment VII:H.

Paper, Film & Foil CONVERTER Magazine, September 1979

ATTACHMENT VII: H

Excerpts from:

REDUCING SOLVENT EMISSIONS: THE WATER-BASED INK OPTION

by Joseph A. Dooley, Inmont Corp.

Inmont is committed to developing inks and coatings that will alleviate air pollution caused by volatile organic compound emissions from flexographic and rotogravure applied inks and coatings. This commitment is made with an understanding of pollution abatement requirements and alternate approaches to pollution abatement.

Inmont's contention is that water borne materials are the best approach to achieving this end because implementation of their use will require the lowest capital expense, the lowest operational cost and the lowest drain on energy and fuel resources. Conversion to aqueous inks will ultimately result in a positive contribution to conservation of petrochemical supply. We further believe that the ultimate successful replacement of organic solvents with water is dependent on a joint commitment of the printing industry and its suppliers.

An independent and segregated effort at ink modification alone by the ink producers will not be adequate.

Our position and commitment as described is the result of a thorough assessment of the options open to the printing industry for satisfactorily reducing air pollution resulting from the use of printing inks based on organic solvents.

The available options are:

- Installation of equipment to recover the organic solvents.
- Installation of incinerators to destroy the organic solvents.
- Use of other types of printing inks to replace the organic solvents.

It is our considered opinion that first option is a viable and reasonable approach to the problem only in the specialized area of publication gravure printing facilities. These facilities are relatively few and concerned with large volumes of solvent emanating from single sites. The inks used are relatively consistent in solvent composition. They use solvents that are immiscible with water and that are easily regenerated from carbon. Finally, the reclaimed solvent can be re-used in manufacturing additional inks. As a result of these factors, solvent recovery is an efficient

economical method of capturing organic effluent in publication gravure installations.

For the very same reasons, recovery systems pose an unreasonable capital expense and cost inefficient approach to pollution control in flexographic and packaging gravure printing facilities.

Option two, installation of incineration equipment, is also, in our opinion, a completely inappropriate means of achieving abatement for the flexographic or gravure converter. The incinerators now being offered for use vary in complexity from straightforward high temperature units that produce carbon dioxide and water end products, to catalytic units coupled with heat recovery units.

An appraisal of the economics of all available systems leads to the general conclusion that installation of an appropriate incineration system would be cost effective for large facilities and ineffective for smaller ones. In part, this is based on the assumption that the larger the amount of solvent used, the larger and more efficient the incinerator that can be used.

In a typical printing operation achieving this kind of efficiency would require ducting from numerous press units to a common large incinerator. A well laid out printing plant is not conducive to ducting to a common

incinerator and it is more likely that multiple small incinerators with their inherent inefficiency would be the more practical configuration.

Using the cost analysis from the Environmental Protection Agency studies, an incinerator for a typical packaging press would result in increased operating costs equivalent to a 30-50% up charge on printing ink costs. The operating costs coupled with an initial capital cost of $200,-$700,000 per installation lead us to conclude that the burden of such a system is completely unacceptable from a cost/benefit analysis. Such a solution to the abatement problem would lead to the eventual destruction of the small converter and the end of the printing industry as it now exists.

The third option on which we base the Inmont position, presents a solution that is attainable within a reasonable length of time; our current estimate is 3-4 years. The solution is achievable and will further aid in energy conservation. It will not lead to increased operating costs and is applicable to all flexographic and gravure printing applications.

We take this position, recognizing that an extraordinary effort in new product development will be required

of printing ink producers in order to adapt current technologies to all printing requirements. We recognize too that a concerted, continuous, cooperative effort on the part of converter and suppliers will be required to ensure success.

Accepting these premises, we feel confident that the replacement of organic solvents in printing inks will assure adequate pollution abatement while maintaining the health and vigor of the printing industry.

KIDDER 1 PRESS

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 _____

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, FL, 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: 8/27/84 Telephone No. (305) 851-1484

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 is an existing flexographic printing plant that produces composite can labels. The unit emits VOC from printing and coating. No controls are presently installed on the unit. Water based technology to be applied. Reference August 16, 1984, compliance plan.

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

Start of Construction February 1982 Completion of Construction February 1982

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.)

No pollution control equipment is installed.

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

Not applicable

E. Requested permitted equipment operating time: hrs/day 18 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr N/A; if seasonal, describe: N/A

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?	Yes
a. If yes, has "offset" been applied?	No
b. If yes, has "Lowest Achievable Emission Rate" been applied?	Yes
c. If yes, list non-attainment pollutants.	VOC
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.	Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	Yes
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?	Yes
a. If yes, for what pollutants?	VOC

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.

See Attachment "Compliance Plan" Section II: (Attachment H).

ATTACHMENT: SECTION II:H.

AIR EMISSION COMPLIANCE PLAN FOR VOC'S

SPIRALKOTE, INC.

REGENCY INDUSTRIAL PARK

ORLANDO, FLORIDA

AUGUST 16, 1984

Prepared for Discussions
with the
State of Florida
Department of Environmental Regulation
in Tallahassee
the week of August 20, 1984

Cross/Tessitore & Associates, P.A.
4759 South Conway Road, Suite D
Orlando, Florida 32812

(305) 851-1484

SPIRALKOTE COMPLIANCE SCHEDULE

Spiralkote intends on reaching compliance of Florida D.E.R. and U.S. E.P.A. rules and regulations with the following plan. The plan will revolve around our ability to convert to water base technology, and will be divided into two phases.

PHASE I

Phase I will involve replacement of the two over-print coatings presently in use. We will comply with the following timetable:

		COMPLETION DATE
1)	Lab Evaluation of Replacement Coatings	8-1-84
2)	Coating Trials on SpiralKote Equipment	8-17-84
3)	Lab Evaluation by Customers	8-31-84
4)	Production Winding Trials by Customer	9-14-84
5)	Production Trials by Processors	9-28-84
6)	Order For Production Quantity of New Coating Placed	10-12-84
7)	Lab Evaluation of Batch Consistency	11-2-84
8)	Removal of Present Solvent Inventory	12-3-84
9)	Production With New H_2O Base Chemistry Begins	12-3-84

Completion of this phase will yield the following results:

Present VOC (KJ902) (TPY)	Replacement Coating (TPY)	Total Reduction (TPY)
67.86	1.37	66.49
Present VOC (NB1061) (TPY)	Replacement Coating (TPY)	(TPY)
41.34	0.7	40.64

Total 107.13 TPY Reduction

PHASE II

Phase II of Spiralkote's compliance schedule will involve the replacement of the solvent ink system with H_2O base chemistry. The following is a schedule of our timetable. To achieve LAER control on these sources, it should be noted that several suppliers have been tested already.

	COMPLETION DATE
1) Ink Trials By Following Suppliers	10-26-84
a) Environmental Inks & Coatings Co.	
b) Bemis Ink Co.	
c) Inmount Printing Ink Co.	
d) Graphic Color Inc.	
e) Borden Ink Co.	
f) PPG Ink Co.	

		COMPLETION DATE
2)	Analyzation of best suppliers and testing of compatibility between suppliers should some have superior colors.	11-8-84
3)	Retesting of best inks with modifications if needed.	12-28-84
4)	Order placed for H_2O base ink system	1-2-85
5)	Production job produced and sent to customer for evaluation	2-1-85
6)	Replacement of solvent inventory to begin	2-1-85
7)	Conversion to H_2O chemistry complete	3-1-85

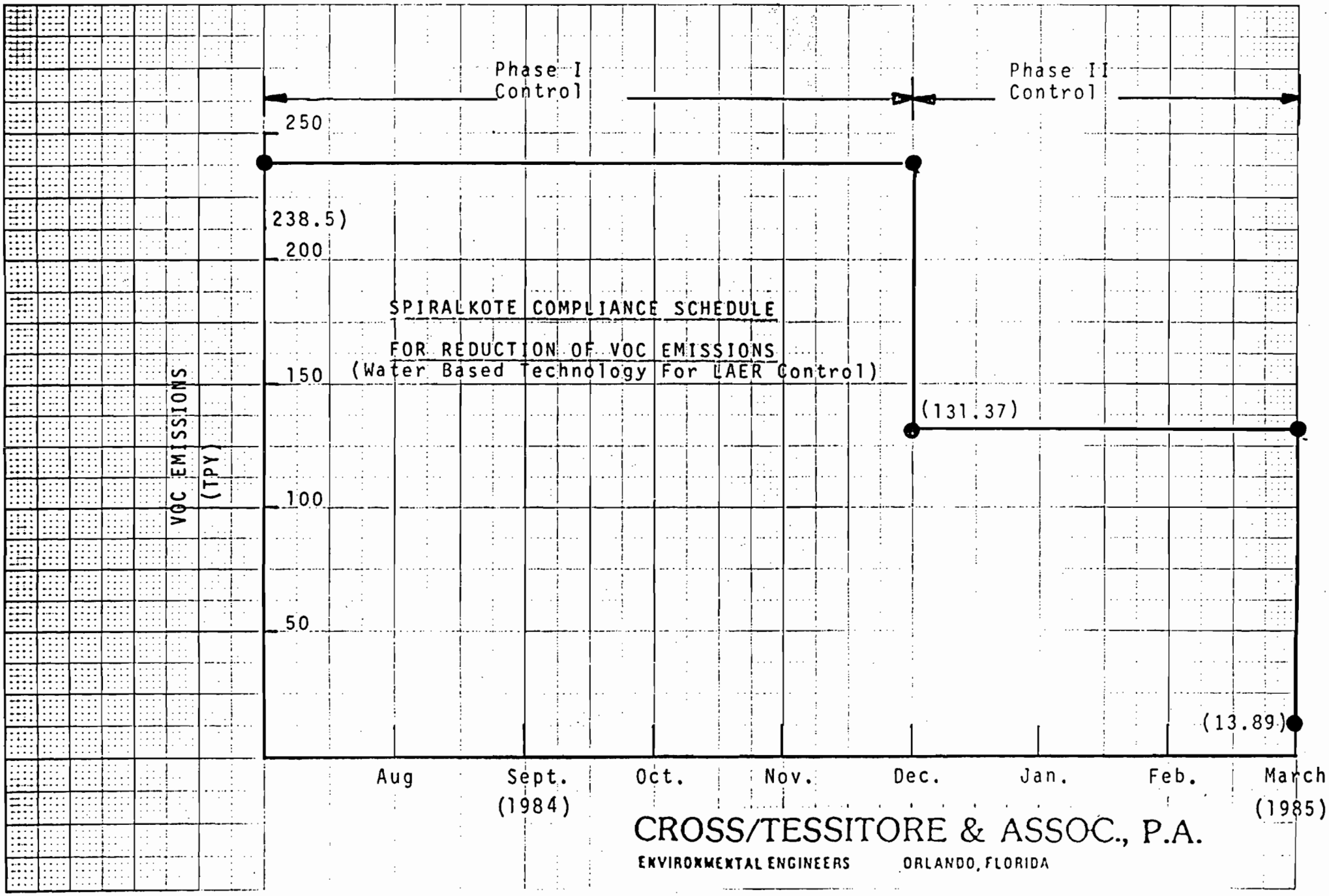
Completion of this phase will yield the following results:

Present VOC (Ink) (TPY)	Replacement Ink (TPY)	Total Reduction (TPY)
129.3	11.82	117.48

Total Facility 3-1-85

Present VOC (Solvent) (TPY)	VOC (TPY)(1)	Total Reduction (TPY)
238.5	13.89	224.61

Note: (1)Represents VOC in coatings at 4%, and inks at 10%



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

The emissions outlined in this report are based on 1983 production levels. Spiralkote, as all businesses, does expect to grow in the coming years. Obviously growth will result in subsequent increases of emissions.

As of the March 1 deadline, Spiralkote will be in compliance with both RACT and LAER laws. Our definition of LAER is the same as the control technology outlined in RACT for Graphic Arts Systems.

We do not know of any better controls than those outlined in 17-2.650(1)(F)16.b. At this time Spiralkote intends to comply with this regulation by meeting Part A. (The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water). If some unforeseeable problem prevents Spiralkote from meeting Part A, Spiralkote agrees to control emissions under Part C. (An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds to carbon dioxide and water).

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	None	--	250	Item 6
Coating	VOC	4%	14.2	Item 6
Ink	VOC	10%	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 279.6

2. Product Weight (lbs/hr): 249.9

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/yr	T/yr	
VOC	1.48	3.47	17-2.650	6.37	25.48	59.63	Item 6
			(1)(f)16B				

[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).

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)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
NATURAL GAS	320×10^{-6}	1000×10^{-6}	1.0
(1-1.0 x 10^{6} BTU/hour Eclipse burner)			

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not Applicable

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.

Spiralkote has an RCRA generator permit. Wastes are manifested and shipped to Chemical Waste Management at Emelle, Alabama.

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

Stack Height: See Attachment. ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ 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) _____

SPIRALKOTE, INC.

Permit Application Calculations

(1) Total Process Input Rate and Product Weight

Input Material	Rate (lbs/hr)
Paper	250.0
Coating	14.2
Ink	15.4
Total	279.6

Product Weight = Input Materials - Emissions

= 279.6 - 29.6 = 250.0

(2) Emission Estimates

Maximum Emission (lbs/hr)

$$13.89 \frac{\text{Ton VOC}}{\text{Year}} \times \frac{1}{4 \text{ Mach}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{\text{Year}}{4680 \text{ Hours}} = 1.48 \text{ lbs/hr}$$

Actual Tons Per Year

$$\frac{4680 \text{ hours}}{\text{Year}} \times \frac{1.48 \text{ lbs}}{\text{Hour}} \times \frac{\text{Ton}}{2000 \text{ lbs}} = 3.47 \text{ TPY}$$

Potential Emissions

238.5 TPY ÷ 4 presses = 59.63 TPY

$$\frac{59.63 \text{ Ton}}{\text{Year}} \times \frac{\text{Year}}{4680 \text{ hours}} \times \frac{2000 \text{ lbs}}{\text{Ton}} = 25.48 \text{ lbs/hr}$$

(3) Emission Limitations (allowable emissions)

$$\frac{238.5 \text{ Tons}}{\text{Year}} \times \frac{1}{4 \text{ presses}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{\text{Year}}{4680 \text{ hours}} \times 0.25\% \text{ (75\% } H_2O\text{, 25\% VOC)}$$

= 6.37 lbs/hr

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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

See Compliance Plan Attached.

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 Used

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. See Attachment VII:G.

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.

See Attachment VII:H.

Section VII, G

The compliance technique selected does not differ substantially from the control technology considered (i.e., incineration). No difference in the social and economic impact is anticipated.

The low emissions accomplished by going to water based technology should constitute an insignificant impact on the non-attainment area.

Paper, Film & Foil CONVERTER Magazine, September 1979

ATTACHMENT VII: H

Excerpts from:

REDUCING SOLVENT EMISSIONS: THE WATER-BASED INK OPTION

by Joseph A. Dooley, Inmont Corp.

Inmont is committed to developing inks and coatings that will alleviate air pollution caused by volatile organic compound emissions from flexographic and rotogravure applied inks and coatings. This commitment is made with an understanding of pollution abatement requirements and alternate approaches to pollution abatement.

Inmont's contention is that water borne materials are the best approach to achieving this end because implementation of their use will require the lowest capital expense, the lowest operational cost and the lowest drain on energy and fuel resources. Conversion to aqueous inks will ultimately result in a positive contribution to conservation of petrochemical supply. We further believe that the ultimate successful replacement of organic solvents with water is dependent on a joint commitment of the printing industry and its suppliers.

An independent and segregated effort at ink modification alone by the ink producers will not be adequate.

Our position and commitment as described is the result of a thorough assessment of the options open to the printing industry for satisfactorily reducing air pollution resulting from the use of printing inks based on organic solvents.

The available options are:

- Installation of equipment to recover the organic solvents.
- Installation of incinerators to destroy the organic solvents.
- Use of other types of printing inks to replace the organic solvents.

It is our considered opinion that first option is a viable and reasonable approach to the problem only in the specialized area of publication gravure printing facilities. These facilities are relatively few and concerned with large volumes of solvent emanating from single sites. The inks used are relatively consistent in solvent composition. They use solvents that are immiscible with water and that are easily regenerated from carbon. Finally, the reclaimed solvent can be re-used in manufacturing additional inks. As a result of these factors, solvent recovery is an efficient

economical method of capturing organic effluent in publication gravure installations.

For the very same reasons, recovery systems pose an unreasonable capital expense and cost inefficient approach to pollution control in flexographic and packaging gravure printing facilities.

Option two, installation of incineration equipment, is also, in our opinion, a completely inappropriate means of achieving abatement for the flexographic or gravure converter. The incinerators now being offered for use vary in complexity from straightforward high temperature units that produce carbon dioxide and water end products, to catalytic units coupled with heat recovery units.

An appraisal of the economics of all available systems leads to the general conclusion that installation of an appropriate incineration system would be cost effective for large facilities and ineffective for smaller ones. In part, this is based on the assumption that the larger the amount of solvent used, the larger and more efficient the incinerator that can be used.

In a typical printing operation achieving this kind of efficiency would require ducting from numerous press units to a common large incinerator. A well laid out printing plant is not conducive to ducting to a common

incinerator and it is more likely that multiple small incinerators with their inherent inefficiency would be the more practical configuration.

Using the cost analysis from the Environmental Protection Agency studies, an incinerator for a typical packaging press would result in increased operating costs equivalent to a 30-50% up charge on printing ink costs. The operating costs coupled with an initial capital cost of $200,-$700,000 per installation lead us to conclude that the burden of such a system is completely unacceptable from a cost/benefit analysis. Such a solution to the abatement problem would lead to the eventual destruction of the small converter and the end of the printing industry as it now exists.

The third option on which we base the Inmont position, presents a solution that is attainable within a reasonable length of time; our current estimate is 3-4 years. The solution is achievable and will further aid in energy conservation. It will not lead to increased operating costs and is applicable to all flexographic and gravure printing applications.

We take this position, recognizing that an extraordinary effort in new product development will be required

of printing ink producers in order to adapt current technologies to all printing requirements. We recognize too that a concerted, continuous, cooperative effort on the part of converter and suppliers will be required to ensure success.

Accepting these premises, we feel confident that the replacement of organic solvents in printing inks will assure adequate pollution abatement while maintaining the health and vigor of the printing industry.

KIDDER 2 PRESS

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 _____

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, FL, 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: 8/27/84 Telephone No. (305) 851-1484

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 is an existing flexographic printing plant that produces composite can labels. The unit emits VOC from printing and coating. No controls are presently installed on the unit. Water based technology to be applied. Reference August 16, 1984, compliance plan.

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

Start of Construction February 1982 **Completion of Construction** February 1982

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.)**

No pollution control equipment is installed.

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

Not applicable

E. Requested permitted equipment operating time: hrs/day 18 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A; if seasonal, describe: N/A

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? Yes
   a. If yes, has "offset" been applied? No
   b. If yes, has "Lowest Achievable Emission Rate" been applied? Yes
   c. If yes, list non-attainment pollutants. VOC
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. Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? Yes
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? Yes
   a. If yes, for what pollutants? VOC
   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 II:
See Attachment "Compliance Plan" (Attachment H).

ATTACHMENT: SECTION II:H.

AIR EMISSION COMPLIANCE PLAN FOR VOC'S

SPIRALKOTE, INC.

REGENCY INDUSTRIAL PARK

ORLANDO, FLORIDA

AUGUST 16, 1984

Prepared for Discussions
with the
State of Florida
Department of Environmental Regulation
in Tallahassee
the week of August 20, 1984

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d) Graphic Color Inc.	
e) Borden Ink Co.	
f) PPG Ink Co.	

		COMPLETION DATE
2)	Analyzation of best suppliers and testing of compatibility between suppliers should some have superior colors.	11-8-84
3)	Retesting of best inks with modifications if needed.	12-28-84
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Total Facility 3-1-85

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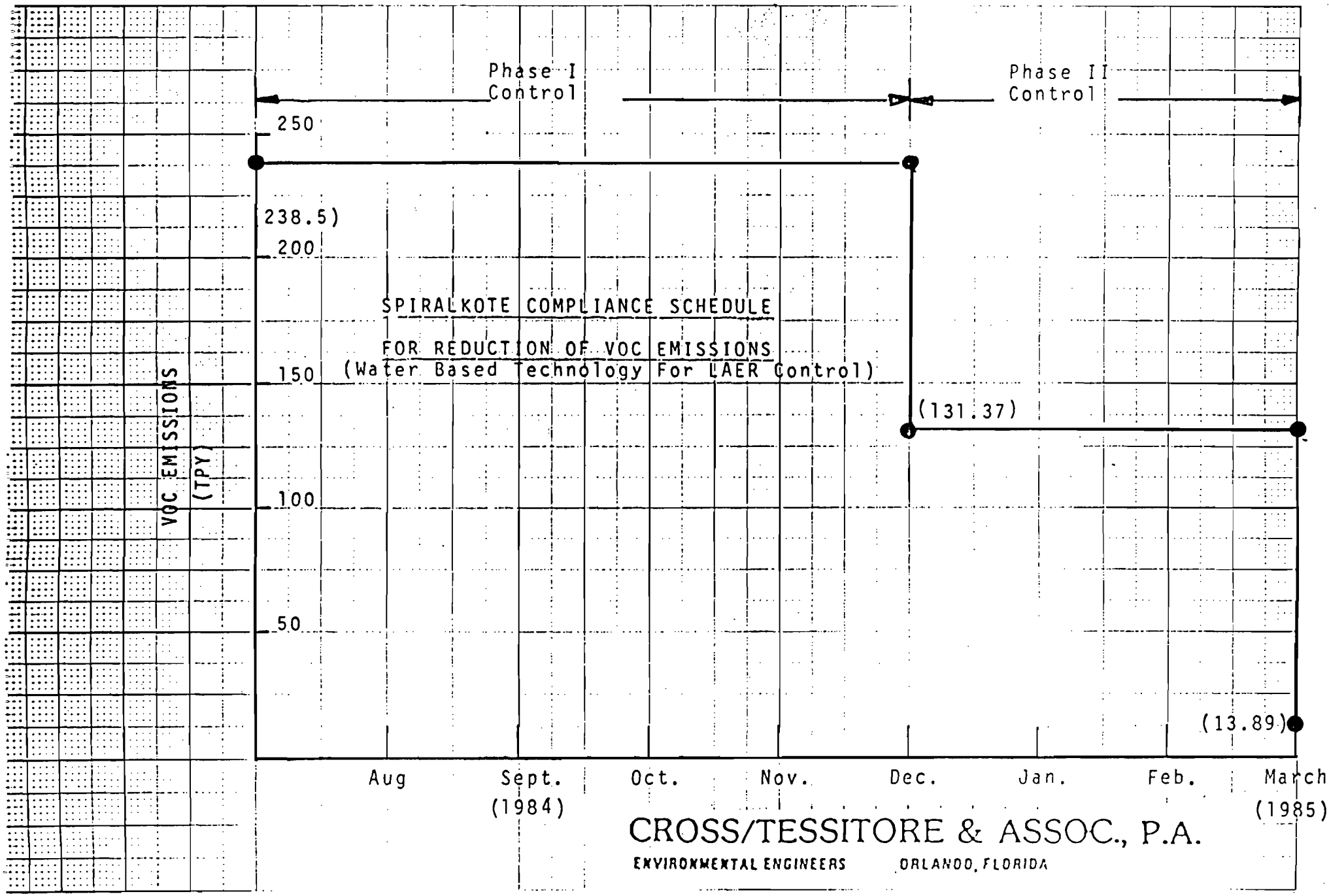
Note: (1)Represents VOC in coatings at 4%, and inks at 10%



The emissions outlined in this report are based on 1983 production levels. Spiralkote, as all businesses, does expect to grow in the coming years. Obviously growth will result in subsequent increases of emissions.

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We do not know of any better controls than those outlined in 17-2.650(1)(F)16.b. At this time Spiralkote intends to comply with this regulation by meeting Part A. (The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water). If some unforeseeable problem prevents Spiralkote from meeting Part A, Spiralkote agrees to control emissions under Part C. (An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds to carbon dioxide and water).

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	Type	% Wt		
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Coating	VOC	4%	14.2	Item 6
Ink	VOC	10%	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 279.6

2. Product Weight (lbs/hr): 249.9

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/yr	T/yr	
VOC	1.48	3.47	17-2.650	6.37	25.48	59.63	Item 6
			(1)(f)16B				

[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).

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)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
NATURAL GAS	320 x 10^{-6}	800 x 10^{-6}	0.8
(1-800,000 BTU/Hour	Eclipse Burner		

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not Applicable

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.

Spiralkote has an RCRA Generator permit. Wastes are manifested and shipped to Chemical Waste Management at Emelle, Alabama.

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

Stack Height: See Attachment. ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ 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) _____

SPIRALKOTE, INC.

Permit Application Calculations

(1) Total Process Input Rate and Product Weight

Input Material	Rate (lbs/hr)
Paper	250.0
Coating	14.2
Ink	15.4
Total	279.6

Product Weight = Input Materials - Emissions

= 279.6 - 29.6 = 250.0

(2) Emission Estimates

Maximum Emission (lbs/hr)

$$13.89 \frac{\text{Ton VOC}}{\text{Year}} \times \frac{1}{4 \text{ Mach}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{\text{Year}}{4680 \text{ Hours}} = 1.48 \text{ lbs/hr}$$

Actual Tons Per Year

$$\frac{4680 \text{ hours}}{\text{Year}} \times \frac{1.48 \text{ lbs}}{\text{Hour}} \times \frac{\text{Ton}}{2000 \text{ lbs}} = 3.47 \text{ TPY}$$

Potential Emissions

238.5 TPY ÷ 4 presses = 59.63 TPY

$$\frac{59.63 \text{ Ton}}{\text{Year}} \times \frac{\text{Year}}{4680 \text{ hours}} \times \frac{2000 \text{ lbs}}{\text{Ton}} = 25.48 \text{ lbs/hr}$$

(3) Emission Limitations (allowable emissions)

$$\frac{238.5 \text{ Tons}}{\text{Year}} \times \frac{1}{4 \text{ presses}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{\text{Year}}{4680 \text{ hours}} \times 0.25\% \text{ (75\% } H_2O\text{, 25\% VOC)}$$

= 6.37 lbs/hr

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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

See Compliance Plan Attached.

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 Used

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. See Attachment VII:G.

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.

See Attachment VII:H.

Section VII, G

The compliance technique selected does not differ substantially from the control technology considered (i.e., incineration). No difference in the social and economic impact is anticipated.

The low emissions accomplished by going to water based technology should constitute an insignificant impact on the non-attainment area.

Paper, Film & Foil CONVERTER Magazine, September 1979

ATTACHMENT VII: H

Excerpts from:

REDUCING SOLVENT EMISSIONS: THE WATER-BASED INK OPTION

by Joseph A. Dooley, Inmont Corp.

Inmont is committed to developing inks and coatings that will alleviate air pollution caused by volatile organic compound emissions from flexographic and rotogravure applied inks and coatings. This commitment is made with an understanding of pollution abatement requirements and alternate approaches to pollution abatement.

Inmont's contention is that water borne materials are the best approach to achieving this end because implementation of their use will require the lowest capital expense, the lowest operational cost and the lowest drain on energy and fuel resources. Conversion to aqueous inks will ultimately result in a positive contribution to conservation of petrochemical supply. We further believe that the ultimate successful replacement of organic solvents with water is dependent on a joint commitment of the printing industry and its suppliers.

An independent and segregated effort at ink modification alone by the ink producers will not be adequate.

Our position and commitment as described is the result of a thorough assessment of the options open to the printing industry for satisfactorily reducing air pollution resulting from the use of printing inks based on organic solvents.

The available options are:

- Installation of equipment to recover the organic solvents.
- Installation of incinerators to destroy the organic solvents.
- Use of other types of printing inks to replace the organic solvents.

It is our considered opinion that first option is a viable and reasonable approach to the problem only in the specialized area of publication gravure printing facilities. These facilities are relatively few and concerned with large volumes of solvent emanating from single sites. The inks used are relatively consistent in solvent composition. They use solvents that are immiscible with water and that are easily regenerated from carbon. Finally, the reclaimed solvent can be re-used in manufacturing additional inks. As a result of these factors, solvent recovery is an efficient

economical method of capturing organic effluent in publication gravure installations.

For the very same reasons, recovery systems pose an unreasonable capital expense and cost inefficient approach to pollution control in flexographic and packaging gravure printing facilities.

Option two, installation of incineration equipment, is also, in our opinion, a completely inappropriate means of achieving abatement for the flexographic or gravure converter. The incinerators now being offered for use vary in complexity from straightforward high temperature units that produce carbon dioxide and water end products, to catalytic units coupled with heat recovery units.

