# Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 22, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David G. Steedman
Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Re: Request for Extension of Expiration Date
DEP File No. 0250407-003-AC (PSD-FL-289)

Dear Mr. Steedman:

The Department received your request on October 8 for a three-month extension of the expiration date of the referenced air construction permit to install a new panel finishing line at Nailite's facility in Dade County. Reasons stated for the extension are completion of all construction related activities and preparation of the Title V permit.

According to the Department's rules, an extension shall be granted if the applicant demonstrates reasonable assurances that, upon completion, the extended permit will comply with the standards and conditions required by the applicable regulations [Rule 62-4.080(3), F.A.C.]. Since construction is essentially done and compliance testing has been successfully completed, the Department has reasonable assurance that the unit can demonstrate future compliance with the standards and conditions required by the permit and applicable regulations. Therefore, the permit expiration date is hereby extended from December 31, 2001 to March 31, 2002.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

Any party to this permitting decision (order) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources
Management

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10/26/01 to the person(s) listed:

David G. Steedman, NII*
Benny Susi, P.E., Golder Associates, Inc.*
Gregg Worley, EPA
John Bunyak, NPS
Isador Goldman, SED
Mallika Muthiah, Miami-Dade DERM

Clerk Stamp

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

Victoria Gibson (Clerk) 10/26/01 (Date)

# Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 9, 2001

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Benny Susi, P.E.
Golder Associates Inc.
6241 NW 23rd Street
Gainesville, Florida 32653-1500

RE: Nailite International, Inc.
DEP File No. 0250407-003-AC
PSD-FL-289

Dear Mr. Susi:

The Bureau of Air Regulation received your October 3, 2001, request to extend the above referenced permit. Since the company does not hold a Title V permit for that facility, you will need to submit a $50 fee before we can begin processing your request. If you have any questions, please call me at (850)921-9505.

Sincerely,

Patty Adams

Patty Adams
Bureau of Air Regulation

/pa

cc: J. Reynolds

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



Golder Associates

October 3, 2001

0037523

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC.-NEW PANEL FINISHING LINE
FDEP FILE NO. 0250407-003AC (PSD-FL-289)
EXTENSION REQUEST

Dear Mr. Linero:

Golder Associates Inc. (Golder), on behalf of Nailite International is hereby requesting an extension of the above-referenced construction permit to provide the facility additional time to prepare the Title V operating permit and to ensure that the facility has completed all construction-related activities. An extension of 3 months would be considered appropriate.

Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Associate

BS/jkw

cc: John Perry, Nailite International, Inc.
J. Reynolds, FDEP
Mallika Muthiah, Chief, Environmental Resources Management

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Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates



September 29, 2000

0037523

Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Attention: Office of General Council

RE: NAILITE INTERNATIONAL, INC.-NEW PANEL FINISHING LINE
DEP FILE NO. 0250407-003AC (PSD-FL-289)
EXTENSION REQUEST

Dear Ms. Teri Donaldson:

Nailite is hereby withdrawing the request for extension of time in order to file an administrative hearing pursuant to 120.569 and 120.57 F.S.

Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Associate

BS/jkw

cc: David Steedman, Nailite International, Inc.
A. A. Linero, FDEP BAR
J. Reynolds, FDEP BAR

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**PERMITTEE**

Nailite International, Inc.
1111 and 1251 N.W. 165th Street
Miami, Florida 33169

| | |
|---|---|
| Permit No. | 0250407-003-AC (PSD-FL-289) |
| Project: | New Panel Spray Line and Relocation of Existing Line |
| Expires: | December 31, 2001 |
| Location: | Miami-Dade County |

**AUTHORIZED REPRESENTATIVE:**

Mr. David G. Steedman, Vice President of Operations

**PROJECT AND LOCATION**

This permit authorizes the applicant to construct a new plastics panel spray coating line and relocate the existing spray line so that it can be incorporated with the air pollution control system being installed for the new line. Any increased production capacity resulting in utilization of paints and solvents in excess of 300,000 gallons per line per year will require a modification of this permit per Rule 62-4.080 and Chapters 62-210 and 62-212 of the Florida Administrative Code. The SIC code for this facility is 3089.

The project is located at 1111 and 1251 NW 165th Street, Miami, Dade County. The UTM coordinates are Zone 17; 578.4 km E; 2867.2 km N. The Everglades National Park is approximately 35 km west-southwest of the site.

**STATEMENT OF BASIS**

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

**APPENDICES**

The attached appendices are a part of this permit:

| | |
|---|---|
| Appendix BD | BACT/MACT Determination |
| Appendix GC | General Permit Conditions |

Howard L. Rhodes, Director
Division of Air Resources Management

## SECTION I. FACILITY INFORMATION

### FACILITY DESCRIPTION

The existing Nailite facility is located at 1251 NW 165th Street in Miami, Dade County. The proposed new plastic panel spray line (No. 2) will be located in a new facility at 1111 NW 165th Street, approximately 500 feet west of the existing facility. On its existing No.1 Line, Nailite manufactures and coats plastic shingles molded from polypropylene pellets. The No. 1 Line at the existing facility consists of three paint spray booths and eight ~~two~~ injection molding machines as insignificant emission units. The new No. 2 Line will consist of three continuous spray booths and a curing oven. Air pollution controls will consist of a state-of-the-art Regenerative Thermal Oxidizer (RTO) for controlling VOC/HAP emissions. Within ~~N~~ninety (90) days from~~after~~ ~~Simultaneously~~ the ~~with~~ start-up of the new line, the existing line will be dismantled, moved to the new location, and connected to the RTO.

Details regarding the project are described in the Technical Evaluation and Preliminary Determination issued August 4, 2000 and the determinations of Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) appended to this permit.

The proposed facility including the relocated No. 1 line will consist of the following emissions units.

| EMISSIONS UNIT NO. | EMISSIONS UNIT DESCRIPTION |
|---|---|
| 001 | No. 1 Line consisting of 3 Paint Spray Booths |
| 002 | Eight ~~Two~~ Injection Molding Machines |
| 003 | No. 2 Line consisting of 3 Continuous Spray Booths and a Curing Oven |

### REGULATORY CLASSIFICATION

The facility, consisting of the three emissions units, is classified as a Major or Title V Source of air pollution because emissions of volatile organic compounds (VOC) exceed 100 tons per year (TPY), and because emissions of one hazardous air pollutant (HAP) exceed 10 tons per year and emissions of total HAP exceed 25 tons per year. This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Since potential emissions (at least until the connection of the No. ~~2~~1 Line to the RTO) are greater than 250 TPY for VOC, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Potential emissions from the new facility after relocation of the No. 1 Line and connection to the same to the RTO are estimated to be 218.3 tpy, a decrease of 147.7 tpy over emissions from the current facility. The emissions units are subject to limits determined as BACT for VOC and are subject to limits determined to be MACT for HAP.

### REVIEWING AND PROCESS SCHEDULE

| | |
|---|---|
| 04-17-00 | Date of Receipt of Application |
| 05-04-00 | First Request for Additional Information |
| 06-16-00 | Final Request for Additional Information |
| 06-22-00 | Date Application Complete |
| xx-xx-00 | Notice of Intent Published in Newspaper |

**RELEVANT DOCUMENTS**

The documents listed below constitute the basis for the permit and are on file with the Department.

- Permit application
- Applicant's additional information noted above
- Department's Technical Evaluation and Preliminary Determination and Intent to Issue

## SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit.

**ADMINISTRATIVE**

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Air Division of the Dade County Department of Environmental Resources Management (DERM), Suite 900, 33 Southwest Second Avenue, Miami, Florida 33130-1540 (phone number: 305/372-6925). All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blairstone Road, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).

2. General Conditions: The permittee is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Expiration: This air construction permit shall expire on December 31, 2001. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]

7. PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40CFR52.21(r)(2) and Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

8. BACT Determination: In conjunction with extension of the 18 month period to commence or continue construction or extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source as applied to any new or modified emission units. [40CFR52.21(j)(4) and Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

9. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

10. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for and receive a Title V operation permit prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's appropriate District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

**GENERAL EMISSIONS LIMITING STANDARDS**

11. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

12. Unconfined Emissions of Particulate Matter: [Rules 62-296.320(4)(c) and 62-212.400, F.A.C.]

    (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

    (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.

    (c) Reasonable precautions include the following:

    - Paving and maintenance of roads, parking areas and yards.
    - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
    - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
    - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
    - Landscaping or planting of vegetation.
    - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
    - Confining abrasive blasting where possible.
    - Enclosure or covering of conveyor systems.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

13. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

(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.

(b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. (Not federally enforceable)

[Note: An objectionable odor is defined in Rule 62-210.200(203), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

**OPERATIONAL REQUIREMENTS**

14. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's appropriate district office and the appropriate local program office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

15. 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. [Rule 62-210.650, F.A.C.]

16. Excess Emissions:

For purposes of this permit, all limits established pursuant to the State Implementation Plan, including those limits established as BACT, include emissions during periods of startup and shutdown, and are not subject to the provisions of Rule 62-210.700(1), F.A.C. This provision can not be used to vary any NESHAP requirements from any subpart of 40 CFR 63. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown or malfunction shall be prohibited pursuant to Rule 62-210.700(4), F.A.C. [Rules 62-4.070(3) and 62-210.700(5), F.A.C.]

Excess emissions resulting from malfunction of any emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**COMPLIANCE MONITORING AND TESTING REQUIREMENTS**

17. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if

the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

18. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

19. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

20. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]

21. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]

    (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

    (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

22. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

23. Test Notification: The permittee shall notify the appropriate Department District Office and the appropriate local program at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]

24. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

**REPORTING AND RECORD KEEPING REQUIREMENTS**

25. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]

26. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]

27. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the appropriate Department District Office and the appropriate local program within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the NESHAP requirements, excess emissions shall also be reported in accordance with 40 CFR 63, Subpart A. [Rule 62-4.130, F.A.C.]

28. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the appropriate Department District Office and the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]

29. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the appropriate Department District Office and the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

The following specific conditions apply to the following emissions units:

| EMISSIONS UNIT NO. | EMISSIONS UNIT DESCRIPTION |
|---|---|
| 001 | No. 1 Spray Coating Line |
| 002 | Injection Molding Machines |
| 003 | No. 2 Spray Coating Line |

[Note: Emissions Units ~~001, 002 and~~ 003 is ~~are~~ subject to PSD for VOC; subject to MACT for HAP; and ~~are~~is subject to the requirements of the state rules as indicated in this permit. This permit includes the MACT requirements, and constitutes MACT for this project.]

1. This permit supersedes the existing air operation permit for the existing No. 1 Spray Coating Line effective upon relocation and startup of the existing No. 1 Spray Coating Line in its new location. Emissions Units 001, 002 and 003 may each operate for up to 8,760 hours/year. The facility is required to keep daily records of the operating hours. [Rules 62-210.200, Definitions-Potential to Emit (PTE) and 62-213.440(1)(b)1.b., F.A.C.]

2. The maximum amount of coating applied shall be 300,000 gallons per line per year. ~~Simultaneously with the startup of spray coating on the new No. 2 Spray Coating Line (Emissions Unit 003), the existing No. 1 Spray Coating Line (Emissions Unit 001) shall be appropriately connected to the Regenerative Thermal Oxidizer (RTO) so that its emissions are controlled along with those from Emissions Unit 003~~. Total emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAPs) from the RTO due to Emissions Unit 003 shall not exceed 76.5 ~~130.5~~ tons per year in any consecutive 12-month period.

[Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-210.200 (PTE), F.A.C., and BACT/MACT]

3. Within ~~N~~ninety (90) days after the startup of spray coating on the new No. 2 Spray Coating Line (Emissions Unit 003), the existing No. 1 Spray Coating Line (Emissions Unit 001) shall be connected to the Regenerative Thermal Oxidizer (RTO) so that its emissions are controlled along with those from Emissions Unit 003

~~3.~~4. The air pollution control system installed shall consist of a Regenerative Thermal Oxidizer (RTO) as specified in the application and subsequent documents submitted in support thereof. The VOC/HAP capture and treatment system for Emission Unit 003 shall be designed to capture at least 90 ~~95~~ percent of the total VOC/HAP emissions generated from the panel spraying operation while destroying at least 95 percent (85.5~~90.~~3 percent overall capture and destruction). Appropriate short-term emission limits and compliance requirements for the RTO control system shall be established by the Department within 45 days following receipt of the capture and destruction efficiency test results required by Specific Condition 4 below and shall be incorporated into the Title V permit for this facility.
[Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

~~4.~~5. Pursuant to the requirements of Specific Condition 4 ~~3~~ above, the permittee shall demonstrate the VOC/HAP capture and destruction efficiency of Emissions Unit 003 by comparing raw VOC/HAP emissions generated over a 3-hour period (based on material usage rates and appropriate emission factors) with captured emissions based on measured flow rates and VOC/HAP concentrations in the RTO inlet duct as determined by EPA Methods 2 and 18, 25 or 25A, as described in 40 CFR 60 Appendix A. ~~A capture efficiency and destruction efficiency test shall also be performed for Emissions Units 001/002 within 45 days after startup of the relocated line~~. A destruction efficiency test shall be performed annually on the RTO. Within 45 days following test completion, results of the above tests shall be submitted along with a complete test report to the Bureau of Air Regulation in

Tallahassee, the Department's Southeast District and the Miami-Dade County Environmental Resources Management Department. [Rule 62-4.070(3) and 62-212.400, F.A.C., and BACT]

5.6. Testing of emissions shall be conducted annually with the emissions units operating at permitted capacity, which is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emissions units may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the emissions unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

6.7. The permittee shall continuously keep and maintain a five-year ongoing compilation of the following records to demonstrate compliance with the VOC/HAP emissions limitations of Specific Condition No. 2 of this section. Records shall be completed no later than five working days after the end of each month.

- Amounts in pounds of each material used each month that contains VOC/HAP.
- Weight percentage of VOC/HAP in materials using the highest value listed on the Manufacturer's Safety Data Sheets.
- Amount in pounds of VOC/HAP emitted each month from each material used during the month, calculated by multiplying the amount of each material used by its VOC/HAP content and then by the appropriate emission factor.
- Total amount in pounds of VOC/HAP emitted each month, calculated as the sum of VOC/HAP emitted from each material used during the month as determined above.
- Rolling 12-month total amount in pounds and tons of VOC/HAP emitted in the most recent consecutive 12-month period, calculated as the sum of VOC/HAP emitted for the current month and the preceding eleven months.

[Rules 62-4.070(3), 62-212.400, F.A.C., MACT and BACT]

7.8. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C.]

8.9. The subject emissions units shall be subject to the following:

- Excess emissions resulting from relocation, startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C.]
- Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C.]
- Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. [Rule 62-210.700, F.A.C.]
- In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700, F.A.C.]

9.10. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(5) to the Department's Southeast District Office and the Miami-Dade County Environmental Resources Management Department by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C.]

10.11. The facility shall adhere to the BACT/MACT Determination that is attached as part of this permit following this page.

# TECHNICAL EVALUATION

# AND

# PRELIMINARY DETERMINATION

Nailite International, Inc.

New Plastic Panel Finishing Spray Line/Relocation of Existing Line

Miami-Dade County

DEP File No. 0250407-003-AC (PSD-FL-289)

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

August 4, 2000

## 1. APPLICATION INFORMATION

### Applicant Name and Address

Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Authorized Representative: David G. Steedman, Vice President of Operations

### Application Review Schedule

| | |
|---|---|
| Date of Receipt of Application | 04-17-00 |
| First Request for Additional Information | 05-04-00 |
| Final Request for Additional Information | 06-16-00 |
| Date Application Complete | 06-22-00 |
| Intent Issued | 08-04-00 |

## 2. FACILITY INFORMATION

The existing Nailite facility is located at 1251 NW 165th Street in Miami, Dade County (see Figures 1 and 2). The proposed new panel spray line will be located at 1111 NW 165th Street, approximately 500 feet west of the existing facility. The UTM coordinates of the proposed site are Zone 17, 578.4 km East and 2867.2 km North.


**Figure 1 - General Location**

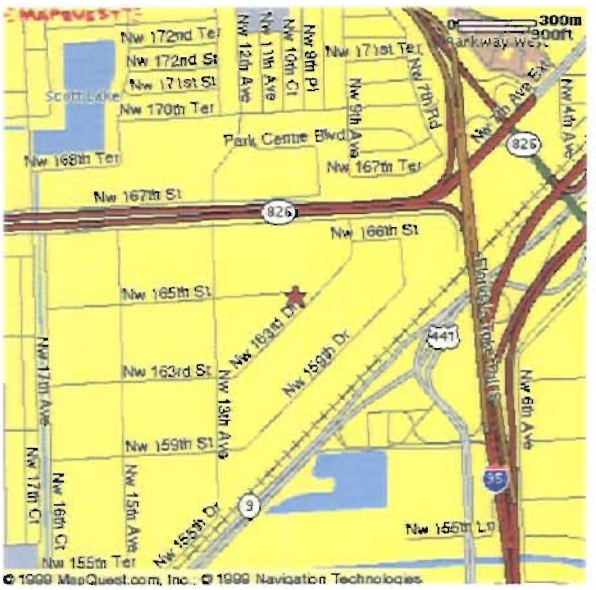



**Figure 2 - Site Location**

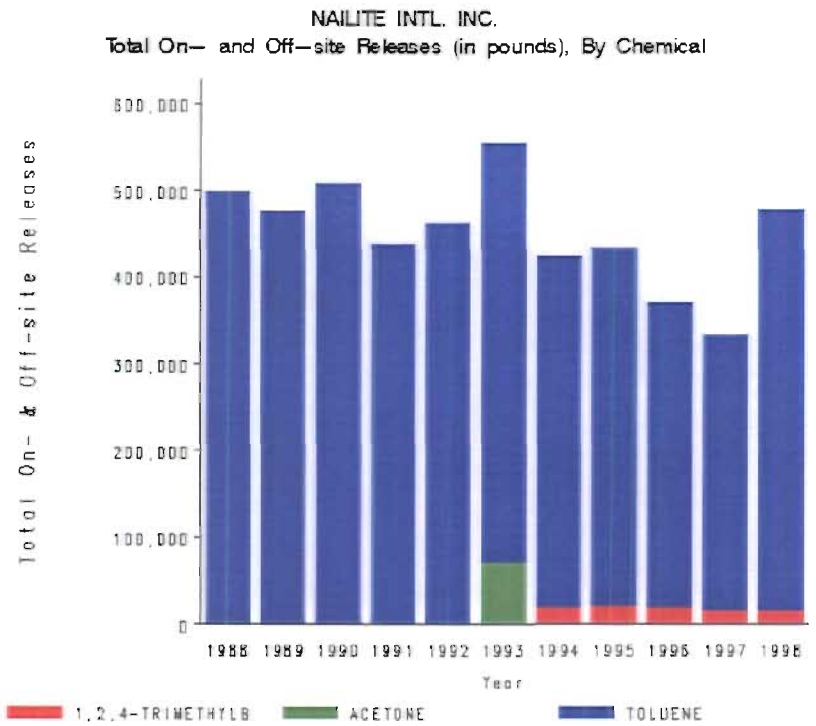
### Standard Industrial Classification Codes (SIC)

| | | |
|---|---|---|
| Industry Group No. | 30 | Plastic Products |
| Industry No. | 3089 | All Other Plastic Products Manufacturing |

### Facility Category

The existing facility is a Major or Title V Source of air pollution because emissions of volatile organic compounds (VOC) exceed 100 tons per year (TPY) or because emissions of a hazardous air pollutant (HAP) exceed 10 TPY. It is also a Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because emissions of VOC exceed 250 TPY.

Following is a graph developed from EPA's Toxic Release Inventory that indicates the trend of HAPs emissions at Nailite through 1998. These HAP emissions comprise most of the VOC emitted from the facility.




## 3. PROJECT DESCRIPTION

This permit addresses the following emissions units at the proposed site:

| EMISSION UNIT | SYSTEM | EMISSION UNIT DESCRIPTION |
|---|---|---|
| 001 | Existing Coating Line | Three point spray booths using lacquers to coat shingles |
| 002 | Existing Coating Line | Eight ~~Two~~ injection molding machines/hydraulic tanks |
| 003 | New Coating Line | Three continuous spray booths/curing oven |

Emissions from the new Emission Unit, Unit No. 003, ~~the proposed plant~~ were estimated by the applicant as follows: 130.5 TPY of VOC (approximately 69 percent toluene and 1.5 percent xylene by weight); 4.7 TPY of Particulate Matter ($PM/PM_{10}$); and less than 1.0 TPY of Nitrogen Oxides ($NO_X$), Sulfur Dioxide ($SO_2$), and Carbon Monoxide (CO).

## 4. PROCESS DESCRIPTION

Nailite is proposing to construct and operate a new panel finishing spray line. Within ~~N~~ninety (90) days from~~after~~ the ~~Simultaneously with~~ startup of the new line, the existing spray line using older technology will be relocated and connected to the proposed control system for the new line.

Three spray booths will be operated in one continuous spray line with a curing oven at the end of the spray line. The spray line is designed to finish approximately 1,400 panels per hour. The panel sizes range from 20 inches by 40 inches to 20 inches by 60 inches. The finish system will be designed with three parallel conveyors, which form a 60-inch flat line conveyor system. The conveyor system will have an adjustable speed ranging from 10 to 30 feet per minute. The components of the finishing spray line include a fluid handling system, an application system, spray booths, an oven and a conveyor.

The proposed coating delivery system for each spray booth consists of a ten-second color change system. Paint will be pumped from 55-gallon drums located in the paint mixing room. Each loop will be equipped with an "air pig" paint loop purge system. This will allow old paint to be returned to a 55-gallon drum for reuse with little paint waste. The air pig is designed to recover 90 percent of the old paint from the circulation loop. The loop system must be flushed when new colors are changed. The fluid management system and spray guns will utilize an advance Secondary Heat Transfer System to provide heat control at the spray gun.

Each of the first two spray booths will be equipped with a Static Heat Stripping HP60 in-line paint heater. The heater is used to control the coating temperature to provide repeatable finishing results regardless of ambient temperature conditions. Maintaining the coating temperature at the spray guns at the viscosity flat line temperature will reduce the solvent usage by approximately 15 percent compared to Nailite's existing operations.

The third spray booth in the spray line will be utilized for shading. This booth will have six different colors supporting the application system. Each color will be pumped directly from 55-gallon drums. Each drum will have a wall mounted pump, required air controls, a siphon assembly, circulation control valve, a 55 gallon cover with air-powered agitator and cover lift assembly to keep pigmented colors in constant suspension through the loop. The fluid pressure will be regulated all the way to the spray gun and the six circulation loops will be equipped with a secondary heat transfer system to provide constant controlled heat transfer.

Eight spray guns will be used in Spray Booth Nos. 1 and 2. Each spray booth is equipped with a constant speed gun mover with a stroke travel of seven feet. The guns are automatically toed away from the direction of the gun mover travel to allow the atomized velocity of 2 feet per second to work with the gun tip speed of 150 feet per minute. This allows for a higher application transfer efficiency and minimizes the over-spray in the spray

booth. Spray Booth No. 3 will be identical to Spray Booths Nos. 1 and 2; however, it will be equipped with HVLP guns.

The proposed spray line will reduce the amount of solvent usage by approximately 29 percent as compared to Nailite's existing spray line. This improved transfer efficiency MR result in a significant reduction in VOC and HAP emissions.

The proposed spray booths are designed with a closed-faced side draft booth with built in air circulation. The only opening in the spray booth will be the conveyor slot which will be 6-ft wide and one foot tall. Air movement within the booth will be maintained at 100 feet per minute. A circulation fan will circulate the air in the spray booth into the exhaust filters at the rear of the spray booth. The filtered air is then repressurized and ducted back to the inlet plenum mounted in front of the spray booth on the roof. The plenum will uniformly reintroduce the circulation air back into the spray booth. This process will maintain a uniform 100 feet per minute airflow without interference from outside airflows.

The spray booths will be 10 ft wide, 16 ft 4 inch deep and 8 ft tall. The working depth of the booths will be 12 ft. Each booth will be equipped with a 9,200 cfm recirculation fan at 1/4 inch static pressure. The VOC buildup in the booths will be maintained under the lower explosive limit (LEL) level by a bleed air duct. The bleed air will be controlled to 1,200 cfm by dampers. The bleed air duct from each booth will be directed to a Regenerative Thermal Oxidizer (RTO) for VOC/HAP destruction.

The controls for the finishing system will be contained in a system controller panel located at each of the three spray booths. Each panel provides remote fluid pressure control to the fluid pressure controls in each spray booth. Spray Booth Nos. 1 and 2 have two remote fluid pressure regulators, while Spray Booth No. 3 has six controls. The guns are interlocked into the system controller. If the spray booth exhaust fan is not operating, the guns will not spray in either automatic or manual modes.

The electric oven will be designed to heat the coated panels with hot air impinged onto the top surfaces of the panels near the oven entrance, in order to begin rapid evaporation of the solvents and create a flow of air to the return duct near the oven exit. The oven will be 45 ft long, 6 ft 10 inches wide, and 3 ft high. A circulation blower will be utilized rated at 8,000 cfm at 2.5 static pressure with a 10 hp motor. The exhaust from the oven will be vented to the RTO.

## 5. VOC/HAP CONTROL TECHNOLOGY

The emission control technology proposed by the applicant and by the Department is discussed at length in the draft BACT/MACT determination issued with this review. VOC/HAP emissions consist of toluene and xylene that is evolved during the coating process. As stated above, VOC/HAP emissions will be controlled using a twin-bed RTO. The RTO will be designed for a process gas flow rate of 27,000 acfm and 95 percent destruction efficiency. Natural gas ~~Propane~~ will be used at start-up as a secondary fuel, while the captured solvent will be the primary fuel.

VOC/HAP potential emissions from the new finishing spray line are estimated at approximately 130.5 TPY. Approximately 90 percent of the VOC/HAP in the coating will be released in the paint booths while 10 percent remains as fugitives. ~~in the coating~~. The design capture efficiency of the spray booths will be approximately 90 ~~95~~ percent. It is therefore assumed that 10 ~~5~~ percent of the VOC/HAPs are emitted into the building as fugitive emissions.

Paint filters will be used to control particulate emissions from the spray booth operations. Accordion-type filters with a 95% percent minimum efficiency are proposed for the project.

$PM/PM_{10}$ potential emissions are estimated at 4.7 TPY based on 25 percent over-spray of coating in the booths and 95 percent removal by the paint filter pads.

Emissions of $SO_2$, $NO_X$ and CO are projected to be well below 1.0 TPY. Therefore, the proposed finish spray line is subject to PSD review for VOC only.

## 6. RULE APPLICABILITY

The proposed project is subject to preconstruction review and permitting requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in Dade County, an area designated as an air quality maintenance area for the pollutant ozone and as a PSD area for the pollutants Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), for VOC.

Florida's PSD regulations at Rule 62-212.400, F.A.C. have been approved by the Environmental Protection Agency per 40 CFR 52, Approval and Promulgation of Implementation Plans, Subpart K - Florida. PSD regulations require that all new major stationary facilities or major modifications to existing major facilities, which emit air pollutants regulated under the Clean Air Act (CAA), must be reviewed and a permit issued before the commencement of construction.

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that Best available Control Technology be applied to control emissions from the source (Rule 62-212.400, F.A.C.). The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the respective significant emission rates given in Table 62-212.400-1.

BACT is defined in 40CFR52.21 (b)(12) and Rule 62-210.200(40), F.A.C., as: "An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. In no event shall

application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results."

In addition to BACT, a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for HAP emissions because EPA has not yet promulgated a MACT standard applicable to Nailite. Therefore, the proposed project is subject to Rule 62-204.800(10)(d)2, F.A.C., which requires a MACT determination for all major sources of HAPs to be constructed or reconstructed. MACT requirements apply to all new major sources of HAPs (i.e., greater than 10 TPY of any single HAP, or greater than 25 TPY of total HAPs).

MACT is defined in Rule 62-204.800(10)(d)2., F.A.C., as: "An emissions limitation not less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the permitting authority." MACT reflects the maximum degree of reduction in emissions of HAP that can be achieved by utilizing those control technologies that can be identified from available information, taking into consideration costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.

Nailite is also subject to the Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) for VOC Emitting Facilities. This rule provision applies to existing VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas. In addition, the emission limiting standards of the rules apply to new and modified VOC emission limiting facilities in all designated ozone nonattainment and air quality maintenance areas.

The emission-limiting standard as set forth in Rule 62-296.500 for Nailite provides a limiting standard of 6 pound of VOC per gallon of coating applied. All volatile organic compounds emissions from solvent washings shall be considered in the emission limitations in Rule 62-296.500, F.A.C.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

| | |
|---|---|
| Chapter 62-4 | Permits. |
| Rule 62-204.220 | Ambient Air Quality Protection |
| Rule 62-204.240 | Ambient Air Quality Standards |
| Rule 62-204.800 | Federal Regulations Adopted by Reference (40CFR63 in Particular) |
| Rule 62-210.300 | Permits Required |
| Rule 62-210.350 | Public Notice and Comments |
| Rule 62-210.370 | Reports |
| Rule 62-210.550 | Stack Height Policy |
| Rule 62-210.650 | Circumvention |
| Rule 62-210.700 | Excess Emissions |
| Rule 62-210.900 | Forms and Instructions |
| Rule 62-212.300 | General Preconstruction Review Requirements |
| Rule 62-212.400 | Prevention of Significant Deterioration (including BACT) |
| Rule 62-213 | Operation Permits for Major Sources of Air Pollution |
| Rule 62-296.320 | General Pollutant Emission Limiting Standards |
| Rule 62-297.310 | General Test Requirements |
| Rule 62-297.401 | Compliance Test Methods |

## 7. AIR QUALITY IMPACTS

There are no ambient air quality standards for VOC. The purpose of regulating VOC under the PSD Rules is to control the formation of ozone. The applicant presented the potential VOC emissions increases to the Department, and discussed options available to predict potential impacts associated with the emissions of VOC and subsequent formation of ozone. No stationary point source models are available and approved for use in predicting ozone impacts.

Based on the available information, the Department has determined that the use of a regional model that incorporates the complex chemical mechanisms for predicting ozone formation is not applicable to this project. The contribution of VOC from Nailite to formation of regional ground-level ozone is too small to measure or predict because of the much higher regional emissions of VOC from traffic and $NO_X$ (another ozone precursor). In fact, VOC emissions from the faciltiy will likely decrease as a result of the project.

The PSD ambient monitoring guidelines allow the use of existing data to satisfy preconstruction review requirements. There are three existing ambient ozone-monitoring stations in Dade County. The ozone data from these stations were used to fulfill the monitoring requirement for ozone. Nailite will not cause or contribute in any meaningful way to any future exceedances of the ambient ozone standard in Miami-Dade County.

The nearest Class I area to the site is the Everglades National Park (ENP) which is about 35 km from the site. No significant impacts on soil, vegetation, wildlife, and visibility are expected in the ENP due to this project. In addition, no significant impact on growth near or in the ENP is expected.

A very important purpose of Title III of the Clean Air Act is to reduce risks associated with public exposure to HAPs emitted from industries. The HAPs from this industry are also VOC. Therefore control of VOC will minimize exposure of the public to HAPs from the proposed project. The Department believes that concentrations of both VOC and HAPs will be reduced as a result of this project despite the increase in production capacity.

## 8. CONCLUSION

The proposed BACT/MACT for VOC/HAP emissions from the new line will be the use of a RTO to capture and control these emissions from the new spray booths and curing oven by 85.5 ~~90.3~~ percent (90 ~~5~~ percent capture and. 95 percent destruction). Since the proposed MACT also provides the maximum degree of control of HAP emissions for the new spray line, no other BACT/MACT control technologies were evaluated for cost effectiveness.

Based on information provided by the applicant, supplemented by other information available to the Department, the Department has reasonable assurance that the proposed project will not cause a violation of any air quality standard or PSD increment.

*J. M. Reynolds, Permit Engineer*
*A. A. Linero, P.E. Administrator*
*Cleve Holladay, Meteorologist*

# APPENDIX BD – DRAFT DETERMINATIONS OF BEST AVAILABLE CONTROL TECHNOLOGY (BACT) AND MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)

Nailite International, Inc.

New Plastic Panel Finishing Spray Line/Relocation of Existing Line
Miami-Dade County

DEP File No. 0250407-003-AC (PSD-FL-289)

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

Month Day, 2000

# APPENDIX BD – DRAFT BACT/MACT DETERMINATION

**Nailite International, Inc.**
**New Panel Finishing Spray Line**
**Miami, Dade County**

Nailite International, Inc. proposes to construct a new plastic panel finishing spray line near its existing facility at 1251 NW 165th Street in Miami, Dade County. The address of the proposed site is 1111 NW 165th Street which is approximately 500 feet west of Nailite's existing facility. The new spray line will be housed in a new building that will also contain the existing operation after the new line is up and running.

The proposed project will result in a significant emissions increase of volatile organic compounds (VOC) with respect to Table 212.400-2, Florida Administrative Code (F.A.C.). The project is therefore subject to review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) in accordance with Rule 62-212.400, F.A.C. The project is also subject to a case-by-case Maximum Achievable Control Technology (MACT) Determination in accordance with Rule 62-204.800(10)(d)2, F.A.C. since it will be a major source of hazardous air pollutants (HAP).

The details of PSD applicability and a description of the process are presented in the separate Technical Evaluation and Preliminary Determination issued concurrently with these determinations.

## DATE OF RECEIPT OF APPLICATION:

The application was received on April 17, 2000.

## BACT/MACT DETERMINATION REQUESTED BY THE APPLICANT:

| SOURCE | VOC CONTROL TECHNOLOGY | PROPOSED BACT LIMIT |
|---|---|---|
| Mix Room | Regenerative Thermal Oxidizer | 130.5 TPY Total VOC/HAP |
| Paint Booths | " | |
| Drying Oven | " | |

The Department determined that the applicant's proposed new line and the existing operation are "adjacent" according to the PSD rules and therefore will, once the existing operation is relocated to the new building, comprise a single facility. PSD applies to the proposed project since the VOC emission increases at a major facility will exceed significant levels. This BACT/MACT determination covers the requirements of both the PSD and NESHAP regulations. The applicant requested that the Department's BACT and MACT determinations be the same and as indicated above.

## BACT/MACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic

impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.
-

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

There are no promulgated emission limitations contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources (NSPS) or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAP) that apply to the manufacturing of polypropylene shingles.

The U.S. Environmental Protection Agency (EPA) is currently developing MACT standards for plastic parts coating processes and will propose them in the future. Until a NESHAP is proposed, the Department is required by its rules to develop a case-by-case determination of Maximum Achievable Control Technology (MACT) for new major sources of HAP. In this instance, the MACT determination forms the basis for the minimum level of control required by the BACT determination. The MACT determination procedure is outlined below.

The provisions of 40 CFR 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j), were adopted as Rule 62-204.800(10)(d)2, F.A.C. Section 112(g) requires the case-by-case MACT determination mentioned above. Following is the definition of case-by-case MACT pursuant to Section 112(g) for new sources of hazardous air pollutants:

> *Maximum Achievable Control Technology (MACT) emission limitation for new sources means* "the emission limitation which is not less stringent than the emission limitation achieved by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed source."
>
> *Similar source* means "a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed source such that the source could be controlled using the same control technology."

Per Federal Register Volume 61, Number 250, Pages 68394-95, EPA believes that because the Clean Air Act specifically indicates that *existing source* MACT should be determined from *within* the source category (e.g. Plastic Parts) and does not make this distinction for *new source* MACT, that Congress intends for transfer technologies to be considered when establishing the minimum criteria for new sources. EPA believes that Congress could have explicitly restricted the minimum level of control for new sources, but did not. The use of the term "best controlled source" rather than "best controlled source within the source category" suggests that the intent is to consider transfer technologies when appropriate.

In addition, the regulations state that in making the MACT Determination, the Department should give consideration to:

(a) Any Environmental Protection Agency proposed relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or an adopted presumptive MACT determination for the source category which includes the constructed or reconstructed major source.

(b) Available information as defined in 40 CFR 63.41. *Available information* means, for purposes of identifying control technology options for the affected source, information contained in the following information sources as of the date of the approval of the MACT determination by the permitting authority:

(1) A relevant proposed regulation, including all supporting information;

(2) Background information documents for a draft or proposed regulation;

(3) Data and information available for the Control Technology Center developed pursuant to Section 113 of the Act;

(4) Data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;

(5) Any additional information that can be expeditiously provided by the Administrator; and

(6) For the purpose of determinations by the permitting authority, any additional information considered available by the permitting authority.

**BACT/MACT DETERMINATIONS BY EPA AND STATES:**

The EPA is currently working on a proposed MACT standard for plastic parts coating sources, although the proposed regulations have not been published as of this issuance. Therefore, it is not known what type of add-on control equipment may be required by the time EPA issues new source MACT requirements for the industry pursuant to Section 112(d). This uncertainty does not affect consideration of add-on control equipment under Section 112(g) case-by-case MACT determinations or case-by-case BACT determinations.

The following table lists some of the PSD/BACT installations obtained from the EPA RACT/BACT/LAER Clearinghouse for projects involving coating of plastic parts and materials.

| PROJECT LOCATION | INSTALLATION DATE | TECHNOLOGY | PROCESS TYPE | COMMENTS |
|---|---|---|---|---|
| Evart Products Textron, Inc., MI | 1994 | Thermal Oxidizer | Coating Line, Plastic Parts | Automatic booth w/ 80% recirculation controlling 516 TPY |
| Donnelly Corporation, MI | 1994 | Thermal Oxidizer | Coating Line, Plastic Parts | Automatic booth w/ 90% recirculation controlling 230 TPY |
| I. I. Stanley Co., MI | 1992 | Catalytic Incinerator | Coating Process | Process involves two booths w/ 70% regeneration for the total process |

## OTHER INFORMATION AVAILABLE TO THE DEPARTMENT

In addition to the information submitted by the applicant and that mentioned above, other information available to the Department includes the references at the end of this review and the following:

- Technical literature from control equipment manufacturers.
- Personal communications with control equipment manufacturers, and
- Personal communications with state environmental agencies.