An appraisal of the economics of all available systems leads to the general conclusion that installation of an appropriate incineration system would be cost effective for large facilities and ineffective for smaller ones. In part, this is based on the assumption that the larger the amount of solvent used, the larger and more efficient the incinerator that can be used.

In a typical printing operation achieving this kind of efficiency would require ducting from numerous press units to a common large incinerator. A well laid out printing plant is not conducive to ducting to a common

incinerator and it is more likely that multiple small incinerators with their inherent inefficiency would be the more practical configuration.

Using the cost analysis from the Environmental Protection Agency studies, an incinerator for a typical packaging press would result in increased operating costs equivalent to a 30-50% up charge on printing ink costs. The operating costs coupled with an initial capital cost of $200,-$700,000 per installation lead us to conclude that the burden of such a system is completely unacceptable from a cost/benefit analysis. Such a solution to the abatement problem would lead to the eventual destruction of the small converter and the end of the printing industry as it now exists.

The third option on which we base the Inmont position, presents a solution that is attainable within a reasonable length of time; our current estimate is 3-4 years. The solution is achievable and will further aid in energy conservation. It will not lead to increased operating costs and is applicable to all flexographic and gravure printing applications.

We take this position, recognizing that an extraordinary effort in new product development will be required

of printing ink producers in order to adapt current technologies to all printing requirements. We recognize too that a concerted, continuous, cooperative effort on the part of converter and suppliers will be required to ensure success.

Accepting these premises, we feel confident that the replacement of organic solvents in printing inks will assure adequate pollution abatement while maintaining the health and vigor of the printing industry.

KIDDER 3 PRESS

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 _____

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, FL, 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: 8/27/84 Telephone No. (305) 851-1484

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 is an existing flexographic printing plant that produces composite can labels. The unit emits VOC from printing and coating. No controls are presently installed on the unit. Water based technology to be applied. Reference August 16, 1984, compliance plan.

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

Start of Construction February 1982 Completion of Construction February 1982

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.)

No pollution control equipment is installed.

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

Not applicable

E. Requested permitted equipment operating time: hrs/day 18 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A; if seasonal, describe: N/A

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?	Yes
a. If yes, has "offset" been applied?	No
b. If yes, has "Lowest Achievable Emission Rate" been applied?	Yes
c. If yes, list non-attainment pollutants.	VOC
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.	Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	Yes
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?	Yes
a. If yes, for what pollutants?	VOC

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 II:
See Attachment "Compliance Plan" (Attachment H).

ATTACHMENT: SECTION II:H.

AIR EMISSION COMPLIANCE PLAN FOR VOC'S

SPIRALKOTE, INC.

REGENCY INDUSTRIAL PARK

ORLANDO, FLORIDA

AUGUST 16, 1984

Prepared for Discussions
with the
State of Florida
Department of Environmental Regulation
in Tallahassee
the week of August 20, 1984

Cross/Tessitore & Associates, P.A.
4759 South Conway Road, Suite D
Orlando, Florida 32812

(305) 851-1484

SPIRALKOTE COMPLIANCE SCHEDULE

Spiralkote intends on reaching compliance of Florida D.E.R. and U.S. E.P.A. rules and regulations with the following plan. The plan will revolve around our ability to convert to water base technology, and will be divided into two phases.

PHASE I

Phase I will involve replacement of the two over-print coatings presently in use. We will comply with the following timetable:

		COMPLETION DATE
1)	Lab Evaluation of Replacement Coatings	8-1-84
2)	Coating Trials on SpiralKote Equipment	8-17-84
3)	Lab Evaluation by Customers	8-31-84
4)	Production Winding Trials by Customer	9-14-84
5)	Production Trials by Processors	9-28-84
6)	Order For Production Quantity of New Coating Placed	10-12-84
7)	Lab Evaluation of Batch Consistency	11-2-84
8)	Removal of Present Solvent Inventory	12-3-84
9)	Production With New H_2O Base Chemistry Begins	12-3-84

Completion of this phase will yield the following results:

Present VOC (KJ902) (TPY)	Replacement Coating (TPY)	Total Reduction (TPY)
67.86	1.37	66.49
Present VOC (NB1061) (TPY)	Replacement Coating (TPY)	(TPY)
41.34	0.7	40.64

Total 107.13 TPY Reduction

PHASE II

Phase II of Spiralkote's compliance schedule will involve the replacement of the solvent ink system with H_2O base chemistry. The following is a schedule of our timetable. To achieve LAER control on these sources, it should be noted that several suppliers have been tested already.

	COMPLETION DATE
1) Ink Trials By Following Suppliers	10-26-84
a) Environmental Inks & Coatings Co.	
b) Bemis Ink Co.	
c) Inmount Printing Ink Co.	
d) Graphic Color Inc.	
e) Borden Ink Co.	
f) PPG Ink Co.	

		COMPLETION DATE
2)	Analyzation of best suppliers and testing of compatibility between suppliers should some have superior colors.	11-8-84
3)	Retesting of best inks with modifications if needed.	12-28-84
4)	Order placed for H_2O base ink system	1-2-85
5)	Production job produced and sent to customer for evaluation	2-1-85
6)	Replacement of solvent inventory to begin	2-1-85
7)	Conversion to H_2O chemistry complete	3-1-85

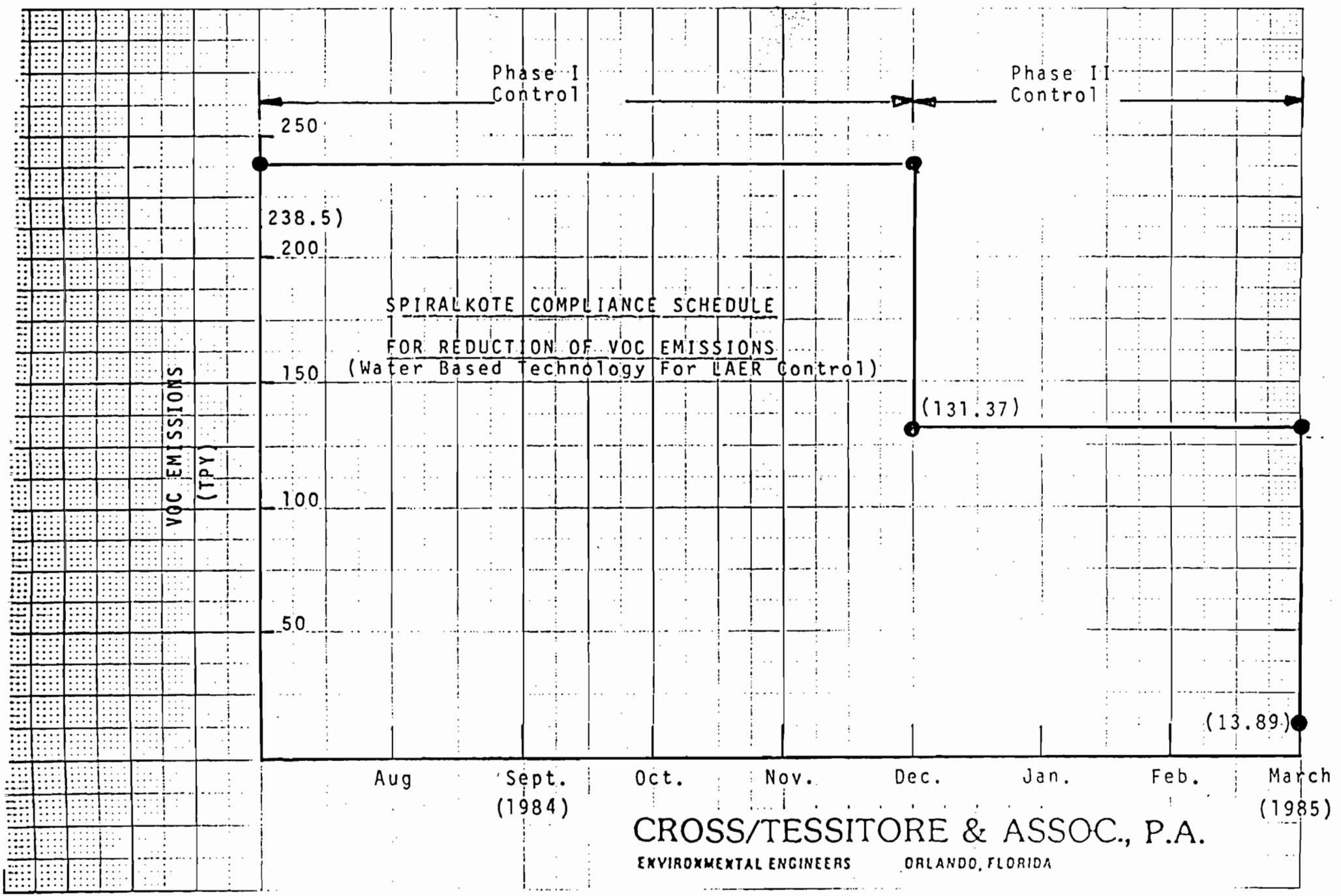
Completion of this phase will yield the following results:

Present VOC (Ink) (TPY)	Replacement Ink (TPY)	Total Reduction (TPY)
129.3	11.82	117.48

Total Facility 3-1-85

Present VOC (Solvent) (TPY)	VOC (TPY)(1)	Total Reduction (TPY)
238.5	13.89	224.61

Note: (1)Represents VOC in coatings at 4%, and inks at 10%



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

The emissions outlined in this report are based on 1983 production levels. Spiralkote, as all businesses, does expect to grow in the coming years. Obviously growth will result in subsequent increases of emissions.

As of the March 1 deadline, Spiralkote will be in compliance with both RACT and LAER laws. Our definition of LAER is the same as the control technology outlined in RACT for Graphic Arts Systems.

We do not know of any better controls than those outlined in 17-2.650(1)(F)16.b. At this time Spiralkote intends to comply with this regulation by meeting Part A. (The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water). If some unforeseeable problem prevents Spiralkote from meeting Part A, Spiralkote agrees to control emissions under Part C. (An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds to carbon dioxide and water).

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	None	--	250	Item 6
Coating	VOC	4%	14.2	Item 6
Ink	VOC	10%	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 279.6

2. Product Weight (lbs/hr): 249.9

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/yr	T/yr	
VOC	1.48	3.47	17-2.650	6.37	25.48	59.63	Item 6
			(1)(f)16B				

[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).

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)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
NATURAL GAS	320×10^{-6}	1200×10^{-6}	1.2
($1-1.2 \times 10^{6}$ BTU Eclipse Burner)			

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

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

Not applicable

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.

Spiralkote has an RCRA Generator permit. Wastes are manifested and shipped to Chemical Waste Management at Emelle, Alabama.

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

Stack Height: See Attachment. ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ 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.

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SPIRALKOTE, INC.

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SPIRALKOTE, INC.

REGENCY INDUSTRIAL PARK

ORLANDO, FLORIDA

AUGUST 16, 1984

Prepared for Discussions
with the
State of Florida
Department of Environmental Regulation
in Tallahassee
the week of August 20, 1984

Cross/Tessitore & Associates, P.A.
4759 South Conway Road, Suite D
Orlando, Florida 32812

(305) 851-1484

SPIRALKOTE COMPLIANCE SCHEDULE

Spiralkote intends on reaching compliance of Florida D.E.R. and U.S. E.P.A. rules and regulations with the following plan. The plan will revolve around our ability to convert to water base technology, and will be divided into two phases.

PHASE I

Phase I will involve replacement of the two over-print coatings presently in use. We will comply with the following timetable:

		COMPLETION DATE
1)	Lab Evaluation of Replacement Coatings	8-1-84
2)	Coating Trials on SpiralKote Equipment	8-17-84
3)	Lab Evaluation by Customers	8-31-84
4)	Production Winding Trials by Customer	9-14-84
5)	Production Trials by Processors	9-28-84
6)	Order For Production Quantity of New Coating Placed	10-12-84
7)	Lab Evaluation of Batch Consistency	11-2-84
8)	Removal of Present Solvent Inventory	12-3-84
9)	Production With New H_2O Base Chemistry Begins	12-3-84

Completion of this phase will yield the following results:

Present VOC (KJ902) (TPY)	Replacement Coating (TPY)	Total Reduction (TPY)
67.86	1.37	66.49

Present VOC (NB1061) (TPY)	Replacement Coating (TPY)	(TPY)
41.34	0.7	40.64

Total 107.13 TPY Reduction

PHASE II

Phase II of Spiralkote's compliance schedule will involve the replacement of the solvent ink system with H_2O base chemistry. The following is a schedule of our timetable. To achieve LAER control on these sources, it should be noted that several suppliers have been tested already.

	COMPLETION DATE
1) Ink Trials By Following Suppliers	10-26-84
a) Environmental Inks & Coatings Co.	
b) Bemis Ink Co.	
c) Inmount Printing Ink Co.	
d) Graphic Color Inc.	
e) Borden Ink Co.	
f) PPG Ink Co.	

		COMPLETION DATE
2)	Analyzation of best suppliers and testing of compatibility between suppliers should some have superior colors.	11-8-84
3)	Retesting of best inks with modifications if needed.	12-28-84
4)	Order placed for H_2O base ink system	1-2-85
5)	Production job produced and sent to customer for evaluation	2-1-85
6)	Replacement of solvent inventory to begin	2-1-85
7)	Conversion to H_2O chemistry complete	3-1-85

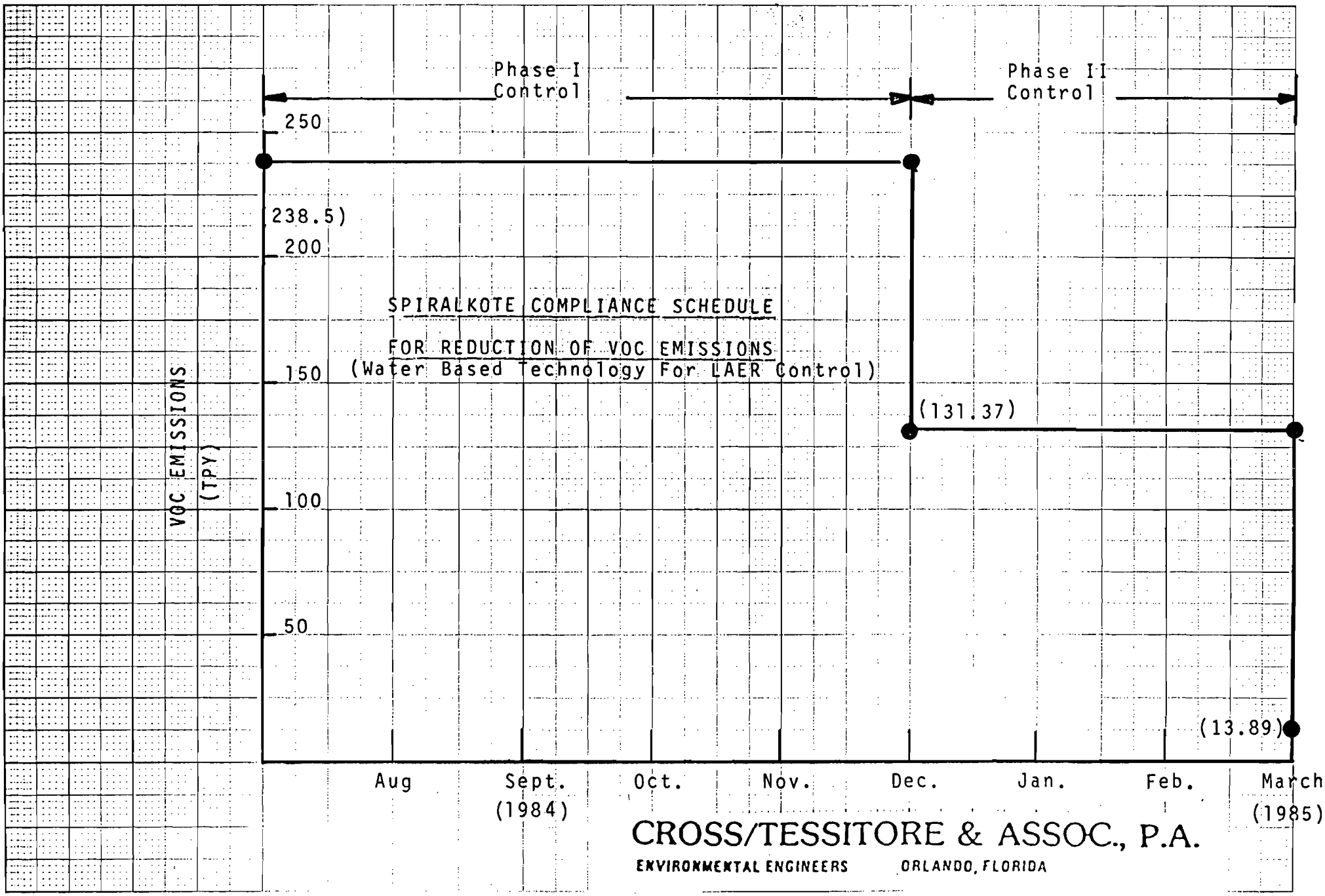
Completion of this phase will yield the following results:

Present VOC (Ink) (TPY)	Replacement Ink (TPY)	Total Reduction (TPY)
129.3	11.82	117.48

Total Facility 3-1-85

Present VOC (Solvent) (TPY)	VOC (TPY)(1)	Total Reduction (TPY)
238.5	13.89	224.61

Note: (1)Represents VOC in coatings at 4%, and inks at 10%



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

The emissions outlined in this report are based on 1983 production levels. Spiralkote, as all businesses, does expect to grow in the coming years. Obviously growth will result in subsequent increases of emissions.

As of the March 1 deadline, Spiralkote will be in compliance with both RACT and LAER laws. Our definition of LAER is the same as the control technology outlined in RACT for Graphic Arts Systems.

We do not know of any better controls than those outlined in 17-2.650(1)(F)16.b. At this time Spiralkote intends to comply with this regulation by meeting Part A. (The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water). If some unforeseeable problem prevents Spiralkote from meeting Part A, Spiralkote agrees to control emissions under Part C. (An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds to carbon dioxide and water).

SPIRALKOTE INC.
THE FLORIDA SUBSIDIARY OF FLEMING-POTTER CO., INC.

June 28, 1984

Mr. Bruce Mitchell
Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Dear Mr. Mitchell:

As we discussed on the phone 6/21/84, we met with local D.E.R. officials on the previous Wednesday. From our point of view, the meeting was not very productive in resolving any of the problems relating to our air pollution permits. Neither Mr. Bessa nor Mr. Caldwell could give us any specific information of possible solutions to the problems outlined in correspondence received from Mr. Fancy.

When we spoke on the phone, you indicated a need for us to resolve a Consent Order for Compliance. As I understood our conversation, Nancy Wright of your legal staff was to contact me the following day to arrange a meeting. At this time, I have not been contacted.

I was also shocked that Mr. Bessa levied a $20,000.00 fine against us for law violations. Because of this fine, I would like to review some Spiralkote history. Our corporation was formed in 1977 at which time we applied for and received Manufacturing licenses. We also became a member of the Chamber of Commerce. As a hazardous waste generator, we applied for and received an E.P.A. I.D. number. All shipments are manifested. An annual report of our activity is on file in Tallahassee. The local D.E.R. has been in our plant annually since 1981. We have been open with them discussing our operation and giving them plant tours of our manufacturing facilities. Our discussions with the local D.E.R. representatives about pollution have always been focused on water pollution, even when we attempted to talk about air pollution.

Even though we have been involved with both the D.E.R. (locally and at the state level) and the E.P.A., the first awareness we have had of the air pollution laws came though mutual suppliers of a printing company in Jacksonville. We immediately called the D.E.R. and submitted the appropriate permits. We have in no way tried to evade the law. For these reasons, we are requesting relief from the $20,000.00 fine.

1200 CENTRAL FLORIDA PARKWAY ORLANDO, FLORIDA 32809 PHONE (305) 859-7780 TELEX 56-6543

I am enclosing a report of where we stand with our water base development program. We would be more than happy to discuss this in detail with the D.E.R.

I was also able to obtain a copy of the enclosed FTA regulatory alert. I am interested to know if we could apply and receive a Delayed Compliance Order as outlined in items 1 and 7.

Sincerely,

Robert E. Kindorf
Vice President

REK:laj
encls.

FTA REGULATORY ALERT

October 10, 1983

SUBJECT: U.S. E.P.A.
Meeting with John Rasnic
Compliance Monitoring Bureau Chief
U.S. E.P.A.
Washington, D.C.
September 16, 1983

The following, written by James Ely, Technical Manager - Liquid Inks, Inmont Corporation and Chairman of the FTA Government Regulations Committee, is a summary of a meeting with John Rasnic to determine the validity of recent comments about what the industry might expect from EPA's alleged "GET TOUGH emissions control policy". The meeting was attended by Dick Lilquist (President of F.P.A.), Ed Weary, Rita Bryce, and Mary Bernhard of F.P.A.'s staff, Malcom McArthur (F.P.A.'s attorney), Tom Dunn of Printpack, Tom Bassett of Rexham, and Mr. Ely.

1. There is no change in the law. The Clean Air Act allows Delayed Compliance Orders, but requires compliance no later than three (3) years after the compliance date for the emissions category; December 31, 1981 for coatings; December 31, 1982 for flexo and gravure ink. This means Delayed Compliance Orders (D.C.O.) can run to December 31, 1984 for coatings and December 31, 1985 for ink.

2. There is no shift in EPA's desire to use low solvent technology. There is concern that the technology will not be developed within the time constraint and a belief that printers are using Delayed Compliance Orders to "buy time".

3. Federal E.P.A. can-- and will-- supercede State and local approved plans if they believe there is a lack of good faith and the source is doing nothing. Their objective is to drive emissions control to a conclusion by low solvent technology or any other method. This means that no source with State or local variances or extension plan approvals is secure from Federal action. U.S. E.P.A. has-- and will-- use their authority to issue "Notices of Violation" to whomever they consider delinquent.

4. U.S. E.P.A. will not ask for a Section 20 penalty for sources working on a Delayed Compliance Order. They will not interfere with State and local authorities who do assess penalties. Thus, the penalty part of the law will not be applied uniformly.

5. There is no U.S. E.P.A. court of appeals for inequitable State, local or regional actions.

....continued....

FLEXOGRAPHIC TECHNICAL ASSOCIATION INC.
95 West 19th Street, Huntington Station, N.Y. 11746
Telephone (516) 271-4224

6. U.S. E.P.A. (Enforcement Bureau) acknowledges that there is a lot they don't know about industry problems. They believe that they will learn by issuing "Notices of Violation". This amounts to a citation followed by a show-cause hearing, which will result in a Consent Order for Compliance.

7. Delayed Compliance Orders require a demonstration of good faith and a good reason for an extension request. This is similar to the original requirements for the H & H type extension plan.

8. E.P.A. is not interested in how compliance is achieved, thus Delayed Compliance Orders can list technical options and an emissions reduction schedule.

9. E.P.A. is working with a contractor to determine emission sources. No non-complying source can be secure from apprehension.

In conclusion, E.P.A. is accelerating compliance activity and the industry can expect "Notices of Violation" which will ultimately lead to Consent Order Compliance Agreements. The printing industry must demonstrate credibility of the water borne ink approach lest they lose the opportunity for that type of Delayed Compliance Order. F.P.A. plans to address this.

F.P.A. technical members plan to meet with E.P.A. at it's quarterly meetings to discuss compliance problems. Inequities and the problems associated with our "Job Shop" type industry will be primary issues.

- -

The FTA will keep its members informed of future developments in this area. We are presently in the process of developing a session at the 1984 Forum which will offer an in-depth exploration of these concerns.

FLEXOGRAPHIC TECHNICAL ASSOCIATION INC.
95 West 19th Street, Huntington Station, N.Y. 11746
Telephone (516) 271-4224

FLEMING-POTTER CO., INC.

Bob Findley

TO: BILL AHLEMEYER

SUBJECT: SPIRALKOTE/WATER BASE DEVELOPMENT

DATE: JUNE 14, 1984

Previous Tests:

1. November, 1978. Overprint trials - Ran Algan AOC-3030 Water Base O.P. The C.O.F. was too high, and the Methanol (80%) Resistance was border line. (This was an emulsion coating.)

2. March, 1979. Overprint trials - Ran Algan AOC-3029 Water Base O.P. The C.O.F. was too high, and the Methanol (80%) Resistance failed. (This was an emulsion coating.)

3. Since March, 1979, we have looked at numerous laboratory samples from many suppliers. These included emulsion and catalytic coatings. None fully met the specs. required by our customers. The main failures were high kinetic C.O.F.., Methanol (80%) Resistance failure and no mira-strip (Citrus). These included: Cork Industries, Bemis, Algan, Converters, Day-Glo, Gotham Inks, Inmont, Mobil, Morton, Nassau Technologies, Pierce & Stevens, and Standard "T".

Recent Tests by Spiralkote:

1. Findley-Catalytic O.P., wouldn't cure.
2. Algan ALC 10-5-2-30 emulsion.
3. Inmont 91562 Biscuit Varnish.
4. Inmont NB-1151 catalytic O.P.

The last three materials are being evaluated at Spiralkote and the lab. The most promising are the Algan emulsion on foil and some C1S, and the Inmont 1151 on C1S.

Future Tests and Evaluations.

1. The lab has samples from many suppliers for evaluation. Most of them are catalytic in nature requiring high oven heats. The lab has established a program for evaluating these coatings and hopes to have them completed by the end of July.

2. Environmental Inks and Coatings has submitted wet samples of O.P. and inks for lab evaluation. This company has shown us a sample of water base inks and O.P. on light weight stock. The ink laydown is average and the coating has streaks in it. We hope to have draw downs of this material completed by the end of June.

3. American Inks and Coatings Corp. has shown us trial runs on gravure of their water base systems. After receiving materials from Spiralkote, the lab sent printed and unprinted C1S and foil samples to the American lab for application with their inks and coatings. Unprinted poly samples were also sent. We would hope that they will have the completed draw down samples sent back to us by the end of June.

4. Algan has also submitted a wet sample of a higher solids and glossier emulsion coating to the lab. We believe that this may be the direction to try for a heavy enough and continuous

coating to pass all the tests on C1S. The draw down and tests should be completed by June 25th.

5. If lab tests prove successful on samples from either American or Environmental inks, we could schedule trials in July or August. This could include either overprints and/or inks.

6. The Inmont catalytic coating, NB 1151, looks very promising, but it will have to have more slip. Since the lab has never heard from the Inmont Florida Salesman, we can not establish a schedule for future tests at this time.

Mike

MIKE COLEMAN

ke

cc: Bill Kindorf, Mannlein, Bob Kindorf, McLellan, Jones

No. 0156513

RECEIPT FOR CERTIFIED MAIL

**NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL**

(See Reverse)

SENT TO
Mr. Robert Kindorf

STREET AND NO.

P.O., STATE AND ZIP CODE

POSTAGE		$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	¢
OPTIONAL SERVICES	SPECIAL DELIVERY	¢
OPTIONAL SERVICES	RESTRICTED DELIVERY	¢
OPTIONAL SERVICES — RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢
OPTIONAL SERVICES — RETURN RECEIPT SERVICE	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
OPTIONAL SERVICES — RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
OPTIONAL SERVICES — RETURN RECEIPT SERVICE	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE

6/8/84

PS Form 3800, Apr. 1976

PS Form 3811, Jan. 1979

SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
   - ☒ Show to whom and date delivered..... ¢
   - ☐ Show to whom, date and address of delivery..... ¢
   - ☐ RESTRICTED DELIVERY
     Show to whom and date delivered..... ¢
   - ☐ RESTRICTED DELIVERY.
     Show to whom, date, and address of delivery.$____

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
Mr. Robert E. Kindorf
1200 Central Florida Pkwy.
Orlando, FL 32809

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	0156513	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐Addressee ☐Authorized agent
R. Jamison

4. DATE OF DELIVERY: 6/13 — POSTMARK: USPS JUN 13 1984 ORLANDO, FLA. MAIN OFFICE

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: — CLERK'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

☆GPO : 1979-300-459

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 8, 1984

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Robert E. Kindorf
Vice-President
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Re: Completeness Review for the Applications to Construct Air Pollution Sources: Permit Nos. AC 48-82733, -82735, -82736, -82737

Dear Mr. Kindorf:

The bureau is in receipt of your letter and supplementary data dated April 19, 1984, in response to an incompleteness letter dated March 19, 1984. The bureau still finds the above referenced applications and supplementary data to be incomplete and the following information will have to be submitted before further processing will resume:

1. Submit an approved compliance schedule for meeting the requirements of FAC Rule 17-2.510(4)(b).

2. Propose LAER and submit an amended application if it is applicable.

3. Since your operation is considered "Graphic Arts Systems," control strategy shall be in accordance with FAC Rule 17-2.650(1)(f)16 (attached). Revise and submit applications plus calculations, assumptions, etc. to reflect your strategy to comply with the rule.