## PROPOSED PROJECT AND EMISSIONS

Nailite is proposing to construct and operate a new panel finishing spray line. Within 90 days from the time the ~~Once the~~ new state-of-the-art spray line is operating, the existing spray line using older technology will be relocated and connected to the proposed control system for the new line.

Three spray booths will be operated in one continuous spray line with a curing oven at the end of the spray line. The spray line is designed to finish approximately 1,400 panels per hour. The panel sizes range from 20 inches by 40 inches to 20 inches by 60 inches. The finish system will be designed with three parallel conveyors, which form a 60-inch flat line conveyor system. The conveyor system will have an adjustable speed ranging from 10 to 30 feet per minute. The components of the finishing spray line include a fluid handling system, an application system, spray booths, an oven and a conveyor.

The proposed coating delivery system for each spray booth consists of a ten-second color change system. Paint will be pumped from 55-gallon drums located in the paint mixing room. Each loop will be equipped with an "air pig" paint loop purge system. This will allow old paint to be returned to a 55-gallon drum for reuse with little paint waste. The air pig is designed to recover 90 percent of the old paint from the circulation loop. The loop system must be flushed when new colors are changed. The fluid management system and spray guns will utilize an advance Secondary Heat Transfer System to provide heat control at the spray gun.

Each of the first two spray booths will be equipped with a Static Heat Stripping HP60 in-line paint heater. The heater is used to control the coating temperature to provide repeatable finishing results regardless of ambient temperature conditions. Maintaining the coating temperature at the spray guns at the viscosity flat line temperature will reduce the solvent usage by approximately 15 percent compared to Nailite's existing operations.

The third spray booth in the spray line will be utilized for shading. This booth will have six different colors supporting the application system. Each color will be pumped directly from 55-gallon drums. Each drum will have a wall mounted pump, requited air controls, a siphon assembly, circulation control valve, a 55 gallon cover with air-powered agitator and cover lift assembly to keep pigmented colors in constant suspension through the loop. The fluid pressure will be regulated all the way to the spray gun and the six circulation loops will be equipped with a secondary heat transfer system to provide constant controlled heat transfer.

Eight spray guns will be used in Spray Booth Nos. 1 and 2. Each spray booth is equipped with a constant speed gun mover with a stroke travel of seven feet. The guns are automatically toed away from the direction of the gun mover travel to allow the atomized velocity of 2 feet per second to work with the gun tip speed of 150 feet per minute. This allows for a higher application transfer efficiency and minimizes the over-spray in the spray booth. Spray Booth No. 3 will be identical to Spray Booth Nos. 1 and 2; however, it will be equipped with HVLP guns.

The proposed spray line will reduce the amount of solvent usage by approximately 29 percent as compared to Nailite's existing spray line. This improved transfer efficiency MR result in a significant reduction in VOC and HAP emissions.

The proposed spray booths are designed with a closed-faced side draft booth with built in air circulation. The only opening in the spray booth will be the conveyor slot which will be 6-ft wide and one foot tall. Air movement within the booth will be maintained at 100 feet per minute. A circulation fan will circulate the air in the spray booth into the exhaust filters at the rear of the spray booth. The filtered air is then repressurized and ducted back to the inlet plenum mounted in front of the spray booth on the roof. The plenum will uniformly reintroduce the circulation air back into the spray booth. This process will maintain a uniform 100 feet per minute airflow without interference from outside airflows.

The spray booths will be 10 ft wide, 16 ft-4 inches deep and 8 ft tall. The working depth of the booths will be 12 ft. Each booth will be equipped with a 9,200 cfm recirculation fan at 1/4 inch static pressure. The VOC buildup in the booths will be maintained under the lower explosive limit (LEL) level by a bleed air duct. The bleed air will be controlled to 1,200 cfm by dampers. The bleed air duct from each booth will be directed to a Regenerative Thermal Oxidizer (RTO) for VOC/HAP destruction.

The controls for the finishing system will be contained in a system controller panel located at each of the three spray booths. Each panel provides remote fluid pressure control to the fluid pressure controls in each spray booth. Spray Booth Nos. 1 and 2 have two remote fluid pressure regulators, while Spray Booth No. 3 has six controls. The guns are interlocked into the system controller. If the spray booth exhaust fan is not operating, the guns will not spray in either automatic or manual modes.

The electric oven will be designed to heat the coated panels with hot air impinged onto the top surfaces of the panels near the oven entrance, in order to begin rapid evaporation of the solvents and create a flow of air to the return duct near the oven exit. The oven will be 45 ft long, 6 ft-10 inches wide, and 3 ft high. A circulation blower will be utilized rated at 8,000 cfm at 2.5 inches w.g. static pressure with a 10 hp motor. The exhaust from the oven will be vented to the RTO.

VOC/HAP emissions consist of toluene and xylene that is evolved during the coating process. As stated above, VOC/HAP emissions will be controlled using a twin bed RTO which will be described in more detail in the following section. The RTO will be designed for a process gas flow rate of 27,000 acfm and 95 percent destruction efficiency. Natural gas ~~Propane~~ will be used at start-up as a secondary fuel, while the captured solvent will be the primary fuel.

VOC/HAP potential emissions from the new finishing spray line are estimated at approximately 130.5 TPY. Approximately 90 percent of the VOC/HAP in the coating will be released in the paint booths, ~~while 10 percent remains in the coating~~. The design capture efficiency of the new spray booths will be approximately 90 ~~95~~ percent. It is therefore assumed that 10 ~~5~~ percent of the VOC/HAPs are emitted into the building as fugitive emissions and/ retained on panels.

Paint filters will be used to control particulate emissions from the spray booth operations. Accordion-type filters with a 95% percent minimum efficiency are proposed for the new finishing spray line project. $PM/PM_{10}$ potential emissions are estimated at 4.7 TPY based on 25 percent over-spray of coating in the booths and 95 percent removal by the paint filter pads. Emissions of $SO_2$, $NO_X$ and CO are projected to be well below 1.0 TPY.

## BACT CONTROL OPTIONS

Regenerative Thermal Oxidation (RTO)

The applicant proposes to install this control option, which exposes the gas stream to high temperatures to oxidize the VOC/HAP to carbon dioxide and water. An auxiliary fuel is used to initially reach the high operating temperatures (1600-1700°F) required. A regenerative thermal incinerator (RTO) typically uses ceramic materials to store a large thermal mass generated by the thermal incinerator and then uses the fuel value of the inlet gas stream to maintain the incineration process.

The oxidizer for this application consists of a reinforced, insulated twin bed chamber filled with ceramic heat exchanger media. The gas flow is automatically controlled by a poppet valve mechanism that changes the direction of the gas flow at regular intervals via an integral programmable logic control system. An external burner is used only for initial cold startup, which would typically be for one hour. With a sufficient concentration of solvents in the incoming process gas, the destruction of VOC/HAP will be self-sustaining and no auxiliary heat is required from the fuel source. Thermal incineration is technically feasible and commercially available.

Catalytic Oxidation (CatOx)

CatOx technology passes the contaminated gas stream over a catalyst bed at a moderate temperature sufficient to oxidize the organic compounds to carbon dioxide and water. An auxiliary fuel is required to elevate the gas stream to the required temperature range. Ideally, once this temperature is reached and the incineration process begins, there would be enough fuel value in the inlet gas stream so that only minor amounts of auxiliary fuel would be required to maintain the operating temperature.

A heat exchanger may be added to preheat the inlet gas stream prior to incineration (recuperative incineration). Likewise, ceramic materials may be included in the design to store a large thermal mass generated by the incinerator in order to make use of the fuel value of the inlet gas stream to maintain the incineration process (regenerative incineration). Both of these methods attempt to reduce the operating costs incurred by the combustion of an auxiliary fuel. Typically, the selection of a catalytic oxidizer depends on the exhaust gas volume and the concentration of the gas stream. At concentrations above 3,000 ppm at 27,000 scfm, which is the design flow for this case, the selection of a catalytic oxidizer may be appropriate.

Activated Carbon Adsorption

The captured gas stream is passed across a bed of activated carbon to adsorb VOC/HAP. Activated carbon is generally used because its internal pore structure provides a very large surface area on which to adsorb the volatile organic compounds. Once the carbon bed becomes saturated with organic compounds, hot air or steam is used to release the VOC for recovery or destruction and regenerate the bed for another cycle. For these systems, when one carbon bed is in operation, another carbon bed is being regenerated. Selection criteria depend on concentration and flow characteristics.

Biofiltration

This relatively new technology has been used successfully to control odors from organic compounds. The VOC/HAP-laden gas stream is collected and passed under an active bed of soil containing microorganisms. As the air rises through the bed, the microorganisms consume the chemicals and convert them to carbon dioxide and water. Economics can be favorable depending on the application.

Chemical Scrubber

Chemical scrubbers are absorption systems designed to dissolve a specific pollutant in a solvent, usually water, but based on the chemistry of the exhaust stream. Exhaust streams that include a variety of chemicals may also require a variety of solvents, adding complexity to the control system and potential disposal costs if recovery is not practical. Typically, a VOC concentration above 200 ppm is necessary to make chemical scrubbing practical.

Condensation

A condensation system includes refrigeration units to cool the exhaust stream and condense out the chemical contaminants. The condensate is collected and either separated for reuse or disposed of as a waste. For highly concentrated gas streams, these systems can be more than 95% efficient. However, the gas stream from this plant would be very dilute and the condensate would have little or no value for reuse. Therefore, a condensation system is not considered a viable option for this project.

## EMERGING BACT TECHNOLOGIES

The Department also identified the following emerging add-on control technologies that are in various stages of development: membrane technology, biofilter systems, ultraviolet oxidation technology, and photocatalytic oxidation. Currently, ultraviolet oxidation technology has been applied successfully in California and elsewhere and is being evaluated as a control option by a Florida boat manufacturer.

## BACT DETERMINATION

The applicant proposed to install the top control technology (RTO) as BACT and did not provide cost effectiveness calculations for the other options. The Department does not necessarily accept that such calculations are not required in general. However the Department agrees that the proposed technology represents Top technology at this time and that it would not be cost-effective to install more restrictive controls.

Cost effectiveness calculations for the RTO are based on the following quotation supplied by Adwest Technologies of Anaheim, California:

| | |
|---|---|
| New Paint Line Capture System | $225,600 |
| RTO Installed Capital Cost | $451,145 |
| Total Capital Cost | $676,745 |
| Annualized Capital Cost | $96,400 (7% @ 10 yrs, TCC x. 0.1424) |
| Annual Operation Cost | $13,230 |
| Total | $109,600 |
| Tons VOC/HAP Removed | 770 tons |
| Cost Effectiveness | $142/ton |

This cost per ton is well within the Department's guidelines for cost-effective add-on controls. Therefore, the RTO proposed by the applicant is selected as the best available control technology for this project. Appropriate short-term BACT emission limits will be established after the tests required by the permit are completed.

## MACT DETERMINATION:

The BACT determination above is adopted as the MACT determination.

## DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

John Reynolds, Permit Engineer
A. A. Linero, P.E. Administrator _____
Bureau of Air Regulation
2600 Blair Stone Road, MS # 5505
Tallahassee, Florida 32399-2400
850/488-0114

Recommended By:

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

Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
**NOTICE OF FINAL PSD PERMIT**

In the Matter of an
Application for Permit by:

Mr. David G. Steedman
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

DEP File No. 0250407-003-AC
Permit No.: PSD-FL-289
Dade County

_____/

Enclosed is the Final PSD Permit (PSD-FL-289) to install a new plastic panel spray line and relocate the existing panel spray line at the above facility located at 1111/1251 NW 165th Street in Miami. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

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

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PSD PERMIT was sent by certified mail* and copies were mailed by U.S. Mail before the close of business on 9/26/00 to the person(s) listed:

David G. Steedman, NII*
Gregg Worley, EPA
Elizabeth Bartlett, EPA
John Bunyak, NPS
Isadore Goldman, SED
Mallika Muthiah, Miami-Dade DERM

Clerk Stamp

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

Charlotte D. Hayes 9/26/00
(Clerk) (Date)

7099 3400 0000 1453 1828

**U.S. Postal Service**
**CERTIFIED MAIL RECEIPT**
*(Domestic Mail Only; No Insurance Coverage Provided)*

Article Sent To: David Steedman

| | |
|---|---|
| Postage | $ |
| Certified Fee | |
| Return Receipt Fee (Endorsement Required) | |
| Restricted Delivery Fee (Endorsement Required) | |
| **Total Postage & Fees** | $ |

Nailite

Postmark Here

Name (Please Print Clearly) (to be completed by mailer): David G. Steedman
Street, Apt. No., or PO Box No.: 1111 NW 165 St.
City, State, ZIP+4: Miami, Fl 33169

PS Form 3800, July 1999 | See Reverse for Instructions

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**SENDER: *COMPLETE THIS SECTION***

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired..
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. David G. Steedman
Nailite International, Inc.
1111 NW 165 St
Miami, FL 33169

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by *(Please Print Clearly)* | B. Date of Delivery: 9/28

C. Signature
X O. Rivera ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7099 3400 0000 1453 1828

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

FINAL DETERMINATION
NAILITE INTERNATIONAL, INC.
New Plastic Panel Finishing Spray Line
And Relocation of Existing Line
Permit No. 0250407-003-AC
PSD-FL-289

An Intent to Issue Air Construction Permit to Nailite International, Inc. for the installation of a new plastic panel spray line and the relocation of the existing line at the applicant's facility located at 1111/1251 N.W. 165th Street, Miami, Dade County, Florida was distributed on August 4, 2000. The proposed permit requires emissions from the new and existing spray lines to be controlled by a regenerative thermal oxidizer.

The Public Notice of Intent to Issue Air Construction Permit was published in the Miami Herald on August 11, 2000. Copies of the draft construction permit and related documents were available for public inspection at the Department's offices in Tallahassee and West Palm Beach and at the Miami-Dade County Department of Environmental Resources Management (DERM) in Miami.

A comment received from DERM stated that the existing spray line should be required to capture 95 percent of the total emissions for destruction as required for the new spray line. The applicant contends that this would require extensive modifications to build an expensive enclosure for the old line that is scheduled to be replaced with a second new line when the technology applied in the current new line proves feasible. The Department considered this issue and decided to require 95 percent capture for the old line if it remains in operation beyond eighteen months following startup at the new building. The old line will be required to vent its emissions to the control device for the new line and comply with emission limits to be established for both lines based on performance test data.

EPA Region IV commented that the use of low-VOC coatings should be evaluated in addition to the Regenerative Thermal Oxidizer for controlling emissions. Reasonable Available Control Technology (RACT) is already required by the Attainment Maintenance Plan for the Tri-County area. Therefore, use of reasonably low-VOC coatings is already the starting point prior to additional control by MACT and BACT.

In view of Nailite's concerns about product quality from using even lower-VOC coatings on their exterior shingle products, and the need for quantitative estimates to address the Department's and DERM's concerns about fugitive VOC emissions, Nailite authorized its coatings supplier to conduct evaporation tests for the coating used. Results of these tests showed low-to-moderate VOC evaporation rates resulting in low fugitive emissions due to the limited time that the shingles will be exposed to non-hooded processing sections.

The final action of the Department will be to issue the permit as discussed above.

# Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

**PERMITTEE**

Nailite International, Inc.
1111 and 1251 N.W. 165th Street
Miami, Florida 33169

Permit No. 0250407-003-AC (PSD-FL-289)
Project: New Panel Spray Line and Relocation of Existing Line
Expires: December 31, 2001
Location: Miami-Dade County

**AUTHORIZED REPRESENTATIVE:**

Mr. David G. Steedman, Vice President of Operations

**PROJECT AND LOCATION**

This permit authorizes the applicant to construct a new plastics panel spray coating line and relocate the existing spray line so that it can be incorporated with the air pollution control system being installed for the new line. Any increased production capacity resulting in utilization of paints and solvents in excess of 300,000 gallons per line per year will require a modification of this permit per Rule 62-4.080 and Chapters 62-210 and 62-212 of the Florida Administrative Code. The SIC code for this facility is 3089.

The project is located at 1111 and 1251 NW 165th Street, Miami, Dade County. The UTM coordinates are Zone 17; 578.4 km E; 2867.2 km N. The Everglades National Park is approximately 35 km west-southwest of the site.

**STATEMENT OF BASIS**

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

**APPENDICES**

The attached appendices are a part of this permit:

| | |
|---|---|
| Appendix BD | BACT/MACT Determination |
| Appendix GC | General Permit Conditions |

Howard L. Rhodes, Director
Division of Air Resources Management

## SECTION I. FACILITY INFORMATION

### FACILITY DESCRIPTION

The existing Nailite facility is located at 1251 NW 165th Street in Miami, Dade County. The proposed new plastic panel spray line (No. 2) will be located at 1111 NW 165th Street, approximately 500 feet from the existing facility. On its existing No.1 Line, Nailite manufactures and coats plastic shingles molded from polypropylene pellets. The No. 1 Line consists of three paint spray booths and eight injection molding machines. The new No. 2 Line will consist of three continuous spray booths and a curing oven. Air pollution controls will consist of a state-of-the-art Regenerative Thermal Oxidizer (RTO) for controlling VOC/HAP emissions. Within 90 days of the start-up of the new line, the existing No. 1 line will be dismantled, moved to the new location, and connected to the RTO. The existing No. 1 line may be operated for up to 18 months at the new location before it must be replaced with a new No. 3 line or brought up to the same capture and emission standards as the No. 2 Line.

Details regarding the project are described in the Technical Evaluation and Preliminary Determination issued August 4, 2000 and the determinations of Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) appended to this permit.

The proposed facility including the relocated No. 1 line will consist of the following emissions units.

| EMISSIONS UNIT NO. | EMISSIONS UNIT DESCRIPTION |
|---|---|
| 001 | No. 1 Line consisting of 3 Paint Spray Booths |
| 002 | Injection Molding Machines |
| 003 | Storage Tanks |
| 004 | No. 2 Line (3 Continuous Spray Booths and a Curing Oven) |
| 005 | No. 3 Line (3 Continuous Spray Booths and a Curing Oven) |

### REGULATORY CLASSIFICATION

The facility, consisting of the above emissions units, is classified as a Major or Title V Source of air pollution because emissions of volatile organic compounds (VOC) exceed 100 tons per year (TPY), and because emissions of one hazardous air pollutant (HAP) exceed 10 tons per year and emissions of total HAP exceed 25 tons per year. This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Since potential emissions are greater than 250 TPY for VOC, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). The emissions units are subject to limits determined as BACT for VOC and are subject to limits determined to be MACT for HAP.

### REVIEWING AND PROCESS SCHEDULE

| | |
|---|---|
| 04-17-00 | Date of Receipt of Application |
| 05-04-00 | First Request for Additional Information |
| 06-16-00 | Final Request for Additional Information |
| 06-22-00 | Date Application Complete |
| 08-11-00 | Notice of Intent Published in Newspaper |

## RELEVANT DOCUMENTS

The documents listed below constitute the basis for the permit and are on file with the Department.

- Permit application
- Applicant's additional information noted above
- Department's Technical Evaluation and Preliminary Determination and Intent to Issue

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Air Division of the Dade County Department of Environmental Resources Management (DERM), Suite 900, 33 Southwest Second Avenue, Miami, Florida 33130-1540 (phone number: 305/372-6925). All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blairstone Road, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).

2. General Conditions: The permittee is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Expiration: This air construction permit shall expire on December 31, 2001. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]

7. PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40CFR52.21(r)(2) and Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

8. BACT Determination: In conjunction with extension of the 18 month period to commence or continue construction or extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source as applied to any new or modified emission units. [40CFR52.21(j)(4) and Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

9. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

10. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for and receive a Title V operation permit prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's appropriate District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

**GENERAL EMISSIONS LIMITING STANDARDS**

11. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

12. Unconfined Emissions of Particulate Matter: [Rules 62-296.320(4)(c) and 62-212.400, F.A.C.]

    (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

    (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.

    (c) Reasonable precautions include the following:

    - Paving and maintenance of roads, parking areas and yards.
    - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
    - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
    - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
    - Landscaping or planting of vegetation.
    - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
    - Confining abrasive blasting where possible.
    - Enclosure or covering of conveyor systems.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

13. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

(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.

(b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. (Not federally enforceable)

[Note: An objectionable odor is defined in Rule 62-210.200(203), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

**OPERATIONAL REQUIREMENTS**

14. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's appropriate district office and the appropriate local program office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

15. 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. [Rule 62-210.650, F.A.C.]

16. Excess Emissions:

For purposes of this permit, all limits established pursuant to the State Implementation Plan, including those limits established as BACT, include emissions during periods of startup and shutdown, and are not subject to the provisions of Rule 62-210.700(1), F.A.C. This provision can not be used to vary any NESHAP requirements from any subpart of 40 CFR 63. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown or malfunction shall be prohibited pursuant to Rule 62-210.700(4), F.A.C. [Rules 62-4.070(3) and 62-210.700(5), F.A.C.]

Excess emissions resulting from malfunction of any emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**COMPLIANCE MONITORING AND TESTING REQUIREMENTS**

17. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if

the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

18. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

19. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

20. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]

21. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]

    (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

    (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

22. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

23. Test Notification: The permittee shall notify the appropriate Department District Office and the appropriate local program at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]

24. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

**REPORTING AND RECORD KEEPING REQUIREMENTS**

25. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b)and 62-213.440(1)(b)2.b., F.A.C.]

26. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]

27. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the appropriate Department District Office and the appropriate local program within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the NESHAP requirements, excess emissions shall also be reported in accordance with 40 CFR 63, Subpart A. [Rule 62-4.130, F.A.C.]

28. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the appropriate Department District Office and the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]

29. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the appropriate Department District Office and the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

The following specific conditions apply to the following emissions units:

| EMISSIONS UNIT NO. | EMISSIONS UNIT DESCRIPTION |
|---|---|
| 001 | No. 1 Spray Coating Line (3 Paint Spray Booths and a Solvent Recovery Still) |
| 002 | Injection Molding Machines and associated Hydraulic Tanks |
| 003 | Storage Tanks |
| 004 | No. 2 Line (3 Continuous Spray Booths and a Curing Oven) |
| 005 | No. 3 Line (3 Continuous Spray Booths and a Curing Oven) |

[Note: This facility is subject to PSD for VOC and MACT for HAP as indicated in the BACT/MACT Determination attached as part of this permit. All emissions units are subject to the requirements of the state rules as indicated in this permit.]

1. This permit supersedes the emission limits and control technology conditions in the existing Title V air operation permit for the existing No. 1 Spray Coating Line effective upon relocation and startup of the existing No. 1 Spray Coating Line in its new location. Emissions Units 001, 002, 003, 004, and 005 upon replacement of 001, may each operate for up to 8,760 hours/year. The facility is required to keep daily records of the operating hours. [Rules 62-210.200, Definitions-Potential to Emit (PTE) and 62-213.440(1)(b)1.b., F.A.C.]

2. The maximum amount of coating applied shall be 300,000 gallons per line per year. Within 90 days following the startup of spray coating on the new No. 2 Spray Coating Line (Emissions Unit 004), the existing No. 1 Spray Coating Line (Emissions Unit 001) shall be appropriately connected to the Regenerative Thermal Oxidizer (RTO) so that its emissions are controlled along with those from Emissions Unit 004. Total hourly and annual emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP) from the RTO shall be established within 45 days of receipt of the emission test results required in Specific Conditions Nos. 3 and 4 below.
[Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-210.200 (PTE), F.A.C., and BACT/MACT]

3. The air pollution control system installed shall consist of a Regenerative Thermal Oxidizer (RTO) as specified in the application and subsequent documents submitted in support thereof. The VOC/HAP capture and treatment system for Emission Unit 004 shall be designed to capture at least 95 percent of the total VOC/HAP spraying emissions calculated from a material balance while destroying at least 95 percent of emissions captured in the RTO. The same requirements, including testing as specified in Specific Condition No. 4 below, shall apply immediately to Emissions Unit 001 if it remains in operation beyond eighteen months at its new location following startup of Emissions Unit 004, and to Emissions Unit 005 if Emissions Unit 001 is replaced. Appropriate emission limits and compliance requirements for the RTO control system shall be established by the Department within 45 days following receipt of the capture and destruction efficiency test results required by Specific Condition 4 below (including a revision if and when Emissions Unit 001 is replaced by Emissions Unit 005) and shall be incorporated into the Title V permit for this facility.
[Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-212.400, F.A.C., and BACT/MACT]

4. Pursuant to the requirements of Specific Condition 3 above, the permittee shall demonstrate the VOC/HAP capture and destruction efficiency of Emissions Units 004 and 005 by comparing raw VOC/HAP emissions generated over a 3-hour period (based on material usage rates and appropriate emission factors) with captured emissions based on measured flow rates and VOC/HAP concentrations in the RTO inlet duct as determined by EPA Methods 2 and 18, 25 or 25A, as described in 40 CFR 60 Appendix A. A capture efficiency and destruction efficiency test shall also be performed for Emissions Unit 001 within 45 days after startup of the relocated line. A destruction efficiency test shall be performed annually on the RTO. Within 45 days following test completion, results of the above tests shall be submitted along with a complete test report to the Bureau of Air Regulation in Tallahassee, the Department's Southeast District and the Miami-Dade County Environmental Resources Management Department.
[Rule 62-4.070(3), 62-204.800(10)(d)2., and 62-212.400, F.A.C., and MACT/BACT]

5. Testing of emissions shall be conducted annually with the emissions units operating at permitted capacity, which is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emissions units may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the emissions unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

6. The permittee shall continuously keep and maintain a five-year ongoing compilation of the following records to demonstrate compliance with the VOC/HAP emissions limitations of Specific Condition No. 2 of this section. Records shall be completed no later than five working days after the end of each month.
   - Amounts in pounds of each material used each month that contains VOC/HAP.
   - Weight percentage of VOC/HAP in materials using the highest value listed on the Manufacturer's Safety Data Sheets.
   - Amount in pounds of VOC/HAP emitted each month from each material used during the month, calculated by multiplying the amount of each material used by its VOC/HAP content and then by the appropriate emission factor.
   - Total amount in pounds of VOC/HAP emitted each month, calculated as the sum of VOC/HAP emitted from each material used during the month as determined above.
   - Rolling 12-month total amount in pounds and tons of VOC/HAP emitted in the most recent consecutive 12-month period, calculated as the sum of VOC/HAP emitted for the current month and the preceding eleven months.
   [Rules 62-4.070(3), 62-204.800(10)(d)2., 62-212.400, F.A.C., MACT/BACT]

7. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C.]

8. The subject emissions units shall be subject to the following:
   - Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to

and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C.]

- Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C.]
- Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. [Rule 62-210.700, F.A.C.]
- In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
  [Rule 62-210.700, F.A.C.]

9. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(5) to the Department's Southeast District Office and the Miami-Dade County Environmental Resources Management Department by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C.]
10. The facility shall adhere to the BACT/MACT Determination that is attached as part of this permit following this page.

# APPENDIX BD - DETERMINATIONS OF

# BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

# AND

# MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)

Nailite International, Inc.

New Plastic Panel Finishing Spray Line/Relocation of Existing Line
Miami-Dade County

DEP File No. 0250407-003-AC (PSD-FL-289)

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

September 20, 2000

**Nailite International, Inc.**
**New Panel Finishing Spray Line**
**Miami, Dade County**

Nailite International, Inc. proposes to construct a new plastic panel finishing spray line near its existing facility at 1251 NW 165th Street in Miami, Dade County. The address of the proposed site is 1111 NW 165th Street which is approximately 500 feet from Nailite's existing facility. The new spray line will be housed in a new building that will also contain the existing operation after the new line is up and running.

The proposed project will result in a significant emissions increase of volatile organic compounds (VOC) with respect to Table 212.400-2, Florida Administrative Code (F.A.C.). The project is therefore subject to review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) in accordance with Rule 62-212.400, F.A.C. The project is also subject to a case-by-case Maximum Achievable Control Technology (MACT) Determination in accordance with Rule 62-204.800(10)(d)2, F.A.C. since it will be a major source of hazardous air pollutants (HAP).

The details of PSD applicability and a description of the process are presented in the separate Technical Evaluation and Preliminary Determination issued concurrently with these determinations.

## DATE OF RECEIPT OF APPLICATION:

The application was received on April 17, 2000.

## BACT/MACT DETERMINATION REQUESTED BY THE APPLICANT:

| SOURCE | VOC CONTROL TECHNOLOGY | PROPOSED BACT LIMIT |
|---|---|---|
| Mix Room | Regenerative Thermal Oxidizer | 130.5 TPY Total VOC/HAP |
| Paint Booths | " | |
| Drying Oven | " | |

The Department determined that the applicant's proposed new line and the existing operation are "adjacent" according to the PSD rules and therefore will comprise a single facility. PSD applies to the proposed project since the VOC emission increases at a major facility will exceed significant levels. This BACT/MACT determination covers the requirements of both the PSD and NESHAP regulations. The applicant requested that the Department's BACT and MACT determinations be the same and as indicated above.

## BACT/MACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and

available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

There are no promulgated emission limitations contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources (NSPS) or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAP) that apply to the manufacturing of polypropylene shingles.

The U.S. Environmental Protection Agency (EPA) is currently developing MACT standards for plastic parts coating processes and will propose them in the future. Until a NESHAP is proposed, the Department is required by its rules to develop a case-by-case determination of Maximum Achievable Control Technology (MACT) for new major sources of HAP. In this instance, the MACT determination forms the basis for the minimum level of control required by the BACT determination. The MACT determination procedure is outlined below.

The provisions of 40 CFR 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j), were adopted as Rule 62-204.800(10)(d)2, F.A.C. Section 112(g) requires the case-by-case MACT determination mentioned above. Following is the definition of case-by-case MACT pursuant to Section 112(g) for new sources of hazardous air pollutants:

> *Maximum Achievable Control Technology (MACT) emission limitation for new sources means* "the emission limitation which is not less stringent than the emission limitation achieved by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed source."
>
> *Similar source* means "a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed source such that the source could be controlled using the same control technology."

Per Federal Register Volume 61, Number 250, Pages 68394-95, EPA believes that because the Clean Air Act specifically indicates that *existing source* MACT should be determined from *within* the source category (e.g. Plastic Parts) and does not make this distinction for *new source* MACT, that Congress intends for transfer technologies to be considered when establishing the minimum criteria for new sources. EPA believes that Congress could have explicitly restricted the minimum level of control for new sources, but did not. The use of the term "best controlled source" rather than "best controlled source within the source category" suggests that the intent is to consider transfer technologies when appropriate.

In addition, the regulations state that in making the MACT Determination, the Department should give consideration to:

(a) Any Environmental Protection Agency proposed relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or an adopted presumptive MACT determination for the source category which includes the constructed or reconstructed major source.

(b) Available information as defined in 40 CFR 63.41. *Available information* means, for purposes of identifying control technology options for the affected source, information contained in the following information sources as of the date of the approval of the MACT determination by the permitting authority:

(1) A relevant proposed regulation, including all supporting information;

(2) Background information documents for a draft or proposed regulation;

(3) Data and information available for the Control Technology Center developed pursuant to Section 113 of the Act;

(4) Data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;

(5) Any additional information that can be expeditiously provided by the Administrator; and

(6) For the purpose of determinations by the permitting authority, any additional information considered available by the permitting authority.

**BACT/MACT DETERMINATIONS BY EPA AND STATES:**

The EPA is currently working on a proposed MACT standard for plastic parts coating sources, although the proposed regulations have not been published as of this issuance. Therefore, it is not known what type of add-on control equipment may be required by the time EPA issues new source MACT requirements for the industry pursuant to Section 112(d). This uncertainty does not affect consideration of add-on control equipment under Section 112(g) case-by-case MACT determinations or case-by-case BACT determinations.

The following table lists some of the PSD/BACT installations obtained from the EPA RACT/BACT/LAER Clearinghouse for projects involving coating of plastic parts and materials.

| PROJECT LOCATION | INSTALLATION DATE | TECHNOLOGY | PROCESS TYPE | COMMENTS |
|---|---|---|---|---|
| Evart Products Textron, Inc., MI | 1994 | Thermal Oxidizer | Coating Line, Plastic Parts | Automatic booth w/ 80% recirculation controlling 516 TPY |
| Donnelly Corporation, MI | 1994 | Thermal Oxidizer | Coating Line, Plastic Parts | Automatic booth w/ 90% recirculation controlling 230 TPY |
| I. I. Stanley Co., MI | 1992 | Catalytic Incinerator | Coating Process | Process involves two booths w/ 70% regeneration for the total process |

## OTHER INFORMATION AVAILABLE TO THE DEPARTMENT

In addition to the information submitted by the applicant and that mentioned above, other information available to the Department includes the references at the end of this review and the following:

- Technical literature from control equipment manufacturers
- Personal communications with control equipment manufacturers
- Personal communications with state environmental agencies

## PROPOSED PROJECT AND EMISSIONS

Nailite is proposing to construct and operate a new panel finishing spray line. Once the new state-of-the-art spray line is operating, the existing spray line using older technology will be relocated and connected to the proposed control system for the new line.

Three spray booths will be operated in one continuous spray line with a curing oven at the end of the spray line. The spray line is designed to finish approximately 1,400 panels per hour. The panel sizes range from 20 inches by 40 inches to 20 inches by 60 inches. The finish system will be designed with three parallel conveyors, which form a 60-inch flat line conveyor system. The conveyor system will have an adjustable speed ranging from 10 to 30 feet per minute. The components of the finishing spray line include a fluid handling system, an application system, spray booths, an oven and a conveyor.

The proposed coating delivery system for each spray booth consists of a ten-second color change system. Paint will be pumped from 55-gallon drums located in the paint mixing room. Each loop will be equipped with an "air pig" paint loop purge system. This will allow old paint to be returned to a 55-gallon drum for reuse with little paint waste. The air pig is designed to recover 90 percent of the old paint from the circulation loop. The loop system must be flushed when new colors are changed. The fluid management system and spray guns will utilize an advance Secondary Heat Transfer System to provide heat control at the spray gun.

Each of the first two spray booths will be equipped with a Static Heat Stripping HP60 in-line paint heater. The heater is used to control the coating temperature to provide repeatable finishing results regardless of ambient temperature conditions. Maintaining the coating temperature at the spray guns at the viscosity flat line temperature will reduce the solvent usage by approximately 15 percent compared to Nailite's existing operations.

The third spray booth in the spray line will be utilized for shading. This booth will have six different colors supporting the application system. Each color will be pumped directly from 55-gallon drums. Each drum will have a wall mounted pump, required air controls, a siphon assembly, circulation control valve, a 55 gallon cover with air-powered agitator and cover lift assembly to keep pigmented colors in constant suspension through the loop. The fluid pressure will be regulated all the way to the spray gun and the six circulation loops will be equipped with a secondary heat transfer system to provide constant controlled heat transfer.

Eight spray guns will be used in Spray Booth Nos. 1 and 2. Each spray booth is equipped with a constant speed gun mover with a stroke travel of seven feet. The guns are automatically toed away from the direction of the gun mover travel to allow the atomized velocity of 2 feet per second to work with the gun tip speed of 150 feet per minute. This allows for a higher application transfer efficiency and minimizes the over-spray in the spray booth. Spray Booth No. 3 will be identical to Spray Booth Nos. 1 and 2; however, it will be equipped with HVLP guns.

The proposed spray line will reduce the amount of solvent usage by approximately 29 percent as compared to Nailite's existing spray line. This improved transfer efficiency MR result in a significant reduction in VOC and HAP emissions.

The proposed spray booths are designed with a partially closed-faced side draft booth with built in air circulation. Air movement within the booth will be maintained at 100 feet per minute. A circulation fan will circulate the air in the spray booth into the exhaust filters at the rear of the spray booth. The filtered air is then repressurized and ducted back to the inlet plenum mounted in front of the spray booth on the roof. The plenum will uniformly reintroduce the circulation air back into the spray booth. This process will maintain a uniform 100 feet per minute airflow without interference from outside airflows.

The spray booths will be 10 ft wide, 16 ft-4 inches deep and 8 ft tall. The working depth of the booths will be 12 ft. Each booth will be equipped with a 9,200 cfm recirculation fan at 1/4 inch static pressure. The VOC buildup in the booths will be maintained under the lower explosive limit (LEL) level by a bleed air duct. The bleed air will be controlled to 1,200 cfm by dampers. The bleed air duct from each booth will be directed to a Regenerative Thermal Oxidizer (RTO) for VOC/HAP destruction.

The controls for the finishing system will be contained in a system controller panel located at each of the three spray booths. Each panel provides remote fluid pressure control to the fluid pressure controls in each spray booth. Spray Booth Nos. 1 and 2 have two remote fluid pressure regulators, while Spray Booth No. 3 has six controls. The guns are interlocked into the system controller. If the spray booth exhaust fan is not operating, the guns will not spray in either automatic or manual modes.

The electric oven will be designed to heat the coated panels with hot air impinged onto the top surfaces of the panels near the oven entrance, in order to begin rapid evaporation of the solvents and create a flow of air to the return duct near the oven exit. The oven will be 45 ft long, 6 ft-10 inches wide, and 3 ft high. A circulation blower will be utilized rated at 8,000 cfm at 2.5 inches w.g. static pressure with a 10 hp motor. The exhaust from the oven will be vented to the RTO.

VOC/HAP emissions consist of toluene and xylene that is evolved during the coating process. As stated above, VOC/HAP emissions will be controlled using a twin bed RTO which will be described in more detail in the following section. The RTO will be designed for a process gas flow rate of 27,000 acfm and 95 percent destruction efficiency. Natural gas will be used at start-up as a secondary fuel, while the captured solvent will be the primary fuel.

Uncontrolled VOC/HAP emissions from the new line are estimated at 900 TPY. Emissions from the RTO for the new line are estimated at approximately 42.8 TPY. The design capture efficiency of the spray booths will be approximately 95 percent. It is assumed that 45 TPY (5 percent of the VOC/HAPs) are emitted into the building as fugitive emissions yielding a total of 87.8 TPY.