4. In order to acquire an approved compliance schedule (see #1), call the DER's St. Johns River District Office at (305)894-7555 or write to Mr. Len Kozlov at the following address:

   Mr. Len Kozlov
   St. Johns River District Office
   3319 Maguire Boulevard
   Suite 232
   Orlando, Florida 23803

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

CHF/s

cc: N. Wright
L. Kozlov
C. Collins
T. Bessa
F. Cross, Jr.

16. Graphic Arts Systems

a. Applicability

The control technology and provisions set forth in 17-2.650(1)(f) 16.b. shall apply to all packaging rotogravure, publication rotogravure, or flexographic printing operations whose potential to emit volatile organic compounds is equal to or more than 100 tons per year (90 megagrams per year).

b. Control Technology

(i) No owner or operator of a packaging rotogravure, publication rotogravure, or flexographic printing operation subject to 17-2.650(1)(f)16. and employing solvent containing ink shall cause, allow or permit the operation of the facility unless:

(A) The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water; or,

(B) The ink as it is applied to the substrate, less water, contains 60 percent by volume or more nonvolatile material; or,

(C) An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) to carbon dioxide and water.

CROSS/TESSITORE & ASSOCIATES, P.A.
4759 S. CONWAY ROAD, SUITE D
ORLANDO, FLORIDA 32812
305/851-1484

May 23, 1984

DER
MAY 29 1984
BAQM

Mr. C. H. Fancy, P.E.
Dept. of Environmental Regulation
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Dear Mr. Fancy:

Enclosed are the Revised permits (4 sets) for the Cyrel Plate Room at SpiralKote, Inc., Orlando, Florida (AC48-82738-82739-82740-82741).

Best regards.

Sincerely,

Frank L. Cross, Jr., P.E.
President

FLC:kbw
cc: Bob Kindorf

CROSS/TESSITORE & ASSOCIATES, P.A.
4759 S. CONWAY ROAD, SUITE D
ORLANDO, FLORIDA 32812
305/851-1484

May 15, 1984

Mr. Steve McLellan
Spiralkote, Inc.
1200 Central Florida Parkway
Orlando, Florida 32809

Dear Steve:

Enclosed are copies of the Cyrel System permit applications that we've checked and retyped. Please have Bob Kindorf sign all copies and return them to C/TA. We'll then sign and seal them and forward the revised applications to FDER in Tallahassee.

Best regards.

Sincerely,

Frank Cross/m

Frank L. Cross, Jr., P.E.
President

FLC:kim
Enc.a/s

P.S. Invoice also enclosed.

AC 48-82738

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

MAY 29 1984

BAQM

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

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) Cyrel Plate Room Wash-out Unit

SOURCE LOCATION: Street 1200 Central Florida Pkwy City Orlando

UTM: East 461370 North 3142050

Latitude 28 ° 33' 08"N Longitude 81 ° 21' 05"W

APPLICANT NAME AND TITLE: Robert E. Kindorf, V.P. of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

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: Robert E. Kindorf

Robert E. Kindorf, V.P.
Name and Title (Please Type)

Date: _____ Telephone No. 305/859-7780

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, that

[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: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Assoc., P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: _____ Telephone No. 305-851-1484

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.

The Washout Unit removes unexposed photopolymer from printing plate material. The unit exhausts VOCs thru two stacks. There are no controls presently installed on this system.

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

Start of Construction Feb. 1981 Completion of Construction Feb. 1981

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.)

No pollution control devices are presently employed on this process.

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

None

E. Requested permitted equipment operating time: hrs/day 9 ; days/wk 5 ; wks/yr 50 ;

if power plant, hrs/yr N/A ; if seasonal, describe: N/A

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. oxidants

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		
Plate Stock	None	----	.36	
Perchloroethylene	VOC	100	25.93/hr.	
N. Butyl Alcohol	VOC	100	8.64/hr.	

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

1. Total Process Input Rate (lbs/hr): 34.93 #/hr.

2. Product Weight (lbs/hr): .36

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/yr	T/yr	
VOC	.81/hr.	.90	17-2.650(1)	1.33	1823	.90/yr.	
			(f)(3)				
			2.9#gal.				

[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).

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)
N/A				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

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

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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.

Spent solvent is distilled and reused. The plate material (Still Bottoms) is shipped out to a suitable hazardous waste dump site.

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

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

N/A

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 [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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 Used

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.

TOTAL EMISSIONS OF EACH PIECE OF EQUIPMENT

	Perchloroethylene (Gallons)	Normal Butyl Alcohol (Gals.)
Total purchases since Feb. 1981	3905	935
Total on Hand	732	565
Hazardous Waste Shipments*	1089	363
Emitted from Washout	405	-
Emitted from Still	1524	-
Emitted from Dryer	45	-
Emitted from Spills	110	-
Unaccounted for	0	8

*hazardous waste shipments--these numbers are the percentage of total waste that was solvent.

Actual batch analysis was performed for the still and wash-out units, determining the breakdown for total emissions by unit.

The analysis consists of weighing the batches before and after processing; the difference represents the solvent emitted into the atmosphere. Emissions on a per hour basis equal total pounds emitted divided by total operating hours (5455.35 lbs. ÷ 6750 hrs. = .81 lbs./hr.).

PROCESS WEIGHT DERIVATION

Material	Rate (lbs./hr.)	% of Solvent
Perchloroethylene	25.93	75
Normal Butyl Alcohol	8.64	25
Solvent Blend	34.57*	
Plate Stock	.36	
Total Process Input	34.93	

*Based upon a thru-put of 120 gallons solvent blend per week (in 30-gallon batches). 9 hours/day x 5 days per week = 45 hours/week (washout operation hours). 120 gallons/week divided by 45 hours = 2.66 gallons/hour. 2.66 gallons x 13.00 pounds/gallons (specific gravity = 34.57.

2/81 H. Emission Stack Geometry and Flow Characteristics

Processor (washout) Unit Vent

Stack height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM Gas Exit Temp.: 70 °F

Water Vapor Content: neg % Velocity: 22 FPS

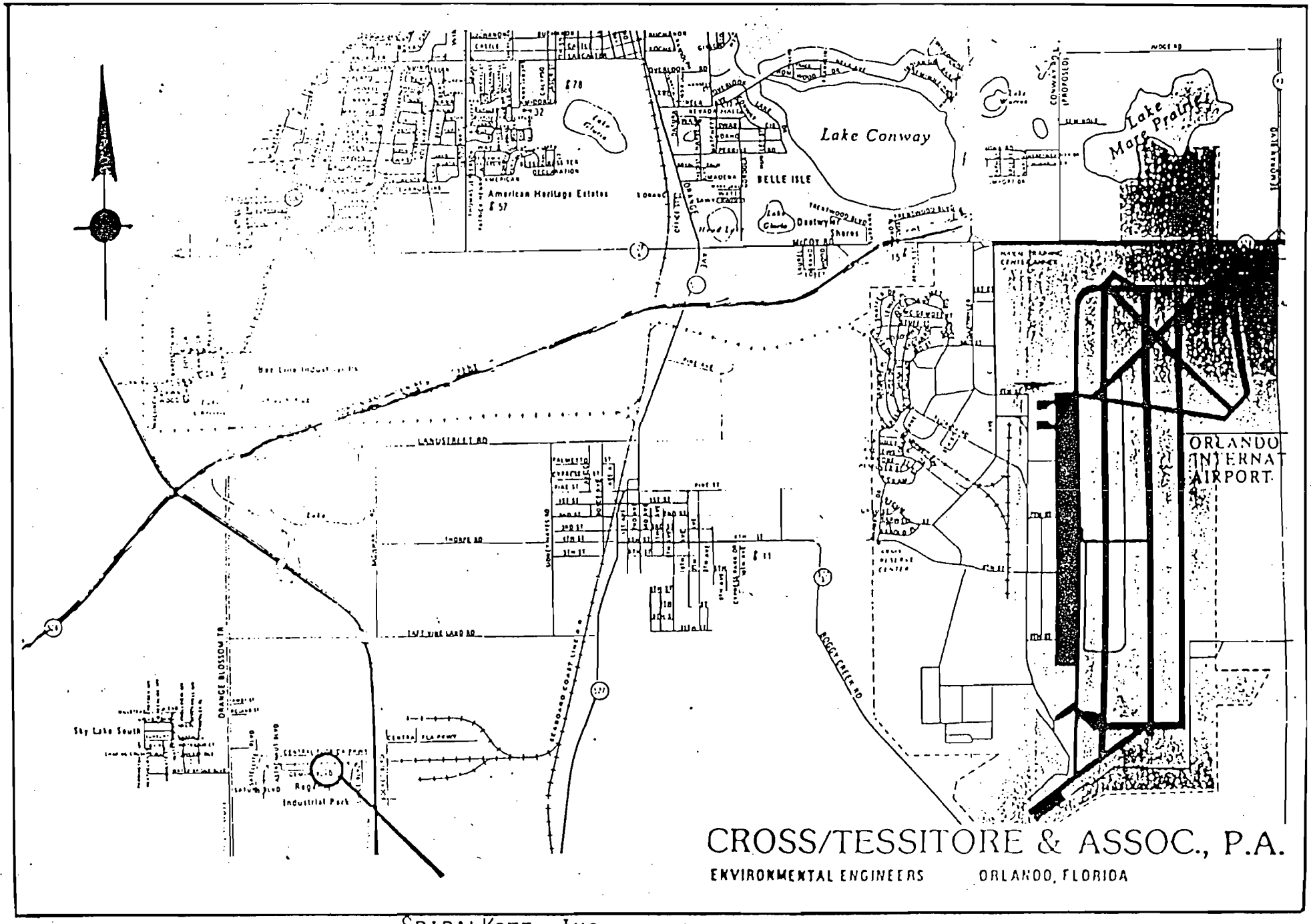
Processor Hood Vent

Stack height: 30 ft. Stack Diameter: 10" x 13" ft.

Gas Flow Rate: 600* ACFM Gas Exit Temp.: 70 °F

Water Vapor Content: neg % Velocity: 11 FPS

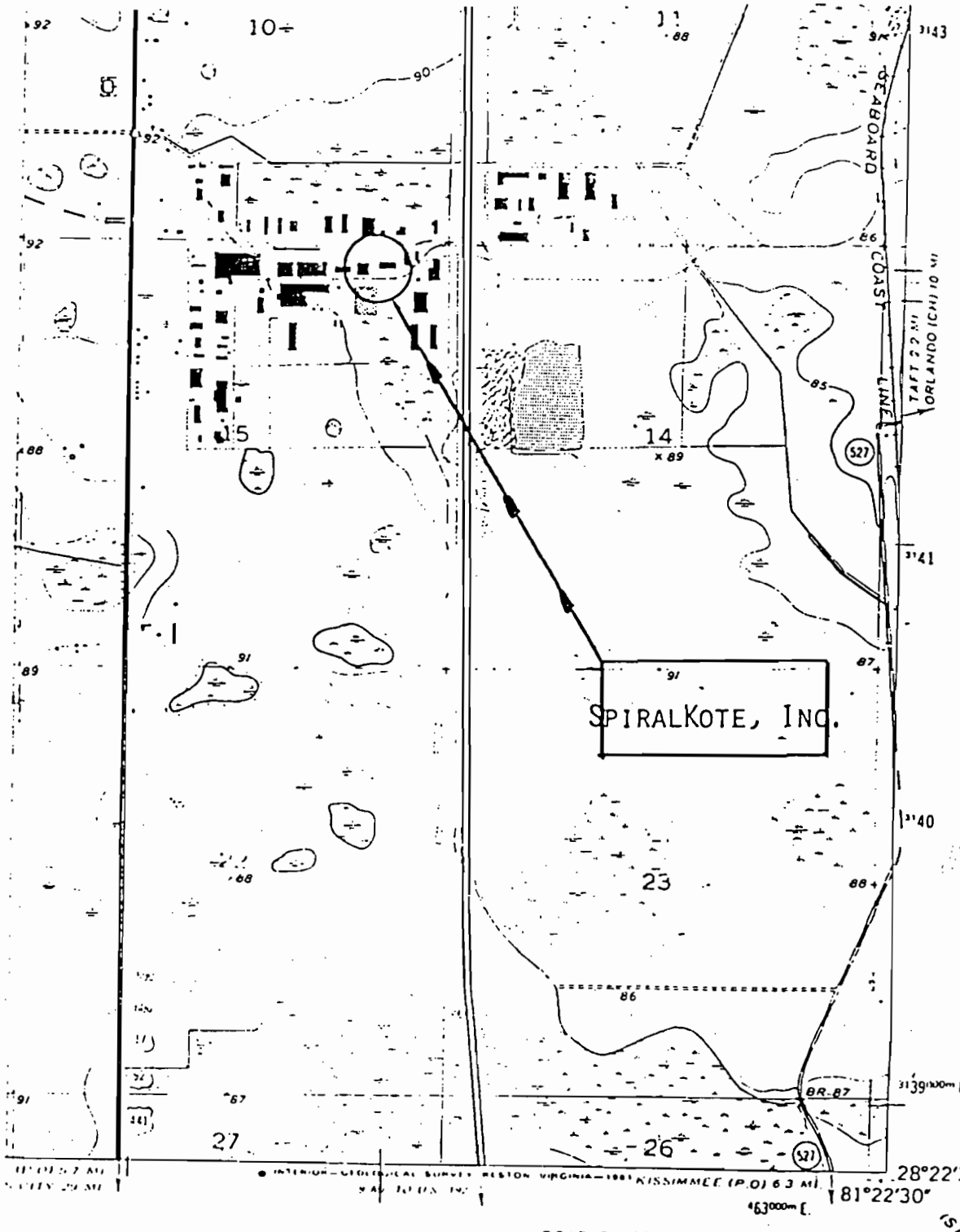
Note: *processor (washout unit) (VOC) and finishing unit (HCl) both vent through same exhaust-- each is 300 ACFM.: 600 ACFM from exhaust vent.



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

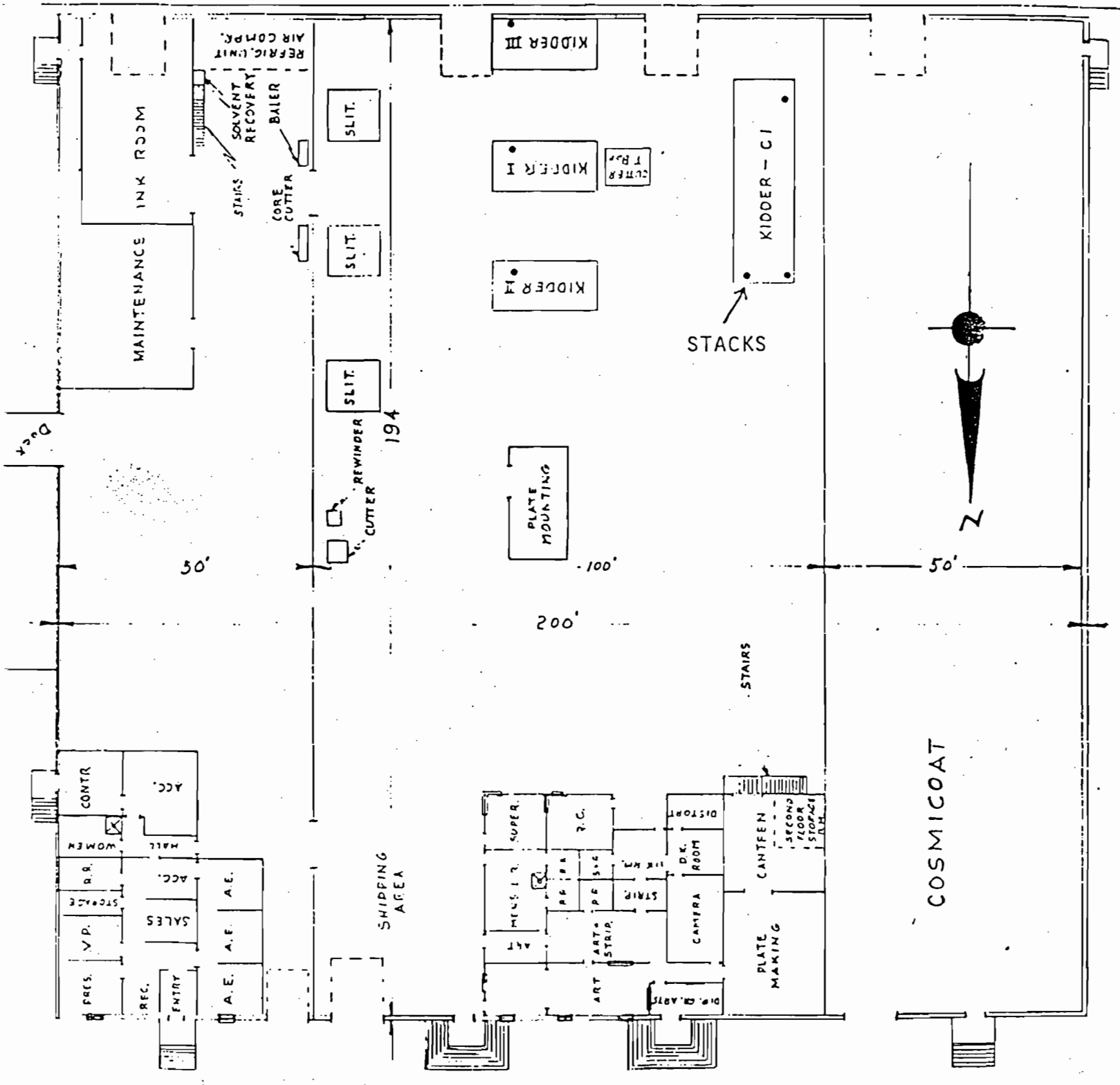
SPIRALKOTE, INC.



ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

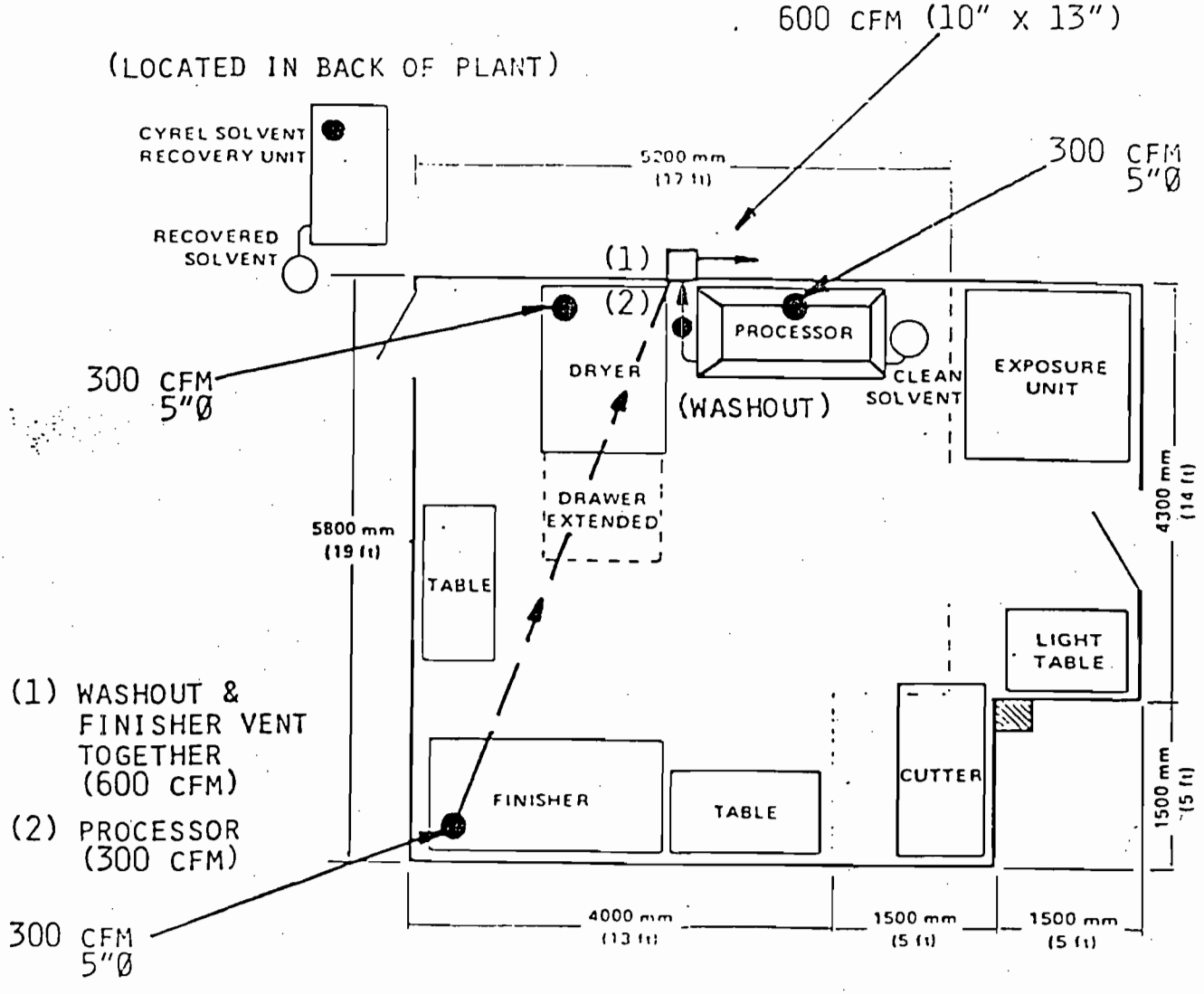


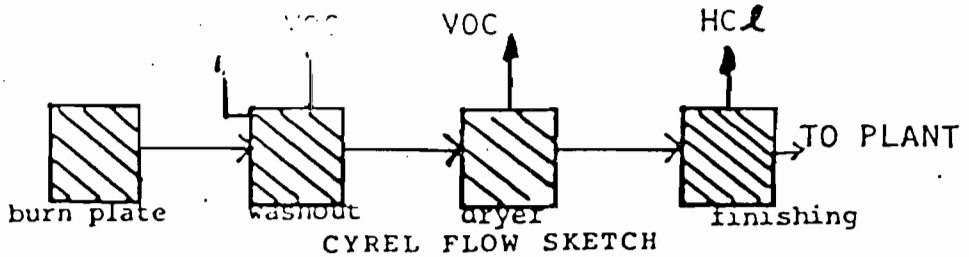
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





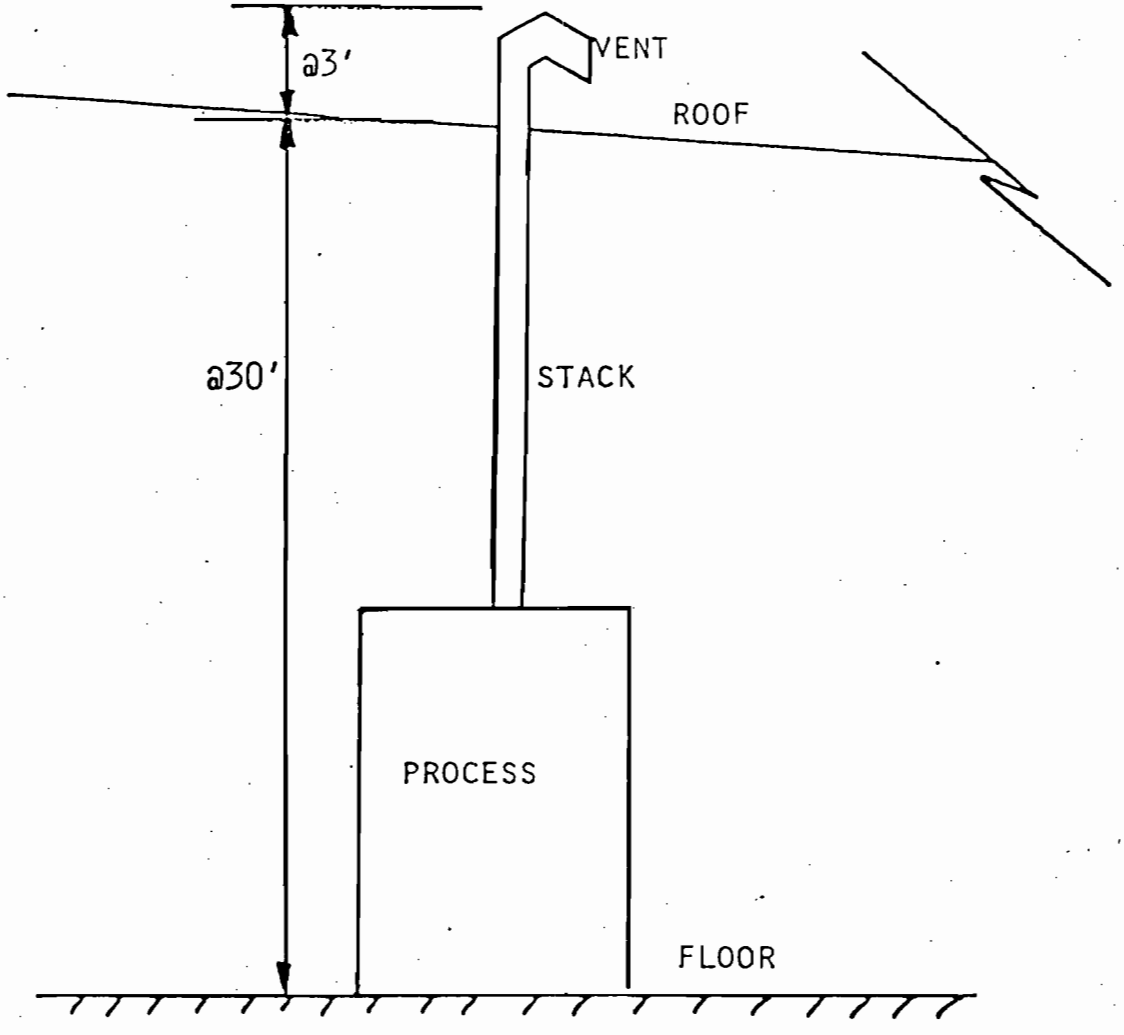
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

AC 48-82739

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

MAY 29 1984

BAQM

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

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) Cyrel Plate Room Solvent Recovery Still

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 68 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf V.P. of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote Inc.

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: Robert E. Kindorf

Robert E. Kindorf, V.P.

Name and Title (Please Type)

Date: _____ Telephone No. 305/859-7780

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, that

[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 _____

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Assoc., P.A.
Company Name (Please Type)

4759 S. Conway Rd., Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 7916 Date: _____ Telephone No. 305/851-1484

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.

The Solvent Still recovers spent perchloroethylene and normal Butyl Alcohol from plate making process. The Still has a fan and vents VOC through the roof.

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

Start of Construction Feb. 1981 Completion of Construction Feb. 1981

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.)

No pollution control services are presently installed on the recovery Still.

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

None

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 3 ; wks/yr 50 ;

if power plant, hrs/yr N/A ; if seasonal, describe: N/A

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Oxidants

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		
Perchloroethylene	VOC	100	20.30 #/Hr.	
N. Butyl Alcohol	VOC	100	4.07 #/Hr.	

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

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

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/yr	T/yr	
VOC	2.85/hr.	3.42/yr.	17.-2.65 (1)(f) (3)2.9 #/yr.	1.86	6840	3.42/yr.	

[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).

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)
N/A				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

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

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): N/A

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.

Still bottoms are stored and then shipped as hazardous waste to a satisfactory disposal site.

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

Stack Height: 30 ft. Stack Diameter: .42 ft.

Gas Flow Rate: 200 ACFM _____ DSCFM Gas Exit Temperature: 200-300 °F.

Water Vapor Content: Neg. % Velocity: 15 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

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				N/A			
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 [ ] No N/A

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or 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).

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

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:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

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

Stack Height: _____ ft. Stack Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

*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.

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 Used

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 on 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.

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

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.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

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

JLT 2-1-84

(1) Process Weight Derivation

Material	Process Rate (lb/hr)	Process Rate (gal/hr)	VOC Emissions (lb/hr)
Paper	173.0	---	---
Coating KJ 902	8.3	1.46	7.16
Coating NB 1061	5.9	1.17	3.90
Ink	15.4	2.05	11.36
	202.6	4.68	22.42

Product Weight = Process Weight - VOC Emissions

= 202.6 - 22.42 = 180.18 lbs/hour

(3) Potential Emissions

VOC Emissions From Attached Table,

VOC = 22.42 lbs/hour

Annual Emissions = (22.42) lbs/hour x (4208) $\frac{\text{hrs}}{\text{yr}}$ $(\frac{1}{2000})$ $\frac{\text{ton}}{\text{lbs}}$

= 47.2 tons/year

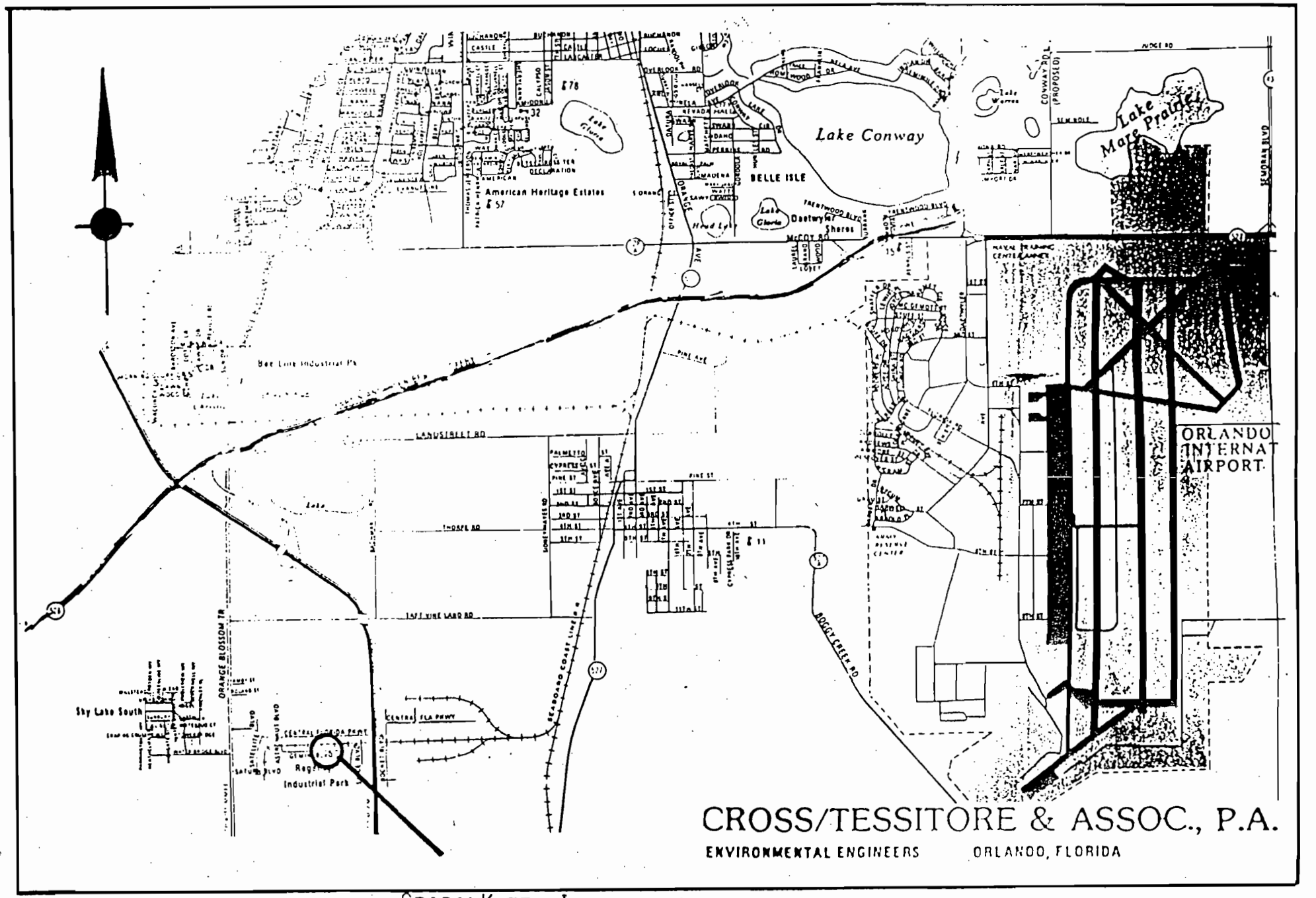
(2) Emission Limitations

17.2.650(1)(f)(3)

Allowable VOC Emissions = 2.9 lbs/gallon

Process Weight = 4.68 gallons/hour (See Item No. 1)

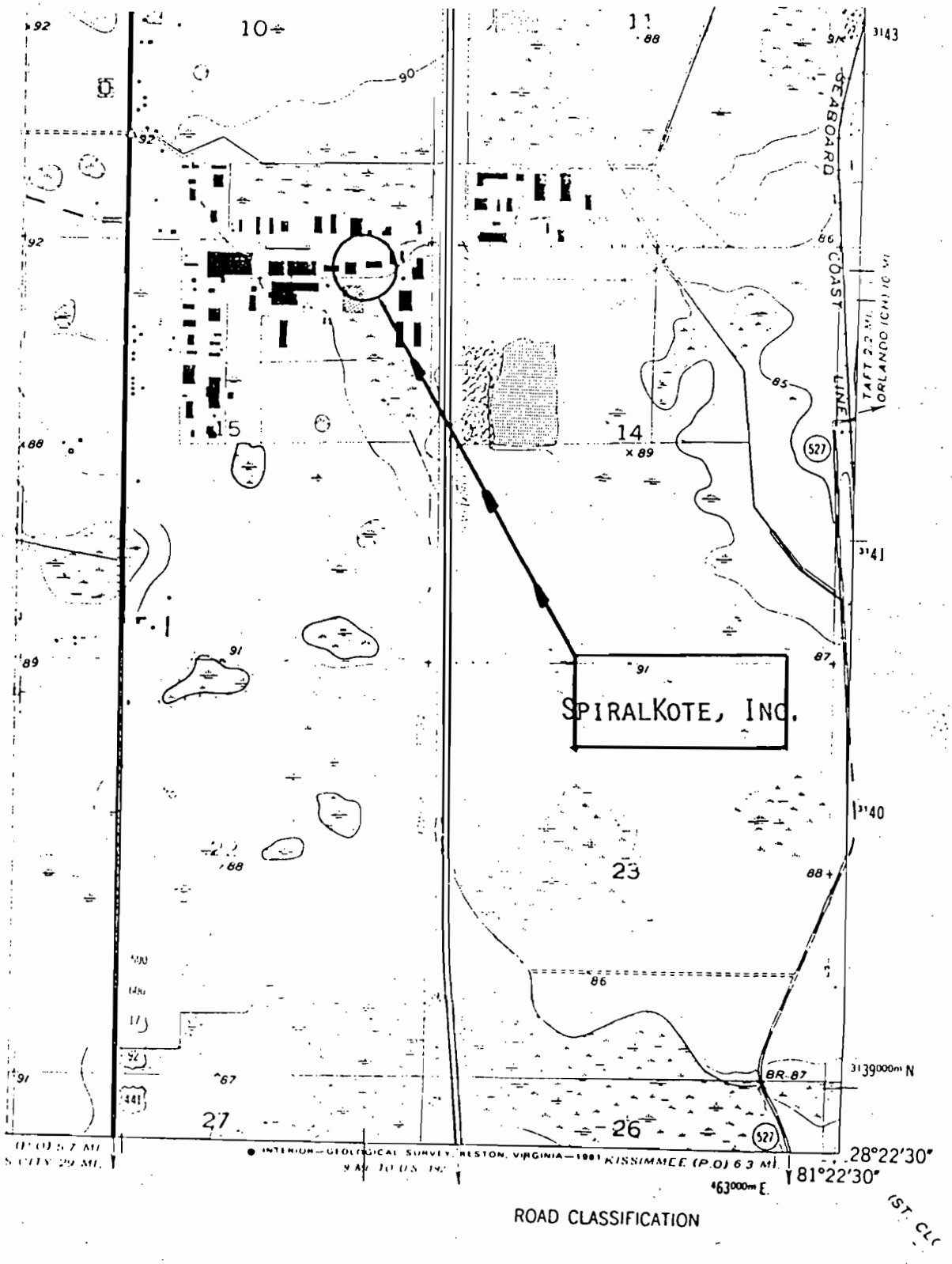
Allowable = (4.68) x (2.9) = 13.58 lbs/hour.



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

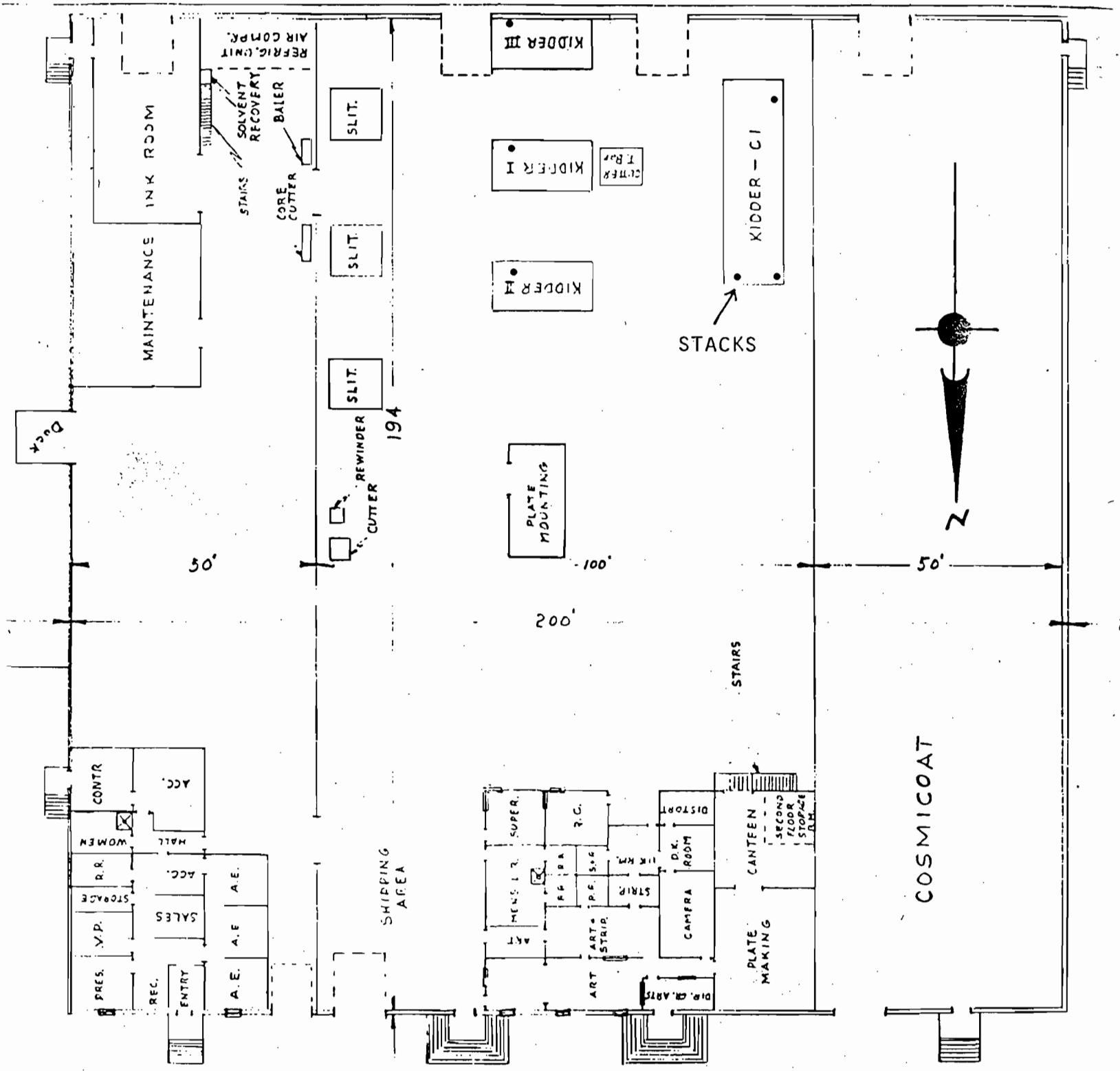
SPIRALKOTE, INC.



ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

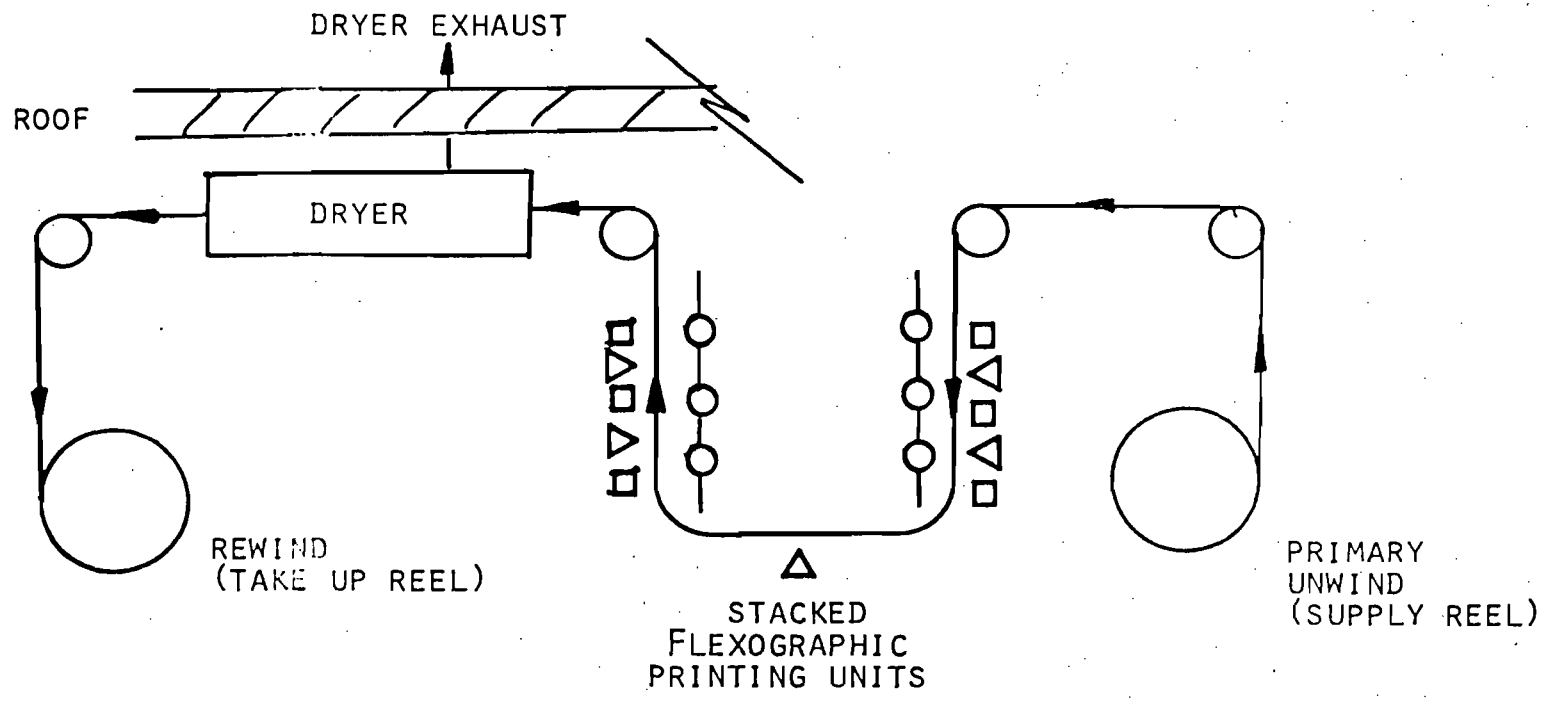


(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CONCEPTUAL PROCESS FLOW DIAGRAM

SPIRALKOTE, INC.



KEY

▷ BETWEEN COLOR DRYERS

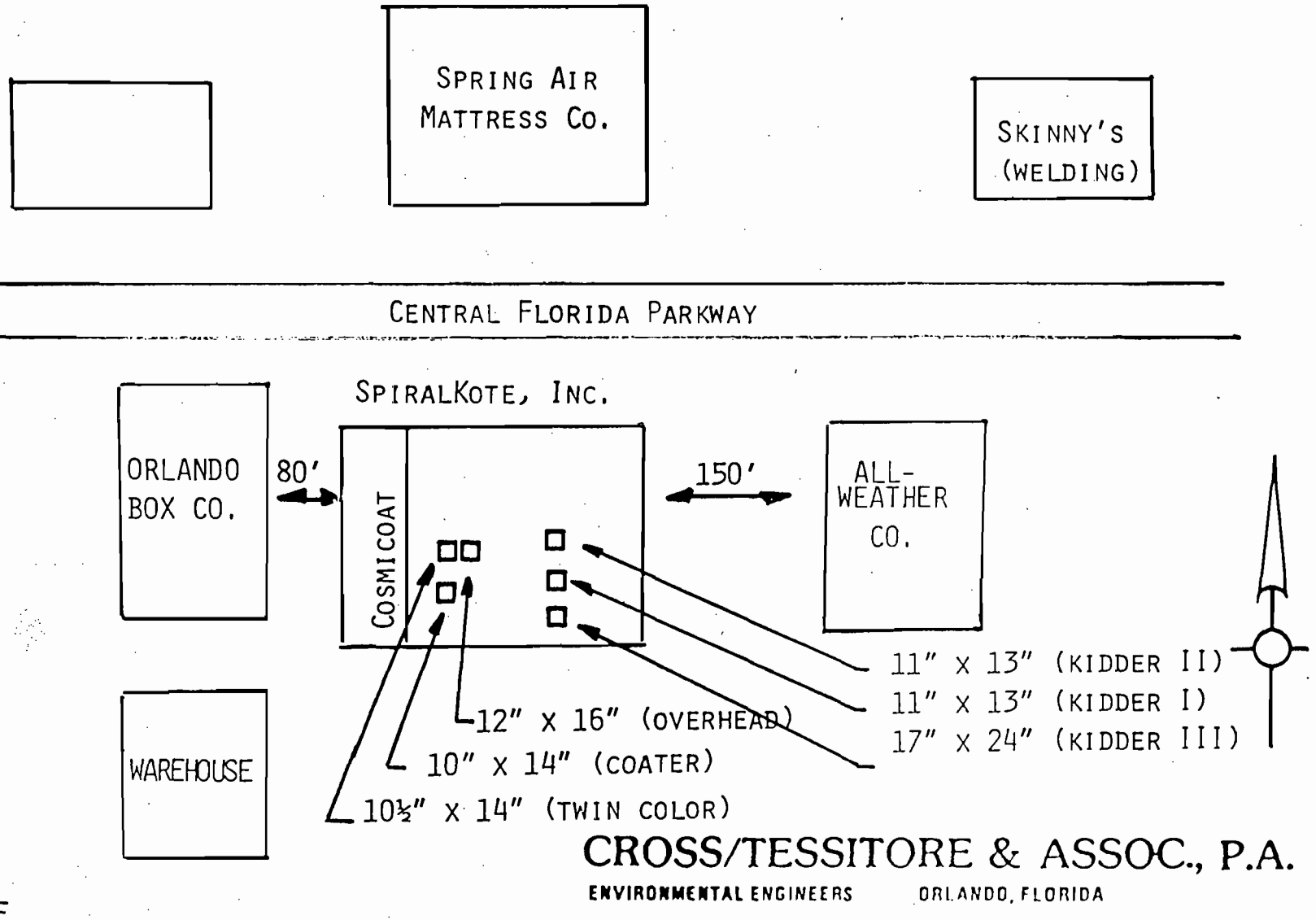
□ COLOR PRINTING DECK

NOTES: ALL COMPONENTS ARE PART OF A SINGLE MACHINE.

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF AREA/ROOF SKETCH SPIRALKOTE, INC.

LOCATED IN THE
REGENCY INDUSTRIAL PARK

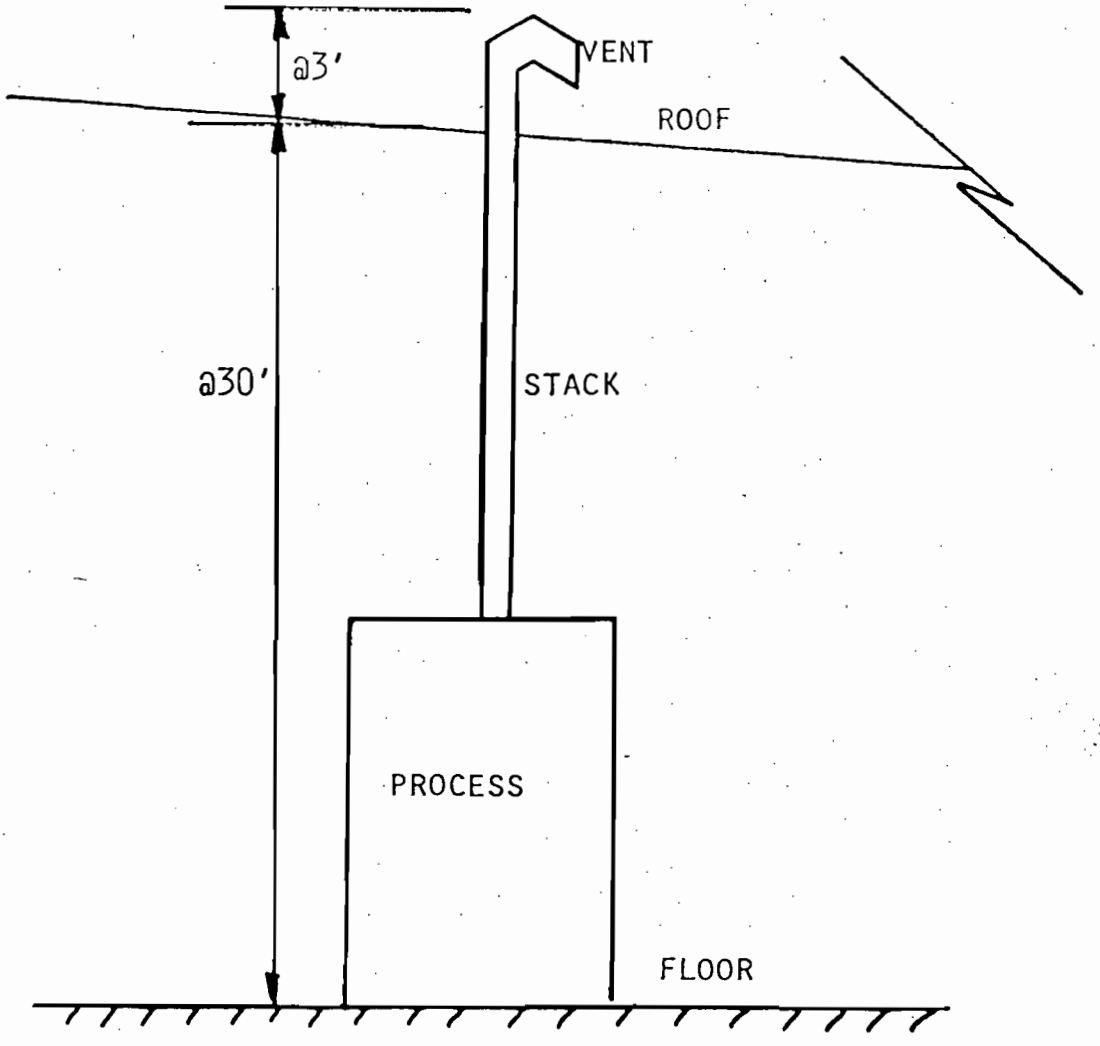


CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

NOT TO SCALE

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: $1x10^6$	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: $1.2x10^6$			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

#250 paid 2/20/84

AC 48-82736

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

FEB 20 1984

BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Kidder Stack Printing Press No. 2

SOURCE LOCATION: Street 1200 Central Fl. Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 08 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Fl. Pkwy, Orlando, Fl. 32809

SECTION 1: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote Inc.

I certify that the statements made in this application for a Operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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, that 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.

(Affix Seal)

FRANK L. CROSS JR. REGISTERED ENGINEER STATE OF FLORIDA

Florida Registration No. 19167

Signed: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Assoc. PA
Company Name (Please Type)

4759 S. Conway Rd., Orlando, Fl. 32812
Mailing Address (Please Type)

Date: 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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 is an existing flexographic printing plant that produces can labels. The Kidder 2 unit emits VOC from printing and coating. No controls are presently installed on the unit.

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

Start of Construction April 1980 Completion of Construction April 1980

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.)

No pollution control devices currently employed.

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

NONE

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes ____ No

F. ~~Normal~~ Requested permitted equipment operating time: hrs/day 17 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? Yes
   a. If yes, has "offset" been applied? No
   b. If yes, has "Lowest Achievable Emission Rate" been applied? No
   c. If yes, list non-attainment pollutants. Oxidants
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) requirements 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

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	None	--	173	Item 6
Coating KJ 902	VOC	86	8.3	Item 6
Coating NB 1061	VOC	66	5.9	Item 6
Ink	VOC	74	15.4	Item 6

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

1. Total Process Input Rate (lbs/hr): 202.60
2. Product Weight (lbs/hr): 180.18

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	22.42	47.2	17-2.650(1)(f)(3)	13.58	22.42	47.2	Item 6
			2.9 lbs/gallons				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Not Applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption* MMCF		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
NATURAL GAS	320 x 10^{-6}	800 x 10^{-6}	0.8
(1-800,000 BTU/Hour Eclipse Burner)			

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Negligible Percent Ash: Negligible

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not Applicable

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.

Solvent wastes (have RCRA generator permit). Wastes are manifested and shipped to Oldover Corporation at Green Cove Springs, where it is burned in their boilers

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

Stack Height: 30 ft. Stack Diameter: 11" x 13" ft.

Gas Flow Rate: 3100 ACFM Gas Exit Temperature: 250-275 °F.

Water Vapor Content: Negligible % Velocity: 52 FPS

SECTION IV: INCINERATOR INFORMATION

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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

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 Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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.

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 Used

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 on 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.

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

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.