Paint filters will be used to control particulate emissions from the spray booth operations. Accordion-type filters with a 95% percent minimum efficiency are proposed for the project. $PM/PM_{10}$ potential emissions are estimated at 4.7 TPY based on 25 percent over-spray of coating in the booths and 95 percent removal by the paint filter pads. Emissions of $SO_2$, $NO_X$ and CO are projected to be well below 1.0 TPY.

## BACT CONTROL OPTIONS

Regenerative Thermal Oxidation (RTO)

The applicant proposes to install this control option, which exposes the gas stream to high temperatures to oxidize the VOC/HAP to carbon dioxide and water. An auxiliary fuel is used to initially reach the high operating temperatures (1600-1700°F) required. A regenerative thermal incinerator (RTO) typically uses ceramic materials to store a large thermal mass generated by the thermal incinerator and then uses the fuel value of the inlet gas stream to maintain the incineration process.

The oxidizer for this application consists of a reinforced, insulated twin bed chamber filled with ceramic heat exchanger media. The gas flow is automatically controlled by a poppet valve mechanism that changes the direction of the gas flow at regular intervals via an integral programmable logic control system. An external burner is used only for initial cold startup, which would typically be for one hour. With a sufficient concentration of solvents in the incoming process gas, the destruction of VOC/HAP will be self-sustaining and no auxiliary heat is required from the fuel source. Thermal incineration is technically feasible and commercially available.

Catalytic Oxidation (CatOx)

CatOx technology passes the contaminated gas stream over a catalyst bed at a moderate temperature sufficient to oxidize the organic compounds to carbon dioxide and water. An auxiliary fuel is required to elevate the gas stream to the required temperature range. Ideally, once this temperature is reached and the incineration process begins, there would be enough fuel value in the inlet gas stream so that only minor amounts of auxiliary fuel would be required to maintain the operating temperature.

A heat exchanger may be added to preheat the inlet gas stream prior to incineration (recuperative incineration). Likewise, ceramic materials may be included in the design to store a large thermal mass generated by the incinerator in order to make use of the fuel value of the inlet gas stream to maintain the incineration process (regenerative incineration). Both of these methods attempt to reduce the operating costs incurred by the combustion of an auxiliary fuel. Typically, the selection of a catalytic oxidizer depends on the exhaust gas volume and the concentration of the gas stream. At concentrations above 3,000 ppm at 27,000 scfm, which is the design flow for this case, the selection of a catalytic oxidizer may be appropriate.

Activated Carbon Adsorption

The captured gas stream is passed across a bed of activated carbon to adsorb VOC/HAP. Activated carbon is generally used because its internal pore structure provides a very large surface area on which to adsorb the volatile organic compounds. Once the carbon bed becomes saturated with organic compounds, hot air or steam is used to release the VOC for recovery or destruction and regenerate the bed for another cycle. For these systems, when one carbon bed is in operation, another carbon bed is being regenerated. Selection criteria depend on concentration and flow characteristics.

Biofiltration

This relatively new technology has been used successfully to control odors from organic compounds. The VOC/HAP-laden gas stream is collected and passed under an active bed of soil containing microorganisms. As the air rises through the bed, the microorganisms consume the chemicals and convert them to carbon dioxide and water. Economics can be favorable depending on the application.

Chemical Scrubber

Chemical scrubbers are absorption systems designed to dissolve a specific pollutant in a solvent, usually water, but based on the chemistry of the exhaust stream. Exhaust streams that include a variety of chemicals may also require a variety of solvents, adding complexity to the control system and potential disposal costs if recovery is not practical. Typically, a VOC concentration above 200 ppm is necessary to make chemical scrubbing practical.

Condensation

A condensation system includes refrigeration units to cool the exhaust stream and condense out the chemical contaminants. The condensate is collected and either separated for reuse or disposed of as a waste. For highly concentrated gas streams, these systems can be more than 95% efficient. However, the gas stream from this plant would be very dilute and the condensate would have little or no value for reuse. Therefore, a condensation system is not considered a viable option for this project.

## EMERGING BACT TECHNOLOGIES

The Department also identified the following emerging add-on control technologies that are in various stages of development: membrane technology, biofilter systems, ultraviolet oxidation technology, and photocatalytic oxidation. Currently, ultraviolet oxidation technology has been applied successfully in California and elsewhere and is being evaluated as a control option by a Florida boat manufacturer.

## BACT DETERMINATION

The applicant proposed to install the top control technology (RTO) as BACT and did not provide cost effectiveness calculations for the other options. The Department does not necessarily accept that such calculations are not required in general. However the Department agrees that the proposed technology represents the top technology at this time and that it would not be cost-effective to install more restrictive controls.

Cost effectiveness calculations for the RTO are based on the following quotation supplied by Adwest Technologies of Anaheim, California:

| | |
|---|---|
| New Paint Line Capture System | $225,600 |
| RTO Installed Capital Cost | $451,145 |
| Total Capital Cost | $676,745 |
| Annualized Capital Cost | $96,400 (7% @ 10 yrs, TCC x. 0.1424) |
| Annual Operation Cost | $13,230 |
| Total | $109,600 |
| Tons VOC/HAP Removed | 770 tons |
| Cost Effectiveness | $142/ton |

This cost per ton is well within the Department's guidelines for cost-effective add-on controls. Therefore, the RTO proposed by the applicant is selected as the best available control technology for this project. Appropriate short-term BACT emission limits will be established after the tests required by the permit are completed.

## MACT DETERMINATION:

The BACT determination above is adopted as the MACT determination.

## DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

John Reynolds, Permit Engineer
A. A. Linero, P.E. Administrator 9/20
Bureau of Air Regulation
2600 Blair Stone Road, MS # 5505
Tallahassee, Florida 32399-2400
850/488-0114

Recommended By:

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

9/21/00
Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

9/22/00
Date:

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

G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver 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.

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

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

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

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

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.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.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology (X);
(b) Determination of Case-by-Case Maximum Achievable Control Technology (X)
(c) Determination of Prevention of Significant Deterioration (X); and
(d) Compliance with New Source Performance Standards ( ).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

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

**Memorandum**

Florida Department of
Environmental Protection

BAR

TO: Howard L. Rhodes

THROUGH: Clair Fancy
Al Linero 9/20

FROM: John Reynolds

DATE: September 20, 2000

SUBJECT: Approval of PSD Permit – New Panel Spray Line and Relocation of Existing Line
Construction Permit No. 0250407-003-AC (PSD-FL-289)
Nailite International, Inc.

Approval is requested for the attached FINAL PSD PERMIT that provides for the installation of a new plastic panel spray line controlled by a Regenerative Thermal Oxidizer (RTO) and the relocation of the existing line with hookup to the RTO for the new line. Comments were received from the applicant, Dade County and the EPA. The main issue of concern was the capture efficiency requirements for the old line. This issue was resolved by requiring the old line to be replaced with a new unit or meet a 95 percent capture efficiency equivalent to a new line if it remains in operation beyond eighteen months following relocation to the new building.

It is recommended that the permit be issued at this time.

Attachments

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



Golder Associates

September 15, 2000 0037523

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC (PSD-FL-289)

Dear Mr. Linero:

Golder on behalf of Nailite International, Inc. has reviewed DEP's counter offer letter dated September 13, 2000 for the above referenced facility. Nialite finds the conditions of the counter offer acceptable. It should be noted that in Condition No. 2, the second sentence should be verified. It is our opinion that the 18 months is a typographical error and it should be 90 days.

We appreciate all the efforts undertaken by DEP and DERM to clarify the permit conditions and look forward to receiving the air construction permit. In the meantime, if you have any questions concerning this letter, please feel free to contact me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

REGISTERED PROFESSIONAL ENGINEER NO. 35042 STATE OF FLORIDA

Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw

cc: David Steedman, Nailite
David Buff, Golder
M. Nuthiah, DERM
\\GATORBAIT\DP\Projects\2000\0037\037523A\11\#11ltr.doc
J. Goldman, SED
M. Nebuleich, OGC
EPA
NPS

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



September 12, 2000

0037523

Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC.-NEW PANEL FINISHING LINE
DEP FILE NO. 0250407-003AC (PSD-FL-289)

Dear: Mr. Linero

Please find attached a version of the specific conditions to the above-referenced permit, which has been revised to include the terms discussed during yesterday's conference. For the ease of review, a copy of the same language is included with track changes against the language contained in John Reynolds' electronic mail of last Wednesday (additions in red/deletions in blue). We have worked to limit revisions, and believe that the changes are not only consistent with Mr. Reynolds' e-mail but also accurately reflect the consensus reached during our discussions with the Department and DERM. Hopefully, the Department agrees and Nailite can move forward with this project.

Please let us know as soon as possible if the attached language is acceptable to the Department so that we can discuss incorporation of the specific conditions into the final permit and accompanying documents, and Nailite can withdraw its pending request for an extension of time related to administrative proceedings.

Once again, Nailite appreciates the Department's consideration of this matter and please do not hesitate to call if you have any questions."

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Associate

BS/jkw

cc: David Steedman, Nailite International, Inc.
J. Reynolds, FDEP
M. Muthiah, DERM

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SED
EPA
NPS

The following specific conditions apply to the following emissions units:

| Emission Unit No. | Emissions Unit Description |
|---|---|
| 001 | No. 1 Spray Coating Line (3 Paint Spray Booths and a Solvent Recovery Still) |
| 002 | Injection Molding Machines and associated Hydraulic Tanks |
| 003 | Storage Tanks |
| 004 | No. 2 Line (3 Continuous Spray Booths and a Curing Oven) |
| 005 | No. 3 Line (3 Continuous Spray Booths and a Curing Oven) |

[Note: This facility is subject to PSD for VOC and MACT for HAP as indicated in the BACT/MACT Determination attached as part of this permit. All emissions units are subject to the requirements of the state rules as indicated in this permit.]

1. This permit supersedes the existing air operation permit for the existing No. 1 Spray Coating Line effective upon relocation and startup of the existing No. 1 Spray Coating Line in its new location. Emissions Units 001~~,~~ (and 005 upon the replacement of 001), 002, 003 and 004 may each operate for up to 8,760 hours/year. The facility is required to keep daily records of the operating hours. [Rules 62-210.200, Definitions-Potential to Emit (PTE) and 62-213.440(1)(b)1.b., F.A.C.]

2. The maximum amount of coating applied shall be 300,000 gallons per line per year. Within 90 days following the startup of spray coating on the new No. 2 Spray Coating Line (Emissions Unit 004), the existing No. 1 Spray Coating Line (Emissions Unit 001) shall be appropriately connected to the Regenerative Thermal Oxidizer (RTO) so that its emissions are controlled along with those from Emissions Unit 004. Total hourly and annual emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAPs) from the RTO shall be established within 45 days of receipt of the emission test results required in Specific Conditions Nos. 3 and 4 below. [Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-210.200 (PTE), F.A.C., and BACT/MACT]

3. The air pollution control system installed shall consist of a Regenerative Thermal Oxidizer (RTO) as specified in the application and subsequent documents submitted in support thereof. The VOC/HAP capture and treatment system for Emission Unit 004 shall be designed to capture at least 95 percent of the total VOC/HAP emissions generated from the panel spraying ~~operation~~ booths while destroying at least 95 percent VOC/HAP in the RTO (90.3 percent overall capture and destruction in the booths and the RTO). The same requirements, including testing as specified in Specific Condition No. 4 below, shall apply to Emission Unit 00~~4~~5 when installed pursuant to this permit as specified in Specific Conditions No. 4 below~~if it remains in operation beyond one year at its new location~~. Appropriate emission limits and compliance requirements for the RTO control system shall be established by the Department within 45 days following receipt of the capture and destruction efficiency test results required by Specific Condition 45 below, shall be set at a sufficient percentage above the average of representative runs to provide the permittee with an adequate and reasonable margin for compliance, and shall be incorporated into the Title V permit for this facility. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

4. Within 18 months of the relocation and startup of the existing No. 1 Spray Coating Line in its new location, the permittee shall either upgrade the same to capture at least 95 percent of the total VOC/HAP emissions generated in the panel spraying booths or replace the same with Emission Unit 005, which shall consist of three (3) new continuous spray booths and a curing oven of the same or similar performance limits as those of Emission Unit 004. After Unit 005 is connected to the RTO,

emission limits and compliance requirements for the RTO control system shall be reestablished in accordance with specific condition 3 above.

~~4.~~5. Pursuant to the requirements of Specific Condition 3 above, the permittee shall demonstrate the VOC/HAP capture and destruction efficiency of Emissions Unit 004 (and of Emissions Unit 005 after startup of that unit pursuant to Specific Condition 4 above) by comparing raw VOC/HAP emissions generated over a 3-hour period (based on material usage rates and appropriate emission factors) with captured emissions based on measured flow rates and VOC/HAP concentrations in the RTO inlet duct as determined by EPA Methods 2 and 18, 25 or 25A, as described in 40 CFR 60 Appendix A. A ~~capture efficiency and~~ destruction efficiency test shall also be performed for Emissions Unit 001 within 45 days after startup of the relocated line. A destruction efficiency test shall be performed annually on the RTO. Within 45 days following test completion, results of the above tests shall be submitted along with a complete test report to the Bureau of Air Regulation in Tallahassee, the Department's Southeast District and the Miami-Dade County Environmental Resources Management Department. [Rule 62-4.070(3) and 62-212.400, F.A.C., and BACT].

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 8 2000



4 APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Prevention of Significant Deterioration (PSD) Preliminary Determination for Nailite International, Inc. located in Miami (Dade County), Florida
PSD-FL-289

Dear Mr. Linero:

Thank you for submitting the above referenced PSD preliminary determination (dated August 4, 2000) to the U.S. Environmental Protection Agency (EPA) for comments. The proposed project involves the construction of a panel finishing spray line which will operate in conjunction with existing operations located in Miami. The new line consisting of three spray booths and a curing oven will have the capacity to process 1,400 polypropylene "shingles" per hour. The total emissions increase of volatile organic compounds (VOC) from the proposed project is above the significance threshold requiring PSD review.

Based on a review of the preliminary determination, EPA has the following comment. Although RTO appears to be the most effective add-on control for both toluene and VOC, the applicant should have addressed the feasibility of other potential control options such as the use of low-VOC materials. When used in conjunction with the RTO technology, this particular control option would undoubtedly result in further reduced emissions of both toluene and VOC. Even in the event that such an option were determined to be "technically infeasible" (e.g., the use of low-VOC materials would compromise the quality of the product), the preliminary determination still needs to identify the option and discuss why it was not selected as BACT.

Thank you for the opportunity to comment on the Nailite International preliminary determination. If you have any questions regarding the above comment, please direct them to either Art Hofmeister at (404) 562-9115 or Jim Little at (404) 562-9118.

Sincerely,

Douglas Neeley

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

cc: J. Reynolds
O. Stiedman, Nailite International
M. Mathial, DERM
SED
NPS

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 08-Sep-2000 01:41pm
**From:** Susi, Benny
BSusi@GOLDER.com
**Dept:**
**Tel No:**

| | | |
|---|---|---|
| **To:** | John Reynolds TAL 850/921-9536 | ( John.Reynolds@dep.state.fl.us ) |
| **To:** | MuthiM | ( MuthiM@co.miami-dade.fl.us ) |
| **To:** | Alvaro Linero TAL | ( Alvaro.Linero@dep.state.fl.us ) |
| **To:** | Cindy Phillips TAL | ( Cindy.Phillips@dep.state.fl.us ) |
| **CC:** | David Steedman (E-mail) | ( dsteedman@nailite.com ) |

**Subject:** Re: Confirmation of Participation in Nailite Teleconference

I have rescheduled a conference call for Monday 10:30 am. The number to call is 816-650-0766
Chairperson: Benny Susi 816-650-0766

-----Original Message-----
From: John Reynolds TAL 850/921-9536
[mailto:John.Reynolds@dep.state.fl.us]
Sent: Wednesday, September 06, 2000 12:47 PM
To: MuthiM@co.miami-dade.fl.us; BSusi@GOLDER.com; Alvaro Linero TAL;
Cindy Phillips TAL
Subject: Confirmation of Participation in Nailite Teleconference
Sensitivity: Confidential

Benny has scheduled the Nailite teleconference for tomorrow (Thursday) at 1:00
p.m. The call-in number is 816-650-0772. When calling in, state that Benny Susi
is the Chairperson. Please confirm your availability via e-mail reply.
Thanks.
JR.

EPA United States of America Environmental Protection Agency

# A FAX FROM Region 4

| TO: | FAX NO: |
|---|---|
| Al Linero - FDEP | (850) 922-6979 |

SUBJECT: Nailite

| FROM: | PHONE NO: |
|---|---|
| Jim Little / Art Hofmeister | (404) 562-9118 / 9175 |
| OFFICE: APTMD | FAX NO. FOR: (404) 562-9095 |

COMMENTS:

Original being sent by ~~E~~ mail

| DATE | NO. OF PAGES |
|---|---|
| 9/8/00 | 3 (including cover sheet) |

EPA FAX FORM (E-Forms 4.3)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 8 2000

4 APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Prevention of Significant Deterioration (PSD) Preliminary Determination for Nailite International, Inc. located in Miami (Dade County), Florida
PSD-FL-289

Dear Mr. Linero:

Thank you for submitting the above referenced PSD preliminary determination (dated August 4, 2000) to the U.S. Environmental Protection Agency (EPA) for comments. The proposed project involves the construction of a panel finishing spray line which will operate in conjunction with existing operations located in Miami. The new line consisting of three spray booths and a curing oven will have the capacity to process 1,400 polypropylene "shingles" per hour. The total emissions increase of volatile organic compounds (VOC) from the proposed project is above the significance threshold requiring PSD review.

Based on a review of the preliminary determination, EPA has the following comment. Although RTO appears to be the most effective add-on control for both toluene and VOC, the applicant should have addressed the feasibility of other potential control options such as the use of low-VOC materials. When used in conjunction with the RTO technology, this particular control option would undoubtedly result in further reduced emissions of both toluene and VOC. Even in the event that such an option were determined to be "technically infeasible" (e.g., the use of low-VOC materials would compromise the quality of the product), the preliminary determination still needs to identify the option and discuss why it was not selected as BACT.

Thank you for the opportunity to comment on the Nailite International preliminary determination. If you have any questions regarding the above comment, please direct them to either Art Hofmeister at (404) 562-9115 or Jim Little at (404) 562-9118.

Sincerely,

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

RECEIVED
SEP 06 2000
BUREAU OF AIR REGULATION

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

ERM

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954

August 28, 2000

Department of Environmental Protection
Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Fl 32399-2400
Attention: John Reynolds

RE: Comments on Draft Air Construction Permit (PSD) DEP File No. 025407-003-AC (PSD-FL-289)

Dear Mr. Reynolds:

DERM's Air Facilities Section received the draft air construction permit (PSD permit) to construct a new panel spray coating line and relocate the existing spray line so that it can be incorporated with the air pollution control system being installed for the new line. The following are our comments for your consideration regarding the draft permit:

1. Within the Technical Evaluation on page #5, it's stated that in the proposed new line the spray booths are designed with a closed faced side draft booth. An inspection of this facility conducted by DERM revealed that they have a partially closed-face draft booth, not a completely closed one.

   In addition, this Technical Evaluation states that "The only opening in the spray booth will be the conveyor slot which will be 6 feet wide and 1 foot tall." The DERM inspection further revealed that the booths have 4 bottom openings and each opening is approximately 3 - 4 feet high.

2. Page #2 of the PSD permit states within the emissions unit description that the EU#3 consists of 3 continuous spray booths and a curing oven, but on page # 8 the same table failed to mention the curing oven.

3. Page # 2 states that the new plastic panel facility will be located 500 feet west of the existing facility. Actually, the new facility location is EAST of the existing facility.

4. Page #8, item #3 mentions a 95% capture and destruction efficiency for the EU #3 (the new unit), but did not mention or provide a percentage (%) in terms of capture and destruction efficiency for EU #1 (the unit that will be relocated).

We understand that the existing spray line in the current location will not meet the 95% capture efficiency as such, and it does not have any control equipment to reduce emissions. It remains DERM's position that, since the facility is expanding its operations, increasing productivity and relocating the current operation, **that these modifications to the facility warrant the facility's overall compliance with the MACT standards.** We indicated our recommendations in my previous letters dated May 25th and June 16th of this year as follows:

> *The Miami-Dade County DERM believes that both the existing and the new operations should be considered comprehensively in reviewing the construction application, and arriving at a BACT/MACT determination. The correct approach would be to perform a case-by-case MACT determination for the entire facility.*
>
> *Nailite must commit to consolidate and connect the existing operation (AV 0250407) to the Thermal Oxidizer by a specific date acceptable to the regulatory agency. The consolidated operation must meet the required minimum capture efficiency of 95%.*

We have discussed this before with the facility representative and FDEP staff, and our position still remains the same in this regard. We would like to reemphasize our recommendation that both the new and the relocated spray lines must meet the 95% capture and destruction efficiency. In addition, proper language should be added to require testing of the spray lines to verify the capture efficiency.

As per our discussion, if the facility needs more time to bring the existing line into compliance with the 95% capture and destruction efficiency, it is fine with us if you grant a one-year time extension from start-up to bring the existing line into compliance. If they fail to comply with the capture and destruction efficiency requirements by the allotted time, the facility should shut down the existing line once the new line is fully operational and meets their manufacturing needs.

If you have any questions regarding this memo, please contact me at (305) 372-6925.

Sincerely,

Mallika Muthiah

Mallika Muthiah. P.E., Chief,
Air Facilities Section
Miami-Dade County D.E.R.M.

Enc. Inspection report
cc: J. Reynolds
D. Buff, Golder
D. Stillmore, Nailite
SED
NPS
EPA

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

September 1, 2000

RECEIVED 0037523

SEP 05 2000

BUREAU OF AIR REGULATION

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. NEW PANEL FINISHING SPRAY LINE DEP
DEP FILE NO. 0250407-003-AC (PSD-FL-289)

Dear Mr. Linero:

Golder is in receipt of the Department's draft air construction permit (PSD permit) concerning the construction by Nailite of a new panel spray coating line to be located at 1251 N.W. 165th Street, Miami, Florida. The draft permit also imposes certain conditions with respect to Nailite's existing, Title V permitted, paint line which will be relocated to the new facility after the new line is in operation. Golder has discussed the draft permit for the above referenced facility with John Reynolds of DEP and Mallika Muthiah of Miami-Dade County DERM in order to review certain aspects of the draft permit about which Nailite is unclear and to discuss the possibility of some relatively minor rewording prior to finalization to avoid uncertainty and to insure that all aspects of the permit documents are consistent. In order to accommodate these discussions and hopefully resolve these issues without the formal requirement of an administrative hearing, Golder, after obtaining assurances from DEP staff that an extension would not present a problem, filed a request with Ms. Teri Donaldson of DEP for a 60 day extension of time in which to file for an administrative (a copy of this August 21, 2000 request is attached hereto). Nailite appreciates the extent to which DEP has worked with us in getting to this stage of the permitting process. The purpose of this letter is to present our comments and some draft language to assist the DEP with understanding a few of Nailite's concerns with the draft permit, as currently worded. Hopefully the matters discussed herein can serve as an outline for a possible meeting to discuss how best to resolve these issues. We have also attached hereto copies of the permit documents which contain Nailite's requested revisions, as redlined text. As a review will show, these requested changes, which are minor in nature, are designed to clarify certain issues and keep the documents consistent with one another. The requested revisions do not significantly change the terms of the permit and are consistent with the permit application and filings with the DEP to date.

By way of background, for many years Nailite has been manufacturing plastic shingles used in the construction industry out of a plant located at 1251 N.W. 165th Street, Miami, Florida. Nailite provides jobs for many employees in the Miami-Dade County area and has done its share to support the community over the years. Due to the surge in construction across the nation over

the last decade, Nailite has outgrown its existing facility and is relocating to a new manufacturing facility at 1111 N.W. 165th Street, Miami, Florida. This new facility will be a big improvement over the old facility not only in terms of capacity, but also in terms of air emissions. The new facility will incorporate state-of-the-art spraying equipment as well as a Regenerative Thermal Oxidizer (RTO) to significantly reduce emissions associated with the facility, while at the same time increasing production. It is the intent of Nailite International to increase the production of their facility while making substantial improvements on reducing emissions associated with the facility. These efforts have been demonstrated to both DEP and DERM by Nailite's investment of substantial capital in state-of-the-art spraying equipment and an RTO to destroy volatile organic compounds and hazardous air pollutants. As part of the relocation of its manufacturing plant, which is being done in stages so as to avoid a shut-down, Nailite plans to move the spray paint booths from its existing facility, which is currently operating pursuant to a Title V permit, to the new facility. During the permitting process Nailite agreed with DEP and DERM to connect the spray line from its existing plant to the RTO, thereby further reducing emissions from the new plant. When these existing booths are relocated to the new plant they will also be hooked up to the RTO, thereby significantly reducing emissions from current levels. In fact, when the new spray line and the existing spray line are eventually combined at the new plant and connected to the RTO, total emissions from the plant will be lower then that of the existing facility. More specifically, total facility emissions, even after the addition of the new spray paint line, is expected to be approximately 147.7 tpy lower then emissions from the current facility, and to be below 250 tpy for VOC.

Other than an issue related to the capture efficiency of the new spray line, the primary concerns Nailite has with certain language incorporated into the draft permit arise mostly from uncertainty as to whether and when certain permit requirements apply to the new paint line, the old paint line or both. As described in more detail, Nailite would request that: 1) the capture efficiency for the new spray line be set at 90 percent to take into account the actual mechanics of the line and other relevant factors as set forth in the application and accompanying documents, 2) that the draft permit be reworded at certain locations to clarify that the facility limit of 130.5 tpy applies only to the new paint line as noted in the permit application and supporting documents, 3) that the terms of the permit allow Nailite at least 90 days to relocate the existing paint line from Nailite's current plant to its new plant in order to prevent economic hardship and allow the orderly construction of the new plant, and 4) that the permit reflect the change from propane to natural gas as fuel for the RTO. These requested revisions are discussed in more detail below and, as previously noted, specific language recommendations have been incorporated as redlined text on the attached draft permit documents.

The application submitted by Nailite is a PSD/MACT application solely for a new panel coating line. However, the draft permit has been expanded in certain respects to include the existing line. Unfortunately, a few of the conditions intended for the new line, such as capture efficiency and destruction efficiency testing, may, under the current wording of the draft permit, be construed as being applicable to the existing line, even though they are not achievable by this older equipment. While connecting the existing line to the RTO will substantial reduce current emission levels, the design of the existing line simply cannot meet the same capture efficiency and destruction efficiency testing limits as the new line. While we believe that the likely intent

of the permit language is to cover only the new paint line in connection with these items, the suggested changes attached hereto would serve to clarify these issues. Moreover, the 95 percent capture efficiency limit on the new spray line is not practicable as described below given the design of the line itself.

Although the new spray line is a state-of-the-art spray line designed with sustained negative air pressure at each booth to capture and direct all flash off occurring in each booth to the RTO, the possibility of fugitive emissions between the spray booths may occur and cannot be captured. Golder previously provided DEP with an evaluation of the flash off between the spray booths and the estimate of fugitive emissions using mass balance and laboratory testing. This evaluation determined that fugitives are actually much lower than stated in the permit application. The test method suggested in the draft permit to measure concentration at the start of the spraying operations and at the inlet of the RTO, however, will not account for Nailite's complex spray line that includes three separate spray booths, flash-off between the booths, and retention of VOC on the panels, and will generate results which will not comply with the requested 95 percent capture efficiency for the entire paint line, even though the interior of each spray booth will capture 95 percent of what is sprayed. For this reason, Nailite requests that capture efficiency for the new spray line be set at 90 percent.

While the existing spray line has a valid Title V permit and is arguably not subject to PSD and new conditions through the draft permit, Nailite has agreed to subject the existing line to the RTO and otherwise improve the capture and destruction efficiency of the same. Nailite simply requests that any requirements sought to be placed on the existing paint line through the instant permit process be reasonable and practicable taking into account the overall improvements being made and the economic considerations involved. It must be remembered that overall efficiency is improving even when new paint lines are being added.

The installation of the new spray line with controls is estimated to emit no more than 130.5 TPY (fugitive and stack emissions with control). This is based on 90 percent capture and 95 percent destruction efficiency. Connecting the existing spray line to the RTO, assuming 80 percent capture will result in estimated emissions of the existing paint line of 87.8 TPY (14.6 TPY stack emissions with control and 73.2 TPY fugitives). By voluntarily providing RTO control to the existing spray line, a reduction of emissions of 278 TPY based on 1999 emissions of 366 TPY is estimated to be achieved (366 TPY-87.8 TPY). This represents an overall reduction of nearly 150 TPY while increasing the production rate of the facility. This improvement in the overall reduction of emissions for this facility provides a benefit for the environment as well as a benefit to Nailite from an increased production standpoint.

Based on our review and understanding of Nailite's operations, the intent of the Nailite to comply with all permit limits, and the accuracy of test procedures that reflect the capture efficiency, the applicant respectfully requests that the draft permit be revised as follows:

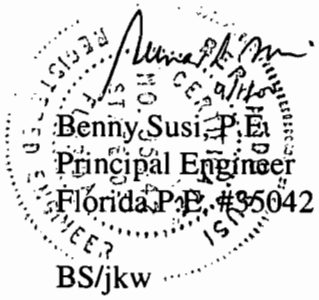
1. Capture efficiency for the new spray line should be set at 90 percent as opposed to the current figure of 95 percent. Nailite will agree to test for capture and destruction efficiency on the new line and proposes that the limits be expressed as a combined

capture/destruction efficiency limit as suggested in the permit.

2. We would request that the permit language be clarified to indicate that the 130.5 TPY facility limit applies solely to the new spray line.
3. Nailite would also request that it be provided a 90-day period after the installation of the new spray line within which to relocate the existing spray line to the new facility. This is necessary in order to avoid Nailite having to shut down for a period of time, which would obviously present a substantial economic hardship.
4. We have proposed to change the fuel from propane to natural gas for the RTO. This has been reflected in the comments and in the attached recommended changes to the permit.

Please call if you have any questions concerning this information and the attached drafts and we greatly appreciate your consideration and cooperation with this matter. Additionally, we will be contacting you within the next few days to discuss these issues and any recommendations you may have on how best to proceed in a timely manner.

Sincerely,
GOLDER ASSOCIATES INC.



Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw

cc: David Steedman, Nailite
David Buff, Golder

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**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

September 1, 2000

0037523

Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Attention: Office of General Council

RE: NAILITE INTERNATIONAL, INC.-NEW PANEL FINISHING LINE
DEP FILE NO. 0250407-003AC (PSD-FL-289)
EXTENSION REQUEST

Dear: Ms. Teri Donaldson

This correspondence is submitted on behalf of Nailite International, Inc. (Nailite). The draft permit was issued on August 4, 2000 and received on August 7, 2000. Nailite has received a draft permit regarding the installation of a new panel spray coating line. In addition, Nailite has agreed in concept to connect an existing panel coating line to new pollution control equipment being installed. The specific permit conditions regarding technical aspects of the new coating and existing lines require further discussions with the FDEP staff.

As a result, a 60-day extension to file an administrative hearing pursuant to 120.569 and 120.57 F.S. is requested. The request has been discussed with the Department's permitting staff and they indicated no problem with granting the extension.

Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Assoicate

BS/jkw
cc: David Steedman, Nailite International, Inc.
A.A. Linero, FDEP BAR

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**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

August 21, 2000

0037523A/8

Mr. C.H. Fancy, P.E.
Chief, Bureau of Air Regulation
Department of Environmental Protection
111 S. Magnolia Drive, Suite 4
Tallahassee, FL 32301

Re: Nailite International, Inc.
Proof of Public Notice
Project No. 0250407-003-AC (PSD-FL-289A)
Installation of New Panel Line and Relocation of Existing Panel Line

Dear Mr. Fancy:

Golder Associates Inc. on behalf of Nailite International, Inc. is transmitting herein the official notarized proof of Public Notice of Intent to Issue Air Construction Permit as required by Section 403.815, and 403.0815 F.S.DEP Rules 62-110.106(7)(a), F.A.C. for your files.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Associate

BS/arz

Enclosure: Proof of Public Notice

cc: D. Buff, Golder
D. Steedman, Nailite

P:\Projects\2000\0037\0037523A\08 Notice of Intent\#08-ltr.doc

Y. Reynolds
SED
DC DERM
EPA
NPS

RECEIVED
AUG 22 2000
BUREAU OF AIR REGULATION

The Miami Herald
www.herald.com
www.elherald.com



**PUBLISHED DAILY**
**MIAMI-DADE-FLORIDA**

**STATE OF FLORIDA**
**COUNTY OF DADE**

Before the undersigned authority personally appeared:

**JEANNETTE MARTINEZ**

who on oath says that he/she is

**CUSTODIAN OF RECORDS**

of The Miami Herald, a daily newspaper published at Miami in Dade County, Florida; that the attached copy of advertisement was published in said newspaper in the issues of:

August 11, 2000

Affiant further says that the said The Miami Herald is a newspaper published at Miami, in the said Dade County, Florida and that the said newspaper has heretofore been continuously published in said Dade County, Florida each day and has been entered as second class mail matter at the post office in Miami. in said Dade 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 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 newspapers(s).

Jeannette Martinez

Sworn to and subscribed before me this

11th day of August, 2000

My Commission
Expires: May 12, 2002

Silvia Acosta

Notary

OFFICIAL NOTARY SEAL
SILVIA ACOSTA
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC748019
MY COMMISSION EXP. MAY 12,2002

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0250407-003-AC (PSD-FL-289)

Nailite International, Inc.
New Panel Spray Coating Line/Relocation of Existing Line
Miami-Dade County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit pursuant to the Rules for the Prevention of Significant Deterioration of Air Quality (PSD) to Nailite International, Inc., to install a new panel spray coating line and relocate the existing line from an adjacent location to 1111 NW 165th Street, Miami, Dade County. A Best Available Control Technology (BACT) determination and a Maximum Achievable Control Technology (MACT) determination were required pursuant to Rules 62-212.400 and 62-204.800(10)(d)2, F.A.C. for volatile organic compounds (VOC) and hazardous air pollutants (HAP), respectively. The applicant's name and addresses are: Nailite International. Inc., 1111 NW 165th Street, Miami, Florida 33169.

The existing line is located at 1251 NW 165th Street, south of the Palmetto Expressway and west of I-95. The new line will be located (and the existing line will be relocated) to the nearby site as described above. The Department determined that the new line will be part of the existing facility based on common control, industrial classification, and adjacency. Because the new plant is considered by the Department to be a modification of an existing major facility, PSD review and a BACT determination are required.

Nailite manufactures plastic shingles used in the construction industry. Emissions of VOC/HAP result primarily from the application and curing of coatings. The project will be constructed in three phases. The existing line will be moved to the new location. The new line will be installed and both lines will be connected to the control equipment. Finally, the old line will be modernized at a future date. Per Nailite's application, VOC emissions from the new unit will be 131 tons per year (TPY), including 94 TPY of HAP (toluene and xylene). This level of control will be accomplished by regenerative thermal oxidation.

Historical VOC emissions from the existing line have been greater than 200 TPY with minimal control. Because the existing line will be connected to the RTO unit, potential and actual emissions of VOC and HAP from the entire facility will be lower in the future despite a production increase.

EPA is developing MACT standards for plastic parts coatings pursuant to Section 112(d) of the Clean Air Act. Because the standards have not been finalized. the State must prepare a case-by-case new source MACT determination in accordance with Section 112(g) of the Act and 40CFR63. Subpart B as adopted in the Department's Rules. The final permit will serve the purposes of the required Notice of MACT Approval. The Department has determined that the proposed RTO system with a destruction efficiency of 95 percent constitutes both BACT for VOC and MACT for HAPs.

Emissions of other pollutants will be minimal. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road. Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office General Counsel of the Department at 3900 Commonwealth Boulevard. Mail Station #35, Tallahassee. Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice. regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for the service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file 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 Protection<br>Bureau of Air Regulation<br>Suite 4, 111 St. Magnolia Drive<br>Tallahassee, FL 32301<br>Telephone: (850) 488-0114<br>Fax: (850) 922-6979 | Miami-Dade County Dept. of<br>Environmental Mgmt.<br>33 S.W. 2nd Avenue, Suite 900<br>Miami, FL 33130-1540<br>Telephone: (305) 372-6925<br>Fax: (305) 372-6954 | Dept. of Environmental Protection<br>Southeast District<br>400 North Congress Avenue<br>West Palm Beach, FL 33416-5425<br>Telephone: (561) 681-6600<br>Fax: (561) 681-6755. |

The complete project file includes the application, technical evaluations, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Documents related to the Department's proposed action are available at www.dep.state.fl.us/air by clicking on "permitting" and then on "construction permits." Interested persons may contact the Administrator, New Source Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, FL 32301 or call (850) 488-0114 for additional information.

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

August 17, 2000

0037523

Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Attention: Office of General Council

RE: NAILITE INTERNATIONAL, INC.-NEW PANEL FINISHING LINE
DEP FILE NO. 0250407-003AC (PSD-FL-289)
EXTENSION REQUEST

Dear : Ms. Teri Donaldson

This correspondence is submitted on behalf of Nailite International, Inc. (Nailite). The draft permit was issued on August 4, 2000 and received on August 7, 2000. Nailite has received a draft permit regarding the installation of a new panel spray coating line. In addition, Nailite has agreed in concept to connect an existing panel coating line to new pollution control equipment being installed. The specific permit conditions regarding technical aspects of the new coating and existing lines require further discussions with the FDEP staff.

As a result, a 60-day extension to file an administrative hearing pursuant to 120.569 and 120.57 F.S. is requested. The request has been discussed with the Department's permitting staff and they indicated no problem with granting the extension.

Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Assoicate



BS/jkw

cc: David Steedman, Nailite International, Inc.
A.A. Linero, FDEP BAR

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A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for the service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file 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 Protection<br>Bureau of Air Regulation<br>Suite 4, 111 St. Magnolia Drive<br>Tallahassee, FL 32301<br>Telephone: (850) 488-0114<br>Fax: (850) 922-6979 | Miami-Dade County Dept. of<br>Environmental Mgmt.<br>33 S.W. 2nd Avenue, Suite 900<br>Miami, FL 33130-1540<br>Telephone: (305) 372-6925<br>Fax: (305) 372-6954 | Dept. of Environmental Protection<br>Southeast District<br>400 North Congress Avenue<br>West Palm Beach, FL 33416-5425<br>Telephone: (561) 681-6600<br>Fax: (561) 681-6755. |

The complete project file includes the application, technical evaluations, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Documents related to the Department's proposed action are available at www.dep.state.fl.us/air by clicking on "permitting" and then on "construction permits." Interested persons may contact the Administrator, New Source Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, FL 32301 or call (850) 488-0114 for additional information.

| revisions | | | | |
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| △ | zone | description | date | approved |
| △ | | PROPOSAL DRAWING | 24 MAR 00 | |
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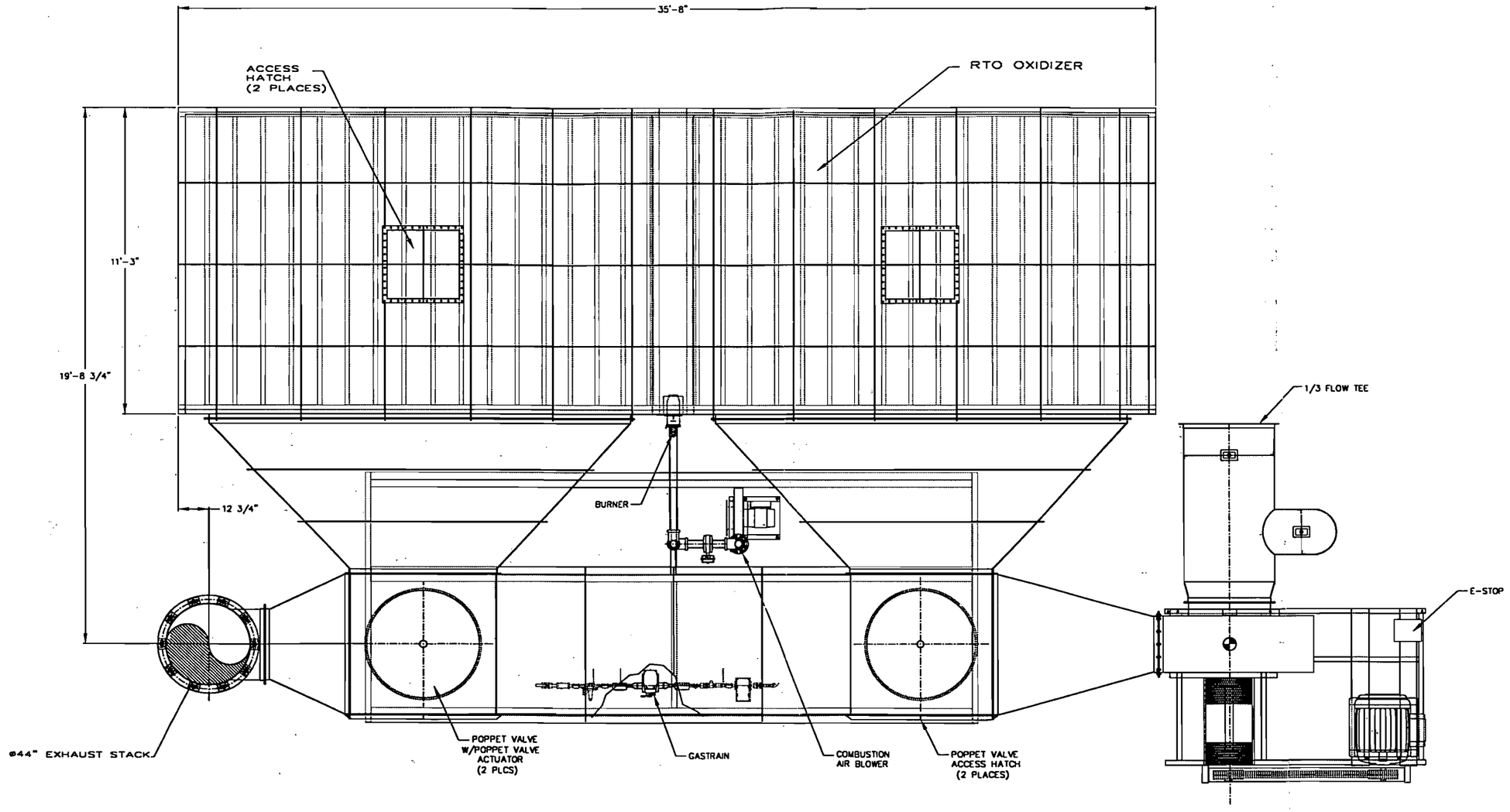


PROPOSAL DRAWING ONLY NOT FOR CONSTRUCTION

NOTES:
1.) THE WEIGHT OF THE MAIN OXIDIZER SKID W/MEDIA = 95,693 LBS. THE MAX LOAD = 27.9 PSI
2.) THE WEIGHT OF THE POPPET VALVE SKID = 12,467 LBS. THE MAX LOAD = 3.6 PSI
3.) THE WEIGHT OF THE 40' EXHAUST STACK = 3,328 LBS. THE MAX CONCENTRATED BEARING STRESS OF THE EXTERIOR EDGE OF THE BASE RING = 370 PSI
4.) THE WEIGHT OF THE PROCESS FAN = 5,095 LBS.

AIREX CORPORATION

project: NAILITE INTERNATIONAL MIAMI, FL 27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DO NOT SCALE DRAWING

title: GENERAL ARRANGEMENT

| size | facm no. | dwg no. | approved by | rev. |
|---|---|---|---|---|
| D | | PROP-02-01 | | — |

| date | scale | drawn by | checked by | sheet |
|---|---|---|---|---|
| 24 MAR '00 | N.T.S. | C.NORTH | | 1 OF 3 |

P:\23\NAILITE-02\

| revisions | | | | |
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| △ | | PROPOSAL DRAWING | 24 MAR 00 | |
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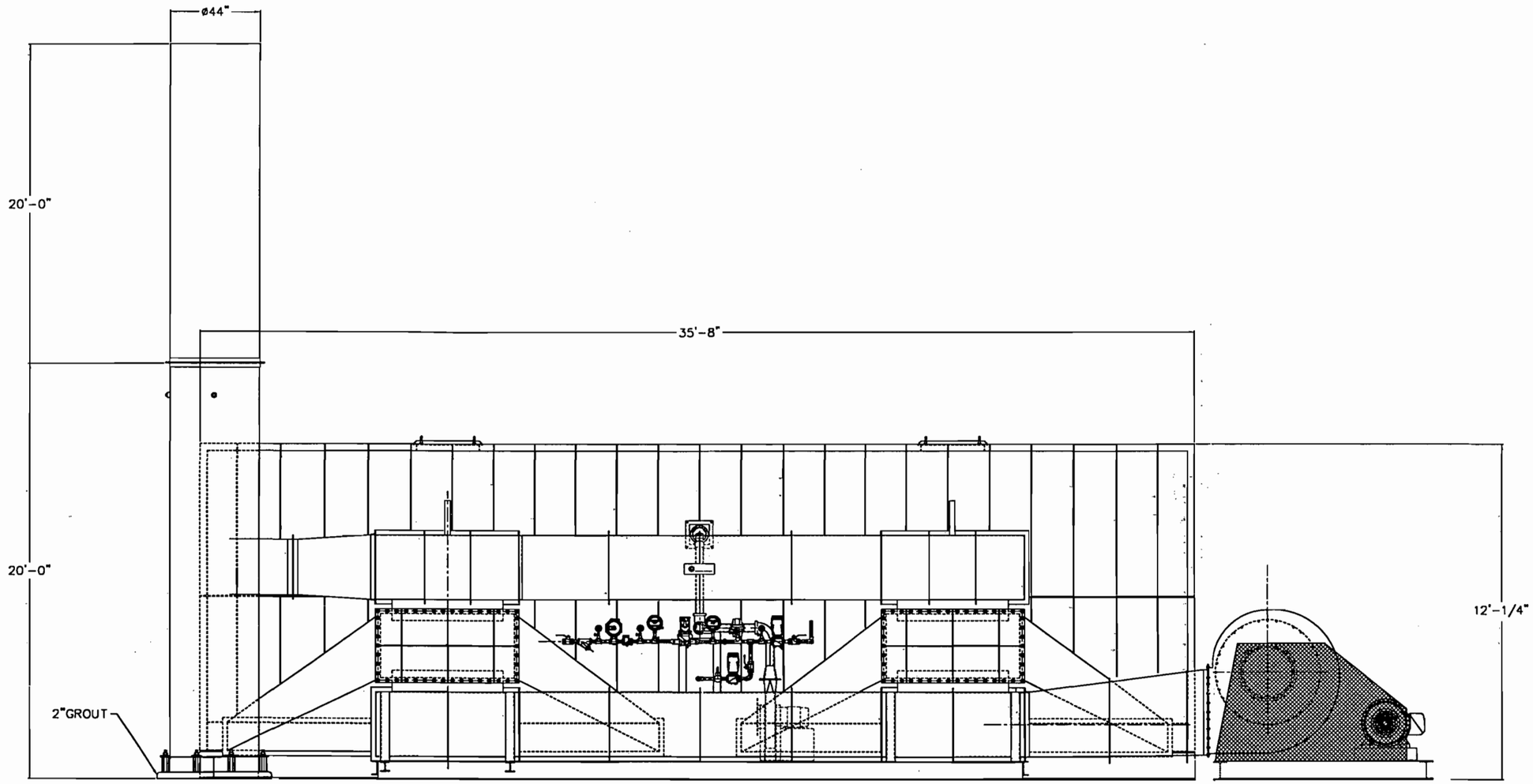


SIDE ELEVATION

PROPOSAL DRAWING ONLY NOT FOR CONSTRUCTION

AIREX CORPORATION

project: NAILITE INTERNATIONAL
MIAMI, FL
27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DO NOT SCALE DRAWING

title: GENERAL ARRANGEMENT

| size | fscm no. | dwg no. | approved by | rev. |
|---|---|---|---|---|
| D | | PROP-02-01 | | — |

| date | scale | drawn by | checked by | sheet |
|---|---|---|---|---|
| 24 MAR '00 | N.T.S. | C.NORTH | | 2 OF 3 |

DWG 25NAILITE-022

| revisions | | | | |
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| △ | zone | description | date | approved |
| △ | - | PROPOSAL DRAWING | 24 MAR 00 | |
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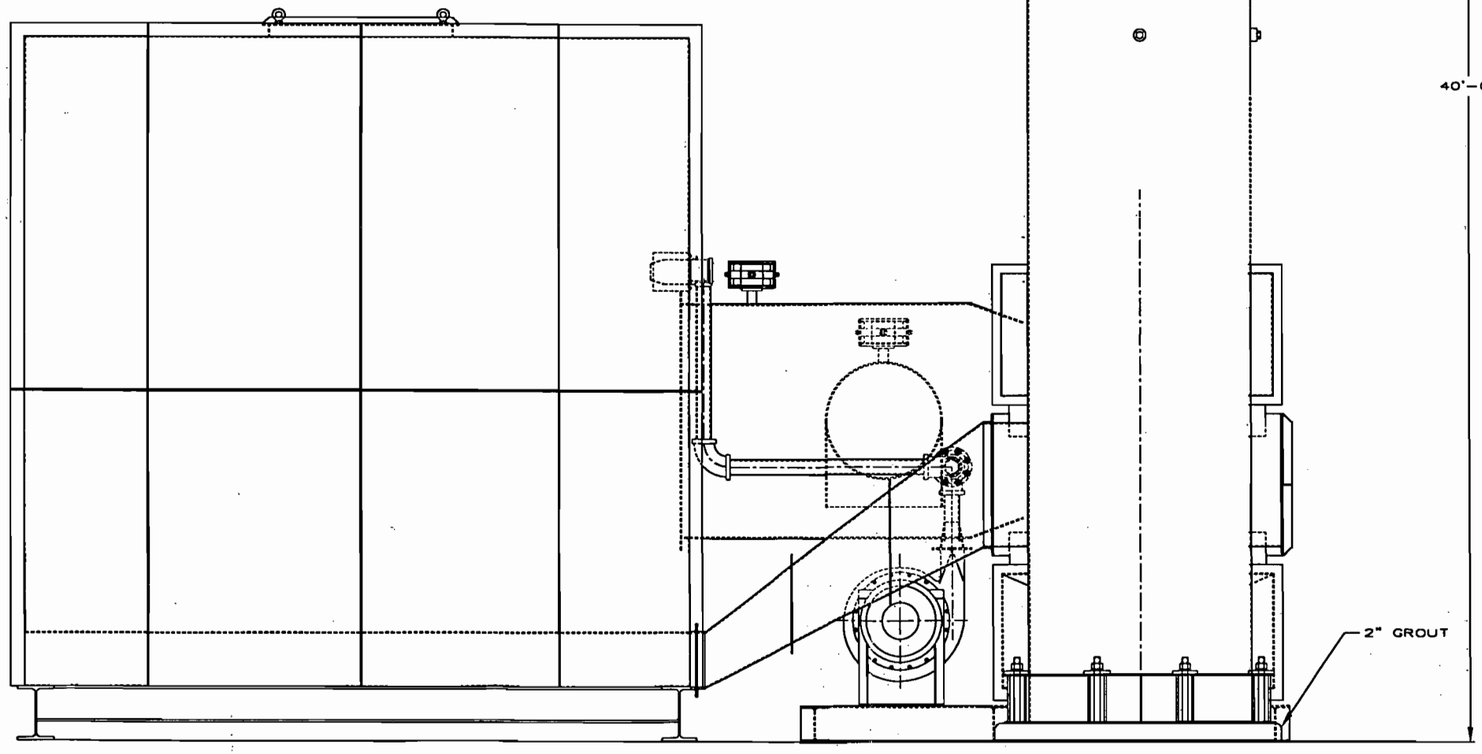


END VIEW

PROPOSAL DRAWING ONLY NOT FOR CONSTRUCTION

AIREX CORPORATION

project: NAILITE INTERNATIONAL
MIAMI, FL
27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DO Nnot SCALE DRAWING

title: GENERAL ARRANGEMENT

| size | fscm no. | dwg no. | approved by | rev. |
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|---|---|---|---|---|
| 24 MAR '00 | N.T.S. | C.NORTH | | 3 OF 3 |



9802ZNAILITE-023

| revisions | | | | |
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| △ | zone | description | date | approved |
| △ | | PROPOSAL DRAWING | 24 MAR 00 | |
| | | | | |
| | | | | |

K-101 AIR COMPRESSOR

COMPRESSED AIR

EXHAUST STACK

U.V. PURGE AIR

P-102 COMBUSTION AIR BLOWER

P-101 PROCESS FAN

H-101 REGENERATIVE THERMAL OXIDIZER (SPLIT BED)

PROPANE TRAIN

PROPOSAL ONLY NOT TO BE USED

| | | |
|---|---|---|
| AIREX CORPORATION | project: NAILITE INTERNATIONAL MIAMI, FL 27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit | |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES | title: PROCESS FLOW & INSTRUMENTS DIAGRAM | |
| DO NOT SCALE DRAWING | size: D; facm no.; dwg no.: PROP-01-1; approved by; rev.: — | |
| date: 24 MAR '00 | scale: NONE; drawn by: C.NORTH; checked by; sheet: 1 OF 5 | |



25NAILITE-01

Z 341 355 280

US Postal Service
**Receipt for Certified Mail**
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

| | |
|---|---|
| Sent to | David Steedman |
| Street & Number | Naibite Int'l |
| Post Office, State, & ZIP Code | Miami FL |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| **TOTAL** Postage & Fees | $ 5 |
| Postmark or Date | 5-4-00 |

PS Form **3800**, April 1995

0250407-003-AC
PSO-FL-289

**SENDER:** *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
David G. Steedman
Vice President of Operations
Naibite Int'l
1111 NW 165th St.
Miami, FL
33169

*COMPLETE THIS SECTION ON DELIVERY*

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X

☐ Agent
☐ Addressee

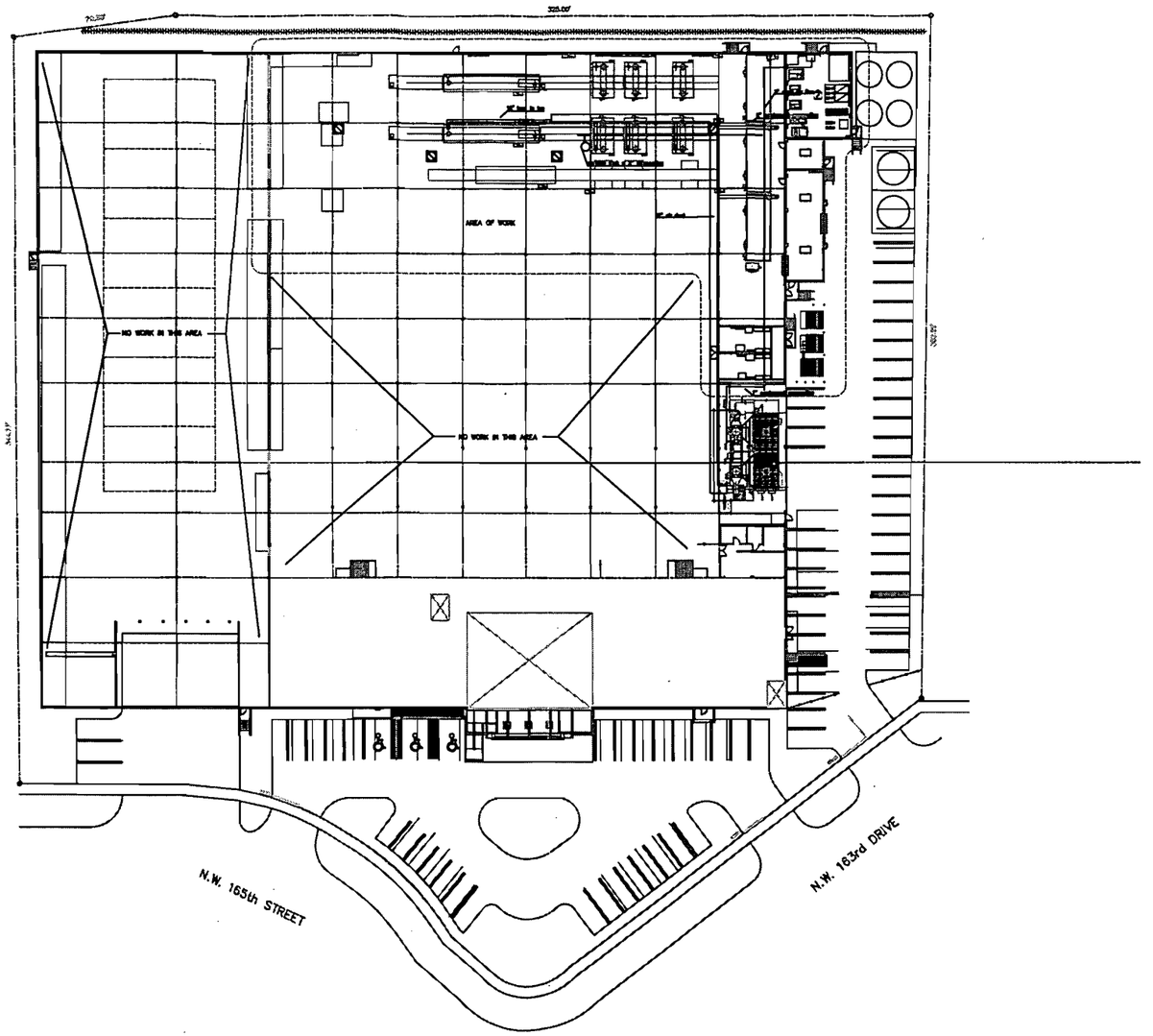
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 280

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789




| Process Flow Legend | |
|---|---|
| Gas → | Covered Conveyor |
| Steam → | Enclosed Conveyor |

Figure 2-1. Nailite Facility Drawing

0037523Y/F1/WP/site.dwg

Golder Associates

# Department of Environmental Protection

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

Jeb Bush
Governor

David B. Struhs
Secretary


August 4, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David G. Steedman
Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Re: DEP File No. 0250407-003-AC (PSD-FL-289)
Installation of New Panel Line and Relocation of Existing Panel Line

Dear Mr. Steedman:

Enclosed is one copy of the draft air construction permit (PSD permit) to construct a new panel spray coating line and relocate the existing spray line so that it can be incorporated with the air pollution control system being installed for the new line located at 1111 NW 165th Street, Miami, Dade County. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit and the Public Notice of Intent to Issue Air Construction Permit are also included.

The Public Notice of Intent to Issue Air Construction Permit must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Mr. John Reynolds at 850/921-9536 or Mr. Linero at 850/921-9523.

Sincerely,

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

CHF/JR

Enclosures

In the Matter of an
Application for Permit by:

David G. Steedman, Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

DEP File No. 0250407-003-AC, PSD-FL-289
New Panel Spray Coating Line/Relocate Existing Line
Miami-Dade County

## INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (PSD permit, copy of draft permit attached) for the proposed project, detailed in the application specified above and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Nailite International, Inc., applied on April 17, 2000, to the Department for an air construction permit to install a new panel spray coating line and relocate the existing line from an adjacent location so that it can be incorporated with the air pollution control system being installed for the new line to be located at 1111 NW 165th Street, Miami, Dade County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to construct the project.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

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

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8/7/00 to the person(s) listed:

David G. Steedman*
Benny Susi, P.E., Golder Associates
Isidore Goldman, SED
Mallika Muthiah, DCDERM
Gregg Worley, EPA
John Bunyak, NPS

Clerk Stamp

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

Charlotte J. Hayes 8/7/00
(Clerk) (Date)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0250407-003-AC (PSD-FL-289)

Nailite International, Inc.
New Panel Spray Coating Line/Relocation of Existing Line
Miami-Dade County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit pursuant to the Rules for the Prevention of Significant Deterioration of Air Quality (PSD) to Nailite International, Inc., to install a new panel spray coating line and relocate the existing line from an adjacent location to 1111 NW 165th Street, Miami, Dade County. A Best Available Control Technology (BACT) determination and a Maximum Achievable Control Technology (MACT) determination were required pursuant to Rules 62-212.400 and 62-204.800(10)(d)2, F.A.C. for volatile organic compounds (VOC) and hazardous air pollutants (HAP), respectively. The applicant's name and address are: Nailite International, Inc., 1111 NW 165th Street, Miami, Florida 33169.

The existing line is located at 1251 N.W. 165th Street, south of the Palmetto Expressway and west of I-95. The new line will be located (and the existing line will be relocated) to the nearby site as described above. The Department determined that the new line will be part of the existing facility based on common control, industrial classification, and adjacency. Because the new plant is considered by the Department to be a modification of an existing major facility, PSD review and a BACT determination are required.

Nailite manufactures plastic shingles used in the construction industry. Emissions of VOC/HAP result primarily from the application and curing of coatings. The project will be constructed in three phases. The existing line will be moved to the new location. The new line will be installed and both lines will be connected to the control equipment. Finally, the old line will be modernized at a future date. Per Nailite's application, VOC emissions from the new unit will be 131 tons per year (TPY), including 94 TPY of HAP (toluene and xylene). This level of control will be accomplished by regenerative thermal oxidation.

Historical VOC emissions from the existing line have been greater than 200 TPY with minimal control. Because the existing line will be connected to the RTO unit, potential and actual emissions of VOC and HAP from the entire facility will be lower in the future despite a production increase.

EPA is developing MACT standards for plastic parts coatings pursuant to Section 112(d) of the Clean Air Act. Because the standards have not been finalized, the State must prepare a case-by-case new source MACT determination in accordance with Section 112(g) of the Act and 40CFR63, Subpart B as adopted in the Department's Rules. The final permit will serve the purposes of the required Notice of MACT Approval. The Department has determined that the proposed RTO system with a destruction efficiency of 95 percent constitutes both BACT for VOC and MACT for HAPs.

Emissions of other pollutants will be minimal. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards or PSD increment.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file 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 Protection<br>Bureau of Air Regulation<br>Suite 4, 111 S. Magnolia Drive<br>Tallahassee, FL 32301<br>Telephone: 850/488-0114<br>Fax: 850/922-6979 | Miami-Dade County Dept. of<br>Environmental Resources Mgmt.<br>33 S.W. 2nd Avenue, Suite 900<br>Miami, FL 33130-1540<br>Telephone: 305/372-6925<br>Fax: 305/372-6954 | Dept. of Environmental Protection<br>Southeast District<br>400 North Congress Avenue<br>West Palm Beach , FL 33416-5425<br>Telephone: 561/681-6600<br>Fax: 561/681-6755 |

The complete project file includes the application, technical evaluations, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, FL 32301 or call 850/488-0114 for additional information.

## NOTICE TO BE PUBLISHED IN THE NEWSPAPER

# TECHNICAL EVALUATION

# AND

# PRELIMINARY DETERMINATION

Nailite International, Inc.

New Plastic Panel Finishing Spray Line/Relocation of Existing Line

Miami-Dade County

DEP File No. 0250407-003-AC (PSD-FL-289)

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

August 4, 2000

## 1. APPLICATION INFORMATION

### Applicant Name and Address

Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Authorized Representative: David G. Steedman, Vice President of Operations

### Application Review Schedule

| | |
|---|---|
| Date of Receipt of Application | 04-17-00 |
| First Request for Additional Information | 05-04-00 |
| Final Request for Additional Information | 06-16-00 |
| Date Application Complete | 06-22-00 |
| Intent Issued | 08-04-00 |

## 2. FACILITY INFORMATION

The existing Nailite facility is located at 1251 NW 165th Street in Miami, Dade County (see Figures 1 and 2). The proposed new panel spray line will be located at 1111 NW 165th Street, approximately 500 feet west of the existing facility. The UTM coordinates of the proposed site are Zone 17, 578.4 km East and 2867.2 km North.


**Figure 1 - General Location**

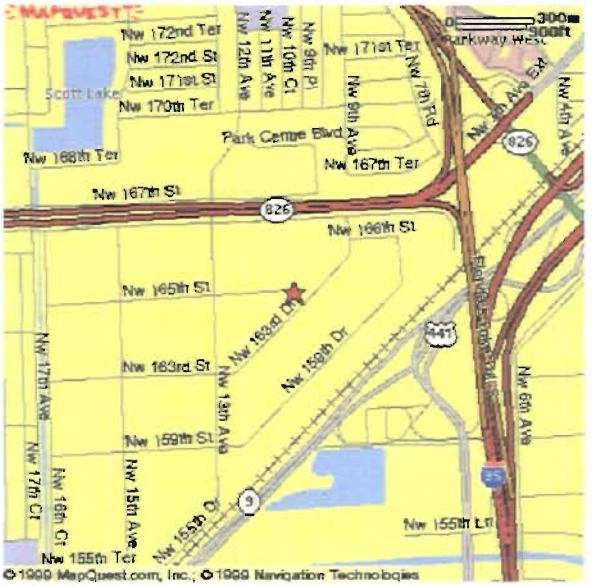



**Figure 2 - Site Location**

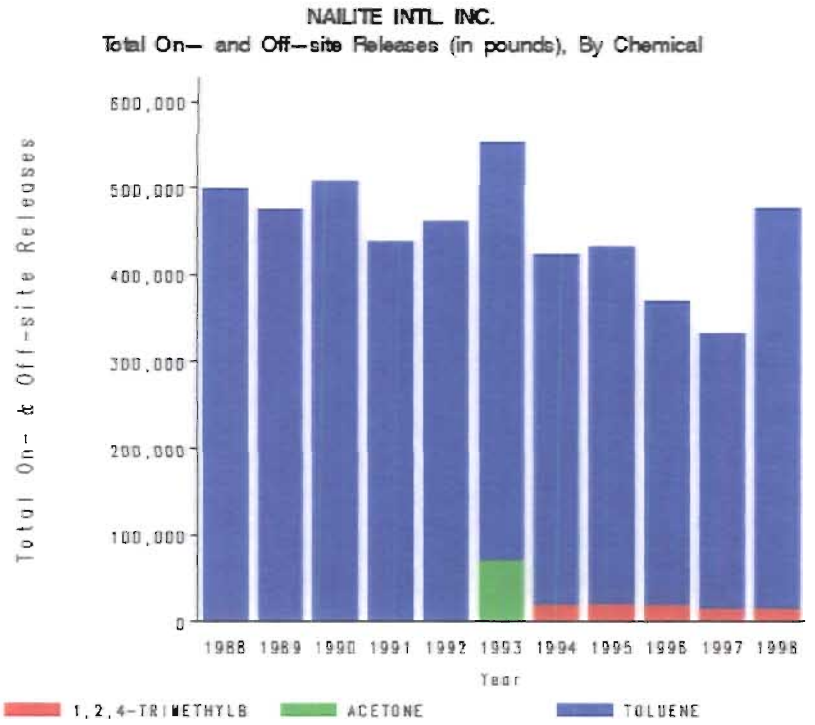
### Standard Industrial Classification Codes (SIC)

| | | |
|---|---|---|
| Industry Group No. | 30 | Plastic Products |
| Industry No. | 3089 | All Other Plastic Products Manufacturing |

### Facility Category

The existing facility is a Major or Title V Source of air pollution because emissions of volatile organic compounds (VOC) exceed 100 tons per year (TPY) or because emissions of a hazardous air pollutant (HAP) exceed 10 TPY. It is also a Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because emissions of VOC exceed 250 TPY.

Following is a graph developed from EPA's Toxic Release Inventory that indicates the trend of HAPs emissions at Nailite through 1998. These HAP emissions comprise most of the VOC emitted from the facility.




## 3. PROJECT DESCRIPTION

This permit addresses the following emissions units at the proposed site:

| EMISSION UNIT | SYSTEM | EMISSION UNIT DESCRIPTION |
|---|---|---|
| 001 | Existing Coating Line | Three point spray booths using lacquers to coat shingles |
| 002 | Existing Coating Line | Two injection molding machines/hydraulic tanks |
| 003 | New Coating Line | Three continuous spray booths/curing oven |

Florida Department of
Environmental Protection

**Memorandum**

TO: Clair Fancy

FROM: Al Linero aa Linero 8/3

DATE: August 3, 2000

SUBJECT: Nailite International, Inc.
New Panel Spray Line and Relocation of Existing Line
DEP File No. 0250407-003-AC (PSD-FL-289)

Attached is the public notice package for construction of a new panel spray line and relocation of the existing line at Nailite's plant in Miami. It includes draft BACT and MACT determinations.

Nailite proposes to install a regenerative thermal oxidation unit to control emissions of VOC including HAPs (toluene and xylene) from the new line. They recently agreed to hook in the existing line when they relocate it from the adjacent site.

Past emissions of HAPs ranged from about 180 to 280 tons per year based on information from EPA's Toxic Release Inventory. Potential and actual emissions of VOC and HAPs in the future are likely to be less than past emissions despite the increase in production capacity. It is possible that the facility will no longer be a PSD Major Facility if Nailite actually implements the project in the manner they most recently described to us.

Today is approximately Day 50.

I recommend your approval of the attached Intent to Issue.

AAL/al

Attachments

Emissions from the proposed plant were estimated by the applicant as follows: 130.5 TPY of VOC (approximately 69 percent toluene and 1.5 percent xylene by weight); 4.7 TPY of Particulate Matter ($PM/PM_{10}$); and less than 1.0 TPY of Nitrogen Oxides ($NO_X$), Sulfur Dioxide ($SO_2$), and Carbon Monoxide (CO).

## 4. PROCESS DESCRIPTION

Nailite is proposing to construct and operate a new panel finishing spray line. Simultaneously with startup of the new line, the existing spray line using older technology will be relocated and connected to the proposed control system for the new line.

Three spray booths will be operated in one continuous spray line with a curing oven at the end of the spray line. The spray line is designed to finish approximately 1,400 panels per hour. The panel sizes range from 20 inches by 40 inches to 20 inches by 60 inches. The finish system will be designed with three parallel conveyors, which form a 60-inch flat line conveyor system. The conveyor system will have an adjustable speed ranging from 10 to 30 feet per minute. The components of the finishing spray line include a fluid handling system, an application system, spray booths, an oven and a conveyor.

The proposed coating delivery system for each spray booth consists of a ten-second color change system. Paint will be pumped from 55-gallon drums located in the paint mixing room. Each loop will be equipped with an "air pig" paint loop purge system. This will allow old paint to be returned to a 55-gallon drum for reuse with little paint waste. The air pig is designed to recover 90 percent of the old paint from the circulation loop. The loop system must be flushed when new colors are changed. The fluid management system and spray guns will utilize an advance Secondary Heat Transfer System to provide heat control at the spray gun.

Each of the first two spray booths will be equipped with a Static Heat Stripping HP60 in-line paint heater. The heater is used to control the coating temperature to provide repeatable finishing results regardless of ambient temperature conditions. Maintaining the coating temperature at the spray guns at the viscosity flat line temperature will reduce the solvent usage by approximately 15 percent compared to Nailite's existing operations.

The third spray booth in the spray line will be utilized for shading. This booth will have six different colors supporting the application system. Each color will be pumped directly from 55-gallon drums. Each drum will have a wall mounted pump, required air controls, a siphon assembly, circulation control valve, a 55 gallon cover with air-powered agitator and cover lift assembly to keep pigmented colors in constant suspension through the loop. The fluid pressure will be regulated all the way to the spray gun and the six circulation loops will be equipped with a secondary heat transfer system to provide constant controlled heat transfer.

Eight spray guns will be used in Spray Booth Nos. 1 and 2. Each spray booth is equipped with a constant speed gun mover with a stroke travel of seven feet. The guns are automatically toed away from the direction of the gun mover travel to allow the atomized velocity of 2 feet per second to work with the gun tip speed of 150 feet per minute. This allows for a higher application transfer efficiency and minimizes the over-spray in the spray booth. Spray Booth No. 3 will be identical to Spray Booths Nos. 1 and 2; however, it will be equipped with HVLP guns.

The proposed spray line will reduce the amount of solvent usage by approximately 29 percent as compared to Nailite's existing spray line. This improved transfer efficiency MR result in a significant reduction in VOC and HAP emissions.

The proposed spray booths are designed with a closed-faced side draft booth with built in air circulation. The only opening in the spray booth will be the conveyor slot which will be 6-ft wide and one foot tall. Air movement within the booth will be maintained at 100 feet per minute. A circulation fan will circulate the air in the spray booth into the exhaust filters at the rear of the spray booth. The filtered air is then repressurized and ducted back to the inlet plenum mounted in front of the spray booth on the roof. The plenum will uniformly reintroduce the circulation air back into the spray booth. This process will maintain a uniform 100 feet per minute airflow without interference from outside airflows.

The spray booths will be 10 ft wide, 16 ft 4 inch deep and 8 ft tall. The working depth of the booths will be 12 ft. Each booth will be equipped with a 9,200 cfm recirculation fan at 1/4 inch static pressure. The VOC buildup in the booths will be maintained under the lower explosive limit (LEL) level by a bleed air duct. The bleed air will be controlled to 1,200 cfm by dampers. The bleed air duct from each booth will be directed to a Regenerative Thermal Oxidizer (RTO) for VOC/HAP destruction.

The controls for the finishing system will be contained in a system controller panel located at each of the three spray booths. Each panel provides remote fluid pressure control to the fluid pressure controls in each spray booth. Spray Booth Nos. 1 and 2 have two remote fluid pressure regulators, while Spray Booth No. 3 has six controls. The guns are interlocked into the system controller. If the spray booth exhaust fan is not operating, the guns will not spray in either automatic or manual modes.

The electric oven will be designed to heat the coated panels with hot air impinged onto the top surfaces of the panels near the oven entrance, in order to begin rapid evaporation of the solvents and create a flow of air to the return duct near the oven exit. The oven will be 45 ft long, 6 ft 10 inches wide, and 3 ft high. A circulation blower will be utilized rated at 8,000 cfm at 2.5 static pressure with a 10 hp motor. The exhaust from the oven will be vented to the RTO.

## 5. VOC/HAP CONTROL TECHNOLOGY

The emission control technology proposed by the applicant and by the Department is discussed at length in the draft BACT/MACT determination issued with this review. VOC/HAP emissions consist of toluene and xylene that is evolved during the coating process. As stated above, VOC/HAP emissions will be controlled using a twin-bed RTO. The RTO will be designed for a process gas flow rate of 27,000 acfm and 95 percent destruction efficiency. Propane will be used at start-up as a secondary fuel, while the captured solvent will be the primary fuel.

VOC/HAP potential emissions from the new finishing spray line are estimated at approximately 130.5 TPY. Approximately 90 percent of the VOC/HAP in the coating will be released in the paint booths while 10 percent remains in the coating. The design capture efficiency of the spray booths will be approximately 95 percent. It is therefore assumed that 5 percent of the VOC/HAPs are emitted into the building as fugitive emissions.

Paint filters will be used to control particulate emissions from the spray booth operations. Accordion-type filters with a 95% percent minimum efficiency are proposed for the project.

$PM/PM_{10}$ potential emissions are estimated at 4.7 TPY based on 25 percent over-spray of coating in the booths and 95 percent removal by the paint filter pads.

Emissions of $SO_2$, $NO_X$ and CO are projected to be well below 1.0 TPY. Therefore, the proposed finish spray line is subject to PSD review for VOC only.

## 6. RULE APPLICABILITY

The proposed project is subject to preconstruction review and permitting requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in Dade County, an area designated as an air quality maintenance area for the pollutant ozone and as a PSD area for the pollutants Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), for VOC.

Florida's PSD regulations at Rule 62-212.400, F.A.C. have been approved by the Environmental Protection Agency per 40 CFR 52, Approval and Promulgation of Implementation Plans, Subpart K - Florida. PSD regulations require that all new major stationary facilities or major modifications to existing major facilities, which emit air pollutants regulated under the Clean Air Act (CAA), must be reviewed and a permit issued before the commencement of construction.

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that Best available Control Technology be applied to control emissions from the source (Rule 62-212.400, F.A.C.). The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the respective significant emission rates given in Table 62-212.400-1.

BACT is defined in 40CFR52.21 (b)(12) and Rule 62-210.200(40), F.A.C., as: "An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which

would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results."

In addition to BACT, a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for HAP emissions because EPA has not yet promulgated a MACT standard applicable to Nailite. Therefore, the proposed project is subject to Rule 62-204.800(10)(d)2, F.A.C., which requires a MACT determination for all major sources of HAPs to be constructed or reconstructed. MACT requirements apply to all new major sources of HAPs (i.e., greater than 10 TPY of any single HAP, or greater than 25 TPY of total HAPs).

MACT is defined in Rule 62-204.800(10)(d)2., F.A.C., as: "An emissions limitation not less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the permitting authority." MACT reflects the maximum degree of reduction in emissions of HAP that can be achieved by utilizing those control technologies that can be identified from available information, taking into consideration costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.

Nailite is also subject to the Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) for VOC Emitting Facilities. This rule provision applies to existing VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas. In addition, the emission limiting standards of the rules apply to new and modified VOC emission limiting facilities in all designated ozone nonattainment and air quality maintenance areas.

The emission-limiting standard as set forth in Rule 62-296.500 for Nailite provides a limiting standard of 6 pound of VOC per gallon of coating applied. All volatile organic compounds emissions from solvent washings shall be considered in the emission limitations in Rule 62-296.500, F.A.C.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

| | |
|---|---|
| Chapter 62-4 | Permits. |
| Rule 62-204.220 | Ambient Air Quality Protection |
| Rule 62-204.240 | Ambient Air Quality Standards |
| Rule 62-204.800 | Federal Regulations Adopted by Reference (40CFR63 in Particular) |
| Rule 62-210.300 | Permits Required |
| Rule 62-210.350 | Public Notice and Comments |
| Rule 62-210.370 | Reports |
| Rule 62-210.550 | Stack Height Policy |
| Rule 62-210.650 | Circumvention |
| Rule 62-210.700 | Excess Emissions |
| Rule 62-210.900 | Forms and Instructions |
| Rule 62-212.300 | General Preconstruction Review Requirements |
| Rule 62-212.400 | Prevention of Significant Deterioration (including BACT) |
| Rule 62-213 | Operation Permits for Major Sources of Air Pollution |
| Rule 62-296.320 | General Pollutant Emission Limiting Standards |
| Rule 62-297.310 | General Test Requirements |
| Rule 62-297.401 | Compliance Test Methods |

## 7. AIR QUALITY IMPACTS

There are no ambient air quality standards for VOC. The purpose of regulating VOC under the PSD Rules is to control the formation of ozone. The applicant presented the potential VOC emissions increases to the Department, and discussed options available to predict potential impacts associated with the emissions of VOC and subsequent formation of ozone. No stationary point source models are available and approved for use in predicting ozone impacts.

Based on the available information, the Department has determined that the use of a regional model that incorporates the complex chemical mechanisms for predicting ozone formation is not applicable to this project. The contribution of VOC from Nailite to formation of regional ground-level ozone is too small to measure or predict because of the much higher regional emissions of VOC from traffic and $NO_X$ (another ozone precursor). In fact, VOC emissions from the faciltiy will likely decrease as a result of the project.

The PSD ambient monitoring guidelines allow the use of existing data to satisfy preconstruction review requirements. There are three existing ambient ozone-monitoring stations in Dade County. The ozone data from these stations were used to fulfill the monitoring requirement for ozone. Nailite will not cause or contribute in any meaningful way to any future exceedances of the ambient ozone standard in Miami-Dade County.

The nearest Class I area to the site is the Everglades National Park (ENP) which is about 35 km from the site. No significant impacts on soil, vegetation, wildlife, and visibility are expected in the ENP due to this project. In addition, no significant impact on growth near or in the ENP is expected.

A very important purpose of Title III of the Clean Air Act is to reduce risks associated with public exposure to HAPs emitted from industries. The HAPs from this industry are also VOC. Therefore control of VOC will minimize exposure of the public to HAPs from the proposed project. The Department believes that concentrations of both VOC and HAPs will be reduced as a result of this project despite the increase in production capacity.

## 8. CONCLUSION

The proposed BACT/MACT for VOC/HAP emissions from the new line will be the use of a RTO to capture and control these emissions from the new spray booths and curing oven by 90.3 percent (95 percent capture and. 95 percent destruction). Since the proposed MACT also provides the maximum degree of control of HAP emissions for the new spray line, no other BACT/MACT control technologies were evaluated for cost effectiveness.

Based on information provided by the applicant, supplemented by other information available to the Department, the Department has reasonable assurance that the proposed project will not cause a violation of any air quality standard or PSD increment.

*J. M. Reynolds, Permit Engineer*
*A. A. Linero, P.E. Administrator*
*Cleve Holladay, Meteorologist*

**PERMITTEE**

Nailite International, Inc.
1111 and 1251 N.W. 165th Street
Miami, Florida 33169

Permit No. 0250407-003-AC (PSD-FL-289)
Project: New Panel Spray Line and Relocation of Existing Line
Expires: December 31, 2001
Location: Miami-Dade County

**AUTHORIZED REPRESENTATIVE:**

Mr. David G. Steedman, Vice President of Operations

**PROJECT AND LOCATION**

This permit authorizes the applicant to construct a new plastics panel spray coating line and relocate the existing spray line so that it can be incorporated with the air pollution control system being installed for the new line. Any increased production capacity resulting in utilization of paints and solvents in excess of 300,000 gallons per line per year will require a modification of this permit per Rule 62-4.080 and Chapters 62-210 and 62-212 of the Florida Administrative Code. The SIC code for this facility is 3089.

The project is located at 1111 and 1251 NW 165th Street, Miami, Dade County. The UTM coordinates are Zone 17; 578.4 km E; 2867.2 km N. The Everglades National Park is approximately 35 km west-southwest of the site.

**STATEMENT OF BASIS**

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

**APPENDICES**

The attached appendices are a part of this permit:

| | |
|---|---|
| Appendix BD | BACT/MACT Determination |
| Appendix GC | General Permit Conditions |

Howard L. Rhodes, Director
Division of Air Resources Management

## SECTION I. FACILITY INFORMATION

### FACILITY DESCRIPTION

The existing Nailite facility is located at 1251 NW 165th Street in Miami, Dade County. The proposed new plastic panel spray line (No. 2) will be located at 1111 NW 165th Street, approximately 500 feet west of the existing facility. On its existing No.1 Line, Nailite manufactures and coats plastic shingles molded from polypropylene pellets. The No. 1 Line consists of three paint spray booths and two injection molding machines. The new No. 2 Line will consist of three continuous spray booths and a curing oven. Air pollution controls will consist of a state-of-the-art Regenerative Thermal Oxidizer (RTO) for controlling VOC/HAP emissions. Simultaneously with start-up of the new line, the existing line will be dismantled, moved to the new location, and connected to the RTO.

Details regarding the project are described in the Technical Evaluation and Preliminary Determination issued August 4, 2000 and the determinations of Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) appended to this permit.

The proposed facility including the relocated No. 1 line will consist of the following emissions units.

| EMISSIONS UNIT NO. | EMISSIONS UNIT DESCRIPTION |
|---|---|
| 001 | No. 1 Line consisting of 3 Paint Spray Booths |
| 002 | Two Injection Molding Machines |
| 003 | No. 2 Line consisting of 3 Continuous Spray Booths and a Curing Oven |

### REGULATORY CLASSIFICATION

The facility, consisting of the three emissions units, is classified as a Major or Title V Source of air pollution because emissions of volatile organic compounds (VOC) exceed 100 tons per year (TPY), and because emissions of one hazardous air pollutant (HAP) exceed 10 tons per year and emissions of total HAP exceed 25 tons per year. This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Since potential emissions (at least until the connection of the No. 2 Line to the RTO) are greater than 250 TPY for VOC, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). The emissions units are subject to limits determined as BACT for VOC and are subject to limits determined to be MACT for HAP.

### REVIEWING AND PROCESS SCHEDULE

| | |
|---|---|
| 04-17-00 | Date of Receipt of Application |
| 05-04-00 | First Request for Additional Information |
| 06-16-00 | Final Request for Additional Information |
| 06-22-00 | Date Application Complete |
| xx-xx-00 | Notice of Intent Published in Newspaper |

### RELEVANT DOCUMENTS

The documents listed below constitute the basis for the permit and are on file with the Department.

- Permit application
- Applicant's additional information noted above
- Department's Technical Evaluation and Preliminary Determination and Intent to Issue

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Air Division of the Dade County Department of Environmental Resources Management (DERM), Suite 900, 33 Southwest Second Avenue, Miami, Florida 33130-1540 (phone number: 305/372-6925). All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blairstone Road, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).

2. General Conditions: The permittee is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Expiration: This air construction permit shall expire on December 31, 2001. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]

7. PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40CFR52.21(r)(2) and Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

8. BACT Determination: In conjunction with extension of the 18 month period to commence or continue construction or extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source as applied to any new or modified emission units. [40CFR52.21(j)(4) and Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

9. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

10. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for and receive a Title V operation permit prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's appropriate District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

GENERAL EMISSIONS LIMITING STANDARDS

11. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

12. Unconfined Emissions of Particulate Matter: [Rules 62-296.320(4)(c) and 62-212.400, F.A.C.]

    (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

    (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.

    (c) Reasonable precautions include the following:

    - Paving and maintenance of roads, parking areas and yards.
    - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
    - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
    - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
    - Landscaping or planting of vegetation.
    - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
    - Confining abrasive blasting where possible.
    - Enclosure or covering of conveyor systems.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

13. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

(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.

(b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. (Not federally enforceable)

[Note: An objectionable odor is defined in Rule 62-210.200(203), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

**OPERATIONAL REQUIREMENTS**

14. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's appropriate district office and the appropriate local program office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

15. 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. [Rule 62-210.650, F.A.C.]

16. Excess Emissions:

For purposes of this permit, all limits established pursuant to the State Implementation Plan, including those limits established as BACT, include emissions during periods of startup and shutdown, and are not subject to the provisions of Rule 62-210.700(1), F.A.C. This provision can not be used to vary any NESHAP requirements from any subpart of 40 CFR 63. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown or malfunction shall be prohibited pursuant to Rule 62-210.700(4), F.A.C. [Rules 62-4.070(3) and 62-210.700(5), F.A.C.]

Excess emissions resulting from malfunction of any emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**COMPLIANCE MONITORING AND TESTING REQUIREMENTS**

17. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if

the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

18. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

19. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

20. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]

21. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]

    (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

    (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

22. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

23. Test Notification: The permittee shall notify the appropriate Department District Office and the appropriate local program at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]

24. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

25. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b)and 62-213.440(1)(b)2.b., F.A.C.]

26. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]

27. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the appropriate Department District Office and the appropriate local program within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the NESHAP requirements, excess emissions shall also be reported in accordance with 40 CFR 63, Subpart A. [Rule 62-4.130, F.A.C.]

28. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the appropriate Department District Office and the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]

29. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the appropriate Department District Office and the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

The following specific conditions apply to the following emissions units:

| EMISSIONS UNIT NO. | EMISSIONS UNIT DESCRIPTION |
|---|---|
| 001 | No. 1 Spray Coating Line |
| 002 | Injection Molding Machines |
| 003 | No. 2 Spray Coating Line |

[Note: Emissions Units 001, 002 and 003 are subject to PSD for VOC; subject to MACT for HAP; and are subject to the requirements of the state rules as indicated in this permit. This permit includes the MACT requirements, and constitutes MACT for this project.]

1. This permit supersedes the existing air operation permit for the existing No. 1 Spray Coating Line effective upon relocation and startup of the existing No. 1 Spray Coating Line in its new location. Emissions Units 001, 002 and 003 may each operate for up to 8,760 hours/year. The facility is required to keep daily records of the operating hours. [Rules 62-210.200, Definitions-Potential to Emit (PTE) and 62-213.440(1)(b)1.b., F.A.C.]

2. The maximum amount of coating applied shall be 300,000 gallons per line per year. Simultaneously with the startup of spray coating on the new No. 2 Spray Coating Line (Emissions Unit 003), the existing No. 1 Spray Coating Line (Emissions Unit 001) shall be appropriately connected to the Regenerative Thermal Oxidizer (RTO) so that its emissions are controlled along with those from Emissions Unit 003. Total emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAPs) from the RTO shall not exceed 130.5 tons per year in any consecutive 12-month period.
[Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-210.200 (PTE), F.A.C., and BACT/MACT]

3. The air pollution control system installed shall consist of a Regenerative Thermal Oxidizer (RTO) as specified in the application and subsequent documents submitted in support thereof. The VOC/HAP capture and treatment system for Emission Unit 003 shall be designed to capture at least 95 percent of the total VOC/HAP emissions generated from the panel spraying operation while destroying at least 95 percent (90.3 percent overall capture and destruction). Appropriate short-term emission limits and compliance requirements for the RTO control system shall be established by the Department within 45 days following receipt of the capture and destruction efficiency test results required by Specific Condition 4 below and shall be incorporated into the Title V permit for this facility.
[Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

4. Pursuant to the requirements of Specific Condition 3 above, the permittee shall demonstrate the VOC/HAP capture and destruction efficiency of Emissions Unit 003 by comparing raw VOC/HAP emissions generated over a 3-hour period (based on material usage rates and appropriate emission factors) with captured emissions based on measured flow rates and VOC/HAP concentrations in the RTO inlet duct as determined by EPA Methods 2 and 18, 25 or 25A, as described in 40 CFR 60 Appendix A. A capture efficiency and destruction efficiency test shall also be performed for Emissions Units 001/002 within 45 days after startup of the relocated line. A destruction efficiency test shall be performed annually on the RTO. Within 45 days following test completion, results of the above tests shall be submitted along with a complete test report to the Bureau of Air Regulation in Tallahassee, the Department's Southeast District and the Miami-Dade County Environmental Resources Management Department. [Rule 62-4.070(3) and 62-212.400, F.A.C., and BACT]

5. Testing of emissions shall be conducted annually with the emissions units operating at permitted capacity, which is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emissions units may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the emissions unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

6. The permittee shall continuously keep and maintain a five-year ongoing compilation of the following records to demonstrate compliance with the VOC/HAP emissions limitations of Specific Condition No. 2 of this section. Records shall be completed no later than five working days after the end of each month.
   - Amounts in pounds of each material used each month that contains VOC/HAP.
   - Weight percentage of VOC/HAP in materials using the highest value listed on the Manufacturer's Safety Data Sheets.
   - Amount in pounds of VOC/HAP emitted each month from each material used during the month, calculated by multiplying the amount of each material used by its VOC/HAP content and then by the appropriate emission factor.
   - Total amount in pounds of VOC/HAP emitted each month, calculated as the sum of VOC/HAP emitted from each material used during the month as determined above.
   - Rolling 12-month total amount in pounds and tons of VOC/HAP emitted in the most recent consecutive 12-month period, calculated as the sum of VOC/HAP emitted for the current month and the preceding eleven months.

   [Rules 62-4.070(3), 62-212.400, F.A.C., MACT and BACT]

7. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C.]

8. The subject emissions units shall be subject to the following:
   - Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C.]
   - Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C.]
   - Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. [Rule 62-210.700, F.A.C.]
   - In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700, F.A.C.]

9. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(5) to the Department's Southeast District Office and the Miami-Dade County Environmental Resources Management Department by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C.]
10. The facility shall adhere to the BACT/MACT Determination that is attached as part of this permit following this page.

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# APPENDIX BD - DETERMINATIONS OF

# BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

# AND

# MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)

Nailite International, Inc.

New Plastic Panel Finishing Spray Line/Relocation of Existing Line
Miami-Dade County

DEP File No. 0250407-003-AC (PSD-FL-289)

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

Month Day, 2000

**Nailite International, Inc.**
**New Panel Finishing Spray Line**
**Miami, Dade County**

**DRAFT**

Nailite International, Inc. proposes to construct a new plastic panel finishing spray line near its existing facility at 1251 NW 165th Street in Miami, Dade County. The address of the proposed site is 1111 NW 165th Street which is approximately 500 feet west of Nailite's existing facility. The new spray line will be housed in a new building that will also contain the existing operation after the new line is up and running.

The proposed project will result in a significant emissions increase of volatile organic compounds (VOC) with respect to Table 212.400-2, Florida Administrative Code (F.A.C.). The project is therefore subject to review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) in accordance with Rule 62-212.400, F.A.C. The project is also subject to a case-by-case Maximum Achievable Control Technology (MACT) Determination in accordance with Rule 62-204.800(10)(d)2, F.A.C. since it will be a major source of hazardous air pollutants (HAP).

The details of PSD applicability and a description of the process are presented in the separate Technical Evaluation and Preliminary Determination issued concurrently with these determinations.

## DATE OF RECEIPT OF APPLICATION:

The application was received on April 17, 2000.

## BACT/MACT DETERMINATION REQUESTED BY THE APPLICANT:

| SOURCE | VOC CONTROL TECHNOLOGY | PROPOSED BACT LIMIT |
|---|---|---|
| Mix Room | Regenerative Thermal Oxidizer | 130.5 TPY Total VOC/HAP |
| Paint Booths | " | |
| Drying Oven | " | |

The Department determined that the applicant's proposed new line and the existing operation are "adjacent" according to the PSD rules and therefore will comprise a single facility. PSD applies to the proposed project since the VOC emission increases at a major facility will exceed significant levels. This BACT/MACT determination covers the requirements of both the PSD and NESHAP regulations. The applicant requested that the Department's BACT and MACT determinations be the same and as indicated above.

## BACT/MACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and

available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

There are no promulgated emission limitations contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources (NSPS) or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAP) that apply to the manufacturing of polypropylene shingles.

The U.S. Environmental Protection Agency (EPA) is currently developing MACT standards for plastic parts coating processes and will propose them in the future. Until a NESHAP is proposed, the Department is required by its rules to develop a case-by-case determination of Maximum Achievable Control Technology (MACT) for new major sources of HAP. In this instance, the MACT determination forms the basis for the minimum level of control required by the BACT determination. The MACT determination procedure is outlined below.

The provisions of 40 CFR 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j), were adopted as Rule 62-204.800(10)(d)2, F.A.C. Section 112(g) requires the case-by-case MACT determination mentioned above. Following is the definition of case-by-case MACT pursuant to Section 112(g) for new sources of hazardous air pollutants:

> *Maximum Achievable Control Technology (MACT) emission limitation for new sources means* "the emission limitation which is not less stringent than the emission limitation achieved by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed source."
>
> *Similar source* means "a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed source such that the source could be controlled using the same control technology."

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Per Federal Register Volume 61, Number 250, Pages 68394-95, EPA believes that because the Clean Air Act specifically indicates that *existing source* MACT should be determined from *within* the source category (e.g. Plastic Parts) and does not make this distinction for *new source* MACT, that Congress intends for transfer technologies to be considered when establishing the minimum criteria for new sources. EPA believes that Congress could have explicitly restricted the minimum level of control for new sources, but did not. The use of the term "best controlled source" rather than "best controlled source within the source category" suggests that the intent is to consider transfer technologies when appropriate.

In addition, the regulations state that in making the MACT Determination, the Department should give consideration to:

(a) Any Environmental Protection Agency proposed relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or an adopted presumptive MACT determination for the source category which includes the constructed or reconstructed major source.

(b) Available information as defined in 40 CFR 63.41. *Available information* means, for purposes of identifying control technology options for the affected source, information contained in the following information sources as of the date of the approval of the MACT determination by the permitting authority:

(1) A relevant proposed regulation, including all supporting information;

(2) Background information documents for a draft or proposed regulation;

(3) Data and information available for the Control Technology Center developed pursuant to Section 113 of the Act;

(4) Data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;

(5) Any additional information that can be expeditiously provided by the Administrator; and

(6) For the purpose of determinations by the permitting authority, any additional information considered available by the permitting authority.

## BACT/MACT DETERMINATIONS BY EPA AND STATES:

The EPA is currently working on a proposed MACT standard for plastic parts coating sources, although the proposed regulations have not been published as of this issuance. Therefore, it is not known what type of add-on control equipment may be required by the time EPA issues new source MACT requirements for the industry pursuant to Section 112(d). This uncertainty does not affect consideration of add-on control equipment under Section 112(g) case-by-case MACT determinations or case-by-case BACT determinations.

The following table lists some of the PSD/BACT installations obtained from the EPA RACT/BACT/LAER Clearinghouse for projects involving coating of plastic parts and materials.

| PROJECT LOCATION | INSTALLATION DATE | TECHNOLOGY | PROCESS TYPE | COMMENTS |
|---|---|---|---|---|
| Evart Products Textron, Inc., MI | 1994 | Thermal Oxidizer | Coating Line, Plastic Parts | Automatic booth w/ 80% recirculation controlling 516 TPY |
| Donnelly Corporation, MI | 1994 | Thermal Oxidizer | Coating Line, Plastic Parts | Automatic booth w/ 90% recirculation controlling 230 TPY |
| I. I. Stanley Co., MI | 1992 | Catalytic Incinerator | Coating Process | Process involves two booths w/ 70% regeneration for the total process |

## OTHER INFORMATION AVAILABLE TO THE DEPARTMENT

In addition to the information submitted by the applicant and that mentioned above, other information available to the Department includes the references at the end of this review and the following:

- Technical literature from control equipment manufacturers
- Personal communications with control equipment manufacturers
- Personal communications with state environmental agencies

## PROPOSED PROJECT AND EMISSIONS

Nailite is proposing to construct and operate a new panel finishing spray line. Once the new state-of-the-art spray line is operating, the existing spray line using older technology will be relocated and connected to the proposed control system for the new line.

Three spray booths will be operated in one continuous spray line with a curing oven at the end of the spray line. The spray line is designed to finish approximately 1,400 panels per hour. The panel sizes range from 20 inches by 40 inches to 20 inches by 60 inches. The finish system will be designed with three parallel conveyors, which form a 60-inch flat line conveyor system. The conveyor system will have an adjustable speed ranging from 10 to 30 feet per minute. The components of the finishing spray line include a fluid handling system, an application system, spray booths, an oven and a conveyor.

The proposed coating delivery system for each spray booth consists of a ten-second color change system. Paint will be pumped from 55-gallon drums located in the paint mixing room. Each loop will be equipped with an "air pig" paint loop purge system. This will allow old paint to be returned to a 55-gallon drum for reuse with little paint waste. The air pig is designed to recover 90 percent of the old paint from the circulation loop. The loop system must be flushed when new colors are changed. The fluid management system and spray guns will utilize an advance Secondary Heat Transfer System to provide heat control at the spray gun.

Each of the first two spray booths will be equipped with a Static Heat Stripping HP60 in-line paint heater. The heater is used to control the coating temperature to provide repeatable finishing results regardless of ambient temperature conditions. Maintaining the coating temperature at the spray guns at the viscosity flat line temperature will reduce the solvent usage by approximately 15 percent compared to Nailite's existing operations.

The third spray booth in the spray line will be utilized for shading. This booth will have six different colors supporting the application system. Each color will be pumped directly from 55-gallon drums. Each drum will have a wall mounted pump, required air controls, a siphon assembly, circulation control valve, a 55 gallon cover with air-powered agitator and cover lift assembly to keep pigmented colors in constant suspension through the loop. The fluid pressure will be regulated all the way to the spray gun and the six circulation loops will be equipped with a secondary heat transfer system to provide constant controlled heat transfer.

Eight spray guns will be used in Spray Booth Nos. 1 and 2. Each spray booth is equipped with a constant speed gun mover with a stroke travel of seven feet. The guns are automatically toed away from the direction of the gun mover travel to allow the atomized velocity of 2 feet per second to work with the gun tip speed of 150 feet per minute. This allows for a higher application transfer efficiency and minimizes the over-spray in the spray booth. Spray Booth No. 3 will be identical to Spray Booth Nos. 1 and 2; however, it will be equipped with HVLP guns.

The proposed spray line will reduce the amount of solvent usage by approximately 29 percent as compared to Nailite's existing spray line. This improved transfer efficiency MR result in a significant reduction in VOC and HAP emissions.

The proposed spray booths are designed with a closed-faced side draft booth with built in air circulation. The only opening in the spray booth will be the conveyor slot which will be 6-ft wide and one foot tall. Air movement within the booth will be maintained at 100 feet per minute. A circulation fan will circulate the air in the spray booth into the exhaust filters at the rear of the spray booth. The filtered air is then repressurized and ducted back to the inlet plenum mounted in front of the spray booth on the roof. The plenum will uniformly reintroduce the circulation air back into the spray booth. This process will maintain a uniform 100 feet per minute airflow without interference from outside airflows.

The spray booths will be 10 ft wide, 16 ft-4 inches deep and 8 ft tall. The working depth of the booths will be 12 ft. Each booth will be equipped with a 9,200 cfm recirculation fan at 1/4 inch static pressure. The VOC buildup in the booths will be maintained under the lower explosive limit (LEL) level by a bleed air duct. The bleed air will be controlled to 1,200 cfm by dampers. The bleed air duct from each booth will be directed to a Regenerative Thermal Oxidizer (RTO) for VOC/HAP destruction.

The controls for the finishing system will be contained in a system controller panel located at each of the three spray booths. Each panel provides remote fluid pressure control to the fluid pressure controls in each spray booth. Spray Booth Nos. 1 and 2 have two remote fluid pressure regulators, while Spray Booth No. 3 has six controls. The guns are interlocked into the system controller. If the spray booth exhaust fan is not operating, the guns will not spray in either automatic or manual modes.

The electric oven will be designed to heat the coated panels with hot air impinged onto the top surfaces of the panels near the oven entrance, in order to begin rapid evaporation of the solvents and create a flow of air to the return duct near the oven exit. The oven will be 45 ft long, 6 ft-10 inches wide, and 3 ft high. A circulation blower will be utilized rated at 8,000 cfm at 2.5 inches w.g. static pressure with a 10 hp motor. The exhaust from the oven will be vented to the RTO.

VOC/HAP emissions consist of toluene and xylene that is evolved during the coating process. As stated above, VOC/HAP emissions will be controlled using a twin bed RTO which will be described in more detail in the following section. The RTO will be designed for a process gas flow rate of 27,000 acfm and 95 percent destruction efficiency. Propane will be used at start-up as a secondary fuel, while the captured solvent will be the primary fuel.

VOC/HAP potential emissions from the new finishing spray line are estimated at approximately 130.5 TPY. Approximately 90 percent of the VOC/HAP in the coating will be released in the paint booths while 10 percent remains in the coating. The design capture efficiency of the spray booths will be approximately 95 percent. It is therefore assumed that 5 percent of the VOC/HAPs are emitted into the building as fugitive emissions.

Paint filters will be used to control particulate emissions from the spray booth operations. Accordion-type filters with a 95% percent minimum efficiency are proposed for the project. $PM/PM_{10}$ potential emissions are estimated at 4.7 TPY based on 25 percent over-spray of coating in the booths and 95 percent removal by the paint filter pads. Emissions of $SO_2$, $NO_X$ and CO are projected to be well below 1.0 TPY.

## BACT CONTROL OPTIONS

Regenerative Thermal Oxidation (RTO)

The applicant proposes to install this control option, which exposes the gas stream to high temperatures to oxidize the VOC/HAP to carbon dioxide and water. An auxiliary fuel is used to initially reach the high operating temperatures (1600-1700°F) required. A regenerative thermal incinerator (RTO) typically uses ceramic materials to store a large thermal mass generated by the thermal incinerator and then uses the fuel value of the inlet gas stream to maintain the incineration process.

The oxidizer for this application consists of a reinforced, insulated twin bed chamber filled with ceramic heat exchanger media. The gas flow is automatically controlled by a poppet valve mechanism that changes the direction of the gas flow at regular intervals via an integral programmable logic control system. An external burner is used only for initial cold startup, which would typically be for one hour. With a sufficient concentration of solvents in the incoming process gas, the destruction of VOC/HAP will be self-sustaining and no auxiliary heat is required from the fuel source. Thermal incineration is technically feasible and commercially available.

Catalytic Oxidation (CatOx)

CatOx technology passes the contaminated gas stream over a catalyst bed at a moderate temperature sufficient to oxidize the organic compounds to carbon dioxide and water. An auxiliary fuel is required to elevate the gas stream to the required temperature range. Ideally, once this temperature is reached and the incineration process begins, there would be enough fuel value in the inlet gas stream so that only minor amounts of auxiliary fuel would be required to maintain the operating temperature.

A heat exchanger may be added to preheat the inlet gas stream prior to incineration (recuperative incineration). Likewise, ceramic materials may be included in the design to store a large thermal mass generated by the incinerator in order to make use of the fuel value of the inlet gas stream to maintain the incineration process (regenerative incineration). Both of these methods attempt to reduce the operating costs incurred by the combustion of an auxiliary fuel. Typically, the selection of a catalytic oxidizer depends on the exhaust gas volume and the concentration of the gas stream. At concentrations above 3,000 ppm at 27,000 scfm, which is the design flow for this case, the selection of a catalytic oxidizer may be appropriate.

Activated Carbon Adsorption

The captured gas stream is passed across a bed of activated carbon to adsorb VOC/HAP. Activated carbon is generally used because its internal pore structure provides a very large surface area on which to adsorb the volatile organic compounds. Once the carbon bed becomes saturated with organic compounds, hot air or steam is used to release the VOC for recovery or destruction and regenerate the bed for another cycle. For these systems, when one carbon bed is in operation, another carbon bed is being regenerated. Selection criteria depend on concentration and flow characteristics.

Biofiltration

This relatively new technology has been used successfully to control odors from organic compounds. The VOC/HAP-laden gas stream is collected and passed under an active bed of soil containing microorganisms. As the air rises through the bed, the microorganisms consume the chemicals and convert them to carbon dioxide and water. Economics can be favorable depending on the application.

Chemical Scrubber

Chemical scrubbers are absorption systems designed to dissolve a specific pollutant in a solvent, usually water, but based on the chemistry of the exhaust stream. Exhaust streams that include a variety of chemicals may also require a variety of solvents, adding complexity to the control system and potential disposal costs if recovery is not practical. Typically, a VOC concentration above 200 ppm is necessary to make chemical scrubbing practical.

Condensation

A condensation system includes refrigeration units to cool the exhaust stream and condense out the chemical contaminants. The condensate is collected and either separated for reuse or disposed of as a waste. For highly concentrated gas streams, these systems can be more than 95% efficient. However, the gas stream from this plant would be very dilute and the condensate would have little or no value for reuse. Therefore, a condensation system is not considered a viable option for this project.

## EMERGING BACT TECHNOLOGIES

The Department also identified the following emerging add-on control technologies that are in various stages of development: membrane technology, biofilter systems, ultraviolet oxidation technology, and photocatalytic oxidation. Currently, ultraviolet oxidation technology has been applied successfully in California and elsewhere and is being evaluated as a control option by a Florida boat manufacturer.

## BACT DETERMINATION

The applicant proposed to install the top control technology (RTO) as BACT and did not provide cost effectiveness calculations for the other options. The Department does not necessarily accept that such calculations are not required in general. However the Department agrees that the proposed technology represents the top technology at this time and that it would not be cost-effective to install more restrictive controls.

Cost effectiveness calculations for the RTO are based on the following quotation supplied by Adwest Technologies of Anaheim, California:

| | |
|---|---|
| New Paint Line Capture System | $225,600 |
| RTO Installed Capital Cost | $451,145 |
| Total Capital Cost | $676,745 |
| Annualized Capital Cost | $96,400 (7% @ 10 yrs, TCC x. 0.1424) |
| Annual Operation Cost | $13,230 |
| Total | $109,600 |
| Tons VOC/HAP Removed | 770 tons |
| Cost Effectiveness | $142/ton |

This cost per ton is well within the Department's guidelines for cost-effective add-on controls. Therefore, the RTO proposed by the applicant is selected as the best available control technology for this project. Appropriate short-term BACT emission limits will be established after the tests required by the permit are completed.

## MACT DETERMINATION:

The BACT determination above is adopted as the MACT determination.

## DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

John Reynolds, Permit Engineer
A. A. Linero, P.E. Administrator
Bureau of Air Regulation
2600 Blair Stone Road, MS # 5505
Tallahassee, Florida 32399-2400
850/488-0114

Recommended By:

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

Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

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

G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver 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.

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

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

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

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

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.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.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology (X);
(b) Determination of Case-by-Case Maximum Achievable Control Technology (X)
(c) Determination of Prevention of Significant Deterioration (X); and
(d) Compliance with New Source Performance Standards ( ).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

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

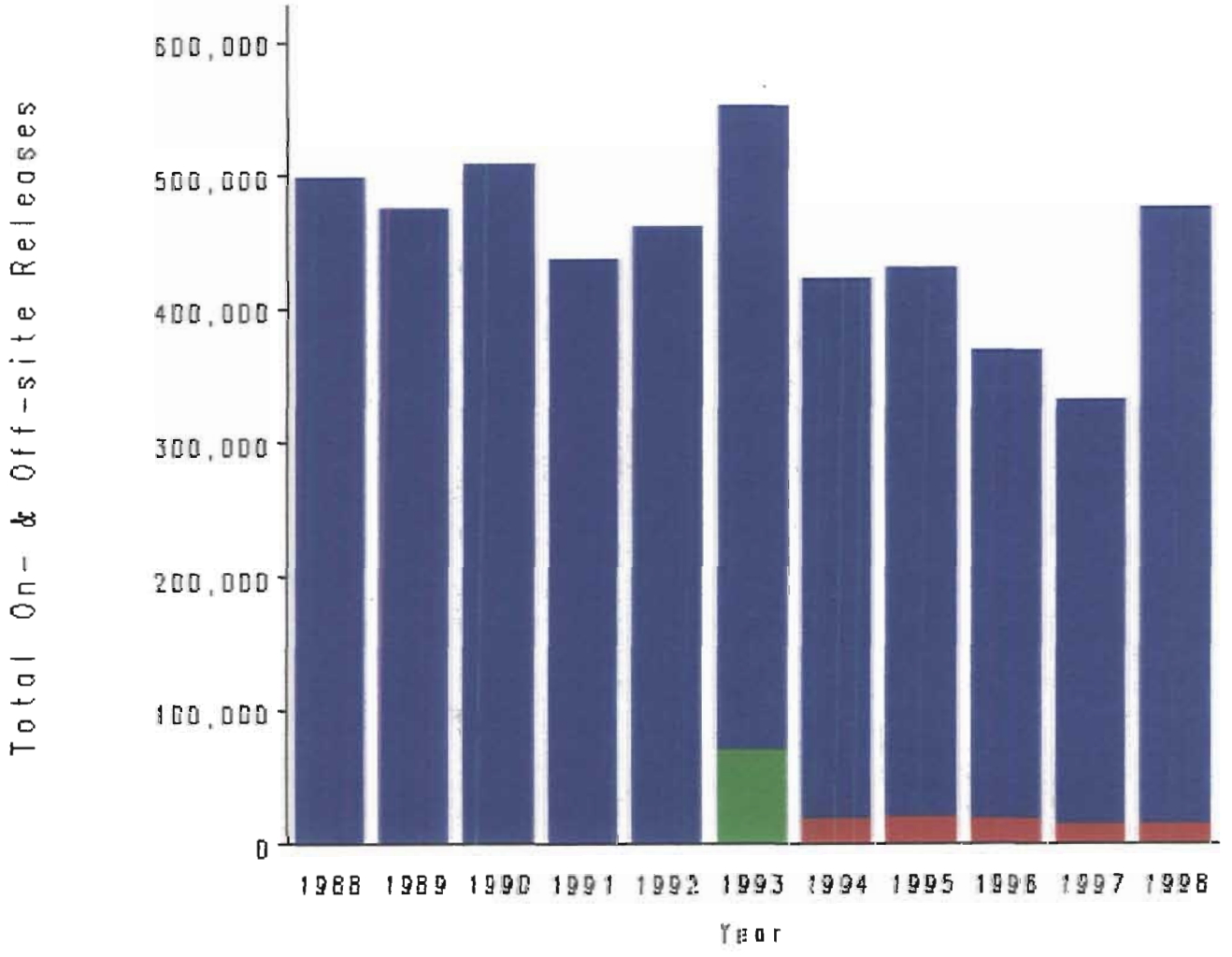
TRI *Explorer*

EPA Office of Environmental Information

# Release Trend Graph

NAILITE INTL. INC.