(1) Process Weight Derivation

Material	Process Rate (lb/hr)	Process Rate (gal/hr)	VOC Emissions (lb/hr)
Paper	173.0	---	---
Coating KJ 902	8.3	1.46	7.16
Coating NB 1061	5.9	1.17	3.90
Ink	15.4	2.05	11.36
	202.6	4.68	22.42

Product Weight = Process Weight - VOC Emissions

= 202.6 - 22.42 = 180.18 lbs/hour

(3) Potential Emissions

VOC Emissions From Attached Table,

VOC = 22.42 lbs/hour

Annual Emissions = (22.42) lbs/hour x (4208) $\frac{\text{hrs}}{\text{yr}}$ $(\frac{1}{2000})$ $\frac{\text{ton}}{\text{lbs}}$

= 47.2 tons/year

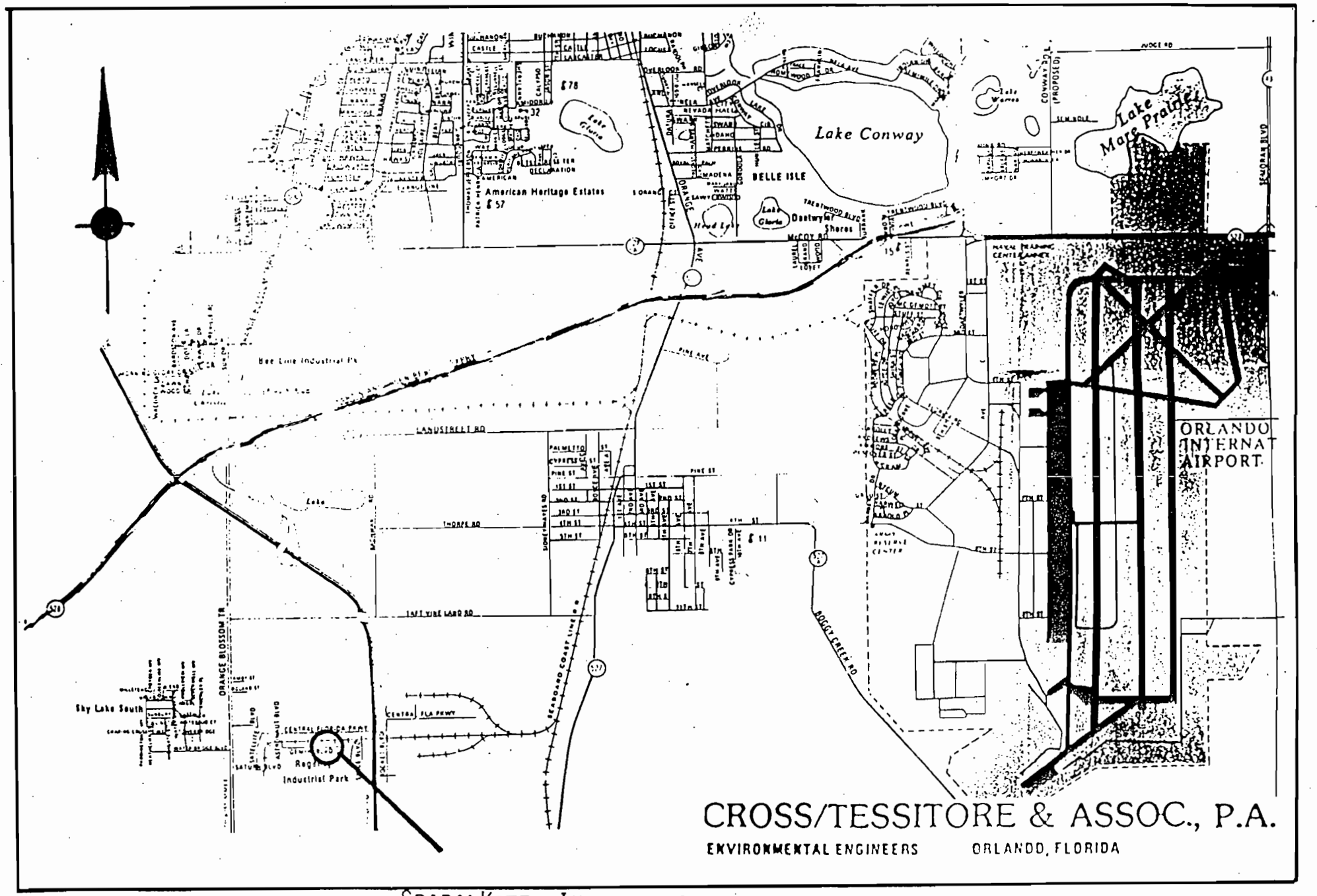
(2) Emission Limitations

17.2.650(1)(f)(3)

Allowable VOC Emissions = 2.9 lbs/gallon

Process Weight = 4.68 gallons/hour (See Item No. 1)

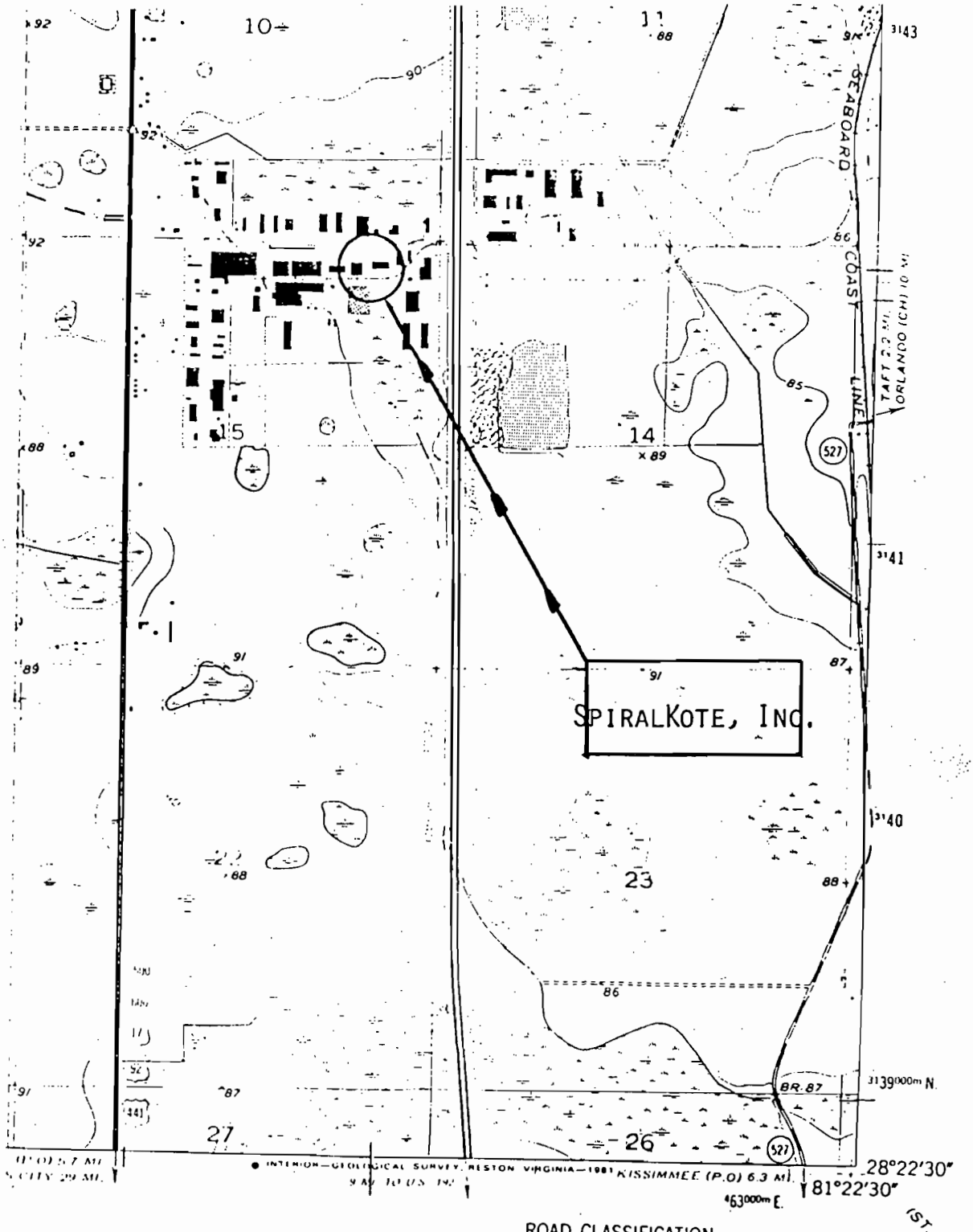
Allowable = (4.68) x (2.9) = 13.58 lbs/hour.



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

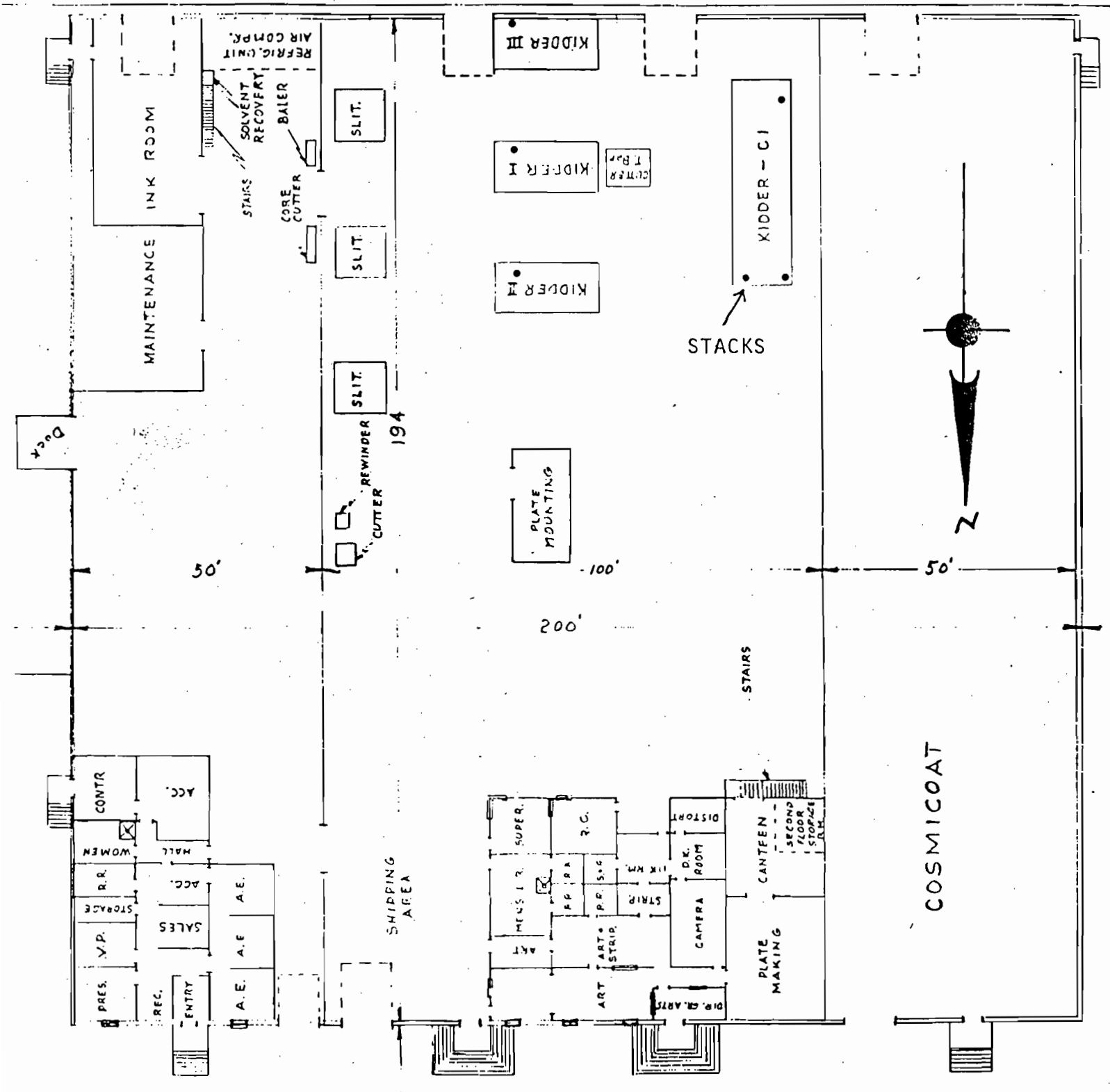
SPIRALKOTE, INC.



ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

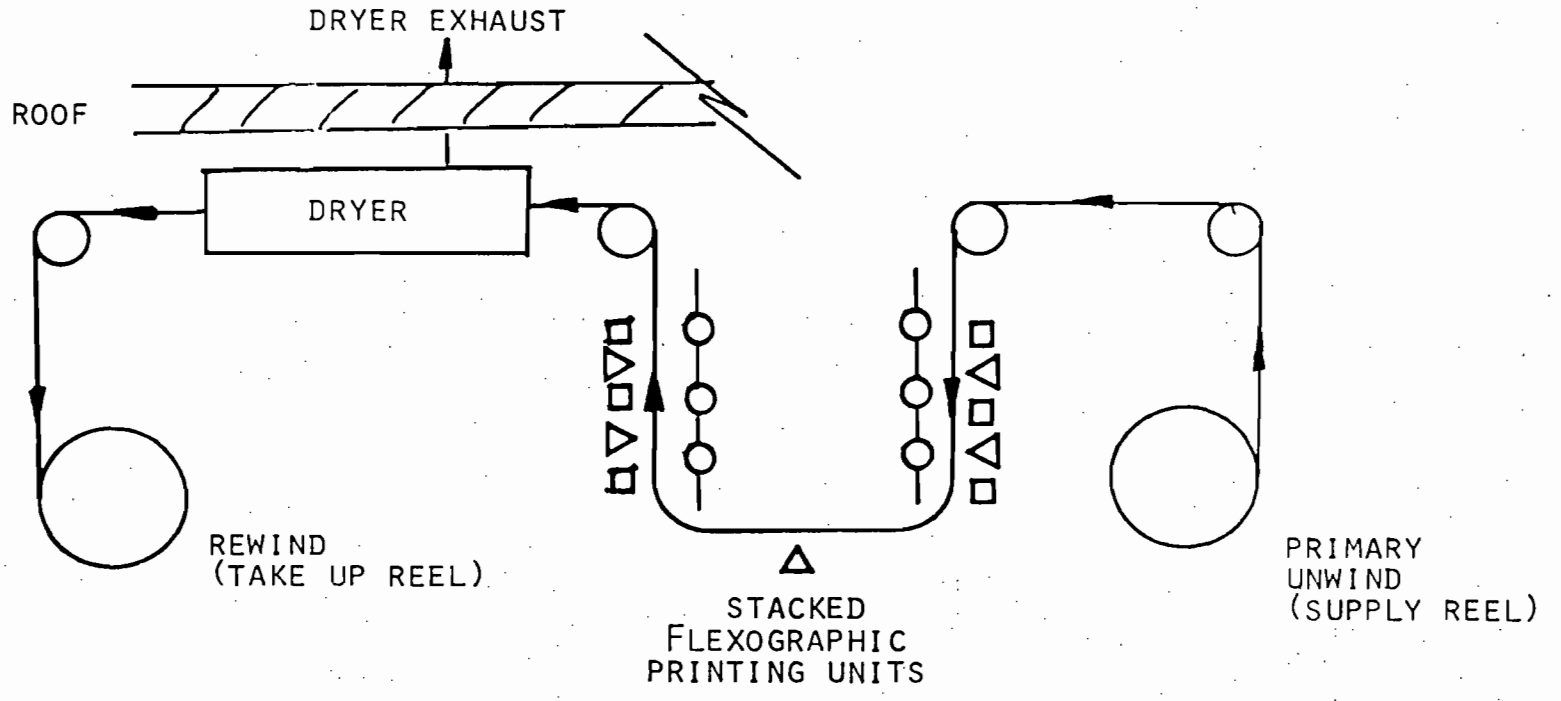


(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CONCEPTUAL PROCESS FLOW DIAGRAM

SPIRALKOTE, INC.



KEY

▷ BETWEEN COLOR DRYERS

□ COLOR PRINTING DECK

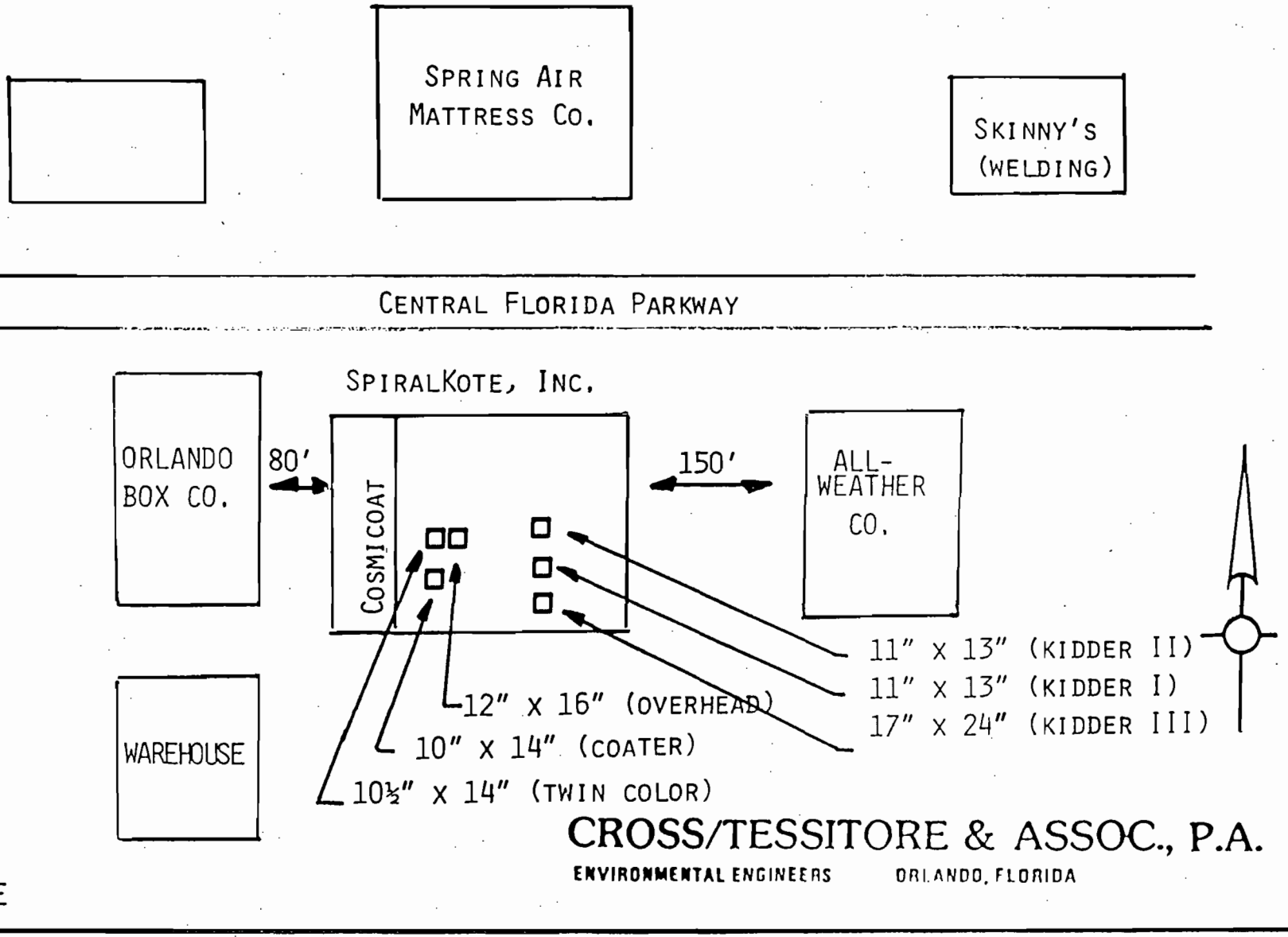
NOTES: ALL COMPONENTS ARE PART OF A SINGLE MACHINE.

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF AREA/ROOF SKETCH SPIRALKOTE, INC.

LOCATED IN THE
REGENCY INDUSTRIAL PARK

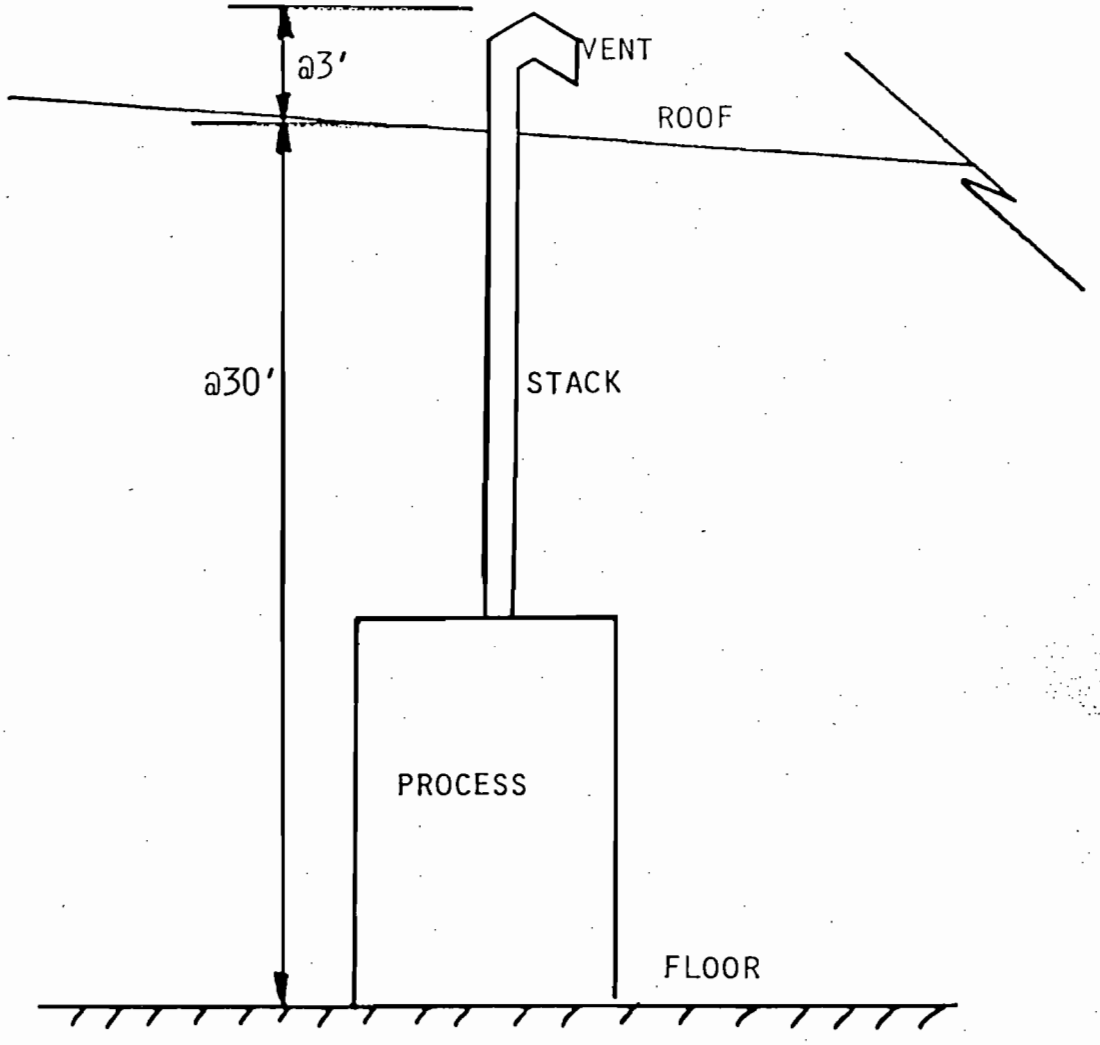


CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

NOT TO SCALE

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: $1x10^6$	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: $1.2x10^6$			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

AC 48-82738

$100 paid 2/20/84

DER

FEB 20 1984

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, INc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Cyrel Plate Room--Tank (Washout)

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 08 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

I certify that the statements made in this application for a Operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President

Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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, that 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: Frank L. Cross, Jr.

Frank L. Cross, Jr., P.E.

Name (Please Type)

Cross/Tessitore & Associates, P.A.

Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812

Mailing Address (Please Type)

(Affix Seal) FRANK L. CROSS, JR. P.E. CERTIFICATE NO. 7916 STATE OF FLORIDA REGISTERED ENGINEER

Florida Registration No. 7916

Date: 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

The washout tank is one of the steps in the plate making process connected with the existing flexographic printing plant. The washout tank exhausts VOC through two stacks. There are no controls presently installed on this system.

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

Start of Construction February 1981 Completion of Construction February 1981

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.)

No pollution control devices are presently employed on this process.

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

None

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes __x__ No

F. ~~Normal~~ Requested permitted equipment operating time: hrs/day 9 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? YES
   a. If yes, has "offset" been applied? NO
   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO
   c. If yes, list non-attainment pollutants. Oxidants
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) requirements 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

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		
Plate Stack	None	--	0.36	Item 6
Perchloroethylene	VOC	100	4.70	Item 6
N. Butyl Alcohol	VOC	100	0.63	Item 6

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

1. Total Process Input Rate (lbs/hr): 5.69
2. Product Weight (lbs/hr): 0.36

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	5.33	6.0	17-2.650(1)(f)(3)	1.33	5.33	6.0	Item 6
			2.9 lbs/gallons				Item 6

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5]
Not Applicable				

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5]If Applicable

45 5C
225C

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Not applicable			

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): N/A

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.

Waste solvent is distilled and reclaimed in a cyrel solvent recovery unit in the back of the plant

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

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ 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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

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 Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	*Rate or Concentration*

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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.

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 Used

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 on 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.

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

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.

2/81 H. Emission Stack Geometry and Flow Characteristics

Processor (washout) Unit Vent

Stack height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM Gas Exit Temp.: 70 °F

Water Vapor Content: neg % Velocity: 22 FPS

Processor Hood Vent

Stack height: 30 ft. Stack Diameter: 10" x 13" ft.

Gas Flow Rate: 600* ACFM Gas Exit Temp.: 70 °F

Water Vapor Content: neg % Velocity: 11 FPS

Note: *processor (washout unit) (VOC) and finishing unit (HCl) both vent through same exhaust-- each is 300 ACFM.: 600 ACFM from exhaust vent.

(1) Process Weight Derivation

Material	Rate (lbs/hr)	VOC lbs/hr	VOC gals/hr
Plate Stock	0.36	--	--
Perchloroethylene	4.70	4.70	0.37
N. Butyl Alcohol	0.63	0.63	0.09
	5.69	5.33	0.46

(3) Potential Emissions

Potential Emissions = (5.33) $\frac{\text{lbs}}{\text{hr}}$ x (9) $\frac{\text{hrs}}{\text{day}}$ x (5) $\frac{\text{days}}{\text{week}}$ x

(50) $\frac{\text{weeks}}{\text{year}}$ $(\frac{1}{2000})$ $\frac{\text{tons}}{\text{lb}}$ = 5.996 $\approx$ 6.0 Tons/year

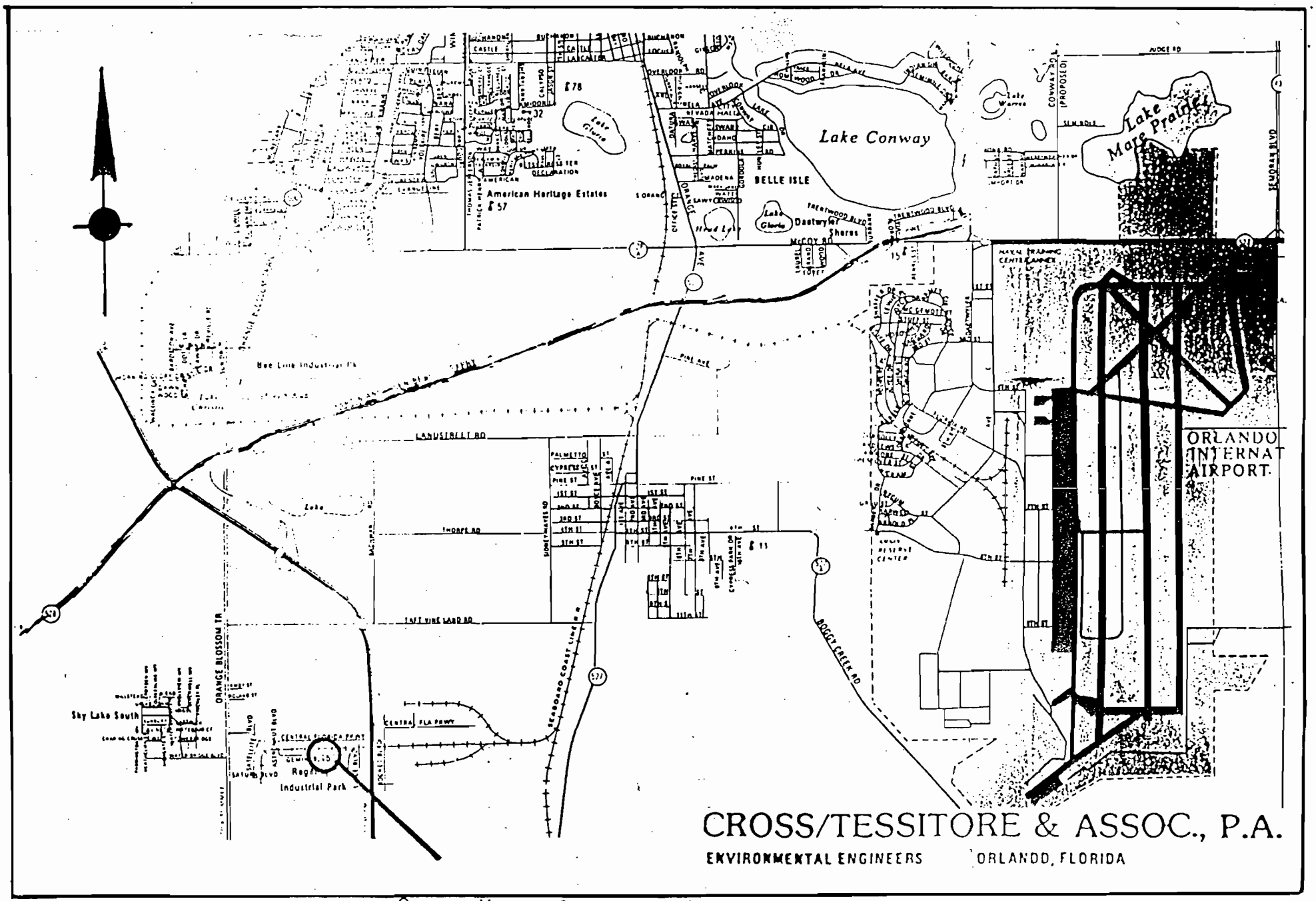
(2) Allowable Emissions

17-2.650 (1)(f)(3)

Allowable VOC Emissions = 2.9 lbs/gallon

0.46 gallons/hour (See Item No. 1)