Total On– and Off–site Releases (in pounds), By Chemical




TRIF ID 33169NLTNT1251N

Release Trend Graph August 3, 2000
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*This request took 0.38 seconds of real time (v1.0.1 build 1039).*

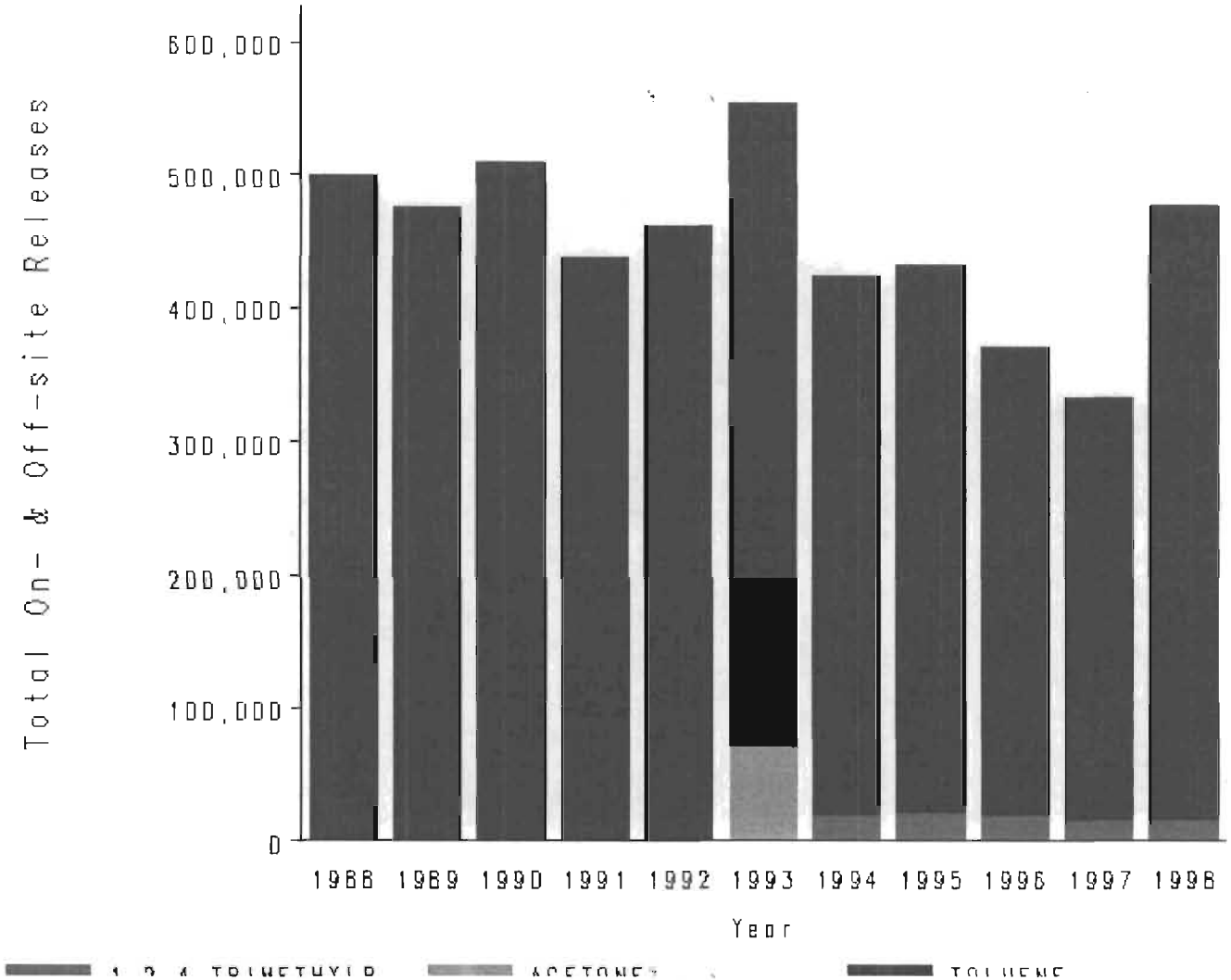
TRI *Explorer*

EPA Office of Environmental Information

# Release Trend Graph

## NAILITE INTL. INC.

### Total On— and Off—site Releases (in pounds), By Chemical



TRI Explorer

EPA Office of Environmental Information

Facility Report

See Note Return to selectio

# TRI On-site and Off-site Reported Releases of All Chemicals (in pounds), Dade County, State of Florida, 1998, All Industries

| Facility, and Chemical | TRIF ID | Form Rs | Form As | Total Air Emissions | Surface Water Discharges | Under-ground Injection | Releases to Land | Total On-site Releases | Total Off-site Releases | Total On- & Off-site Releases |
|---|---|---|---|---|---|---|---|---|---|---|
| **A-1 COMPONENTS CORP., 625 W. 18TH ST., HIALEAH** | **33010WTSCN1800W** | **1** | **0** | **170** | **0** | **0** | **0** | **170** | **0** | **170** |
| AMMONIA | | 1 | 0 | 170 | 0 | 0 | 0 | 170 | 0 | 170 |
| **AAR LANDING GEAR SERVICES, 9371 N.W. 100 ST., MIAMI** | **33178RLNDN9371N** | **1** | **0** | **30** | **0** | **0** | **0** | **30** | **0** | **30** |
| TETRACHLOROETHYLENE | | 1 | 0 | 30 | 0 | 0 | 0 | 30 | 0 | 30 |
| **ALJOMA LUMBER INC., 10300 N.W. 121 WAY, MEDLEY** | **33178LJMLM10300** | **3** | **0** | **0** | **15** | **0** | **0** | **15** | **3,393** | **3,408** |
| ARSENIC COMPOUNDS | | 1 | 0 | 0 | 5 | 0 | 0 | 5 | 1,315 | 1,320 |
| CHROMIUM COMPOUNDS | | 1 | 0 | 0 | 5 | 0 | 0 | 5 | 1,322 | 1,327 |
| COPPER COMPOUNDS | | 1 | 0 | 0 | 5 | 0 | 0 | 5 | 756 | 761 |
| **ALLIED UNIVERSAL CORP., 8350 N.W. 93RD ST., MIAMI** | **33166LLDNV8350N** | **1** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| AMMONIA | | 0 | 1 | . | . | . | . | . | . | . |
| CHLORINE | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ALTHIN MEDICAL INC., 14620 N.W. 60TH AVE., MIAMI LAKES** | **33014CDMDC14600** | **1** | **0** | **10** | **0** | **0** | **0** | **10** | **0** | **10** |
| DIISOCYANATES | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| **ANGLER BOAT CORP., 4450 N.W. 128TH ST., OPA LOCKA** | **33054NGLRB4450N** | **1** | **0** | **47,743** | **0** | **0** | **0** | **47,743** | **0** | **47,743** |
| STYRENE | | 1 | 0 | 47,743 | 0 | 0 | 0 | 47,743 | 0 | 47,743 |
| **APACHE PRODS. CO., 1020** | **33144DYPLS1020S** | **3** | **0** | **52,736** | **0** | **0** | **0** | **52,736** | **1,397** | **54,133** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **S.W. 69TH AVE., MIAMI** | | | | | | | | | | |
| 1,1-DICHLORO-1-FLUOROETHANE | | 1 | 0 | 44,366 | 0 | 0 | 0 | 44,366 | 0 | 44,366 |
| CHLORODIFLUOROMETHAN | | 1 | 0 | 8,270 | 0 | 0 | 0 | 8,270 | 0 | 8,270 |
| DIISOCYANATES | | 1 | 0 | 100 | 0 | 0 | 0 | 100 | 1,397 | 1,497 |
| **ASHLAND DISTRIBUTION CO., 200 N.E. 181ST ST., MIAMI** | **33162SHLND200NE** | **8** | **5** | **7,038** | **0** | **0** | **0** | **7,038** | **0** | **7,038** |
| 1,2,4-TRIMETHYLBENZENE | | 1 | 0 | 64 | 0 | 0 | 0 | 64 | 0 | 64 |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 194 | 0 | 0 | 0 | 194 | 0 | 194 |
| CUMENE | | 0 | 1 | . | . | . | . | . | . | . |
| ETHYLENE GLYCOL | | 0 | 1 | . | . | . | . | . | . | . |
| METHANOL | | 1 | 0 | 640 | 0 | 0 | 0 | 640 | 0 | 640 |
| METHYL ETHYL KETONE | | 1 | 0 | 690 | 0 | 0 | 0 | 690 | 0 | 690 |
| METHYL ISOBUTYL KETONE | | 0 | 1 | . | . | . | . | . | . | . |
| N-HEXANE | | 1 | 0 | 540 | 0 | 0 | 0 | 540 | 0 | 540 |
| SEC-BUTYL ALCOHOL | | 1 | 0 | 310 | 0 | 0 | 0 | 310 | 0 | 310 |
| TETRACHLOROETHYLENE | | 0 | 1 | . | . | . | . | . | . | . |
| TOLUENE | | 1 | 0 | 3,470 | 0 | 0 | 0 | 3,470 | 0 | 3,470 |
| TRICHLOROETHYLENE | | 0 | 1 | . | . | . | . | . | . | . |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 1,130 | 0 | 0 | 0 | 1,130 | 0 | 1,130 |
| **B & B TRITECH INC., 875 W. 20TH ST., HIALEAH** | **33010BBCHM87520** | **1** | **2** | **9,000** | **0** | **0** | **0** | **9,000** | **0** | **9,000** |
| CERTAIN GLYCOL ETHERS | | 0 | 1 | . | . | . | . | . | . | . |
| DICHLOROMETHANE | | 1 | 0 | 9,000 | 0 | 0 | 0 | 9,000 | 0 | 9,000 |
| PHENOL | | 0 | 1 | . | . | . | . | . | . | . |
| **BENADA ALUMINUM OF FLORIDA INC., 8800 N.W. 79TH AVE., MEDLEY** | **33166BNDLM8800N** | **5** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **2** |
| CHROMIUM COMPOUNDS | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| HYDROGEN FLUORIDE | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SULFURIC ACID (1994 AND AFTER "ACID AEROSOLS" ONLY) | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **BERTRAM YACHT INC., 3663 N.W. 21ST ST., MIAMI** | **33142BRTRM3663N** | **2** | **0** | **33,815** | **0** | **0** | **0** | **33,815** | **0** | **33,815** |
| STYRENE | | 1 | 0 | 21,540 | 0 | 0 | 0 | 21,540 | 0 | 21,540 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| STYRENE | | 1 | 0 | 21,540 | 0 | 0 | 0 | 21,540 | 0 | 21,540 |
| TOLUENE | | 1 | 0 | 12,275 | 0 | 0 | 0 | 12,275 | 0 | 12,275 |
| **BEVERAGE CANNERS INTL. CORP., 3550 N.W. 110 ST., MIAMI** | **33167BVRGC3550N** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **BF GOODRICH AEROSPACE LANDING GEAR SERVICES, 3201 N.W. 167TH ST., MIAMI** | **33056BFGDR3201N** | **2** | **0** | **10,660** | **0** | **0** | **0** | **10,660** | **3,800** | **14,460** |
| CHROMIUM COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 3,800 | 4,300 |
| TRICHLOROETHYLENE | | 1 | 0 | 10,160 | 0 | 0 | 0 | 10,160 | 0 | 10,160 |
| **BF GOODRICH AEROSPACE, LANDING GEAR SERVICES DIV., 6445 N.W. 25TH ST., MIAMI** | **33122CLVLN6445N** | **2** | **0** | **27,700** | **0** | **0** | **0** | **27,700** | **18,100** | **45,800** |
| CHROMIUM COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 18,100 | 18,600 |
| TRICHLOROETHYLENE | | 1 | 0 | 27,200 | 0 | 0 | 0 | 27,200 | 0 | 27,200 |
| **BRAIN POWER INC., 4470 S.W. 74TH AVE., MIAMI** | **33155BRNPW4470S** | **1** | **0** | **3** | **0** | **0** | **0** | **3** | **0** | **3** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 |
| **CONSOLIDATED OIL CO., 11550 N.W. 36TH AVE., MIAMI** | **33167CNSLD11550** | **6** | **0** | **1,765** | **0** | **0** | **0** | **1,765** | **0** | **1,765** |
| BENZENE | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| ETHYLBENZENE | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| N-HEXANE | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| TOLUENE | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 255 | 0 | 0 | 0 | 255 | 0 | 255 |
| ZINC COMPOUNDS | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CONTENDER BOATS INC., 1820 S. E. 38TH AVE., HOMESTEAD** | **33035CNTND1820S** | **1** | **1** | **48,931** | **0** | **0** | **0** | **48,931** | **0** | **48,931** |
| DIISOCYANATES | | 0 | 1 | | | | | | | |
| STYRENE | | 1 | 0 | 48,931 | 0 | 0 | 0 | 48,931 | 0 | 48,931 |
| **CORDIS CORP., 14201 N.W. 60TH AVE., MIAMI LAKES** | **33014CRDSC14201** | **1** | **0** | **9,083** | **0** | **0** | **0** | **9,083** | **0** | **9,083** |
| TRICHLOROETHYLENE | | 1 | 0 | 9,083 | 0 | 0 | 0 | 9,083 | 0 | 9,083 |
| **DELTA LABS. INC., 640 W. 18TH ST., HIALEAH** | **33010DLTLB640WE** | **5** | **0** | **1,885** | **0** | **0** | **0** | **1,885** | **0** | **1,885** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 6 |
| METHANOL | | 1 | 0 | 884 | 0 | 0 | 0 | 884 | 0 | 884 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| METHYL ETHYL KETONE | | 1 | 0 | 588 | 0 | 0 | 0 | 588 | 0 | 588 |
| TOLUENE | | 1 | 0 | 328 | 0 | 0 | 0 | 328 | 0 | 328 |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 79 |
| **DIMENSIONAL PLASTICS CORP., 1065 E. 26TH ST., HIALEAH** | **33013DMNSN1065E** | **2** | **0** | **2,350** | **0** | **0** | **0** | **2,350** | **0** | **2,350** |
| METHYL METHACRYLATE | | 1 | 0 | 830 | 0 | 0 | 0 | 830 | 0 | 830 |
| STYRENE | | 1 | 0 | 1,520 | 0 | 0 | 0 | 1,520 | 0 | 1,520 |
| **DM INDS., 2320 N.W. 147TH ST., OPA LOCKA** | **33054DMNDS2320N** | **2** | **0** | **38,180** | **0** | **0** | **0** | **38,180** | **0** | **38,180** |
| DIISOCYANATES | | 1 | 0 | 80 | 0 | 0 | 0 | 80 | 0 | 80 |
| STYRENE | | 1 | 0 | 38,100 | 0 | 0 | 0 | 38,100 | 0 | 38,100 |
| **ENGELHARD HEXCORE, 3550 N.W. 49 ST., MIAMI** | **33142CBGGY3550N** | **1** | **0** | **68,620** | **0** | **0** | **0** | **68,620** | **0** | **68,620** |
| PHENOL | | 1 | 0 | 68,620 | 0 | 0 | 0 | 68,620 | 0 | 68,620 |
| **FLEXIBLE FOAM PRODS. INC., 3225 N.W. 107TH ST., MIAMI** | **33167FLXBL3225N** | **2** | **0** | **696,857** | **0** | **0** | **0** | **696,857** | **0** | **696,857** |
| DICHLOROMETHANE | | 1 | 0 | 696,357 | 0 | 0 | 0 | 696,357 | 0 | 696,357 |
| TOLUENE DIISOCYANATE (MIXED ISOMERS) | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| **FLORIDA PLATING & FINISHING CORP., 3595 N.W. 125TH ST., MIAMI** | **33167FLRDP3595N** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| NICKEL | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **GE ENGINE SERVICES, MIAMI INC., 4590 N.W. 36TH ST., MIAMI** | **33122GRNWC4590N** | **3** | **0** | **1,010** | **0** | **0** | **15** | **1,025** | **4,040** | **5,065** |
| CHROMIUM | | 1 | 0 | 500 | 0 | 0 | 5 | 505 | 1,510 | 2,015 |
| COBALT | | 1 | 0 | 10 | 0 | 0 | 5 | 15 | 1,020 | 1,035 |
| NICKEL | | 1 | 0 | 500 | 0 | 0 | 5 | 505 | 1,510 | 2,015 |
| **GENERAL CINEMA BEVERAGES, OF MIAMI, 7777 N.W. 41ST ST., MIAMI** | **33166GNRLC7777N** | **0** | **1** | . | . | . | . | . | . | . |
| PHOSPHORIC ACID | | 0 | 1 | . | . | . | . | . | . | . |
| **HARD CORE TECHS. INC., MIAMI CASTINGS DIV., 4701 N.W. 77TH AVE., MIAMI** | **33166CHRML4701N** | **2** | **0** | **0** | **0** | **0** | **11,534** | **11,534** | **11,534** | **23,068** |
| CHROMIUM | | 1 | 0 | 0 | 0 | 0 | 5,190 | 5,190 | 5,190 | 10,380 |
| NICKEL | | 1 | 0 | 0 | 0 | 0 | 6,344 | 6,344 | 6,344 | 12,688 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **HCI INDL. CHEMICAL & SUPPLY CO., 8700 N.W. 36TH AVE., MIAMI** | **33147HCNDL8700N** | **0** | **5** | . | . | . | . | . | . | . |
| CERTAIN GLYCOL ETHERS | | 0 | 1 | . | . | . | . | . | . | . |
| ETHYLENE GLYCOL | | 0 | 1 | . | . | . | . | . | . | . |
| METHYL ETHYL KETONE | | 0 | 1 | . | . | . | . | . | . | . |
| TOLUENE | | 0 | 1 | . | . | . | . | . | . | . |
| XYLENE (MIXED ISOMERS) | | 0 | 1 | . | . | . | . | . | . | . |
| **MAGNUM MARINE CORP., PLANT 2, 1846 N.E. 142ND ST., NORTH MIAMI BEACH** | **33181MGNMM14100** | **1** | **0** | **5,080** | **0** | **0** | **0** | **5,080** | **0** | **5,080** |
| STYRENE | | 1 | 0 | 5,080 | 0 | 0 | 0 | 5,080 | 0 | 5,080 |
| **MAKO MARINE INTL. INC., 4355 N.W. 128TH ST., OPA LOCKA** | **33054MKMRN4355N** | **1** | **1** | **99,358** | **0** | **0** | **0** | **99,358** | **0** | **99,358** |
| DIISOCYANATES | | 0 | 1 | . | . | . | . | . | . | . |
| STYRENE | | 1 | 0 | 99,358 | 0 | 0 | 0 | 99,358 | 0 | 99,358 |
| **MCARTHUR DAIRY INC., 6851 N.E. 2ND AVE., MIAMI** | **33138MCRTH6851N** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **MIAMI BATTERY MFG. CO., 11100 N.W. S. RIVER DR., MIAMI** | **33178MMBTT11100** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| LEAD | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LEAD COMPOUNDS | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **MIAMI BRANCH - FAST PARTS, 2851 N.W. 107TH AVE., MIAMI** | **33172MMBRN2851N** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| CHLORODIFLUOROMETHAN | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **MODINE AFTERMARKET, HOLDINGS INC., 7391 N.W. 78TH ST., MEDLEY** | **33166MDNST7391N** | **1** | **0** | **2** | **0** | **0** | **0** | **2** | **0** | **2** |
| COPPER | | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 |
| **NAILITE INTL. INC., 1251 N.W. 165TH ST., MIAMI** | **33169NLTNT1251N** | **2** | **0** | **476,300** | **0** | **0** | **0** | **476,300** | **0** | **476,300** |
| 1,2,4-TRIMETHYLBENZENE | | 1 | 0 | 14,200 | 0 | 0 | 0 | 14,200 | 0 | 14,200 |
| TOLUENE | | 1 | 0 | 462,100 | 0 | 0 | 0 | 462,100 | 0 | 462,100 |
| **NOVEN PHARMACEUTICALS INC., EAST-WEST FACILITY, 11960 S.W. 144TH ST., MIAMI** | **33186NVNPH11960** | **1** | **0** | **1,000** | **0** | **0** | **0** | **1,000** | **0** | **1,000** |
| TOLUENE | | 1 | 0 | 1,000 | 0 | 0 | 0 | 1,000 | 0 | 1,000 |

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|---|---|---|---|---|---|---|---|---|---|---|
| **NOVURANIA OF AMERICA INC., 4775 N.W. 132ND ST., MIAMI** | **33054NVRNF4775N** | **1** | **0** | **9,270** | **0** | **0** | **0** | **9,270** | **0** | **9,270** |
| STYRENE | | 1 | 0 | 9,270 | 0 | 0 | 0 | 9,270 | 0 | 9,270 |
| **PARKSON CORP., 9770 N.W. 91ST CT., MEDLEY** | **33178PRKSN9770N** | **1** | **0** | **9,045** | **0** | **0** | **0** | **9,045** | **7,000** | **16,045** |
| STYRENE | | 1 | 0 | 9,045 | 0 | 0 | 0 | 9,045 | 7,000 | 16,045 |
| **PHASE II FURNITURE & STORE, FIXTURES CORP., 9400 N.W. 104TH ST., MEDLEY** | **33178PHSFR9400N** | **2** | **0** | **23,818** | **0** | **0** | **0** | **23,818** | **0** | **23,818** |
| N-HEXANE | | 1 | 0 | 10,918 | 0 | 0 | 0 | 10,918 | 0 | 10,918 |
| TOLUENE | | 1 | 0 | 12,900 | 0 | 0 | 0 | 12,900 | 0 | 12,900 |
| **PURITY PRODS. INC., 1800 N.W. 70TH AVE., MIAMI** | **33126PRTYC1800N** | **1** | **0** | **250** | **0** | **0** | **0** | **250** | **0** | **250** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 250 |
| **REPUBLIC METALS CORP., 12900 N.W. 38TH AVE., OPA LOCKA** | **33054RPBLC12900** | **1** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| COPPER COMPOUNDS | | 0 | 1 | . | . | . | . | . | . | . |
| NITRIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SILVER | | 0 | 1 | . | . | . | . | . | . | . |
| **ROYAL STORE FIXTURES CORP., 3595 N. W. 125TH ST., MIAMI** | **33167RYLST3595N** | **1** | **0** | **14,302** | **0** | **0** | **0** | **14,302** | **750** | **15,052** |
| TOLUENE | | 1 | 0 | 14,302 | 0 | 0 | 0 | 14,302 | 750 | 15,052 |
| **SCHERING CORP., 13900 N.W. 57TH CT., MIAMI LAKES** | **33014SCHRN13900** | **1** | **0** | **56** | **0** | **0** | **0** | **56** | **0** | **56** |
| NITROGLYCERIN | | 1 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 56 |
| **SENTRY IND. INC., 5687 N.W. 36TH AVE., MIAMI** | **33142SNTRY5687N** | **1** | **0** | **10** | **0** | **0** | **0** | **10** | **0** | **10** |
| CHLORINE | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| **TOWER PAINT MFG., 620 W. 27TH ST., HIALEAH** | **33010TWRPN620W2** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| ETHYLENE GLYCOL | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TURKEY POINT POWER PLANT, 9700 S.W. 344 ST., HOMESTEAD** | **33035TRKYP9700S** | **4** | **0** | **278,001** | **0** | **0** | **120** | **278,121** | **0** | **278,121** |
| HYDRAZINE | | 1 | 0 | 0 | 0 | 0 | 120 | 120 | 0 | 120 |
| HYDROCHLORIC ACID (1995 AND AFTER "ACID AEROSOLS" ONLY) | | 1 | 0 | 48,000 | 0 | 0 | 0 | 48,000 | 0 | 48,000 |
| POLYCYCLIC AROMATIC | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| **NOVURANIA OF AMERICA INC., 4775 N.W. 132ND ST., MIAMI** | **33054NVRNF4775N** | **1** | **0** | **9,270** | **0** | **0** | **0** | **9,270** | **0** | **9,270** |
| STYRENE | | 1 | 0 | 9,270 | 0 | 0 | 0 | 9,270 | 0 | 9,270 |
| **PARKSON CORP., 9770 N.W. 91ST CT., MEDLEY** | **33178PRKSN9770N** | **1** | **0** | **9,045** | **0** | **0** | **0** | **9,045** | **7,000** | **16,045** |
| STYRENE | | 1 | 0 | 9,045 | 0 | 0 | 0 | 9,045 | 7,000 | 16,045 |
| **PHASE II FURNITURE & STORE, FIXTURES CORP., 9400 N.W. 104TH ST., MEDLEY** | **33178PHSFR9400N** | **2** | **0** | **23,818** | **0** | **0** | **0** | **23,818** | **0** | **23,818** |
| N-HEXANE | | 1 | 0 | 10,918 | 0 | 0 | 0 | 10,918 | 0 | 10,918 |
| TOLUENE | | 1 | 0 | 12,900 | 0 | 0 | 0 | 12,900 | 0 | 12,900 |
| **PURITY PRODS. INC., 1800 N.W. 70TH AVE., MIAMI** | **33126PRTYC1800N** | **1** | **0** | **250** | **0** | **0** | **0** | **250** | **0** | **250** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 250 |
| **REPUBLIC METALS CORP., 12900 N.W. 38TH AVE., OPA LOCKA** | **33054RPBLC12900** | **1** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| COPPER COMPOUNDS | | 0 | 1 | . | . | . | . | . | . | . |
| NITRIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SILVER | | 0 | 1 | . | . | . | . | . | . | . |
| **ROYAL STORE FIXTURES CORP., 3595 N. W. 125TH ST., MIAMI** | **33167RYLST3595N** | **1** | **0** | **14,302** | **0** | **0** | **0** | **14,302** | **750** | **15,052** |
| TOLUENE | | 1 | 0 | 14,302 | 0 | 0 | 0 | 14,302 | 750 | 15,052 |
| **SCHERING CORP., 13900 N.W. 57TH CT., MIAMI LAKES** | **33014SCHRN13900** | **1** | **0** | **56** | **0** | **0** | **0** | **56** | **0** | **56** |
| NITROGLYCERIN | | 1 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 56 |
| **SENTRY IND. INC., 5687 N.W. 36TH AVE., MIAMI** | **33142SNTRY5687N** | **1** | **0** | **10** | **0** | **0** | **0** | **10** | **0** | **10** |
| CHLORINE | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| **TOWER PAINT MFG., 620 W. 27TH ST., HIALEAH** | **33010TWRPN620W2** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| ETHYLENE GLYCOL | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TURKEY POINT POWER PLANT, 9700 S.W. 344 ST., HOMESTEAD** | **33035TRKYP9700S** | **4** | **0** | **278,001** | **0** | **0** | **120** | **278,121** | **0** | **278,121** |
| HYDRAZINE | | 1 | 0 | 0 | 0 | 0 | 120 | 120 | 0 | 120 |
| HYDROCHLORIC ACID (1995 AND AFTER "ACID AEROSOLS" ONLY) | | 1 | 0 | 48,000 | 0 | 0 | 0 | 48,000 | 0 | 48,000 |
| POLYCYCLIC AROMATIC | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| POLYCYCLIC AROMATIC COMPOUNDS | | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| SULFURIC ACID (1994 AND AFTER "ACID AEROSOLS" ONLY) | | 1 | 0 | 230,000 | 0 | 0 | 0 | 230,000 | 0 | 230,000 |
| **U.S. HOLDINGS CORP., 8351 N.W. 93RD ST., MEDLEY** | **33166SHLDN8351N** | **3** | **0** | **2,000** | **0** | **0** | **0** | **2,000** | **126,200** | **128,200** |
| LEAD COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 25,500 | 26,000 |
| MANGANESE COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 14,700 | 15,200 |
| ZINC COMPOUNDS | | 1 | 0 | 1,000 | 0 | 0 | 0 | 1,000 | 86,000 | 87,000 |
| **VELDA FARMS DAIRY, 501 N.E. 181ST. ST., MIAMI** | **33162VLDFR501NE** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **105** | **87** | **18** | **1,976,078** | **15** | **0** | **11,669** | **1,987,762** | **176,216** | **2,163,978** |

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**Note:** 1998 is the latest year of TRI data. Data in this report incorporates submissions and revisions up to March 29, 2000 for the years 1988 - 1998.

On-site releases are from Section 5 of the Form R. Off-site releases are from Section 6 (transfers off-site to disposal) of the Form R. Off-site releases include metals and metal compounds transferred off-site for solidification/stabilization and for waste water treatment, including to POTWs.

A decimal point, or "." denotes the following:

1. if a decimal point is reported across an entire row, the facility submitted a Form A (i.e., the facility certified that its total annual reportable amount is less than 500 pounds, and does not manufacture, process, or otherwise use more than 1 million pounds); or
2. if a decimal point is reported in a single column, the facility left that particular cell blank in its Form R submission (a zero in a cell denotes either that the facility reported "0" or "NA" in its Form R submission).

The facility may have reported multiple SIC codes to TRI in 1998. See the facility profile report by clicking on the facility name to see a list of all SIC codes submitted to TRI for the 1998 reporting year.

Users of TRI information should be aware that TRI data reflect releases and other waste management of chemicals, not exposure of the public to those chemicals. Release estimates alone are not sufficient to determine exposure or to calculate potential adverse effects on human health and the environment. TRI data, in conjuction with other information, can be used as a starting point in evaluating exposures that may result from release and other waste management activities

TRI Explorer
EPA Office of Environmental Information

Facility Report
See Note Return to selection

# TRI On-site and Off-site Reported Releases of All Chemicals (in pounds), Dade County, State of Florida, 1998, All Industries

| Facility, and Chemical | TRIF ID | Form Rs | Form As | Total Air Emissions | Surface Water Discharges | Under-ground Injection | Releases to Land | Total On-site Releases | Total Off-site Releases | Total On- & Off-site Releases |
|---|---|---|---|---|---|---|---|---|---|---|
| **A-1 COMPONENTS CORP., 625 W. 18TH ST., HIALEAH** | **33010WTSCN1800W** | **1** | **0** | **170** | **0** | **0** | **0** | **170** | **0** | **170** |
| AMMONIA | | 1 | 0 | 170 | 0 | 0 | 0 | 170 | 0 | 170 |
| **AAR LANDING GEAR SERVICES, 9371 N.W. 100 ST., MIAMI** | **33178RLNDN9371N** | **1** | **0** | **30** | **0** | **0** | **0** | **30** | **0** | **30** |
| TETRACHLOROETHYLENE | | 1 | 0 | 30 | 0 | 0 | 0 | 30 | 0 | 30 |
| **ALJOMA LUMBER INC., 10300 N.W. 121 WAY, MEDLEY** | **33178LJMLM10300** | **3** | **0** | **0** | **15** | **0** | **0** | **15** | **3,393** | **3,408** |
| ARSENIC COMPOUNDS | | 1 | 0 | 0 | 5 | 0 | 0 | 5 | 1,315 | 1,320 |
| CHROMIUM COMPOUNDS | | 1 | 0 | 0 | 5 | 0 | 0 | 5 | 1,322 | 1,327 |
| COPPER COMPOUNDS | | 1 | 0 | 0 | 5 | 0 | 0 | 5 | 756 | 761 |
| **ALLIED UNIVERSAL CORP., 8350 N.W. 93RD ST., MIAMI** | **33166LLDNV8350N** | **1** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| AMMONIA | | 0 | 1 | . | . | . | . | . | . | . |
| CHLORINE | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ALTHIN MEDICAL INC., 14620 N.W. 60TH AVE., MIAMI LAKES** | **33014CDMDC14600** | **1** | **0** | **10** | **0** | **0** | **0** | **10** | **0** | **10** |
| DIISOCYANATES | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| **ANGLER BOAT CORP., 4450** | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| **N.W. 128TH ST., OPA LOCKA** | | | | | | | | | | |
| STYRENE | | 1 | 0 | 47,743 | 0 | 0 | 0 | 47,743 | 0 | 47,743 |
| **APACHE PRODS. CO., 1020 S.W. 69TH AVE., MIAMI** | **33144DYPLS1020S** | **3** | **0** | **52,736** | **0** | **0** | **0** | **52,736** | **1,397** | **54,133** |
| 1,1-DICHLORO-1-FLUOROETHANE | | 1 | 0 | 44,366 | 0 | 0 | 0 | 44,366 | 0 | 44,366 |
| CHLORODIFLUOROMETHANE | | 1 | 0 | 8,270 | 0 | 0 | 0 | 8,270 | 0 | 8,270 |
| DIISOCYANATES | | 1 | 0 | 100 | 0 | 0 | 0 | 100 | 1,397 | 1,497 |
| **ASHLAND DISTRIBUTION CO., 200 N.E. 181ST ST., MIAMI** | **33162SHLND200NE** | **8** | **5** | **7,038** | **0** | **0** | **0** | **7,038** | **0** | **7,038** |
| 1,2,4-TRIMETHYLBENZENE | | 1 | 0 | 64 | 0 | 0 | 0 | 64 | 0 | 64 |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 194 | 0 | 0 | 0 | 194 | 0 | 194 |
| CUMENE | | 0 | 1 | . | . | . | . | . | . | . |
| ETHYLENE GLYCOL | | 0 | 1 | . | . | . | . | . | . | . |
| METHANOL | | 1 | 0 | 640 | 0 | 0 | 0 | 640 | 0 | 640 |
| METHYL ETHYL KETONE | | 1 | 0 | 690 | 0 | 0 | 0 | 690 | 0 | 690 |
| METHYL ISOBUTYL KETONE | | 0 | 1 | . | . | . | . | . | . | . |
| N-HEXANE | | 1 | 0 | 540 | 0 | 0 | 0 | 540 | 0 | 540 |
| SEC-BUTYL ALCOHOL | | 1 | 0 | 310 | 0 | 0 | 0 | 310 | 0 | 310 |
| TETRACHLOROETHYLENE | | 0 | 1 | . | . | . | . | . | . | . |
| TOLUENE | | 1 | 0 | 3,470 | 0 | 0 | 0 | 3,470 | 0 | 3,470 |
| TRICHLOROETHYLENE | | 0 | 1 | . | . | . | . | . | . | . |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 1,130 | 0 | 0 | 0 | 1,130 | 0 | 1,130 |
| **B & B TRITECH INC., 875 W. 20TH ST., HIALEAH** | **33010BBCHM87520** | **1** | **2** | **9,000** | **0** | **0** | **0** | **9,000** | **0** | **9,000** |
| CERTAIN GLYCOL ETHERS | | 0 | 1 | . | . | . | . | . | . | . |
| DICHLOROMETHANE | | 1 | 0 | 9,000 | 0 | 0 | 0 | 9,000 | 0 | 9,000 |
| PHENOL | | 0 | 1 | . | . | . | . | . | . | . |
| **BENADA ALUMINUM OF FLORIDA INC., 8800 N.W. 79TH AVE., MEDLEY** | **33166BNDLM8800N** | **5** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **2** |
| CHROMIUM COMPOUNDS | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| HYDROGEN FLUORIDE | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SULFURIC ACID (1994 AND AFTER "ACID AEROSOLS" | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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|---|---|---|---|---|---|---|---|---|---|---|
| ONLY) | | | | | | | | | | |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **BERTRAM YACHT INC., 3663 N.W. 21ST ST., MIAMI** | **33142BRTRM3663N** | **2** | **0** | **33,815** | **0** | **0** | **0** | **33,815** | **0** | **33,815** |
| STYRENE | | 1 | 0 | 21,540 | 0 | 0 | 0 | 21,540 | 0 | 21,540 |
| TOLUENE | | 1 | 0 | 12,275 | 0 | 0 | 0 | 12,275 | 0 | 12,275 |
| **BEVERAGE CANNERS INTL. CORP., 3550 N.W. 110 ST., MIAMI** | **33167BVRGC3550N** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **BF GOODRICH AEROSPACE LANDING GEAR SERVICES, 3201 N.W. 167TH ST., MIAMI** | **33056BFGDR3201N** | **2** | **0** | **10,660** | **0** | **0** | **0** | **10,660** | **3,800** | **14,460** |
| CHROMIUM COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 3,800 | 4,300 |
| TRICHLOROETHYLENE | | 1 | 0 | 10,160 | 0 | 0 | 0 | 10,160 | 0 | 10,160 |
| **BF GOODRICH AEROSPACE, LANDING GEAR SERVICES DIV., 6445 N.W. 25TH ST., MIAMI** | **33122CLVLN6445N** | **2** | **0** | **27,700** | **0** | **0** | **0** | **27,700** | **18,100** | **45,800** |
| CHROMIUM COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 18,100 | 18,600 |
| TRICHLOROETHYLENE | | 1 | 0 | 27,200 | 0 | 0 | 0 | 27,200 | 0 | 27,200 |
| **BRAIN POWER INC., 4470 S.W. 74TH AVE., MIAMI** | **33155BRNPW4470S** | **1** | **0** | **3** | **0** | **0** | **0** | **3** | **0** | **3** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 |
| **CONSOLIDATED OIL CO., 11550 N.W. 36TH AVE., MIAMI** | **33167CNSLD11550** | **6** | **0** | **1,765** | **0** | **0** | **0** | **1,765** | **0** | **1,765** |
| BENZENE | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| ETHYLBENZENE | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| N-HEXANE | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| TOLUENE | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 255 | 0 | 0 | 0 | 255 | 0 | 255 |
| ZINC COMPOUNDS | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CONTENDER BOATS INC., 1820 S. E. 38TH AVE., HOMESTEAD** | **33035CNTND1820S** | **1** | **1** | **48,931** | **0** | **0** | **0** | **48,931** | **0** | **48,931** |
| DIISOCYANATES | | 0 | 1 | . | . | . | . | . | . | . |
| STYRENE | | 1 | 0 | 48,931 | 0 | 0 | 0 | 48,931 | 0 | 48,931 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **60TH AVE., MIAMI LAKES** | **33014CRDSC14201** | **1** | **0** | **9,083** | **0** | **0** | **0** | **9,083** | **0** | **9,083** |
| TRICHLOROETHYLENE | | 1 | 0 | 9,083 | 0 | 0 | 0 | 9,083 | 0 | 9,083 |
| **DELTA LABS. INC., 640 W. 18TH ST., HIALEAH** | **33010DLTLB640WE** | **5** | **0** | **1,885** | **0** | **0** | **0** | **1,885** | **0** | **1,885** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 6 |
| METHANOL | | 1 | 0 | 884 | 0 | 0 | 0 | 884 | 0 | 884 |
| METHYL ETHYL KETONE | | 1 | 0 | 588 | 0 | 0 | 0 | 588 | 0 | 588 |
| TOLUENE | | 1 | 0 | 328 | 0 | 0 | 0 | 328 | 0 | 328 |
| XYLENE (MIXED ISOMERS) | | 1 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 79 |
| **DIMENSIONAL PLASTICS CORP., 1065 E. 26TH ST., HIALEAH** | **33013DMNSN1065E** | **2** | **0** | **2,350** | **0** | **0** | **0** | **2,350** | **0** | **2,350** |
| METHYL METHACRYLATE | | 1 | 0 | 830 | 0 | 0 | 0 | 830 | 0 | 830 |
| STYRENE | | 1 | 0 | 1,520 | 0 | 0 | 0 | 1,520 | 0 | 1,520 |
| **DM INDS., 2320 N.W. 147TH ST., OPA LOCKA** | **33054DMNDS2320N** | **2** | **0** | **38,180** | **0** | **0** | **0** | **38,180** | **0** | **38,180** |
| DIISOCYANATES | | 1 | 0 | 80 | 0 | 0 | 0 | 80 | 0 | 80 |
| STYRENE | | 1 | 0 | 38,100 | 0 | 0 | 0 | 38,100 | 0 | 38,100 |
| **ENGELHARD HEXCORE, 3550 N.W. 49 ST., MIAMI** | **33142CBGGY3550N** | **1** | **0** | **68,620** | **0** | **0** | **0** | **68,620** | **0** | **68,620** |
| PHENOL | | 1 | 0 | 68,620 | 0 | 0 | 0 | 68,620 | 0 | 68,620 |
| **FLEXIBLE FOAM PRODS. INC., 3225 N.W. 107TH ST., MIAMI** | **33167FLXBL3225N** | **2** | **0** | **696,857** | **0** | **0** | **0** | **696,857** | **0** | **696,857** |
| DICHLOROMETHANE | | 1 | 0 | 696,357 | 0 | 0 | 0 | 696,357 | 0 | 696,357 |
| TOLUENE DIISOCYANATE (MIXED ISOMERS) | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 0 | 500 |
| **FLORIDA PLATING & FINISHING CORP., 3595 N.W. 125TH ST., MIAMI** | **33167FLRDP3595N** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| NICKEL | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **GE ENGINE SERVICES, MIAMI INC., 4590 N.W. 36TH ST., MIAMI** | **33122GRNWC4590N** | **3** | **0** | **1,010** | **0** | **0** | **15** | **1,025** | **4,040** | **5,065** |
| CHROMIUM | | 1 | 0 | 500 | 0 | 0 | 5 | 505 | 1,510 | 2,015 |
| COBALT | | 1 | 0 | 10 | 0 | 0 | 5 | 15 | 1,020 | 1,035 |
| NICKEL | | 1 | 0 | 500 | 0 | 0 | 5 | 505 | 1,510 | 2,015 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GENERAL CINEMA BEVERAGES, OF MIAMI, 7777 N.W. 41ST ST., MIAMI | 33166GNRLC7777N | 0 | 1 | . | . | . | . | . | . | . |
| PHOSPHORIC ACID | | 0 | 1 | . | . | . | . | . | . | . |
| HARD CORE TECHS. INC., MIAMI CASTINGS DIV., 4701 N.W. 77TH AVE., MIAMI | 33166CHRML4701N | 2 | 0 | 0 | 0 | 0 | 11,534 | 11,534 | 11,534 | 23,068 |
| CHROMIUM | | 1 | 0 | 0 | 0 | 0 | 5,190 | 5,190 | 5,190 | 10,380 |
| NICKEL | | 1 | 0 | 0 | 0 | 0 | 6,344 | 6,344 | 6,344 | 12,688 |
| HCI INDL. CHEMICAL & SUPPLY CO., 8700 N.W. 36TH AVE., MIAMI | 33147HCNDL8700N | 0 | 5 | . | . | . | . | . | . | . |
| CERTAIN GLYCOL ETHERS | | 0 | 1 | . | . | . | . | . | . | . |
| ETHYLENE GLYCOL | | 0 | 1 | . | . | . | . | . | . | . |
| METHYL ETHYL KETONE | | 0 | 1 | . | . | . | . | . | . | . |
| TOLUENE | | 0 | 1 | . | . | . | . | . | . | . |
| XYLENE (MIXED ISOMERS) | | 0 | 1 | . | . | . | . | . | . | . |
| MAGNUM MARINE CORP., PLANT 2, 1846 N.E. 142ND ST., NORTH MIAMI BEACH | 33181MGNMM14100 | 1 | 0 | 5,080 | 0 | 0 | 0 | 5,080 | 0 | 5,080 |
| STYRENE | | 1 | 0 | 5,080 | 0 | 0 | 0 | 5,080 | 0 | 5,080 |
| MAKO MARINE INTL. INC., 4355 N.W. 128TH ST., OPA LOCKA | 33054MKMRN4355N | 1 | 1 | 99,358 | 0 | 0 | 0 | 99,358 | 0 | 99,358 |
| DIISOCYANATES | | 0 | 1 | . | . | . | . | . | . | . |
| STYRENE | | 1 | 0 | 99,358 | 0 | 0 | 0 | 99,358 | 0 | 99,358 |
| MCARTHUR DAIRY INC., 6851 N.E. 2ND AVE., MIAMI | 33138MCRTH6851N | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MIAMI BATTERY MFG. CO., 11100 N.W. S. RIVER DR., MIAMI | 33178MMBTT11100 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LEAD | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LEAD COMPOUNDS | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MIAMI BRANCH - FAST PARTS, 2851 N.W. 107TH AVE., MIAMI | 33172MMBRN2851N | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHLORODIFLUOROMETHANE | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **MODINE AFTERMARKET HOLDINGS INC., 7391 N.W. 78TH ST., MEDLEY** | **33166MDNST7391N** | **1** | **0** | **2** | **0** | **0** | **0** | **2** | **0** | **2** |
| COPPER | | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 |
| **NAILITE INTL. INC., 1251 N.W. 165TH ST., MIAMI** | **33169NLTNT1251N** | **2** | **0** | **476,300** | **0** | **0** | **0** | **476,300** | **0** | **476,300** |
| 1,2,4-TRIMETHYLBENZENE | | 1 | 0 | 14,200 | 0 | 0 | 0 | 14,200 | 0 | 14,200 |
| TOLUENE | | 1 | 0 | 462,100 | 0 | 0 | 0 | 462,100 | 0 | 462,100 |
| **NOVEN PHARMACEUTICALS INC., EAST-WEST FACILITY, 11960 S.W. 144TH ST., MIAMI** | **33186NVNPH11960** | **1** | **0** | **1,000** | **0** | **0** | **0** | **1,000** | **0** | **1,000** |
| TOLUENE | | 1 | 0 | 1,000 | 0 | 0 | 0 | 1,000 | 0 | 1,000 |
| **NOVURANIA OF AMERICA INC., 4775 N.W. 132ND ST., MIAMI** | **33054NVRNF4775N** | **1** | **0** | **9,270** | **0** | **0** | **0** | **9,270** | **0** | **9,270** |
| STYRENE | | 1 | 0 | 9,270 | 0 | 0 | 0 | 9,270 | 0 | 9,270 |
| **PARKSON CORP., 9770 N.W. 91ST CT., MEDLEY** | **33178PRKSN9770N** | **1** | **0** | **9,045** | **0** | **0** | **0** | **9,045** | **7,000** | **16,045** |
| STYRENE | | 1 | 0 | 9,045 | 0 | 0 | 0 | 9,045 | 7,000 | 16,045 |
| **PHASE II FURNITURE & STORE, FIXTURES CORP., 9400 N.W. 104TH ST., MEDLEY** | **33178PHSFR9400N** | **2** | **0** | **23,818** | **0** | **0** | **0** | **23,818** | **0** | **23,818** |
| N-HEXANE | | 1 | 0 | 10,918 | 0 | 0 | 0 | 10,918 | 0 | 10,918 |
| TOLUENE | | 1 | 0 | 12,900 | 0 | 0 | 0 | 12,900 | 0 | 12,900 |
| **PURITY PRODS. INC., 1800 N.W. 70TH AVE., MIAMI** | **33126PRTYC1800N** | **1** | **0** | **250** | **0** | **0** | **0** | **250** | **0** | **250** |
| CERTAIN GLYCOL ETHERS | | 1 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 250 |
| **REPUBLIC METALS CORP., 12900 N.W. 38TH AVE., OPA LOCKA** | **33054RPBLC12900** | **1** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| COPPER COMPOUNDS | | 0 | 1 | . | . | . | . | . | . | . |
| NITRIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SILVER | | 0 | 1 | . | . | . | . | . | . | . |
| **ROYAL STORE FIXTURES CORP., 3595 N. W. 125TH ST., MIAMI** | **33167RYLST3595N** | **1** | **0** | **14,302** | **0** | **0** | **0** | **14,302** | **750** | **15,052** |
| TOLUENE | | 1 | 0 | 14,302 | 0 | 0 | 0 | 14,302 | 750 | 15,052 |
| **SCHERING CORP., 13900 N.W.** | **33014SCHRN13900** | **1** | **0** | **56** | **0** | **0** | **0** | **56** | **0** | **56** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NITROGLYCERIN | | 1 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 56 |
| **SENTRY IND. INC., 5687 N.W. 36TH AVE., MIAMI** | **33142SNTRY5687N** | **1** | **0** | **10** | **0** | **0** | **0** | **10** | **0** | **10** |
| CHLORINE | | 1 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 10 |
| **TOWER PAINT MFG., 620 W. 27TH ST., HIALEAH** | **33010TWRPN620W2** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| ETHYLENE GLYCOL | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TURKEY POINT POWER PLANT, 9700 S.W. 344 ST., HOMESTEAD** | **33035TRKYP9700S** | **4** | **0** | **278,001** | **0** | **0** | **120** | **278,121** | **0** | **278,121** |
| HYDRAZINE | | 1 | 0 | 0 | 0 | 0 | 120 | 120 | 0 | 120 |
| HYDROCHLORIC ACID (1995 AND AFTER "ACID AEROSOLS" ONLY) | | 1 | 0 | 48,000 | 0 | 0 | 0 | 48,000 | 0 | 48,000 |
| POLYCYCLIC AROMATIC COMPOUNDS | | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| SULFURIC ACID (1994 AND AFTER "ACID AEROSOLS" ONLY) | | 1 | 0 | 230,000 | 0 | 0 | 0 | 230,000 | 0 | 230,000 |
| **U.S. HOLDINGS CORP., 8351 N.W. 93RD ST., MEDLEY** | **33166SHLDN8351N** | **3** | **0** | **2,000** | **0** | **0** | **0** | **2,000** | **126,200** | **128,200** |
| LEAD COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 25,500 | 26,000 |
| MANGANESE COMPOUNDS | | 1 | 0 | 500 | 0 | 0 | 0 | 500 | 14,700 | 15,200 |
| ZINC COMPOUNDS | | 1 | 0 | 1,000 | 0 | 0 | 0 | 1,000 | 86,000 | 87,000 |
| **VELDA FARMS DAIRY, 501 N.E. 181ST. ST., MIAMI** | **33162VLDFR501NE** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| PHOSPHORIC ACID | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **105** | **87** | **18** | **1,976,078** | **15** | **0** | **11,669** | **1,987,762** | **176,216** | **2,163,978** |

Back to top

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**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

June 21, 2000

0037523A/06



Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC (PSD-FL-289)

Dear Mr. Linero:

Based on DERM's letter of June 16 concerning minimum capture efficiency, Golder Associates Inc. (Golder), on behalf of Nailite International, has prepared the following responses:

1. Nailite agrees to comply with the requested minimum 95 percent capture efficiency for the new spray line.
2. Nailite has no objection demonstrating the requested capture efficiency of the new spray booths. However, since designing an enclosure to demonstrate compliance with the capture efficiency can be an expensive proposition, Golder recommends initially using available manufacturing information to the fullest extent possible. If such information is not to the satisfaction of DEP, then an enclosure can be built to show compliance. Either way, Nailte will demonstrate compliance with the minimum capture efficiency.
3. The existing spray line will be connected to the regenerative thermal oxidation (RTO) prior to the start of any spraying at the new facility.

The existing spray paint line cannot comply with the minimum capture efficiency of 95 percent as requested by DERM. The existing booths are not comparable with the proposed booths in that they have one open side that cannot be enclosed. It should be noted that the existing spray line currently has a valid air operating permit without the requested additional condition. Additionally, it is Nailite's intention to replace the old spray line with a new one, similar to the one proposed, in the near future.

Please call if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw
cc: David Steedman, Nailite
David Buff, Golder

cc: J. Reynolds
EPA
NPS
SED
DERM

**MIAMI-DADE** COUNTY, FLORIDA

MIAMI-DADE

ERM

**ENVIRONMENTAL RESOURCES MANAGEMENT**
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954



June 16, 2000

Department of Environmental Protection
Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Fl 32399-2400
Attention: John Reynolds

RE: Nailite International, Inc.- New Panel Finishing Spray Line

Dear Mr. Reynolds:

Based on our telephone conference with Mr. Benny Susi of Nailite on June 7th, and his subsequent letter dated June 13, 2000, DERM would like the following comments to be included as part of Nailite's PSD permit application review:

1. As mentioned in my letter dated May 25, 2000, a 10% fugitive emissions will result in an overall efficiency of only 86%. As you know, Mr. Susi has indicated in his letter that the actual fugitive emissions are close to 2 percent rather than the 10 percent as estimated in the application. Since a higher capture efficiency is claimed, it is prudent that DEP require them to have a minimum 95% capture efficiency. The emissions from these operations are only HAPs. Therefore, it is essential to conform to this requirement due to the potential for public sanitary nuisance.

2. As Mr. Susi stated in his letter, the equipment is new and has not been tested. Therefore, it is absolutely necessary for the facility to conduct an initial performance test to determine the capture efficiency of the new control equipment. DERM recommends DEP to make the performance test as a requirement in the construction permit to establish the minimum 95% capture efficiency.

3. Nailite must commit to consolidate and connect the existing operation (AV 0250407) to the Thermal Oxidizer by a specific date acceptable to the regulatory agency. The consolidated operation must meet the required minimum capture efficiency of 95%.

For your information, our staff Marcelo Barros and Frank Echanique conducted an inspection of the existing operation and the on-going new construction on June 14, 2000.

I will be out of the office during the next week. If you have any questions regarding this memo, please contact Marcelo Barros or Frank Echanique at (305) 372-6925.

Sincerely,

Mallika Muthiah

Mallika Muthiah. P.E., Chief,
Air Facilities Section
Miami-Dade County D.E.R.M.

# Florida Department of Environmental Protection


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

Jeb Bush
Governor

David Struhs
Secretary


## FAX TRANSMITTAL SHEET

**DATE:** 6-19

**TO:** BENNY SUSI

**PHONE:** _____ **FAX:** 352-336-1603

**FROM:** JOHN REYNOLDS **PHONE:** _____

**Division of Air Resources Management** **FAX:** **850.922.6979**

**RE:** _____

**CC:** _____

Total number of pages including cover sheet: _____

***Message***

MORE COMMENTS FROM DERM.
PLEASE RESPOND TO DERM'S CONCERNS.

**If there are any problems with this fax transmittal, please call the above phone number.**

METROPOLITAN DADE COUNTY, FLORIDA

METRODADE

DERM

**Department of Environmental Resources Management**
**33 S.W. 2nd Avenue**
**Miami, FL. 33130-1540**

# FAX TRANSMITTAL

## SEND TO:

Name: John Reynolds

Company/Department: DEP / DARM

Phone Number: (850) 488-0114

Fax Number: (850) 922-6979

Message:

## FROM:

Name: Marcelo Barros

Division/Section: Air Quality Mgt. Div. / AFS

Phone Number: (305) 372-6944

Fax Number: (305) 372-6954

Date: 6/19/2000

Number of Pages (including this one):

3

# MEMORANDUM

**DATE: June 19, 2000**

**TO: Mallika Muthiah** (MB)

**FROM: Marcelo Barros, Frank Echanique**

**RE: Nailite Inspection**

---

On June 14, 2000 Marcelo and I visited Nailite International, Inc., located at 1251 NW 165 Street, Miami, approximately at 10:30 am, in response to a request from Patrick Wong in order to collect data necessary to run a computer simulation of the air toxics emissions from this facility.

We found that this facility was in operation at the time of our visit. A survey of the surroundings of this site revealed that the building height was about 7 meters and the length was around 50 meters. To the north of the building there are some railroad tracks and a building that belongs to Modernage Furniture. To the west, there is a parking lot, and to the east, separating the present building and the future operations building, there is another parking lot and two other facilities.

At the time of our visit we spoke with Mr. Douglas Kalvig, Plant Manager, who informed us that Mr. Dave Steadman, President was busy at the time. Mr. Kalvig gave us a tour of the old facility and later took us to the new site located at 1111 NW 165 Street. The new facility was not operating at the time of our visit, but part of the new paint line was already installed. The findings inside the new building included the following:

1- A chemical pumping room inside the building.
2- A chemical storage room next to the chemicals pumping room outside the production area.
3- Three conveyor booths under construction. These booths have a semi-closed face draft system and each booth was found with bottom openings of 3 - 4 feet high.
4- One large oven
5- One unpacked Thermal Oxidizer located outside the building, in an open area.
6- Part of the building was under remodeling.

On our way out, Mr. Steadman approached and told us that the old facility will have to close down in the near future due to lease arrangements.

Our findings were discussed with Mallika Muthiah and Patrick Wong. A letter sent to John Reynolds, DEP Tallahassee, dated June 16, 2000, included information about the on-going new construction at Nailite.

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates



June 13, 2000

0037523A/04

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC(PSD-FL-289)

Dear Mr. Linero:

To follow-up on our telephone conversation with Ms. Muthiah of DERM concerning fugitive emissions associated with the new spray line. Golder Associates Inc. (Golder), on behalf of Nailite International, has prepared the following response:

As discussed, Nailite through its coating supplier, Strathmore Products Inc. conducted three evaporation tests to determine how much solvent would evaporate from the sprayed film over 90 seconds. The evaporation tests along with travel time of products through the spray line resulted in estimated fugitive emissions from the spray line. A copy of Strathmore test results, a schematic of the spray line, and fugitive emission calculations are attached to this letter.

The attached schematic presents fugitive emission calculations based on the evaporation test conducted by Strathmore. The emission calculations are based on 1-mil wet film applied on each panel at each spray booth. The estimated solvent lost outside the booth is estimated to be 2 percent.

Due to the nature of this new technology, the applicant had included a very conservative estimate of potential fugitive emissions. As demonstrated in this response, the actual fugitive emissions are closer to 2 percent rather than the 10 percent as estimated in the application. The applicant requests that no limit on fugitive emissions be included in the air construction permit due to the fact that the equipment is new and has not been tested.

Please call if you have any questions concerning this information.

Sincerely,
GOLDER ASSOCIATES INC.

Benny Susir, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw
cc: David Steedman, Nailite
David Buff, Golder

cc: J. Reynolds
SED
NPS
EPA
DERM

**MIAMI-DADE COUNTY, FLORIDA**

MIAMI-DADE

DERM

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954

June 16, 2000

Department of Environmental Protection
Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Fl 32399-2400
Attention: John Reynolds

DEP FILE 0250407-003-AC

RE: Nailite International, Inc.- New Panel Finishing Spray Line PSD-FL-289

Based on our telephone conference with Mr. Benny Susi of Nailite on June 7th, and his subsequent letter dated June 13, 2000, DERM would like the following comments to be included as part of Nailite's PSD permit application review:

1. As mentioned in my letter dated May 25, 2000, a 10% fugitive emissions will result in an overall efficiency of only 86%. As you know, Mr. Susi has indicated in his letter that the actual fugitive emissions are close to 2 percent rather than the 10 percent as estimated in the application. Since a higher capture efficiency is claimed, it is prudent that DEP require them to have a minimum 95% capture efficiency. The emissions from these operations are only HAPs. Therefore, it is essential to conform to this requirement due to the potential for public sanitary nuisance.

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For your information, our staff Marcelo Barros and Frank Echanique conducted an inspection of the existing operation and the on-going new construction on June 14, 2000.

I will be out of the office during the next week. If you have any questions regarding this memo, please contact Marcelo Barros or Frank Echanique at (305) 372-6925.

Sincerely,

Mallika Muthiah

Mallika Muthiah. P.E., Chief,
Air Facilities Section
Miami-Dade County D.E.R.M.

# Golder Associates Fax

To: John Reynolds
Fax Number: 850-922-6979
Company: DEP
Date: June 13, 2000
From: Bennett Sustare
e-mail: @golder.com
Our ref: 003-7523
Voice Mail:
RE:
Total pages (including cover): 7
Hard copy to follow ☒

MESSAGE

Golder Associates
6241 NW 23rd St, Suite 500
Gainesville, FL 32653
U.S.A.
Telephone: (352) 336-5600
Fax: (352) 336-6603

**Comprehensive Consulting Services in Geotechnical Engineering, Environmental Remediation and Waste Management**

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**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

June 13, 2000 0037523A/04

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC(PSD-FL-289)

Dear Mr. Linero:

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As discussed, Nailite through its coating supplier, Strathmore Products Inc. conducted three evaporation tests to determine how much solvent would evaporate from the sprayed film over 90 seconds. The evaporation tests along with travel time of products through the spray line resulted in estimated fugitive emissions from the spray line. A copy of Strathmore test results, a schematic of the spray line, and fugitive emission calculations are attached to this letter.

The attached schematic presents fugitive emission calculations based on the evaporation test conducted by Strathmore. The emission calculations are based on 1-mil wet film applied on each panel at each spray booth. The estimated solvent lost outside the booth is estimated to be 2 percent.

Due to the nature of this new technology, the applicant had included a very conservative estimate of potential fugitive emissions. As demonstrated in this response, the actual fugitive emissions are closer to 2 percent rather than the 10 percent as estimated in the application. The applicant requests that no limit on fugitive emissions be included in the air construction permit due to the fact that the equipment is new and has not been tested.

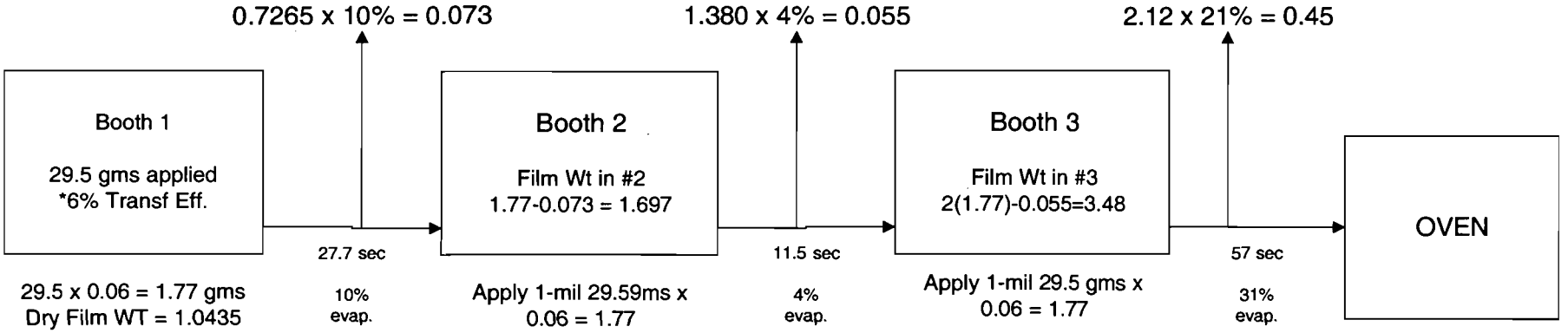
Please call if you have any questions concerning this information.

Sincerely,
GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw
cc: David Steedman, Nailite
David Buff, Golder

FUGITIVE EMISSIONS:




TOTAL FUGITIVES = 0.073 + 0.055 + 0.45 = 0.5785 GMS
PERCENT FUGITIVES = 0.578 / 29.5 X 100 = 1.95%

1. Transfer efficiency based on laboratory results.
2. Test results Evaporation rates are based on elapsed time as reported by the Strathmore Laboratory.

Process Flow Legend:
Solid / Liquid
Gas
Steam

Process Flow Diagram for Fugitive Emissions
Nailite International, Inc.

Latest Revision Date: 6/12/00

Golder Associates

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



Golder Associates

June 9, 2000 0037523A/5

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC(PSD-FL-289)

Dear Mr. Linero:

In response to a letter from U.S. Environmental Protection Agency (EPA), Golder Associates Inc. (Golder), on behalf of Nailite International, has prepared the following response:

1. EPA's statement on the applicability of MACT to HAP and BACT to criteria pollutants, and that in this case the MACT and BACT happen to be the same since an RTO effectively controls both the HAP and VOC is acknowledged.
2. The applicant investigated in the use of low-VOC materials such as HAPs free solvents and waterborne coatings prior to selecting the RTO. Using a HAP free coating would result in a $1.4 million per year additional operating cost that would make the facility non-competitive. The use of waterborne coatings would require 4 years of testing to provide the same level of warranty on the product that is currently provided to customers. Since Nailite's paint adhesion is a function of the paint, any variation of their existing formula would require extensive testing to certify its intended use. Therefore, the case-by-case BACT/MACT determination concluded that an RTO was the appropriate control technology.

Please call if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/arz

cc: David Steedman, Nailite
David Buff, Golder

CC: J. Reynolds, BAR
SED
NPS
EPA
Dade Co.

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

June 5, 2000

0037528-003

RECEIVED
JUN 06 2000
BUREAU OF AIR REGULATION

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC(PSD-FL-289)

Dear Mr. Linero:

In response to a letter from Dade County Air Quality Management Division, Golder Associates Inc. (Golder), on behalf of Nailite International, has prepared the following response:

1. The maximum paint usage of 300,000 gallons per year includes solvents that are pre-mixed into the formula as well as those used to dilute the paint and clean-up. Of the total volume of paint used approximately 50 percent are solvents added to the paint.
2. The applicant in arriving at a case-by-case BACT/MACT determination concluded that an RTO was the appropriate control technology. The application of the RTO will include both the proposed and existing spray lines, thus providing a case-by-case MACT determination for the entire facility.
3. The MACT emission limitation recommended by the applicant includes a state-of-the-art spray booth and an RTO. The recommended control is the most stringent control achieved in practice by the best controlled similar source as demonstrated in the PSD application on file with DEP and, therefore, satisfies the case-by-case MACT.
4. The discrepancy in the hourly paint use between the existing and proposed paint lines is associated with the improve technology that allows for a more efficient transfer of paint. The maximum coating use for the new spray line will remain at 300,000 gallons per year under this new technology.

Please call if you have any questions concerning this information.

Sincerely,
GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw
cc: David Steedman, Nailite
David Buff, Golder

cc: J. Reynolds, BAR
SED
NPS
EPA
Dade Co

**Golder Associates Inc.**
1801 Clint Moore Road, Suite 200
Boca Raton, FL USA 33487
Tel: (561) 994-9910
Fax: (561) 994-9393



Golder Associates

June 5, 2000 0037523A/02

Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: NAILITE INTERNATIONAL, INC. – NEW PANEL FINISHING SPRAY LINE
DEP FILE NO. 0250407-003-AC(PSD-FL-289)

Dear Mr. Linero:

In response to our telephone conversation requesting clarification of response No. 2 of our letter dated May 9, 2000, Golder Associates Inc. (Golder), on behalf of Nailite International, has prepared the following response.

The existing paint line that will be relocated to the new building will maintain its maximum paint usage of 300,000 gallons per year and the maximum VOC content of 6 pounds of VOC per gallon of coatings. Although the actual VOC emissions from the existing paint line are about 350 tons per year in 1999, these actual emissions are expected to be reduced to 130.5 tons per year since the existing paint line will be connected to the RTO. The applicant has no objection to including the RTO control of the existing paint line as part of the air construction permit requested.

Please call if you have any questions concerning this information.

Sincerely,
GOLDER ASSOCIATES INC.

Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042

BS/jkw

cc: David Steedman, Nailite
David Buff, Golder

cc: G. Reynolds, BAR
SED
NPS
EPA
Dade Co.

# Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

May 31, 2000

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. David G. Steedman
Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Re: DEP File No. 0250407-003-AC (PSD-FL-289) - New Panel Line

Dear Mr. Steedman:

The Bureau of Air Regulation received today the enclosed letter from the EPA concerning the referenced permit application. Please address the issues raised in the EPA's letter.

If there are any questions regarding the above, please call John Reynolds at 850/921-9536.

Sincerely,

for A. A. Linero, P.E. Administrator
New Source Review Section

Enclosure

AAL/JR

cc: Gregg Worley, EPA
John Bunyak, NPS
Isidore Goldman, SED
Patrick Wong, DCDERM
Benny Susi, Golder Assoc.

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

ERM

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954



May 25, 2000

Department of Environmental Protection
Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Fl 32399-2400
Attention: John Reynolds

RE: Nailite International, Inc.- New Panel Finishing Spray Line

The DERM's Air Facilities Section has received a copy of the PSD application for Nailite International, (ARMS # 0250407).

The PSD rule requires the permitting authority, FDEP in this case, to make a determination of the Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for certain proposed projects at major facilities that result in increased emissions. Because Nailite is located in Miami-Dade County, the DERM is offering the following comments for your consideration:

1. Based on the information provided in the PSD application, and on a telephone conversation between Mr. Frank Echanique of this office and Mr. David Buff of Golder Associates on May 23, 2000, it was confirmed that the existing facility will continue using a maximum of 300,000 gal/year of paints and solvents. Furthermore, the new facility will have a maximum usage rate of an additional 300,000 gal/year of paints and solvents. The application indicates that the 300,000 gal/year is solely paint. DERM suggests that DEP obtain the breakdown of paints and solvents usage in the new facility.

2. The Miami-Dade County DERM believes that both the existing and the new operations should be considered comprehensively in reviewing the construction application, and arriving at a BACT/MACT determination. The correct approach would be to perform a case-by-case MACT determination for the entire facility.

3. Considering the fact that the potential emissions from the added operations will be more than 900 ton/year, and the proposed capture efficiency of only 90%, there will be an estimated 90TPY (10%) of uncontrolled HAPs emissions just from the new facility. This 90% capture efficiency is not acceptable, since this may conceivably result in a public sanitary nuisance to the surrounding area, as well as undue exposure to the workers. Taking into account the 10% fugitive emissions, the overall control efficiency will be only 86% and is not appropriately reflective of the MACT.

4. Based on the review of the Title V permit for the existing facility, the paint usage is 300,000 gal/year, and the authorized maximum hourly paint usage is 34.3 gal/hour. Although the PSD application for the new facility indicates a proposed paint usage of the same 300,000 gal/year, the maximum hourly paint usage is 61 gal/hour. DERM would like the applicant to explain this apparent discrepancy.

Sincerely,

Mallika Muthiah.

Mallika Muthiah. P.E., Chief,
Air Facilities Section
Miami-Dade County D.E.R.M.

CC: G. Reynolds
EPA
NPS
SED
B. Susi, Golder Assoc.

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

DERM

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954

May 25, 2000

Department of Environmental Protection
Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Fl 32399-2400
Attention: John Reynolds

RE; Nailite International, Inc.- New Panel Finishing Spray Line

The DERM's Air Facilities Section has received a copy of the PSD application for Nailite International, (ARMS # 0250407).

The PSD rule requires the permitting authority, FDEP in this case, to make a determination of the Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for certain proposed projects at major facilities that result in increased emissions. Because Nailite is located in Miami-Dade County, the DERM is offering the following comments for your consideration:

1. Based on the information provided in the PSD application, and on a telephone conversation between Mr. Frank Echanique of this office and Mr. David Buff of Golder Associates on May 23, 2000, it was confirmed that the existing facility will continue using a maximum of 300,000 gal/year of paints and solvents. Furthermore, the new facility will have a maximum usage rate of an additional 300,000 gal/year of paints and solvents. The application indicates that the 300,000 gal/year is solely paint. DERM suggests that DEP obtain the breakdown of paints and solvents usage in the new facility.

2. The Miami-Dade County DERM believes that both the existing and the new operations should be considered comprehensively in reviewing the construction application, and arriving at a BACT/MACT determination. The correct approach would be to perform a case-by-case MACT determination for the entire facility.

3. Considering the fact that the potential emissions from the added operations will be more than 900 ton/year, and the proposed capture efficiency of only 90%, there will be an estimated 90TPY (10%) of uncontrolled HAPs emissions just from the new facility. This 90% capture efficiency is not acceptable, since this may conceivably result in a public sanitary nuisance to the surrounding area, as well as undue exposure to the workers. Taking into account the 10% fugitive emissions, the overall control efficiency will be only 86% and is not appropriately reflective of the MACT.

4. Based on the review of the Title V permit for the existing facility, the paint usage is 300,000 gal/year, and the authorized maximum hourly paint usage is 34.3 gal/hour. Although the PSD application for the new facility indicates a proposed paint usage of the same 300,000 gal/year, the maximum hourly paint usage is 61 gal/hour. DERM would like the applicant to explain this apparent discrepancy.

Sincerely,

Mallika Muthiah.

Mallika Muthiah. P.E., Chief,
Air Facilities Section
Miami-Dade County D.E.R.M.

Z 341 355 305

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

| | |
|---|---|
| Sent to David Steedman | |
| Street & Number Nailite Internat'l | |
| Post Office, State, & ZIP Code Miami | |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| **TOTAL** Postage & Fees | $ |
| Postmark or Date 0250407-003-AC P00-FI-289 | 6-2-00 |

PS Form **3800**, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

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

Consult postmaster for fee.

3. Article Addressed to:
Mr. David Steedman
Vice President & Operations
Nailite International
1111 NW 165th St.
Miami, FL 33169

4a. Article Number
Z 341 355 305

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

7. Date of Delivery
6/5

5. Received By: *(Print Name)*
SUE AMDUR

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

6. Signature: *(Addressee or Agent)*
X Sue Amdur

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Thank you for using Return Receipt Service.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAY 25 2000



4 APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: PSD Permit Application for Nailite International, Inc. located in Miami (Dade County), Florida PSD-FL-289

Dear Mr. Linero:

Thank you for submitting the above referenced PSD permit application (dated April 19, 2000) to the U.S. Environmental Protection Agency (EPA) for comments. The proposed project involves the construction of a panel finishing spray line which will operate in conjunction with existing operations located in Miami. The new line consisting of three spray booths and a curing oven will have the capacity to process 1,400 polypropylene "shingles" per hour. The total emissions increase of volatile organic compounds (VOC) from the proposed project is above the significance threshold requiring Prevention of Significant Deterioration (PSD) review.

Based on a review of the permit application, EPA has the following comments:

1. In Section 5.3 of the permit application, it is stated that, by definition, Maximum Achievable Control Technology (MACT) is more stringent than Best Available Control Technology (BACT). This statement is somewhat misleading in that MACT and BACT apply to different classes of pollutants; MACT applies only to hazardous air pollutants (HAP) whereas BACT typically applies to criteria pollutants. In this particular case, MACT and BACT just happen to be the same since regenerative thermal oxidization (RTO) effectively controls the emissions of both toluene (a HAP) and VOC (a criteria pollutant).

2. Although RTO appears to be the most effective add-on control for both toluene and VOC, the applicant should have addressed the feasibility of other potential control options such as the use of low-VOC materials. When used in conjunction with the RTO technology, this particular control option would undoubtedly result in further reduced emissions of both toluene and VOC. Even in the event that such an option were determined to be "technically infeasible" (e.g., the use of low-VOC materials

would compromise the quality of the product), the permit application still needs to identify the option and discuss why it was not selected as BACT.

Thank you for the opportunity to comment on the Nailite International permit application. If you have any questions regarding these comments, please direct them to either Art Hofmeister at (404) 562-9115 or Jim Little at (404) 562-9118. EPA will inform the Florida Department of Environmental Protection by separate correspondence should there be any comments or suggestions regarding the applicant's ambient air quality impact analysis.

Sincerely,

Douglas Neeley

R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

CC: J. Reynolds
SED
NPS
B. Susi, Golder Assoc.

# Department of
# Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary


May 25, 2000

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. David G. Steedman
Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Re: DEP File No. 0250407-003-AC (PSD-FL-289) - New Panel Line

Dear Mr. Steedman:

The Bureau of Air Regulation received today the enclosed faxed letter from the Dade County Air Quality Management Division concerning the referenced permit application. Please address the issues raised in Dade County's letter.

If there are any questions regarding the above, please call John Reynolds at 850/921-9536.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

Enclosure

AAL/JR

cc: Gregg Worley, EPA
John Bunyak, NPS
Isidore Goldman, SED
Patrick Wong, DCDERM
Benny Susi, Golder Assoc.

Z 341 355 298

US Postal Service

## Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

| | |
|---|---|
| Sent to | David Steedman |
| Street & Number | Nailite Internat'l |
| Post Office, State, & ZIP Code | Miami FL |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| **TOTAL** Postage & Fees | $ |
| Postmark or Date | 5-26-00 |

0250407-003-AC
PSO-FL-289

PS Form **3800**, April 1995

---

**SENDER:** *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. David Steedman
Vice President of Operations
Nailite Internat'l, Inc
1111 NW 165th St.
Miami, FL 33169

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

Article Number *(Copy from service label)* Z 341 355 298

Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

MIAMI-DADE COUNTY, FLORIDA

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954

May 25, 2000

Department of Environmental Protection
Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Fl 32399-2400
Attention: John Reynolds

RE; Nailite International, Inc.- New Panel Finishing Spray Line

The DERM's Air Facilities Section has received a copy of the PSD application for Nailite International, (ARMS # 0250407).

The PSD rule requires the permitting authority, FDEP in this case, to make a determination of the Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for certain proposed projects at major facilities that result in increased emissions. Because Nailite is located in Miami-Dade County, the DERM is offering the following comments for your consideration:

1. Based on the information provided in the PSD application, and on a telephone conversation between Mr. Frank Echanique of this office and Mr. David Buff of Golder Associates on May 23, 2000, it was confirmed that the existing facility will continue using a maximum of 300,000 gal/year of paints and solvents. Furthermore, the new facility will have a maximum usage rate of an additional 300,000 gal/year of paints and solvents. The application indicates that the 300,000 gal/year is solely paint. DERM suggests that DEP obtain the breakdown of paints and solvents usage in the new facility.

2. The Miami-Dade County DERM believes that both the existing and the new operations should be considered comprehensively in reviewing the construction application, and arriving at a BACT/MACT determination. The correct approach would be to perform a case-by-case MACT determination for the entire facility.

3. Considering the fact that the potential emissions from the added operations will be more than 900 ton/year, and the proposed capture efficiency of only 90%, there will be an estimated 90TPY (10%) of uncontrolled HAPs emissions just from the new facility. This 90% capture efficiency is not acceptable, since this may conceivably result in a public sanitary nuisance to the surrounding area, as well as undue exposure to the workers. Taking into account the 10% fugitive emissions, the overall control efficiency will be only 86% and is not appropriately reflective of the MACT.

4. Based on the review of the Title V permit for the existing facility, the paint usage is 300,000 gal/year, and the authorized maximum hourly paint usage is 34.3 gal/hour. Although the PSD application for the new facility indicates a proposed paint usage of the same 300,000 gal/year, the maximum hourly paint usage is 61 gal/hour. DERM would like the applicant to explain this apparent discrepancy.

Sincerely,

Mallika Muthiah.

Mallika Muthiah. P.E., Chief,
Air Facilities Section
Miami-Dade County D.E.R.M.