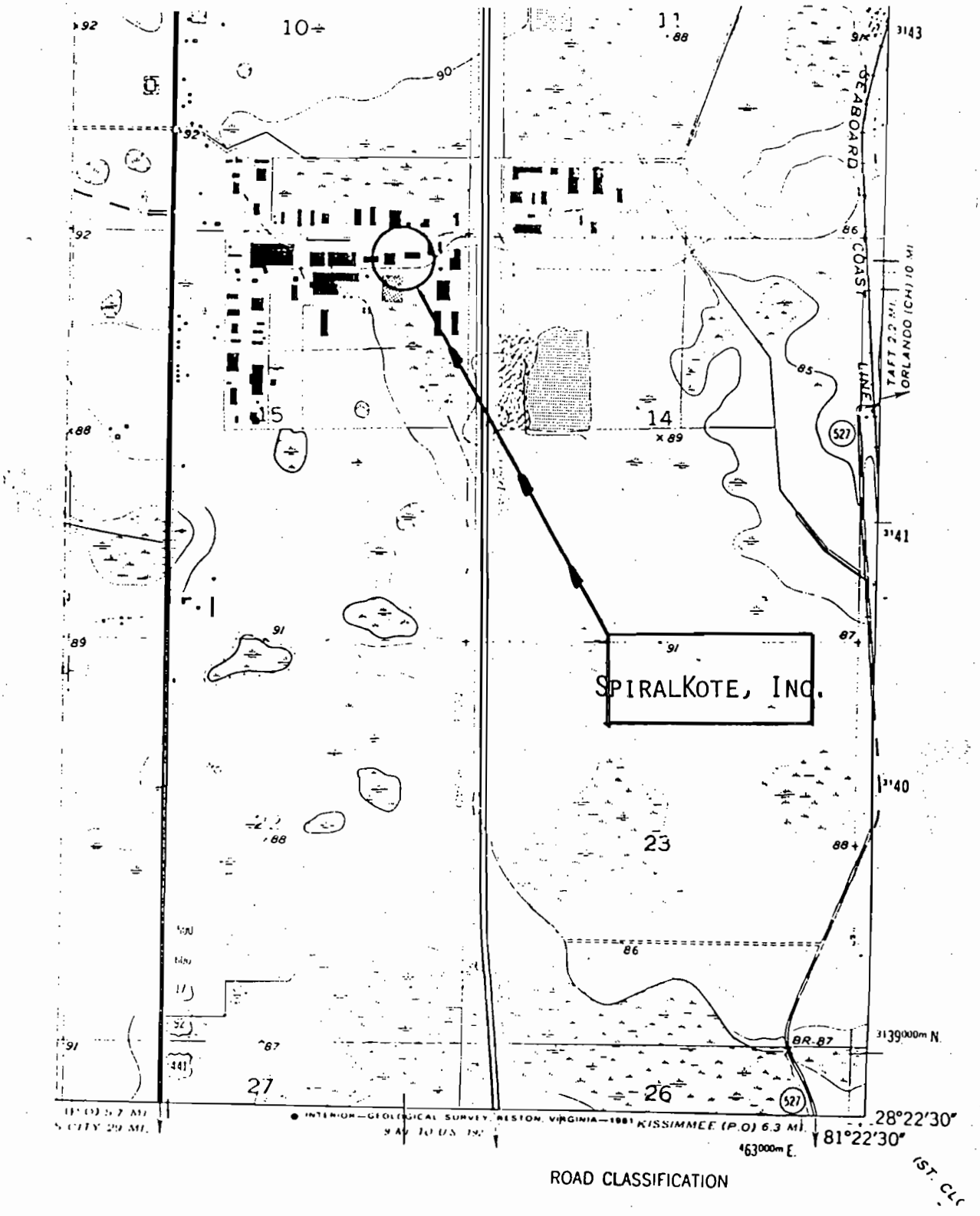
Allowable Emissions = (0.46)(2.9) = 1.33 $\frac{\text{lb}}{\text{hr}}$



SPIRALKOTE, INC. GENERAL LOCATION MAP

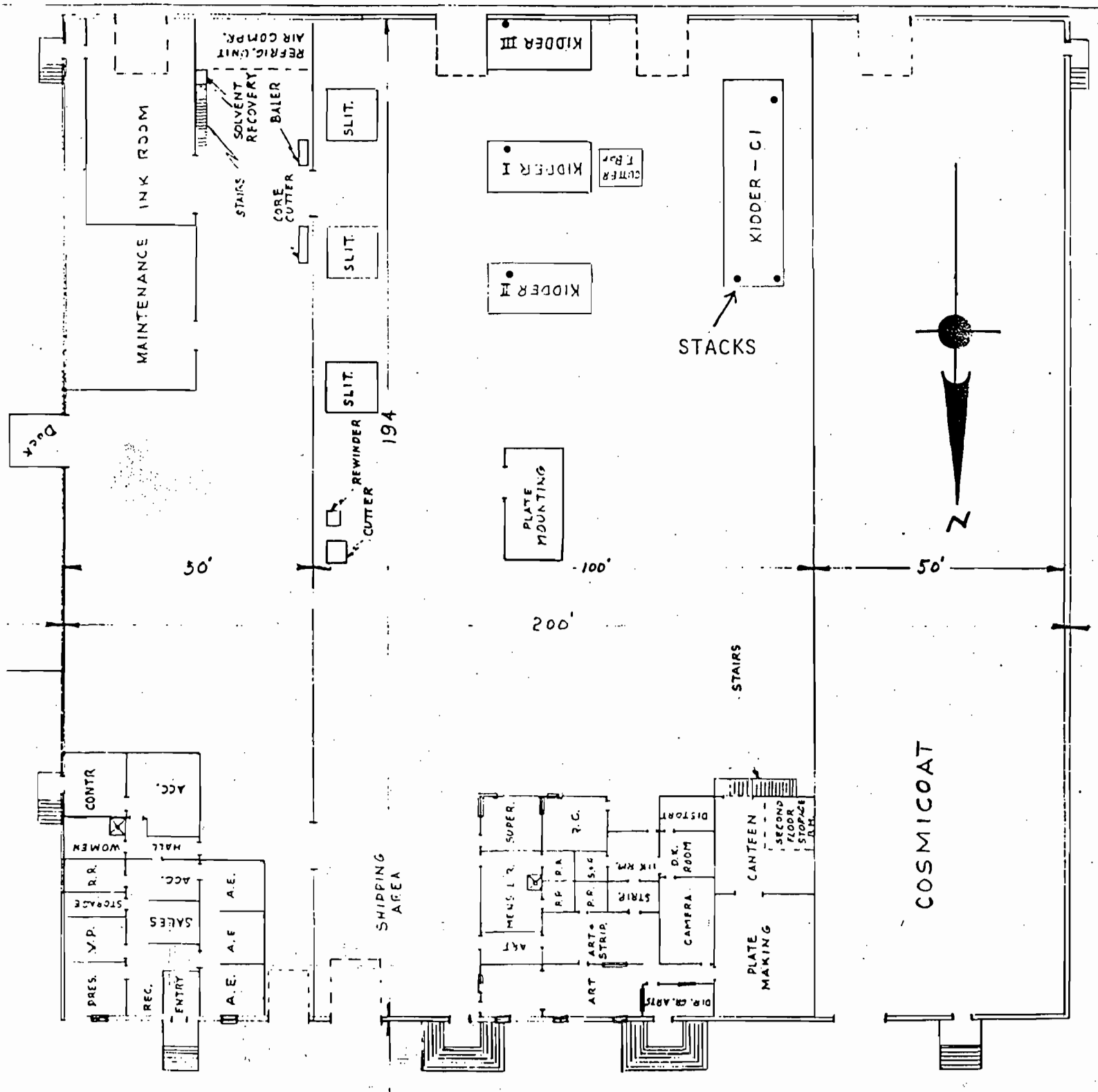
SITE LOCATION MAP -- U.S.G.S. MAP SECTION

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

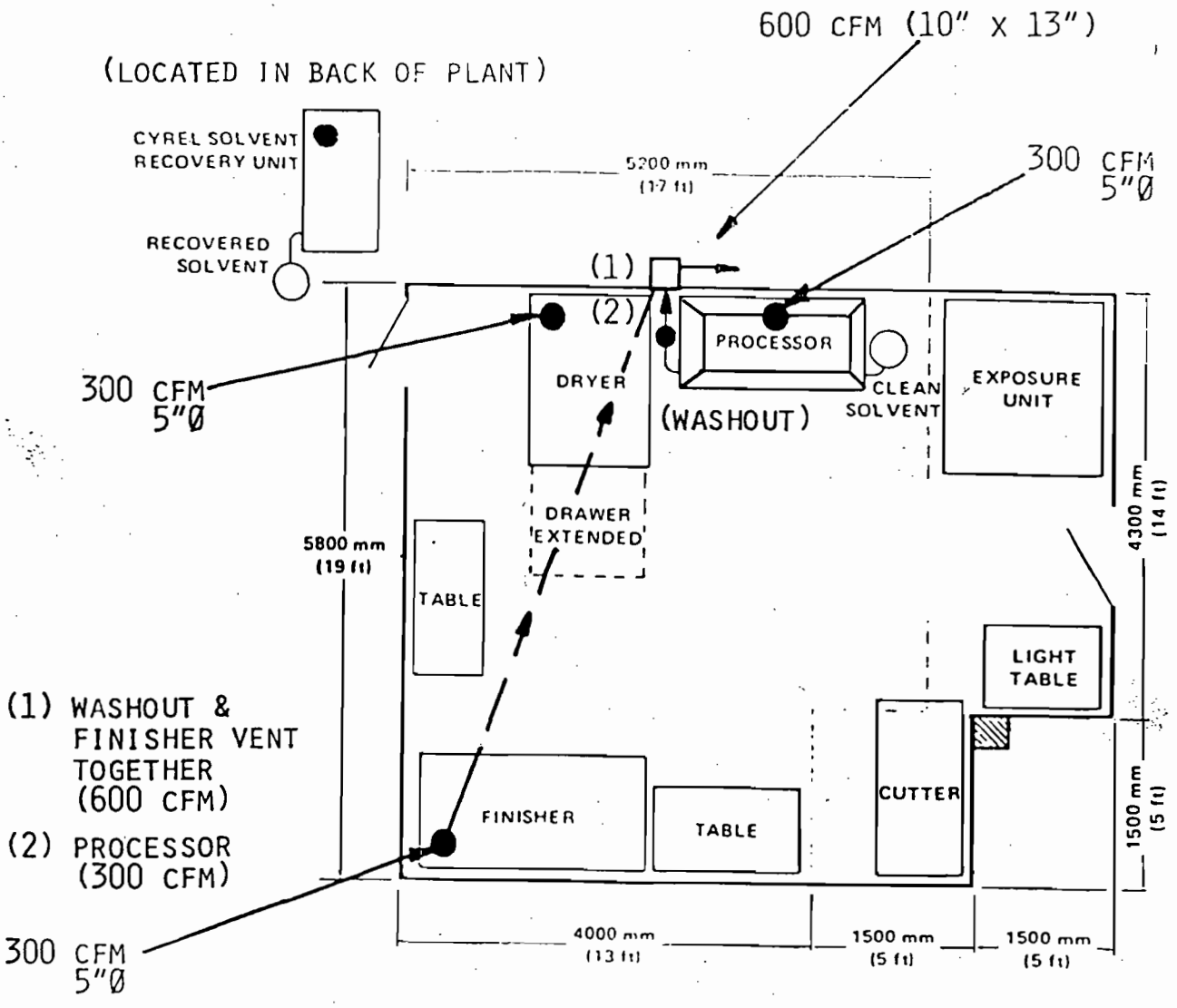


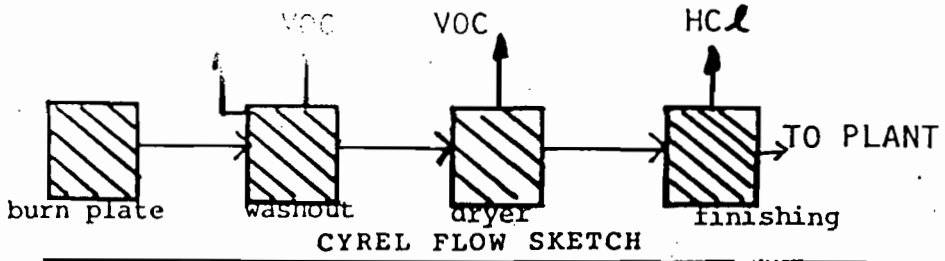
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





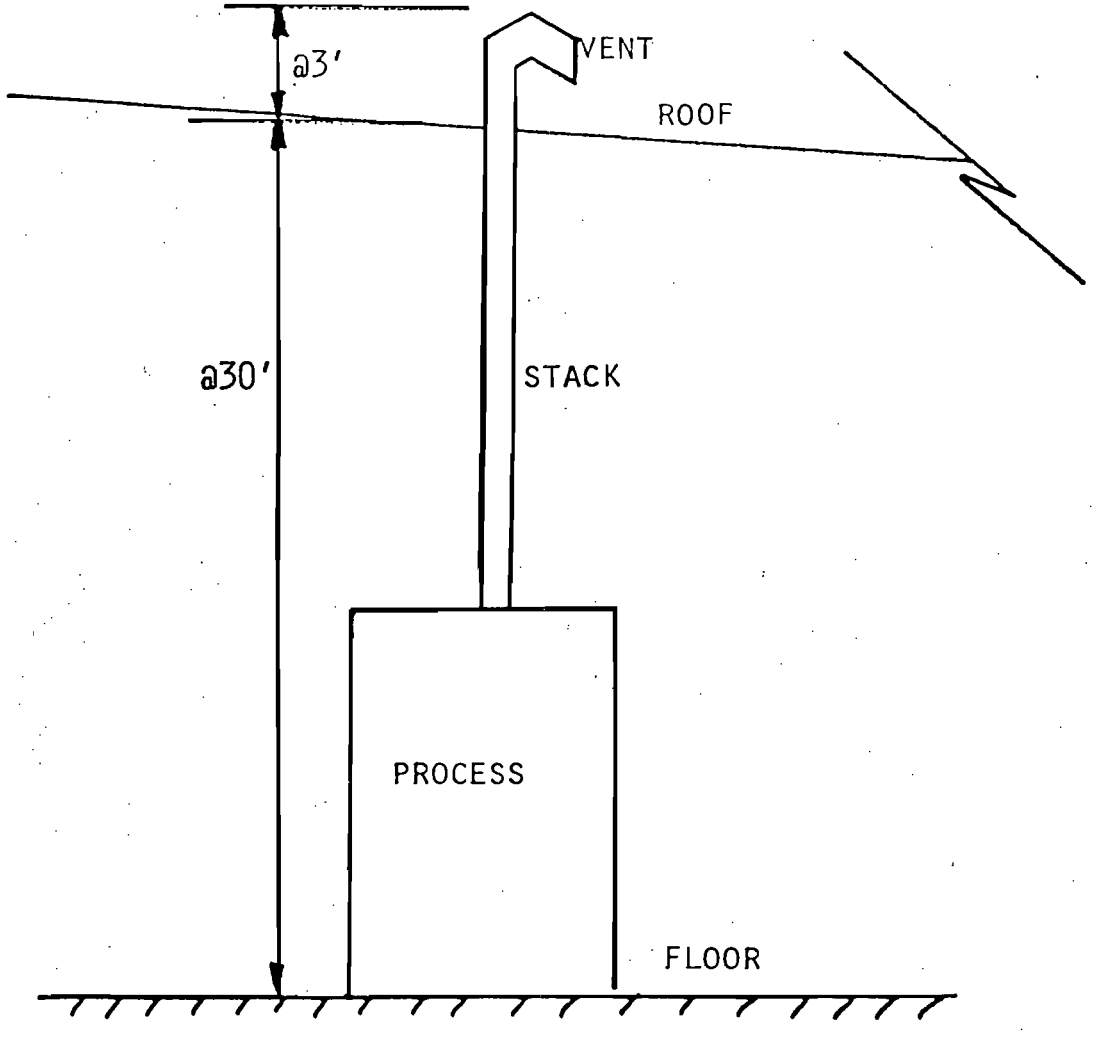
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



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ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: $1x10^6$	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: $1.2x10^6$			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

AC 48-82739

$100 paid 2/20/84

DER

FEB 20 1984

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SprialKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Cyrel Plate Room - Solvent Recovery Still

SOURCE LOCATION: Street 1200 Central Florida PARKWAY City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 68 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 CENTRAL FLORIDA PARKWAY, ORLANDO, FL. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

I certify that the statements made in this application for a operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: _____ Telephone No. (305) 859-7780

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, that 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.

(Affix Seal)

Signed: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 19116 Date: 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

The Solvent Still recovers spent perchloroethyline and normal butyl alcohol from the plate making process. The still has a fan and vents VOC through the roof.

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

Start of Construction Feb. 1981 Completion of Construction February 1981

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.)

No pollution control services are presently installed on the recovery still.

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

NONE

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes __X__ No

F. ~~Normal~~ Requested permitted equipment operating time: hrs/day 6 ; days/wk 1 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? Yes
   a. If yes, has "offset" been applied? No
   b. If yes, has "Lowest Achievable Emission Rate" been applied? No
   c. If yes, list non-attainment pollutants. Oxidants
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) requirements 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

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		
Perchloroethylene	VOC	100	6.50	Item No. 6
N. Butyl Alcohol	VOC	100	0.87	Item No. 6

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

1. Total Process Input Rate (lbs/hr): 7.37

2. Product Weight (lbs/hr): Not Applicable

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	7.37	1.11	17-2.650(1)(f)(3)	1.86	7.37	1.11	Item No. 6
			2.9 lbs/gallon				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5]
Not Applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
	Not Applicable		

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Not Applicable Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

Not Applicable

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.

Still bottoms are stored and then shipped as a hazardous waste to a satisfactory disposal site.

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 200 ACFM Gas Exit Temperature: 200-300 °F.

Water Vapor Content: Neg. % Velocity: 15 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

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 Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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 ___/___/___ (month day year) to ___/___/___ (month day year)

Other data recorded _____

Attach all data or statistical summaries to this application.

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 ___/___/___ (month day year) to ___/___/___ (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 Used

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 on 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.

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

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.

JLT, C/TA 2-4-84

(1) Process Rate Derivation

Recovery Still Processes

1960 lb/hr of Perchloroethylene

262 lb/yr of N. Butyl Alcohol

Recovery Still processes one batch per week at 6 hours per batch and 50 weeks per year. Therefore;

Perchloroethylene

Process Rate: $\frac{1960}{(1)(6)(50)} = 6.5$ lbs/hr = 0.51 gal/hour

N. Butyl Alcohol

$\frac{262}{(1)(6)(50)} = 0.87$ lbs/hour = 0.13 gal/hour

(3) Potential Emissions VOC = (7.37 lb/hr)

Potential VOC Emissions = $(6.5 + 0.87) \frac{\text{lbs}}{\text{hr}} \times (6) \frac{\text{hrs}}{\text{wk}}$

$\times (50) \frac{\text{wks}}{\text{yr}} (\frac{1}{2000}) \frac{\text{tons}}{\text{lbs}} = 1.11$ Ton/year

(2) Allowable Emissions

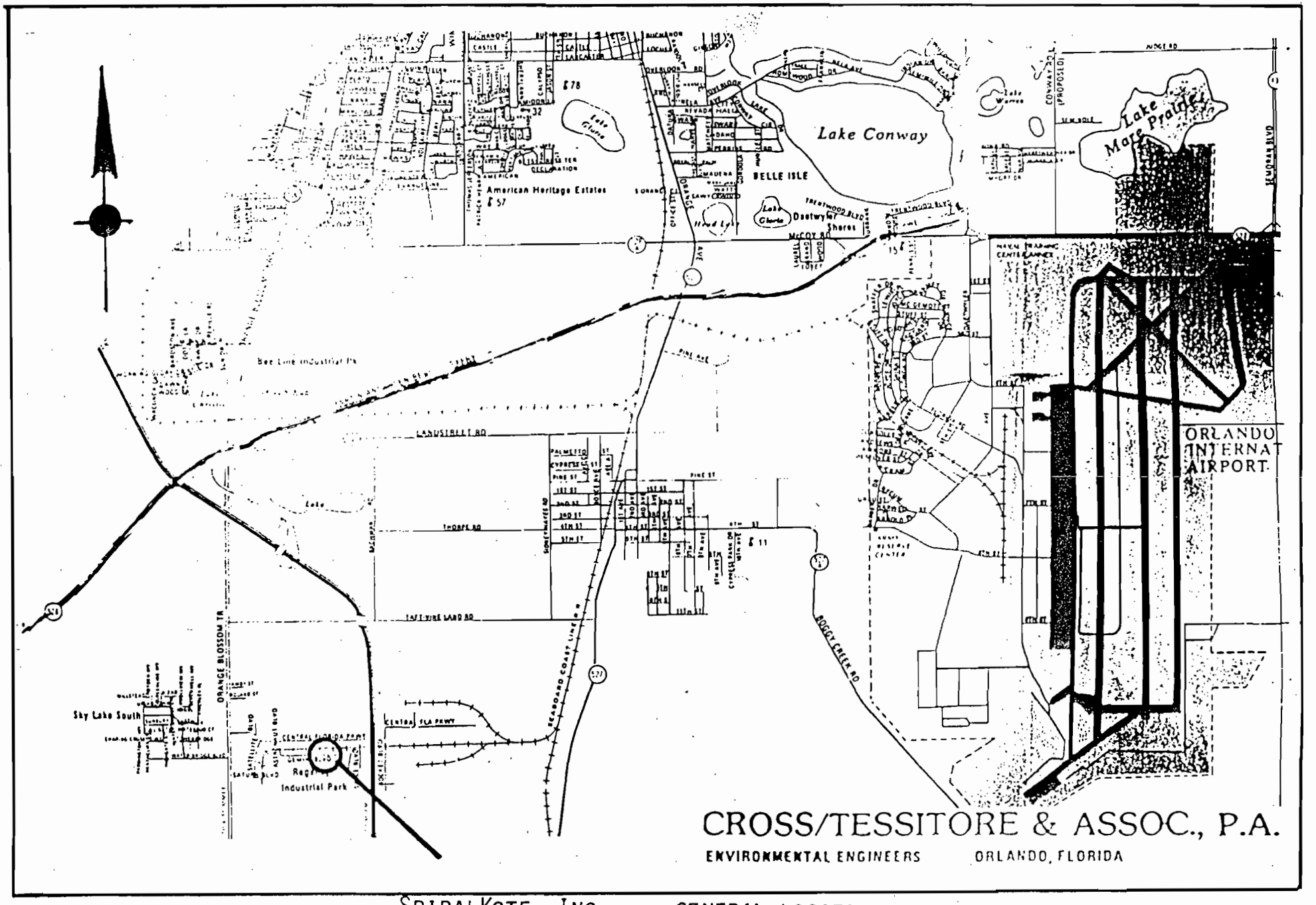
17-2.650(1)(f)(3)

Allowable VOC Emissions = 2.9 lbs/gal

0.64 gallons/hour (See Item No. 1)

Allowable Emissions = (0.64)(2.90) = 1.86 lbs/hour

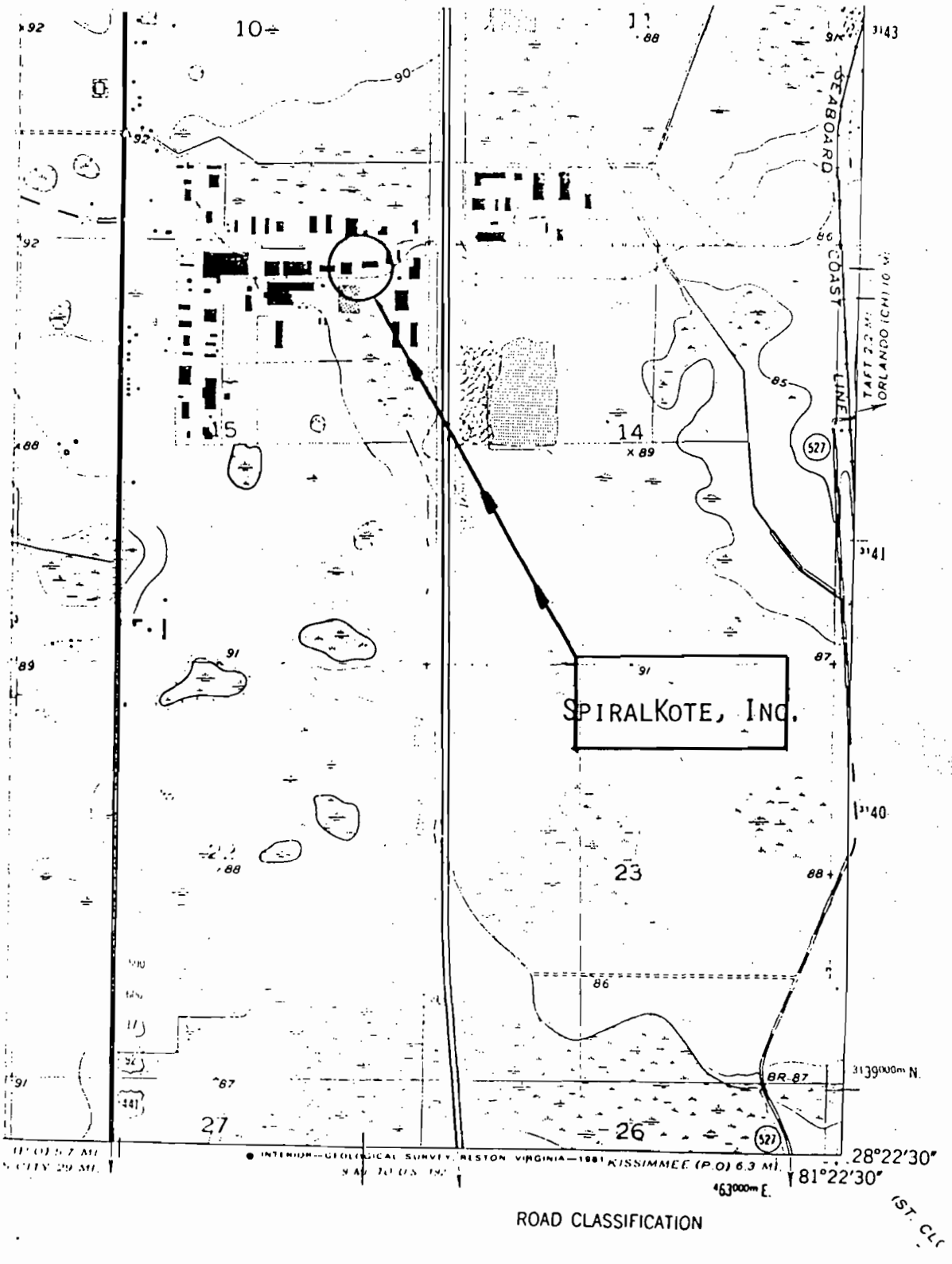
BEST AVAILABLE COPY



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

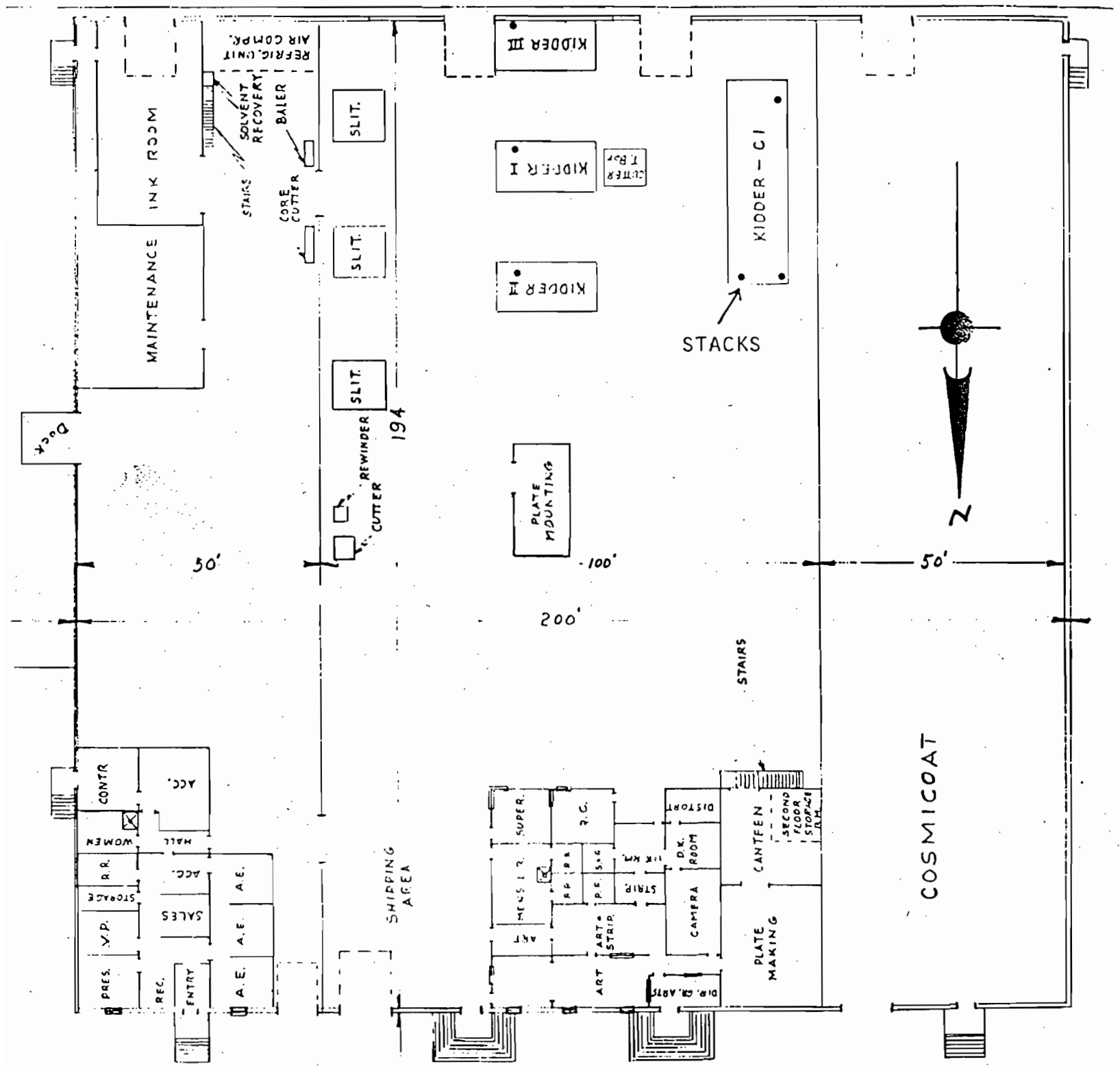
SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

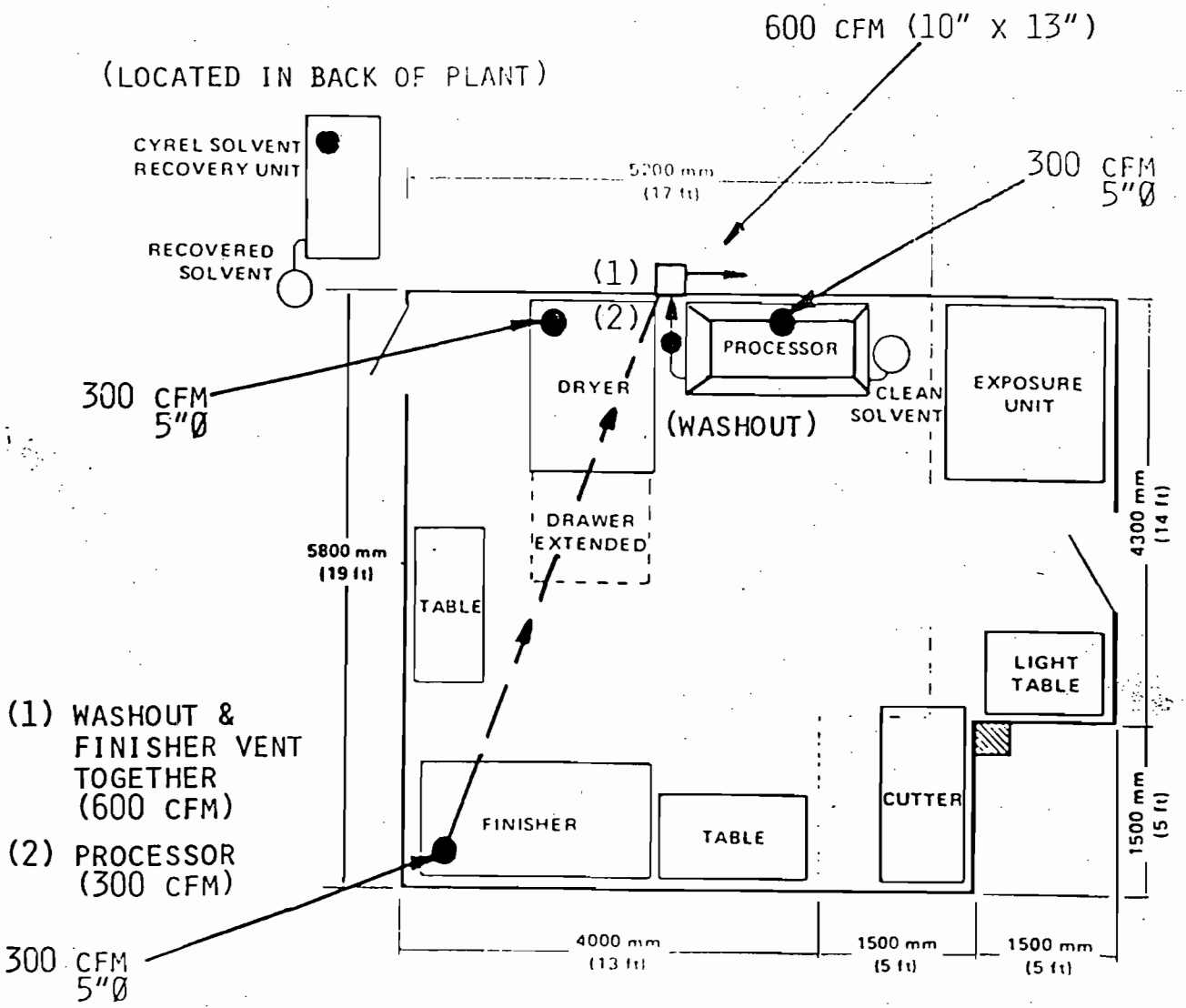


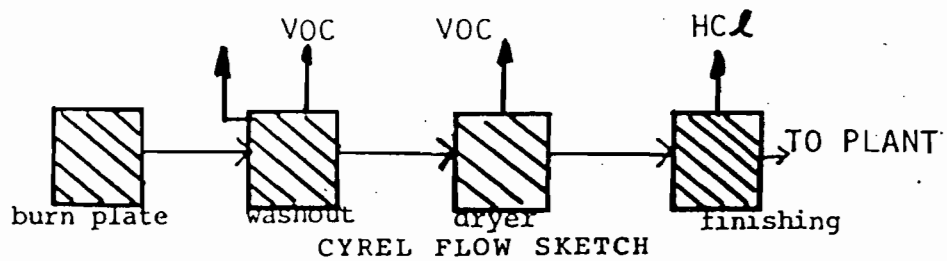
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





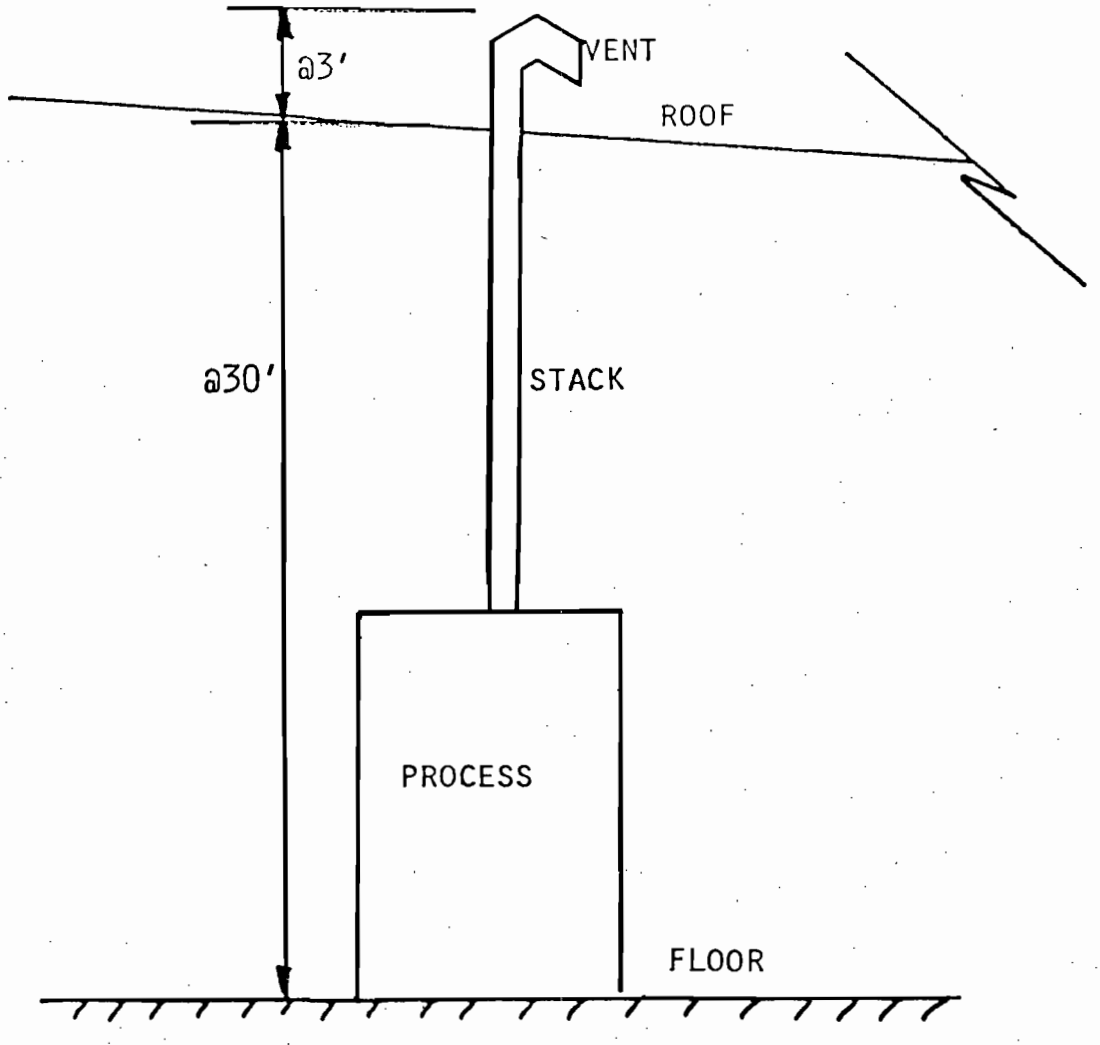
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6×10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: $1x10^6$	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: $1.2x10^6$			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

AC 48-82740

$100 paid 2/20/84

DER

FEB 20 1984

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Cyrel Plate Room--Finishing Tank

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 68 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

I certify that the statements made in this application for a Operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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, that 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.

(Affix Seal)

FRANK L. CROSS, JR. CERTIFICATE NO. 17916 STATE OF FLORIDA REGISTERED

Signed: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812
Mailing Address (Please Type)

Florida Registration No. 17916 Date 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

The finishing tank is the last step in the plate making process connected with the existing flexographic printing plant. The finishing tank ventilation system exhaust HCl fumes and connects to the washout tank vent exhaust.

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

Start of Construction February 1981 Completion of Construction February 1981

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.)

No pollution control devices are presently installed on the finishing tank.

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

None

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes __X__ No

F. ~~Normal~~ Requested permitted equipment operating time: hrs/day 4 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? NO
   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO
   c. If yes, list non-attainment pollutants. N/A
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) requirements 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

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		
Plate Sheet	None	--	0.82	Item No. 6
HCl	Fumes	~ 2	0.32	Item No. 6

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

1. Total Process Input Rate (lbs/hr): 1.14

2. Product Weight (lbs/hr): 0.82

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
HCl	0.006	0.003	Not Applicable	None	0.006	0.003	Item No. 6

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Not applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Not applicable			

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Not applicable Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

Not applicable

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.

HCl solution neutralize with sodium's bicarbonate and discharged into the sewerage system.

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM Gas Exit Temperature: 70 °F.

Water Vapor Content: Neg. % Velocity: 22 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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

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 Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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.

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 Used

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 on 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.

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

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.

(1) Process Rate

Plate Stock	0.82 lb/hour
HCl	0.32 lb/hour
	1.14 lb/hour

Product Weight = 0.82 lb/hour

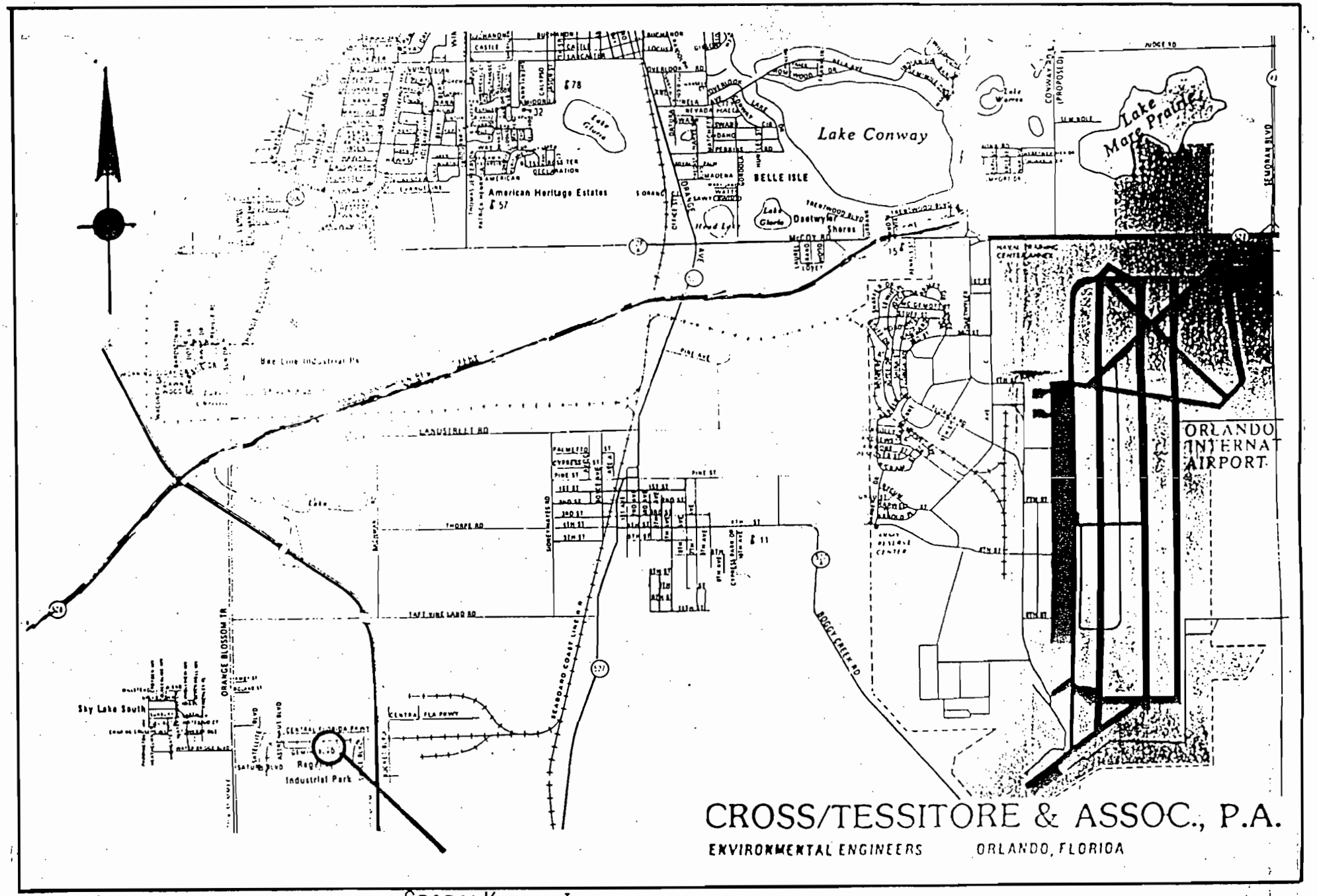
(2) Potential Emissions

HCl Fumes ~ 2% of HCl Process Rate

HCl Fume = (0.02)(0.32) = 0.0064 lb/hour

Annual Emissions = (1000) $\frac{\text{hrs}}{\text{yr}}$ (0.0064)

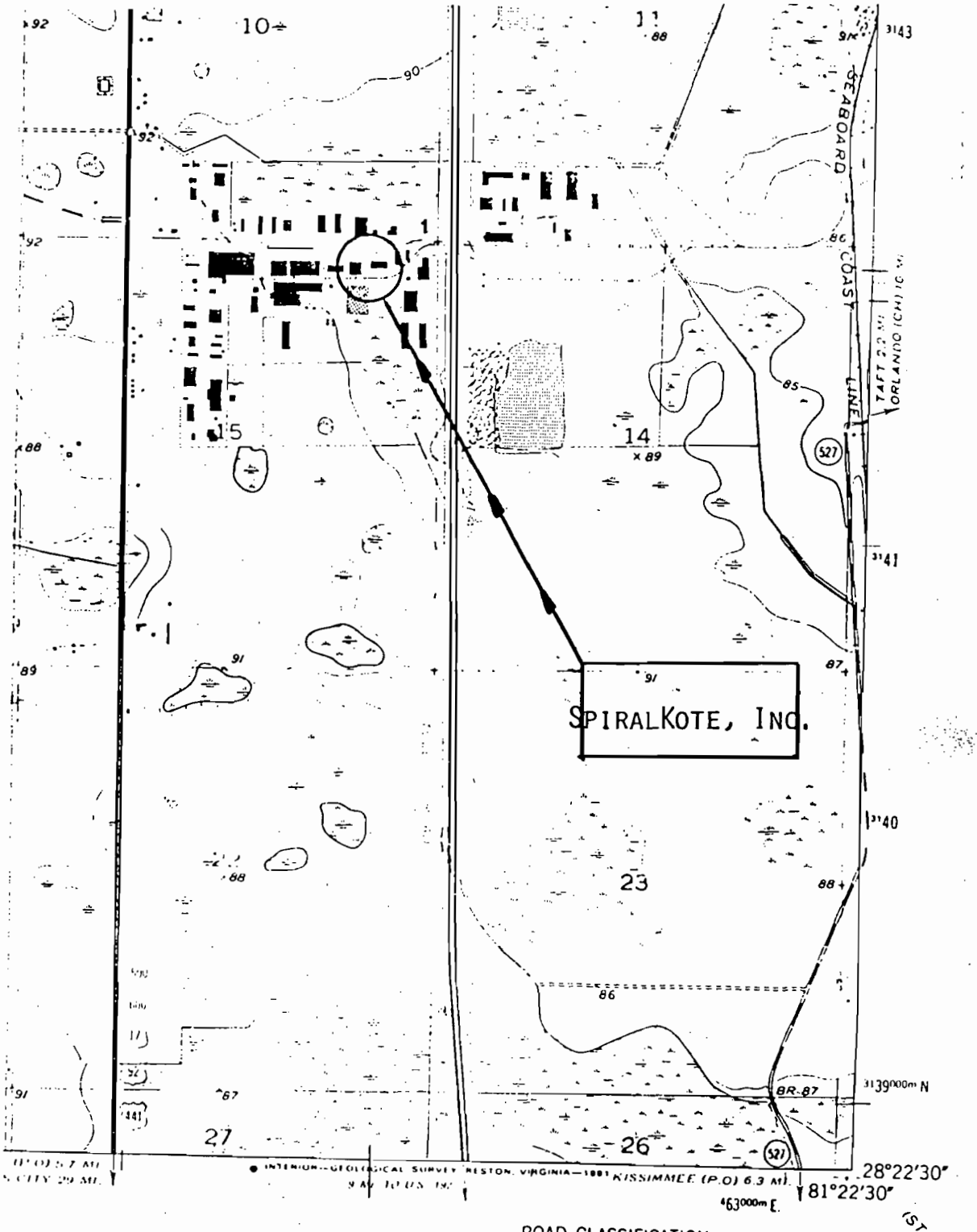
= 6.4 lbs/year = 0.0032 tons/year



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

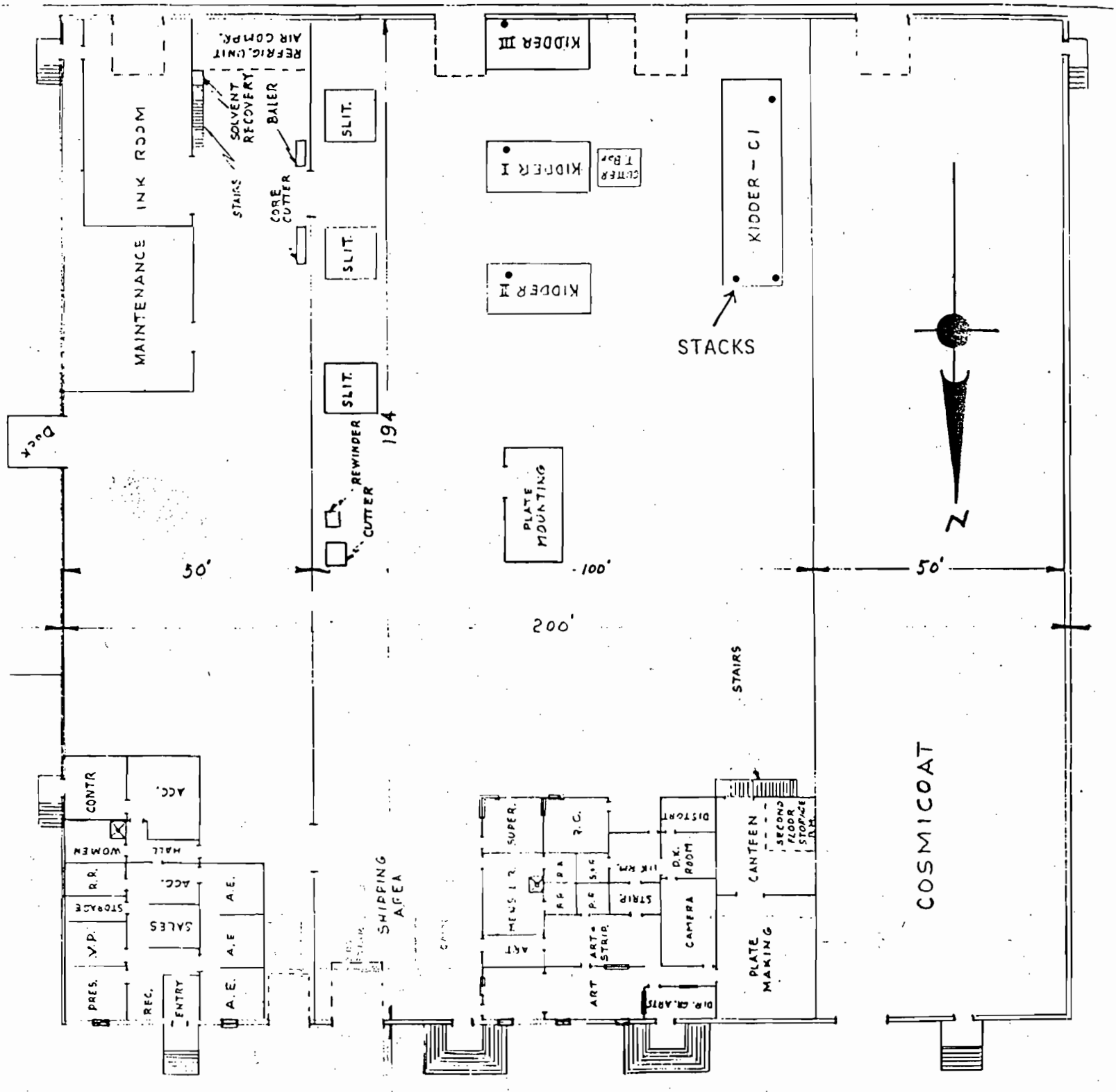
SPIRALKOTE, INC.



ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

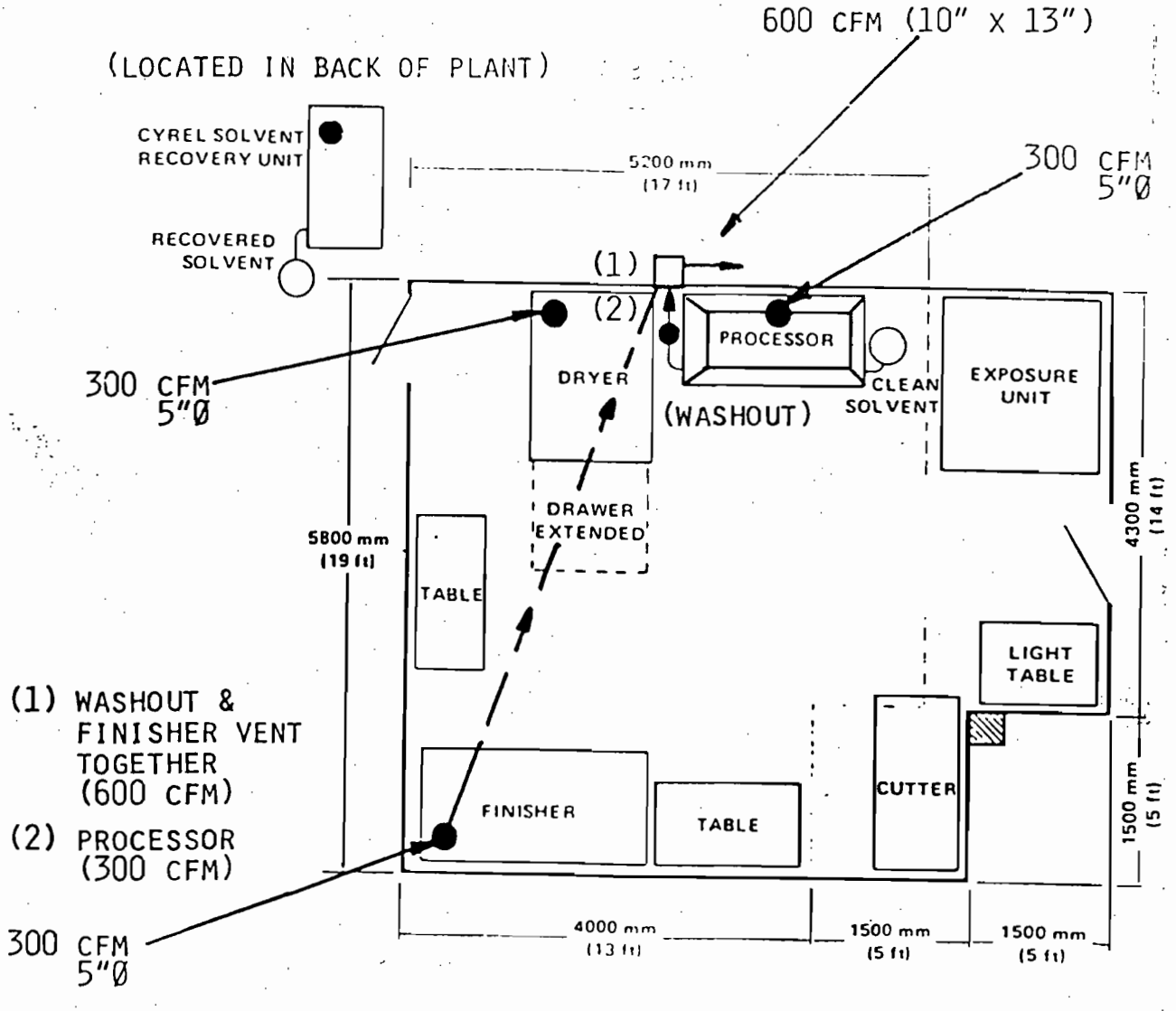


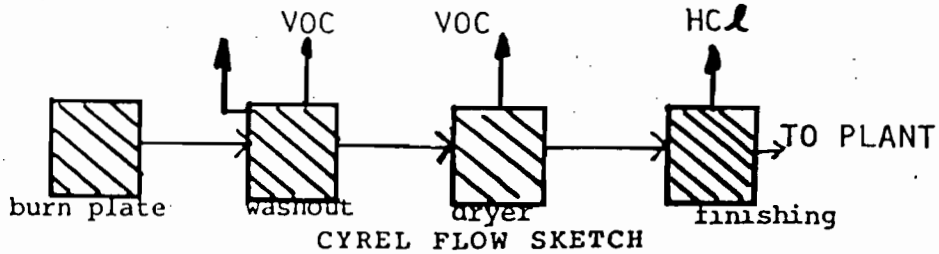
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





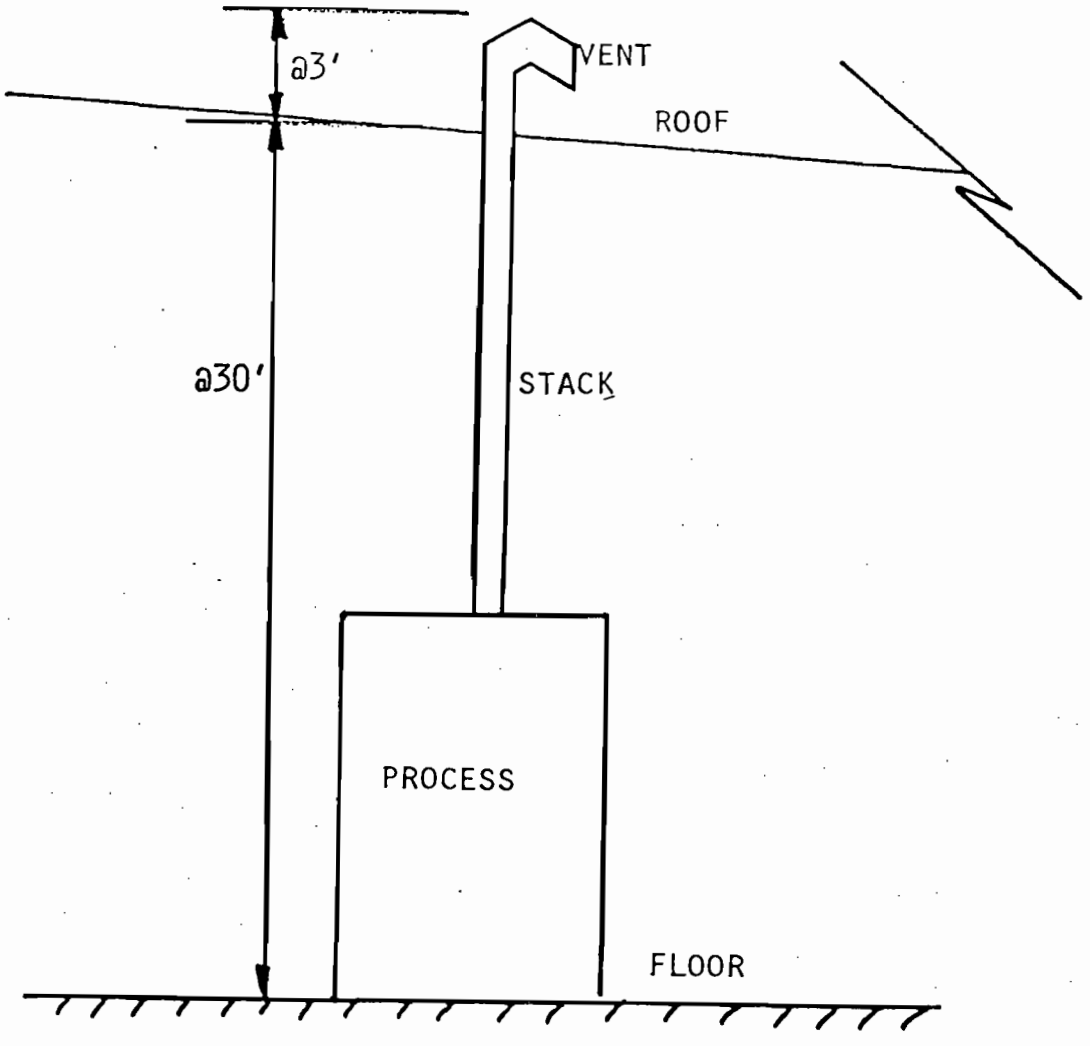
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: $1x10^6$	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: $1.2x10^6$			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year

AC 48-82741

$100 paid 2/20/84

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

DER

FEB 20 1984

BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Printing Facility [ ] New[1] [X] Existing[1]

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

COMPANY NAME: SpiralKote, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Cyrel Plate Room - Dryer

SOURCE LOCATION: Street 1200 Central Florida Parkway City Orlando, (32809)

UTM: East 461370 North 3142050

Latitude 28 ° 33 ' 68 "N Longitude 81 ° 21 ' 05 "W

APPLICANT NAME AND TITLE: Robert E. Kindorf, Vice President of Production

APPLICANT ADDRESS: 1200 Central Florida Parkway, Orlando, Fl. 32809

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of SpiralKote, Inc.

I certify that the statements made in this application for a Operating 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: Robert E. Kindorf

Robert E. Kindorf, Vice President
Name and Title (Please Type)

Date: 2-16-84 Telephone No. (305) 859-7780

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, that 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.

(Affix Seal)

FRANK L. CROSS JR. REGISTERED ENGINEER NATIONAL STATE OF FLORIDA

Florida Registration No. 7916

Signed: Frank L. Cross

Frank L. Cross, Jr., P.E.
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4759 S. Conway Road, Orlando, Fl. 32812
Mailing Address (Please Type)

Date: 2/16/84 Telephone No. (305) 851-1484

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

The dryer is one of the steps in the plate making process connected with the existing flexographic printing plant . The dryer exhausts VOC through a roof vent. There are no controls presently installed in the system.

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

Start of Construction February 1981 Completion of Construction February 1981

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.)

No pollution control devices are presently installed on this process.

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

NONE

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes X No

F. Requested permitted ~~Maximum~~ equipment operating time: hrs/day 6 ; days/wk 5 ; wks/yr 50 ; if power plant, hrs/yr N/A ; if seasonal, describe: N/A

G. 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? YES
   a. If yes, has "offset" been applied? NO
   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO
   c. If yes, list non-attainment pollutants. Oxidants
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) requirements 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

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		
Plate Stock	None	--	0.55	Item No. 6
Perchloroethylene	VOC	100	4.70	Item No. 6
N. Butyl Alcohol	VOC	100	0.62	Item No. 6

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

1. Total Process Input Rate (lbs/hr): 5.87

2. Product Weight (lbs/hr): 0.55

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
VOC	5.32	4.0	17-2.650(1)(f)(3)	1.33	5.32	4.0	Item No. 6
			2.9 lbs/gallon				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Not Applicable				

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Not applicable			

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: Not applicable Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): Not applicable

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.

Not applicable

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

Stack Height: 30 ft. Stack Diameter: 0.42 ft.

Gas Flow Rate: 300 ACFM Gas Exit Temperature: 200 °F.

Water Vapor Content: Neg. % Velocity: 22 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.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

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

Stack Height: _____ ft. Stack Diameter _____ 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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
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, 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 8½" 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 8½" 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 8½" 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. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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 [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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.

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 Used

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 on 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.

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

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.

JLT, C/TA 2-3-84

(1) Process Weight Derivation

Material	Process Rate (lbs/hr)	VOC (lbs/hr)	(gals/hr)
Plate Stock	0.55	--	--
Perchloroethylene	4.70	4.70	0.37
N. Butyl Alcohol	0.62	0.62	0.09
	5.87	5.32	0.46

(3) Potential Emissions

$$\text{Potential Emissions} = (5.32)\ \frac{\text{lbs}}{\text{hr}} \times (6)\ \frac{\text{hrs}}{\text{day}} \times (5)\ \frac{\text{days}}{\text{wk}}$$

$$\times\ (50)\ \frac{\text{wks}}{\text{yr}} \times \left(\frac{1}{2000}\right)\ \frac{\text{ton}}{\text{lbs}} = 4.0\ \text{Tons/yr}$$

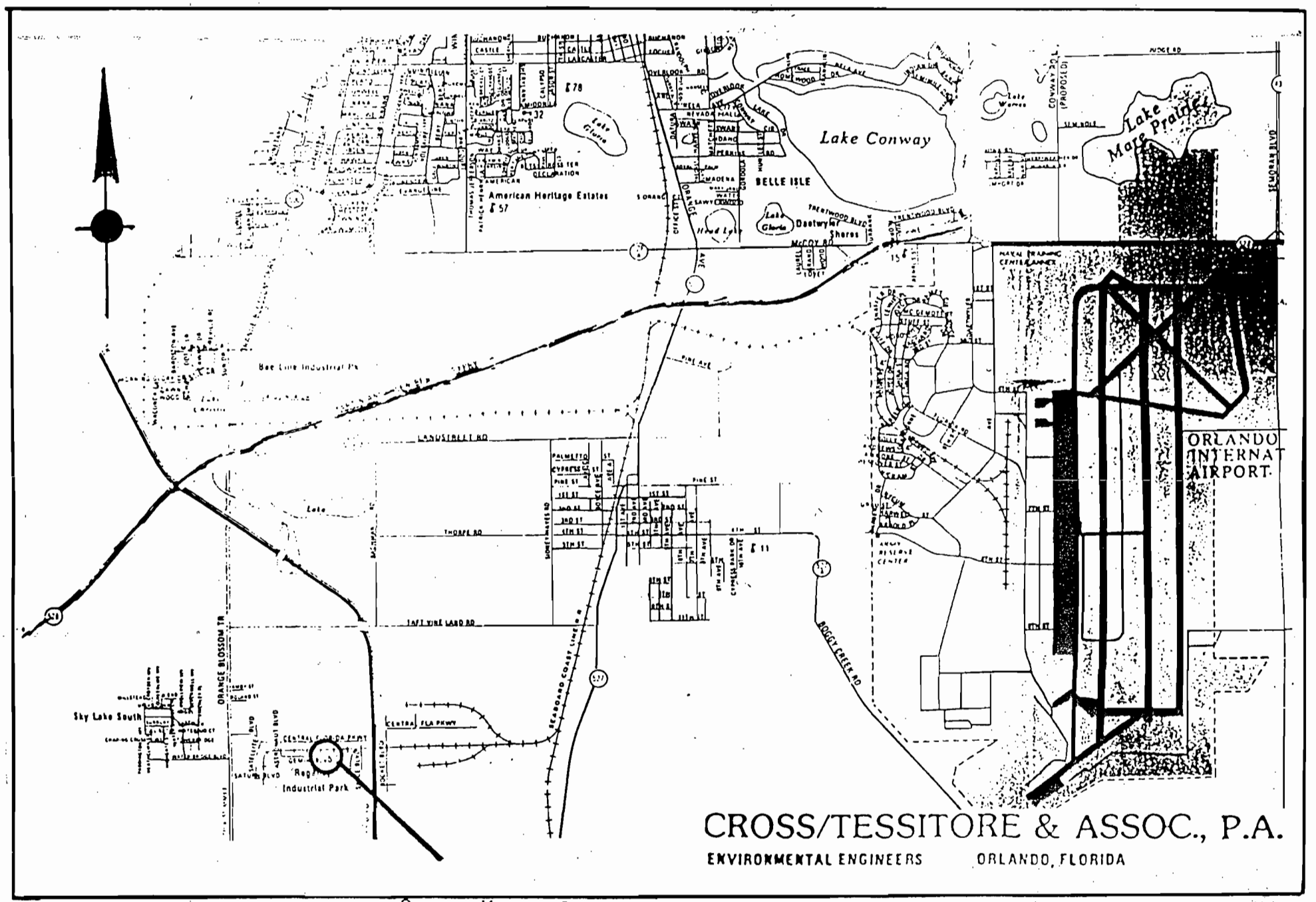
(2) Allowable Emissions

17-2.650(1)(f)(3)

Allowable VOC Emissions = 2.9 lbs/gallon

0.46 gallons/hour (See Item No. 1)

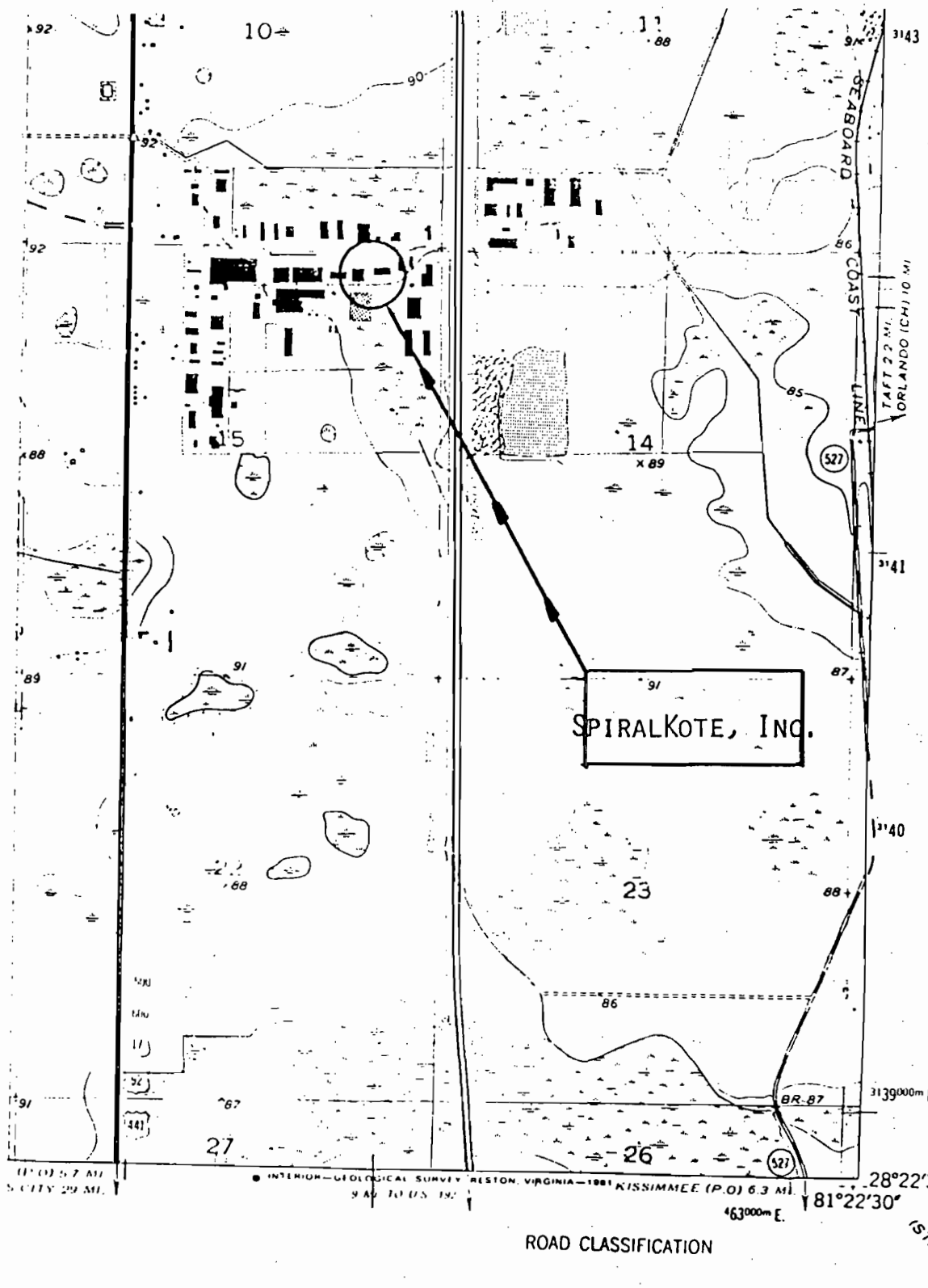
Allowable Emissions = (0.46)(2.9) = 1.33 lb/hour



SPIRALKOTE, INC. GENERAL LOCATION MAP

SITE LOCATION MAP -- U.S.G.S. MAP SECTION

SPIRALKOTE, INC.

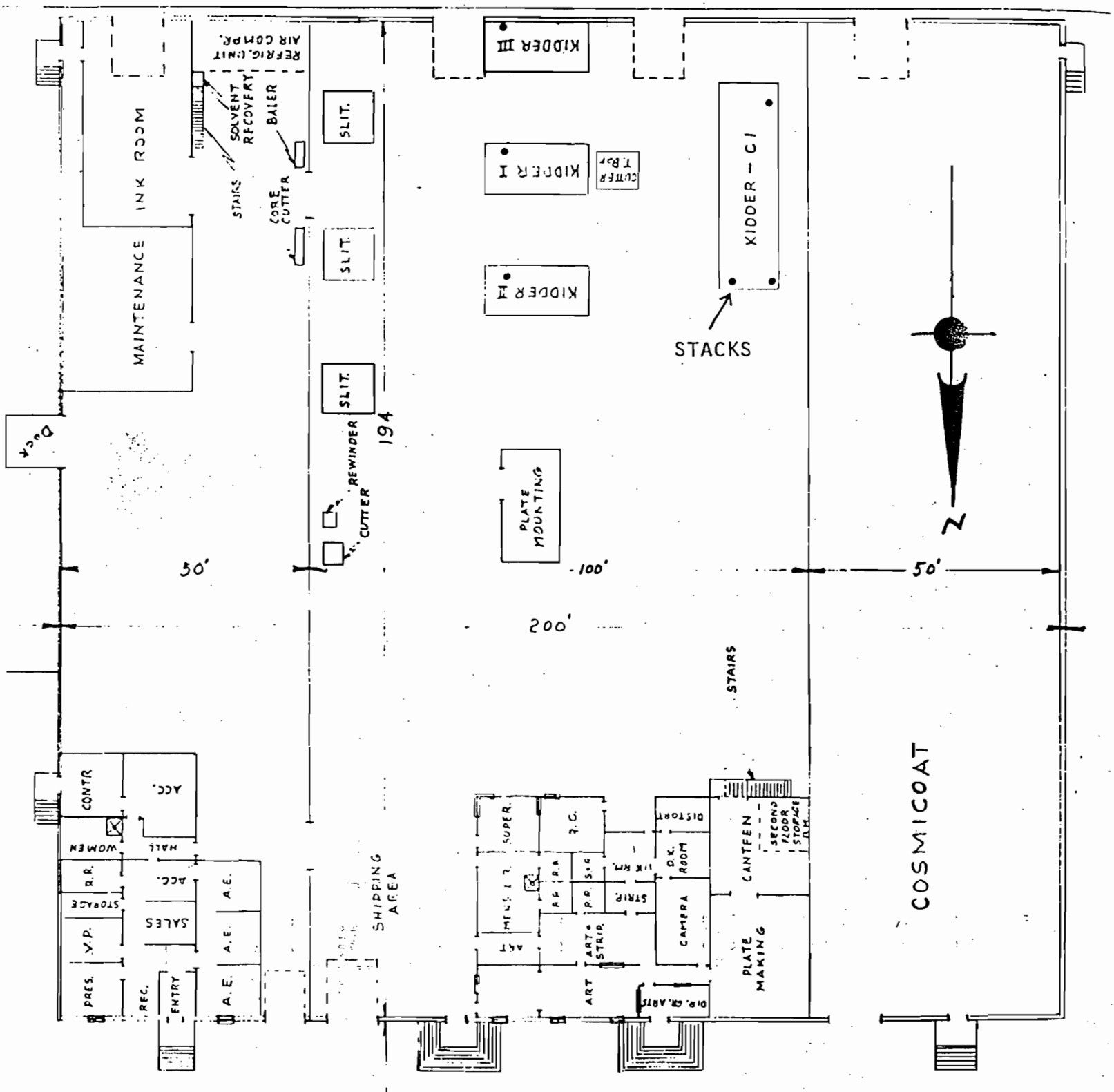


ROAD CLASSIFICATION

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PLOT PLAN OF FACILITY SPIRALKOTE, INC.

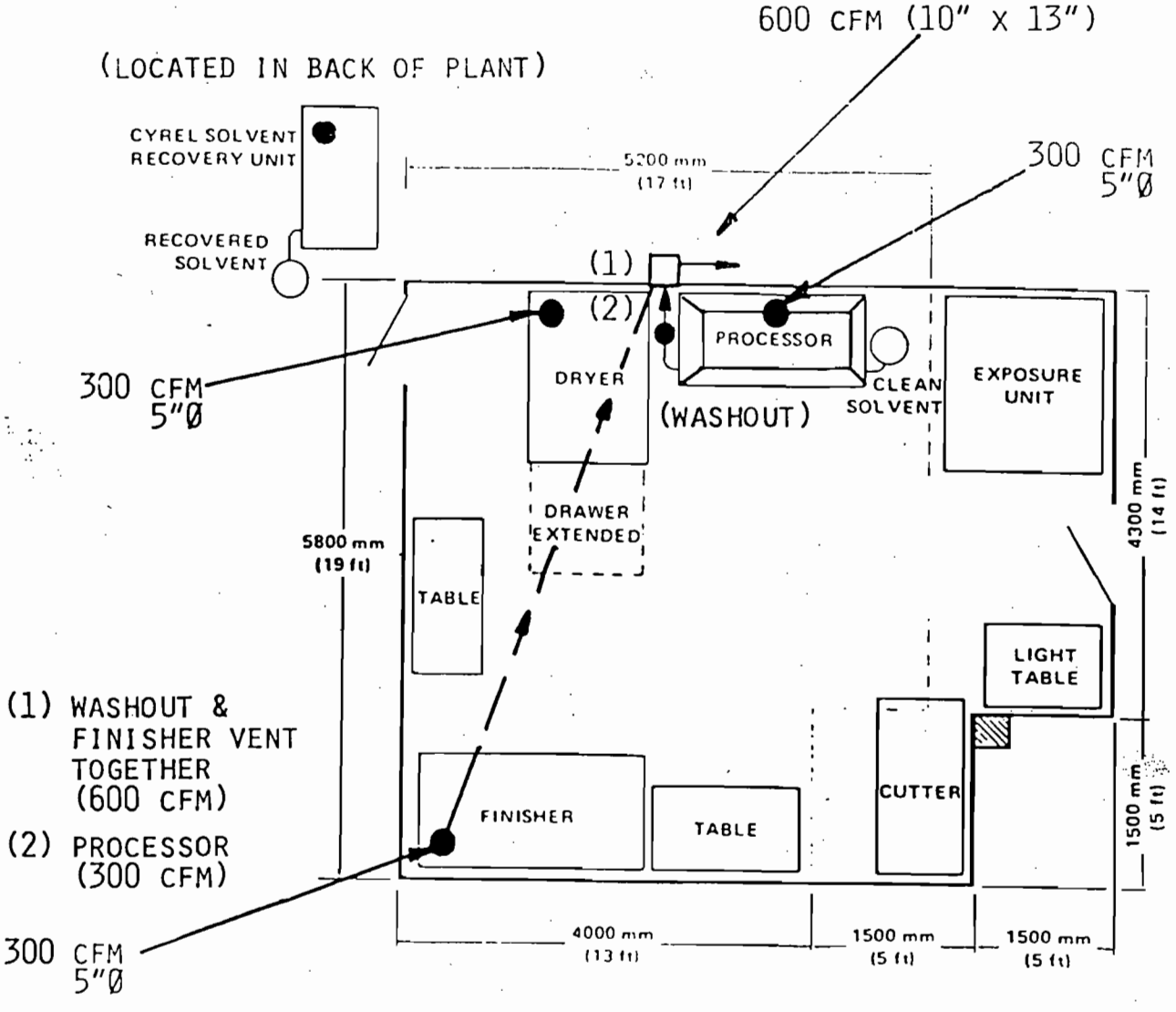


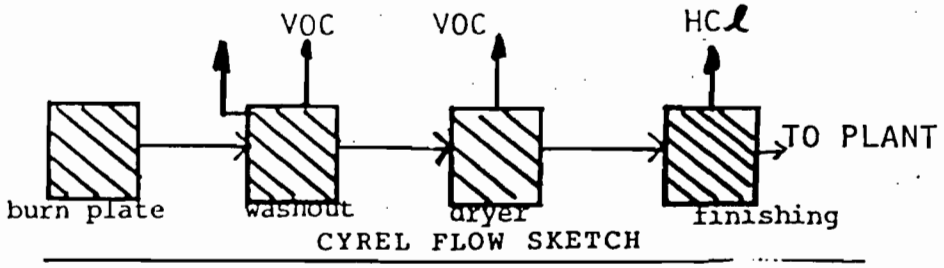
(FRONTS ON CENTRAL FLORIDA PARKWAY)

CROSS/TESSITORE & ASSOC., P.A.
ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

CYREL (DUPONT) 3040 PLATE PROCESSING SYSTEM

SPIRALKOTE, INC.





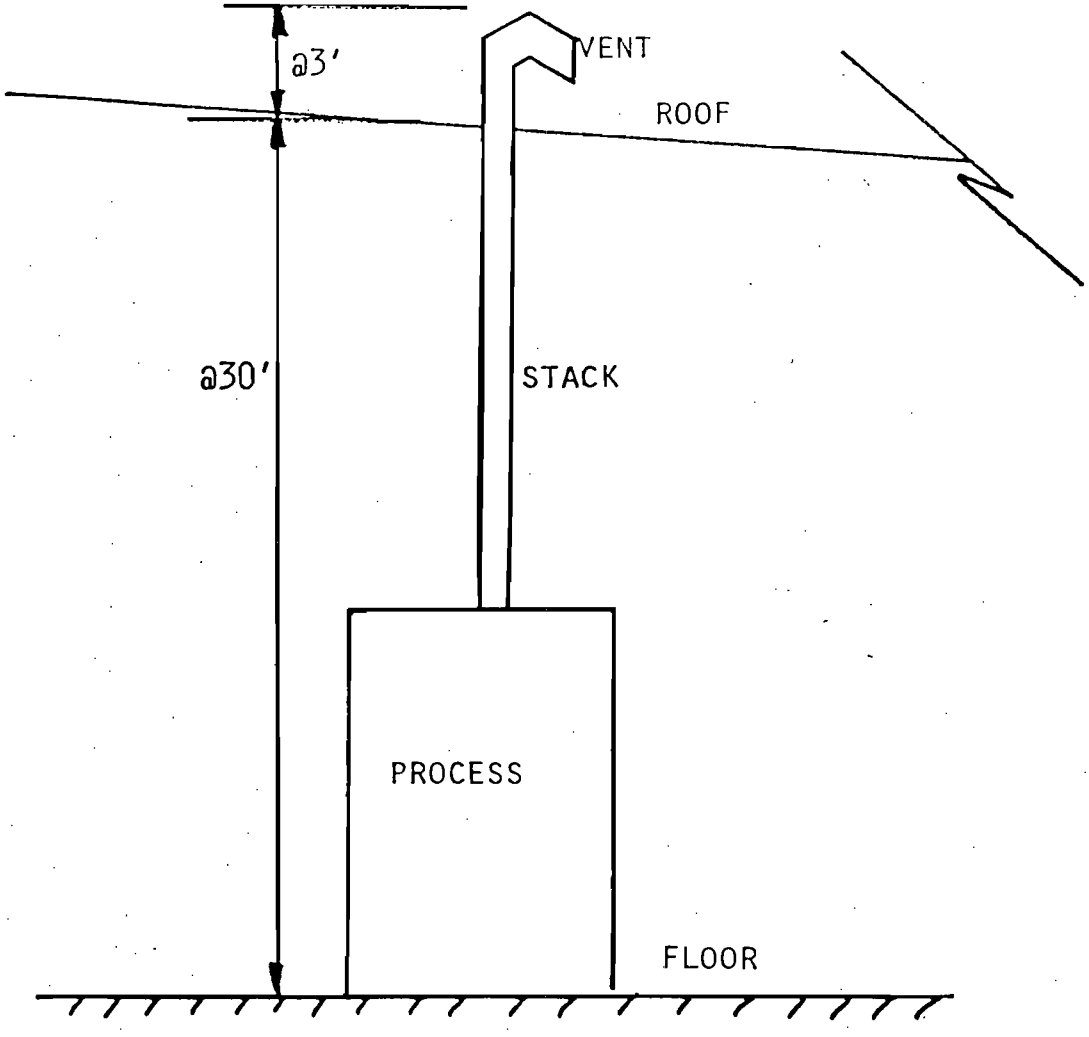
CYREL FLOW SKETCH

CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

TYPICAL SKETCH OF ROOF EXHAUST

SPIRALKOTE, INC.



CROSS/TESSITORE & ASSOC., P.A.

ENVIRONMENTAL ENGINEERS ORLANDO, FLORIDA

PERMIT	MATERIALS	TOTAL RATE (lbs/hr)	VOC RATE (lbs/hr)	(GAS) BURNERS BTU/HR	HRS/DAY	DAYS/WK	WKS/YR
Kidder CI	Paper	250.00	---	1.6 x 10^6 BTU/hour	16	5	50
	Coating KJ 902	8.30	7.16	(2-800,000 BTU/hr)			
	Coating NB 1061	5.90	3.90				
	Ink	15.40	11.36				
Kidder 1-3	Paper	173.00	---	Kidder 1: 1x10^6	17	5	50
	Coating KJ 902	8.30	7.16	Kidder 2: 800,000			
	Coating NB 1061	5.90	3.90	Kidder 3: 1.2x10^6			
	Ink	15.40	11.36				
Recovery	Perchloro ethylene	6.50	6.50	N/A	6	1	50
Still	N. Butyl Alcohol	0.87	0.87				
Washout	Plate Stock	0.36	---	---	9	5	50
Unit	Perchloro ethylene	4.70	4.70	---			
	N. Butyl Alcohol	0.63	0.63	N/A			
Dryer	Plate Stock	0.55			6	5	50
	Perchloro ethylene	4.70	4.70	N/A			
	N. Butyl Alcohol	0.62	0.62				
Finishing	Plate Stock	0.82	--	N/A	4	5	50
Unit	HCl	0.32					

Plate Stock Polymer 6.4 #/sheet 128 sheets/year