METROPOLITAN DADE COUNTY, FLORIDA

METRODADE

DERM

# FAX TRANSMITTAL

**Department of Environmental Resources Management**
**33 S.W. 2nd Avenue**
**Miami, FL. 33130-1540**

## SEND TO:

**Name:** John Reynolds

**Company/Department:** DEP / DARM

**Phone Number:** 1-850-488-0114

**Fax Number:** 1-850-922-6979

**Message:**

## FROM:

**Name:** Mallika Mutnuri

**Division/Section:** AQMD / AFS

**Phone Number:** 305-372-6921

**Fax Number:** (305) 372-6954

**Date:** 5/25/00

**Number of Pages (including this one):**

3

METROPOLITAN DADE COUNTY, FLORIDA

METRODADE

DERM

**Department of Environmental Resources Management**
**33 S.W. 2nd Avenue**
**Miami, FL. 33130-1540**

# FAX TRANSMITTAL

## SEND TO:

Name: Al Linero

Company/Department: FDEP - DARM

Phone Number:

Fax Number: (850) 922 - 6979

Message: FYI. Here's the letter we discussed today. Thanks for your time this afternoon.

## FROM:

Name: Debbie Griner

Division/Section: AQMD

Phone Number: (305) 372-6936

Fax Number: (305) 372-6954

Date: 5/15/00

Number of Pages (including this one): 2

April 16, 2000

Dear Sir or Madam:

As a concerned citizen and employee of Nailite International, I was appalled when I came across the information that my employer is the number two polluter in the county. This information is on a website which is called Scorecard.org. With further research according to the website, Nailite is the 30th general polluter in the state and is ranked 59th in the country as a polluter of the chemical Tolune. The afore mentioned is information I have not been privied to as an employee. There is an MSDS available, but the degree of the hazard has never been revealed. To add to my concern these numbers are reflective to 1997. Today Nailite is running a double shift seven days a week, which would mean these numbers have almost doubled. There have been four deaths in the past 10 years of company employees. Most current employees have or are beginning to show symptoms of exposure, which may be linked to this chemical.

There is a very real danger to the employees, business, and residential areas around Sunshine Industrial Park. I ask for your help in order to expose this sheer disregard for the safety of employees and surrounding communities. With public exposure they will have to except the responsibility and use whatever means necessary to reduce the release of Tolune in to the air thereby improving everyone's quality of life. Enclosed I have sent you copies of the information found on Scorecard.org.

I would like to thank you in advance for your assistance in this sensitive matter.

Golder Associates Inc.
1801 Clint Moore Road, Suite 200
Boca Raton, FL USA 33487
Tel: (561) 994-9910
Fax: (561) 994-9393

Golder Associates

May 9, 2000

0037523



Florida Department of Environmental Protection
New Source Review Section
2600 Blair Stone Road
Tallahassee, FL, 32399-2400

Attention: A. A. Linero, P.E.

RE: Nailite International, Inc. – New Panel Finishing Spray Line
DEP File No. 0250407-003-AC(PSD-FL-289)

Dear Mr. Linero:

In response to your letter dated May 4, 2000, requesting additional information, and our telephone conversation of May 8, Golder Associates Inc. (Golder), on behalf of Nailite International has prepared the following responses:

1. The specific chemicals that comprise the VOCs in the coatings are toluene and xylene. No other HAPS are present in the chemical composition of the paints used. A Material Safety Data Sheet was previously submitted indicating toluene at 68.96 percent by weight and xylene at 1.50 percent. The attached MSDS presents the chemical composition by weight of the other ingredients not included in the MSDS on file with FDEP.

2. The existing paint line will be relocated to the new building once the new paint line is operational. Based on the maximum paint usage of 300,000 gallons per year, and the maximum VOC content of 6 lb of VOC per gallon of coatings for the existing paint line, the maximum emissions for the existing paint line will be 900 TPY of VOC. However, actual VOC emissions from the existing paint line are about 350 TPY, and these actual emissions are expected to remain similar to this in the future. The attached table presents the maximum potential emissions from the existing paint line (uncontrolled).

   Nailite is currently considering venting the emissions from the relocated existing paint line to the new RTO. However, Nailite has chosen not to include the existing paint line in the application for the new paint line since the reduction in emissions from the existing paint line would be significant and would provide Nailite with emission credits in any future expansion of the facility (i.e., within the 5-year PSD contemporaneous period).

To reiterate, Nailite is not including the existing paint line in this application. For permitting purposes, the existing paint line will only be relocated a few hundred feet away. All current air permit conditions related to the existing paint line will continue to apply.

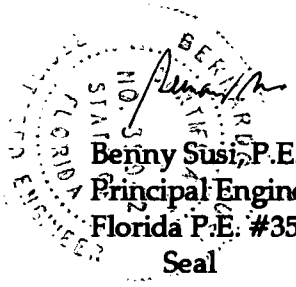
3. Attached is the revised page 3-4 of part B of the PSD application.

4. Attached as part of this response is ADWEST Technologies, Inc. technical specifications for the proposed RTO. It should be noted that the RTO does not have a concentrator. Additionally, a flow diagram indicating the air flows from the various components of the new paint line to the RTO are attached along with the estimated cost effectiveness of the control device.

Please call if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.



Benny Susi, P.E.
Principal Engineer
Florida P.E. #35042
Seal

BS/jkk

Enclosures

cc: David Steedman, Nailite
David Buff, Golder

\\GATORBAIT\DP\Projects\2000\0037\0037523Y Nailite\FI\WP\attachments\#01ltr.doc

CC: J. Reynolds, BAR
EPA
NPS
SED
Dade Co

# Strathmore Products, Inc.

FORMULATORS AND MANUFACTURERS OF CHEMICAL COATINGS - PAINTS - ENAMELS - LACQUERS

May 9, 2000

Mr. David Steedman
Nailite International
1251 Northwest 165th Street
Miami, FL 33169

Dear Mr. Steedman:

I am writing in response to a request by Bennie Sussey of Golder Associates. The following is a percent by weight breakdown of the components in Strathmore Products, Inc., Plasticel Black Coating, B35-0082:

| | |
|---|---|
| Resin | 20.20 % |
| Pigment | 9.41 % |
| Xylene | 1.44 % |
| Toluene | 68.95 % |

If any additional information is needed, please feel free to call.

Sincerely,

David Harwood (dh)

David Harwood
Senior Chemist

DH/ll

cc: Bennie Sussey
Tom Burr, Strathmore CEO
John Good, Strathmore, Technical Director

lab/harwood/nailite
5-9-00

Attachment NI-EU1-H8b. Maximum Potential VOC Emissions for No. 1 Spray Line, Naillite

| Product | Maximum Paint Usage (gal/hr) | Maximum Paint Usage (gal/yr) | Maximum VOC Content (lb/gal) | Potential Uncontrolled VOC (lb/hr) | Potential Uncontrolled VOC (TPY) | Fugitive Emissions [a] (lb/hr) | Fugitive Emissions [a] (TPY) | VOC to Thermal Oxidizer [b] (lb/hr) | VOC to Thermal Oxidizer [b] (TPY) | VOC from Thermal Oxidizer [c] Maximum Hourly Emissions (lb/hr) | VOC from Thermal Oxidizer [c] Maximum Annual Emissions (TPY) | Total VOC Emission (lb/hr) | Total VOC Emission (TPY) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coatings | | | | | | | | | | | | | |
| Annual | – | 300,000 | 6.0 | – | 900.0 | – | 90.0 | – | 810.0 | – | 40.5 | – | 130.5 |

Note:

[a] Based on estimated 90% capture of VOC in paint booths and 10% fugitive emissions.

[b] Based on 90% capture of VOC in paint booths.

[c] Based on 95% VOC destruction in thermal oxidizer.

The top-down BACT approach essentially starts with the most stringent (or top) technology and emissions limit that have been applied elsewhere to the same or a similar source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose to use it. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (e.g., fuel type), locational differences (e.g., availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility on which the control technique was applied previously must be justified. EPA has issued a draft guidance document on the top-down approach entitled *Top-Down Best Available Control Technology Guidance Document* (EPA, 1990).

MACT requirements apply to all new major sources of HAPs (i.e., greater than 10 TPY of any single HAP, or greater than 25 TPY of total HAPs). MACT is defined in Rule 62-204.800(10)(d)2., F.A.C., as:

> An emissions limitation not less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the permitting authority. Based on the available information, ...the maximum degree of reduction in emissions of HAP which can be achieved by utilizing those controls technologies that can be identified from available information, taking into consideration costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.

BACT is equivalent to MACT in this instance. Therefore, for the purposes of this application, BACT will be considered as satisfying MACT requirements.

### 3.1.3 AIR QUALITY MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m) and Rule 62-212.400(5)(f), F.A.C., any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-1).

# Strathmore Products, Inc.

FORMULATORS AND MANUFACTURERS OF CHEMICAL COATINGS - PAINTS - ENAMELS - LACQUERS



April 26, 2000

Dave Steedman
Nailite International
1251 Northwest 165th Street
Miami, FL 33169

Dear Dave:

Per your request, three evaporation tests were run at Strathmore to determine how much solvent would evaporate from a sprayed film in 90 seconds.

I randomly chose the light buff coating I35-0093, C-690. After thorough mixing, seven ounces of I35-0093 was reduced with three ounces of solvent or solvent blend and added to the cup of a cup gun. The cup was then attached to the suction feed gun and the assembly was weighed on a digital pound scale. A 3 x 5 inch cold rolled steel panel was then sprayed at 40 pounds atomization. The panel was then rushed to a digital analytical balance where the timed weights were taken. The doors of the analytical balance were left open to allow air flow over the panel. The steel panel was reweighed after an overnight dry on the digital analytical balance to determine its final dry weight.

Tests #1 and #2 were sprayed from the same ten-ounce sample.

The following results were obtained:

# Strathmore Products, Inc.

1-mil

nailite evaporation page 2

Test 1

- Reduce paint, 70 parts paint to 30 parts acetone
- Weigh cup gun prior to spraying panel and after spraying
- Spray a 3 x 5 inch steel panel to a 1 mil dry film thickness
- Measure panel weight every 10 seconds
- Report % solvent evaporated after 90 seconds

| | |
|---|---|
| Temperature | 77°F |
| Relative Humidity | 39 % |
| Cup gun prior to spraying | 4.521 lbs |
| Cup gun after spraying | 4.456 lbs |
| | .065 lbs = 29.5 gms |

| | | |
|---|---|---|
| Uncoated Panel | 73.5807 gms | |
| Wet Panel | 75.2760 gms | Wet Film Weight = 1.6953 gms |
| Dry Panel | 74.6242 gms | Dry Film Weight = 1.0435 gms |

| Time (seconds) | Panel Weight (grams) | % Solvent Evaporated |
|---|---|---|
| 10 | 75.2543 | 3.3 |
| 20 | 75.2230 | 8.1 |
| 30 | 75.2000 | 11.7 |
| 40 | 75.1653 | 17.0 |
| 50 | 75.1330 | 21.9 |
| 60 | 75.1127 | 25.0 |
| 70 | 75.0854 | 29.2 |
| 80 | 75.0652 | 32.4 |
| 90 | 75.0312 | 37.6 |

# Strathmore Products, Inc.

nailite evaporation page 3

Test 2

- Reduce paint, 70 parts paint to 30 parts acetone
- Weigh cup gun prior to spraying panel and after spraying
- Spray a 3 x 5 inch steel panel to 2 mils dry film thickness
- Measure panel weight every 10 seconds
- Report % solvent evaporated after 90 seconds

| | |
|---|---|
| Temperature | 77°F |
| Relative Humidity | 39 % |
| Cup gun prior to spraying | 4.456 lbs |
| Cup gun after spraying | 4.367 lbs |
| | .089 lbs = 40.4 gms |

| | | |
|---|---|---|
| Uncoated Panel | 73.6624 gms | |
| Wet Panel | 76.4012 gms | Wet Film Weight = 2.7388 gms |
| Dry Panel | 75.2664 gms | Dry Film Weight = 1.6040 gms |

| Time (seconds) | Panel Weight (grams) | % Solvent |
|---|---|---|
| 10 | 76.3780 | 2.0 |
| 20 | 76.3484 | 4.6 |
| 30 | 76.2991 | 9.0 |
| 40 | 76.2554 | 12.8 |
| 50 | 76.2170 | 16.2 |
| 60 | 76.1884 | 18.8 |
| 70 | 76.1645 | 20.9 |
| 80 | 76.1403 | 23.0 |
| 90 | 76.1113 | 25.6 |

# Strathmore Products, Inc.

nailite evaporation page 4

Test 3

- Reduce paint, 70 parts paint to 15 parts toluene to 15 parts acetone
- Weigh cup gun prior to spraying panel and after spraying
- Spray a 3 x 5 inch steel panel to a 1 mil dry film thickness
- Measure panel weight every 10 seconds
- Report % solvent evaporated after 90 seconds

| | |
|---|---|
| Temperature | 76°F |
| Relative Humidity | 37 % |
| Cup gun prior to spraying | 4.497 lbs |
| Cup gun after spraying | 4.423 lbs |
| | .074 lbs = 33.6 gms |

| | | |
|---|---|---|
| Uncoated Panel | 74.1115 gms | |
| Wet Panel | 76.6710 gms | Wet Film Weight = 2.5595 gms |
| Dry Panel | 75.5042 gms | Dry Film Weight = 1.3927 gms |

| Time (seconds) | Panel Weight (grams) | % Solvent |
|---|---|---|
| 10 | 76.6300 | 3.5 |
| 20 | 76.5700 | 8.6 |
| 30 | 76.5350 | 11.6 |
| 40 | 76.4970 | 14.9 |
| 50 | 76.4710 | 17.1 |
| 60 | 76.4260 | 21.0 |
| 70 | 76.3990 | 23.3 |
| 80 | 76.3650 | 26.2 |
| 90 | 76.3400 | 28.4 |

If you have any questions, please feel free to call.

Sincerely,

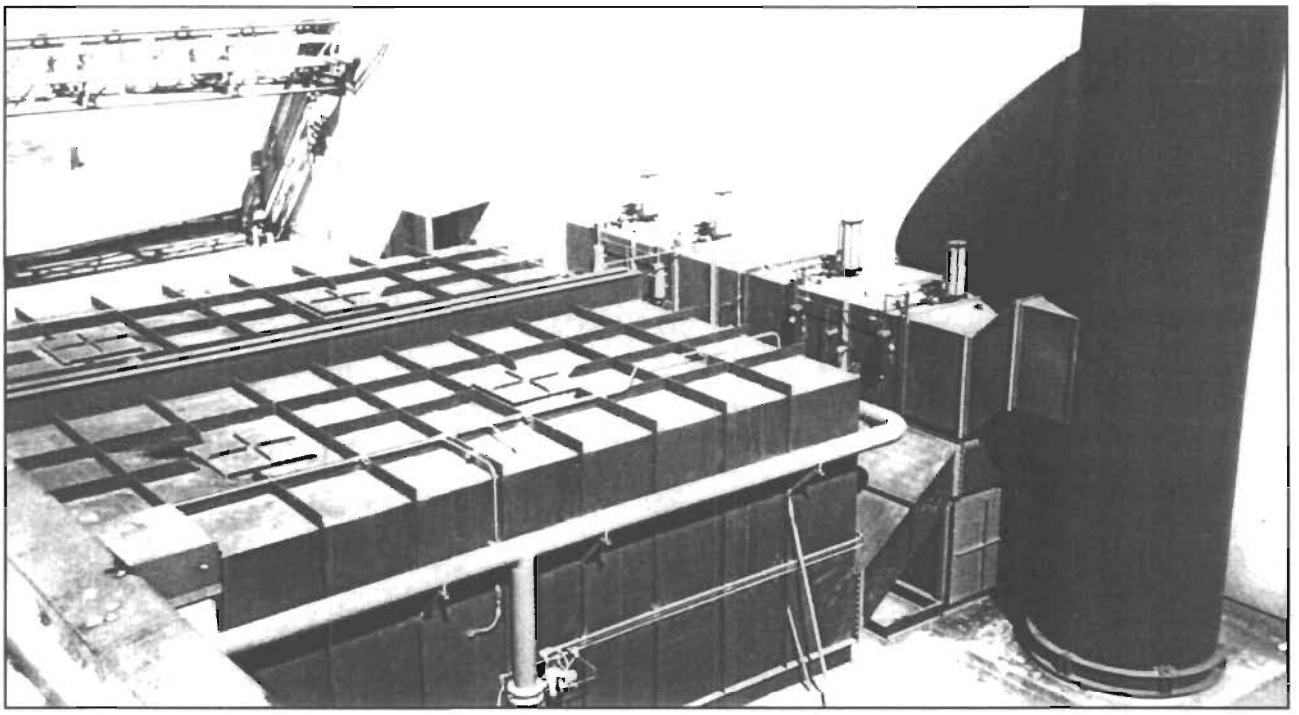
David Harwood (dh)

David Harwood
Senior Chemist
DH/ll

lab/harwood/nailite 4-26-00

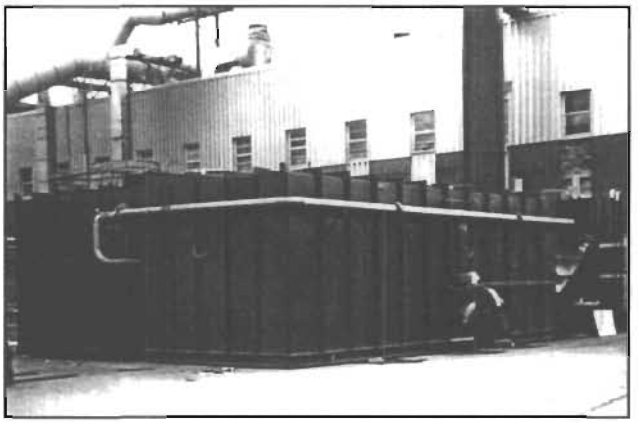
# ADWEST TECHNOLOGIES, INC.

## RETOX® REGENERATIVE THERMAL OXIDIZERS



### RTO APPLICATIONS

- Web Offset Printing
- Flexible Packaging/Flexo
- Gravure Printing
- Paint Spray/Wood Finishing
- Chemical Processing
- Pharmaceuticals
- Web Converting/Coating
- Adhesives/Vinyl Coating
- Laminating/Screen Printing
- Semiconductor/Circuit Board
- Phenolic Composites/Treating
- Film/Tape/Foil Coating
- Air Strippers/SVE



***TURNKEY OXIDIZER SYSTEMS FROM 500-200,000 SCFM FLOWRATES***

### PRODUCTS/SERVICES

- RETOX® RTO Twin Bed Regenerative Thermal Oxidizer Systems
- RETOX RCO Catalytic Oxidizers
- Airex Poppet Damper Tees
- Skid Mounted
- Shop Assembled/Tested Modules
- Single Source Turnkey Installations
- Lease Finance Options
- TEL-MAX Telemetry/PLC Controls/Remote Diagnostics
- Special Halogenated Designs

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ADWEST TECHNOLOGIES, INC.


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E-MAIL: adwestny@eznet.net


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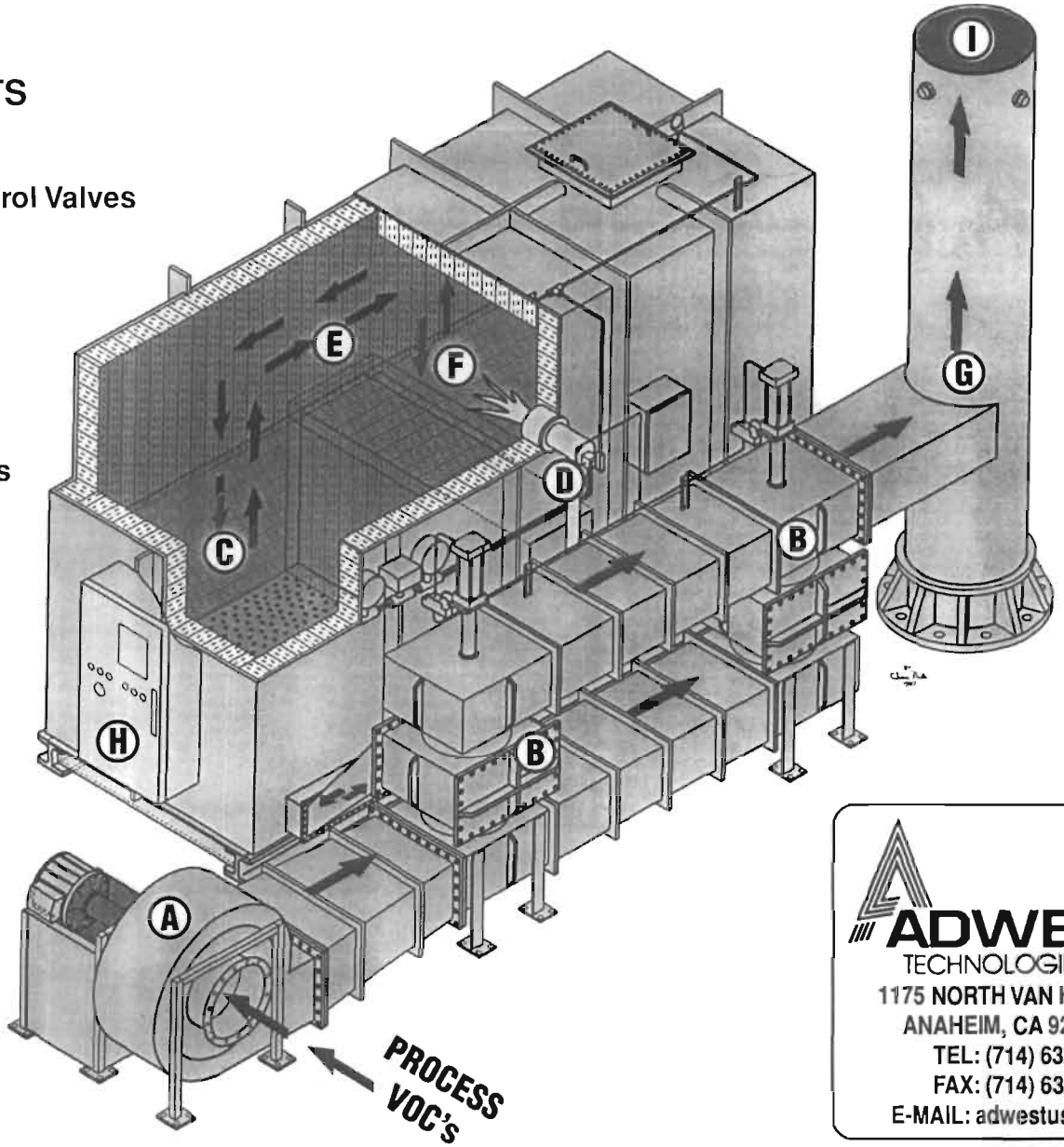
# RETOX® TWIN BED REGENERATIVE THERMAL OXIDIZERS

## MAJOR RETOX® TWIN BED RTO OXIDIZER COMPONENTS

- (A) Forced Draft Fan
- (B) Twin Airex Poppet Flow Control Valves
- (C) Heat Exchange Bed #1
- (D) IRI/FM Burner/Piping Train
- (E) Combustion Chamber
- (F) Heat Exchange Bed #2
- (G) Exhaust Stack with Test Ports
- (H) PLC Controls with Tel-Max Telemetry Diagnostics
- (I) Purified Exhaust ($CO_2$ + $H_2O$ Vapor)




**Visit our website: adwestusa.com**

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ADWEST TECHNOLOGIES, INC.

# ADWEST TECHNOLOGIES, INC.

## ANAHEIM, CALIFORNIA

RETOX® REGENERATIVE THERMAL OXIDIZER SYSTEM

BY ADWEST/AIREX

PROPOSAL FOR

## NAILITE INTERNATIONAL

## MIAMI, FLORIDA

OUR REFERENCE: PROPOSAL NO. 00-4367

MARCH 24, 2000

1175 N. VAN HORNE WAY, ANAHEIM, CA 92806-2506
TEL. (714) 632-9801 • FAX (714) 632-9812

ADWEST
TECHNOLOGIES, INC.

March 24, 2000

Nailite International
1251 NW 165th Street
Miami, Florida 33169

Attention: Mr. David Steedman

Reference: RETOX® Twin Bed Regenerative Thermal Oxidizer System
Application: Paint Process VOC Emissions
Our Reference: Proposal No. 00-4367

Dear Mr. Steedman:

We are pleased to submit our proposal covering the supply and installation of one (1) RETOX® 27.0 RTO95 Twin Bed Regenerative Thermal Oxidizer system manufactured by Adwest/Airex Corporation for your process emission control project in Miami, Florida. The RETOX® regenerative thermal oxidizer provides a lower cost and higher efficiency alternative to present oxidizer systems used for low solvent loading processes. The oxidizer quoted in this proposal is designed to destroy greater than 98% of volatile organic compounds (VOC's) and provide 95% primary heat recovery effectiveness which provides fuel free operation above inlet solvent loadings of approximately 3% of L.E.L.

Each weather tight RETOX® RTO module is shop-assembled on a compact skid which minimizes field assembly and installation costs and time. The system uses an energy saving forced draft design and utilizes a natural gas burner for rapid 1 hour cold start-up. An integral Allen Bradley PLC control system with TEL MAX telemetry features provides automatic system operation and remote diagnostics. Also there are no expensive catalyst, carbon bed additives or structured block media to replace and maintain.

Adwest/Airex RETOX® regenerative oxidizer systems provide a cost effective solution to industrial VOC, odor and air toxics control, with minimal capital, operating and installation costs. Our oxidizer systems have been successfully installed on a wide variety of VOC and odor control processes including web offset printing, converting, coating, pharmaceutical, chemical, paint finishing and flexible packaging applications with such clients as 3M Company, Fisher Printing, Masterchem Paints, Fry Communications, Times Litho, Occidental Chemical, American Packaging, Atlantic Press, Hexcel Composites, Toshiba, Neff Printing, GenCorp, General Business Forms, Allied Signal, Photocircuits, CSD Packaging, Concord Litho and Mitsubishi.

1175 N. VAN HORNE WAY, ANAHEIM, CA 92806-2506
TEL • (714) 632-9801 • FAX (714) 632-9812

In summary, the RETOX® Twin Bed regenerative thermal oxidizer provides a cost effective, low maintenance and affordable solution to VOC and odor control, combined with high efficiency heat recovery, low system pressure drop, flameless operation, rapid startup and zero leakage with our unique Airex vertical poppet valves with soft step seating. Adwest Technologies' extensive VOC control heat recovery and Turnkey installation experience of over 450 RETOX® RTO oxidizer systems since 1988, provides you, with a proven, responsive and focused engineering and technical support team dedicated to cost effective VOC control solutions.

We would be pleased to meet with you at your convenience, to further discuss this proposal and the RETOX® regenerative thermal oxidizer system benefits and advantages. If you have any questions or would like additional information, please feel free to call myself or Mr. Brian Cannon of our East Coast office. We also invite you to visit our dedicated Anaheim, California engineering and fabrication headquarters facilities anytime to see our quality RETOX® RTO systems firsthand.

Very truly yours,

ADWEST TECHNOLOGIES, INC.

Joseph R. Terry

Joseph R. Terry

JRT:mae

Attachments

CC: Brian Cannon-Adwest (East Coast office) (716) 593-1405

# ADWEST TECHNOLOGIES, INC.

## RETOX® TWIN BED RTO OXIDIZER GENERAL DESCRIPTION

### INTRODUCTION:

The RETOX® twin bed RTO Regenerative Thermal Oxidizer System provides a cost effective way for solvent-laden gas to be converted into carbon dioxide and water vapor.

### EQUIPMENT:

The RETOX® oxidizer consists of a reinforced, insulated twin bed chamber filled with ceramic heat exchanger media. The gas flow is automatically controlled by a zero leakage poppet valve mechanism which changes the direction of the gas flow at regular intervals via an integral programmable logic control (PLC) system. An external burner is used only for initial cold startup, typically 1 hour.

### PROCESS COMBUSTION:

Due to the abundant oxygen content of the process gas, complete combustion readily occurs when the ignition point is reached in the oxidizer (typically 1600-1700°F). Process hydrocarbons are converted to carbon dioxide and water vapor. With a sufficient concentration of solvents in the incoming process gas, the exotherm of the solvents will be enough so that the destruction of VOC's will be self-sustaining and no auxiliary heat energy is required from the fuel source.

### HEAT RECOVERY:

The high degree of heat recovery achieved is the result of regenerative heat transfer. The VOC laden process air enters a porous bed filled with high temperature ceramic heat transfer media. The air is preheated by bed #1 to a maximum temperature, passes through a central combustion chamber where the hydrocarbons are oxidized to carbon dioxide and water vapor, and then exits a second bed where heat is transferred from the hot air back into the bed. In order to avoid an uneven temperature distribution throughout the oxidizer, the gas flow direction is changed at regular intervals by the automatic valve-switching mechanism to maintain an even temperature profile between the twin beds.

## ADWEST TECHNOLOGIES, INC.
## RETOX® TWIN BED RTO OXIDIZER VALUE-ADDED BENEFITS

### WIDE TWIN BED RTO DESIGN RANGE

- Skid mounted, shop assembled RETOX® twin bed RTO modular design
- Available in single module sizes from 600 Scfm up to 60,000 Scfm flowrates. Modules can be ducted in parallel to accommodate larger process flows of 100,000 Scfm+ flowrates
- Fully prewired, pretested automatic PLC controls
- Cost effective RETOX® RTO units allow you to meet and/or exceed EPA pollution control standards without a large capital investment

### PROVEN ADWEST VOC/ODOR DESTRUCTION

- Over 400 Adwest/Airex oxidizer systems installed, including 125 on a Turnkey basis worldwide since 1987
- Installation experience on systems over 100,000 Scfm
- Units can be designed to destroy over 99% of VOC's and odors with no NOx contribution from the heat source due to flameless operation
- Up to 1700°F design oxidation capability provides thorough VOC, odor and hydrocarbon destruction
- Quick actuation carbon steel poppet valves minimize leakage

### HIGH PRIMARY HEAT RECOVERY WITH MINIMAL ENERGY INPUT

- Units are available up to 95% primary heat recovery effectiveness
- External burner for cold startup-typically 1 hour
- Units will operate fuel free at approximately 3% L.E.L. (420 ppmv) inlet loadings with 95% heat recovery
- Low pressure drops requirements due to engineered media bed

### COMPACT SHOP ASSEMBLED TWIN BED DESIGN

- Unit size and cost are reduced as compared to conventional oxidizer designs requiring large combustion chambers and heat exchangers
- Smaller RETOX® RTO units are completely skid mounted/shop assembled. With shop assembly prior to site arrival, installation manpower, time and cost are reduced compared to systems that require extensive field assembly
- Internal high temperature insulation, heat transfer media, poppet valves, burner and piping train are all shop installed/inspected

### AUTOMATIC PRETESTED CONTROLS W/FREE LIFETIME MODEM DIAGNOSTICS

- Standard shop simulation tested Allen Bradley programmable logic control (PLC) system for automatic, unattended system operation
- TEL-MAX telemetry system with remote diagnostics capabilities

## SHIPMENT:

Shipment is estimated to be 6 weeks or 12-13 weeks after receipt of purchase order and release for purchase of long-lead items. Our shipment, however, is subject to confirmation at time of award of purchase order. Adwest Technologies, Inc. will work with you to coordinate the RETOX® oxidizer shipment schedule to meet your VOC control compliance schedule.

## CONDITIONS OF SALE:

Notwithstanding any other paragraph contained in this entire proposal, our Conditions of Sale, Form GS-524, for the equipment shall be incorporated herein and shall be applicable. All quoted prices based on current costs are firm only if shipment is made within six-months from date of quotation.

## POLICY OF CONTINUING QUALITY INNOVATION

In the interest of maintaining state of the art quality in our equipment, Adwest Technologies, Inc. reserves the right to revise these specifications and incorporate suggested changes to include the latest improvements in the equipment design vendor components and system hardware.

## PROCEDURE AND INSURANCE REQUIREMENTS

Provisions must be made by Purchaser to ensure that condensation of the fumes and vapors does not occur on the ducting or heat transfer surfaces during the operation of this equipment. Should deposits of this nature take place, such that a potential of fire exists during running, upset or shutdown conditions, it will be necessary to install a fire extinguishing system to protect this equipment from damage. This system must be designed so that the extinguishing materials will not be allowed to enter the oxidizer, as damage to the equipment could result. These provisions are not included in this proposal.

The equipment selected will incorporate automatic features for protection and safety. However, while these features and their characteristics of operation afford a degree of safety, operation of the equipment is not to be considered free from all dangers and hazards inherent in the handling and firing of fuel. Proper operating techniques and maintenance procedures as specified in our manuals must be adhered to at all times.

Should the obtaining of FM approval require special equipment not covered in this specification (i.e. fire protection equipment, electrical interlocking of the oxidizer to the system), the cost of this equipment and obtaining of all permits or approvals required for installation and/or operation of this equipment is the responsibility of others.

## ERECTION ASSISTANCE AND START-UP:

Any contract resulting from this proposal will require start-up assistance to validate our warranty. This will require a technical service representative to be present at the time of initial start-up and must give release of operation of the equipment in accordance with the Seller's operating and maintenance manual.

## SAFETY INSPECTIONS AND TESTING

RTO's are dependable and will provide reliable service for many years. In fact, users often forget it's part of their process as they operate with little attention for long periods. However this is only possible with routine maintenance and the National Fire Protection Association states that "documented safety inspections and testing shall be performed at least annually". (NFPA 86 Standard for Ovens and Furnaces 1996 Edition 5-2.4.2). Airex will be able to give you this service by supplemental agreement. Please contact our office for further details.

## DESIGN CRITERIA & GUARANTEE

### Design Criteria

The design criteria is for your emissions as supplied by Nailite International.

| | DESIGN |
|---|---|
| Process Volume, Scfm | 27,000 |
| Process Gas Inlet Temp., °F | 80 |
| Solvent Loading #/Hr. | 122.5-367.5 Max |
| Solvent Composition | Acetone, Toluene, Xylene |
| Operating Cycle, Hrs/Yr. | 4,320 |
| Negative Pressure Upstream of oxidizer, ("w.c.) | 2.0 |

The solvent composition tabulated above has been assumed to have a solvent heat of combustion of 12,000 BTU/# net.

Because of their corrosive nature, compounds containing sulfur or halogens may not be suitable for application in the oxidizer. Also, if low boiling hydrocarbons are present in the process stream such that the potential for condensation in the ductwork exists, these conditions should be reviewed by Adwest Technologies engineering.

**PERFORMANCE GUARANTEE:**

1.A We make the following Performance Guarantee: If all of the Performance Conditions are satisfied, then the Equipment will reduce the concentration of hydrocarbons measured at the discharge stack of the Equipment as compared to the concentration of hydrocarbons measured at the inlet of Equipment by an average of greater than 98% or down to 25 ppm as $C_1$ in the stack. The Performance Conditions are defined in this specification under the heading of "Design Criteria". The Equipment must be operated within design limits of 1500°F to 1700°F oxidation temperature.

1.B Nitrogen Oxides-We make the following NOx Performance Guarantee: If all of the Performance Conditions are satisfied and the equipment is operated within design parameters as specified in the "Design Criteria" section, the equipment will perform such that the total concentration of NOx as measured (i.e. uncorrected to 3% of oxygen) at the discharge stack will not exceed 5 PPMv. This guarantee is predicated upon an inlet NOx concentration of 0 PPMv and no nitrogenated hydrocarbons in the process exhaust.

2. The only Performance Guarantee made is that which is expressly stated in Paragraph 1A and 1B above. All other performance data contained in this Proposal or this Agreement or elsewhere are estimates or are for purposes of illustration only, and are not guaranteed.

3. The Performance Tests for determining whether the Performance Guarantee is satisfied shall be ineffective unless first reviewed and approved by us. We shall have the right and opportunity to witness the Performance Tests. In any event, the Performance Tests shall consist of simultaneous measurements of hydrocarbon solvent loadings at the inlet and discharge stack, and methane, ethane or other natural gas injection hydrocarbon contribution shall be deducted from the measurements at the discharge stack. Performance Tests shall be at your expense, except as provided in Paragraph 4 below, and if the Performance Tests for any unit of Equipment are not completed before the expiration of the Test Limitation Period for that unit, which shall expire 12 months from date of shipment, then that unit of Equipment shall be deemed to have satisfied the Performance Guarantee, and we shall have no further obligation under this Performance Guarantee as to that unit.

4. If any unit of Equipment does not satisfy the Performance Guarantee as determined by the Performance Tests, then we shall, at our option, either: (a) repair, replace, or modify such unit of Equipment until it satisfies the Performance Guarantee; or (b) pay you as liquidated damages in full satisfaction of all your claims arising out of failure to meet the Performance Guarantee, an amount equal to all payments made to us on this contract. If we elect to repair, replace, or modify such unit of Equipment, then the subsequent Performance Tests shall be administered at our expense (unless the failure was not caused by such unit of Equipment) until the Performance Guarantee is satisfied, at which time we shall have no further obligations under this Performance Guarantee as to that unit, and if after such repair, replacement, or modification the unit of Equipment fails to satisfy the Performance Guarantee, then we shall pay you liquidated damages per Clause (b) above. The remedies and obligations set forth in this Performance Guarantee are your exclusive remedies and our exclusive obligations in the event of failure of the Equipment to satisfy the Performance Guarantee.

## SYSTEM ENERGY CALCULATION:

These calculations are based on design process flow and solvent composition rates as provided by Nailite International.

| | | RETOX® 27.0 RTO95 |
|---|---|---|
| 1. | Process Flow Rate, Scfm | 27,000 |
| 2. | Oxidizer Inlet Temp, °F | 80 |
| 3. | Oxidizer Outlet Temp., °F | 229 |
| 4. | Oxidation Temperature, °F | 1,600 |
| 5. | Solvent Composition Rate, #/Hr. | 367.5 |
| 6. | Heating Value of Solvent, Btu/# | 12,000 |
| 7. | Net Energy from Solvent, BTU/Hr | 4,410,000 |
| 8. | Energy Required, MMBTU/Hr | Zero |
| 9. | Energy Cost/Hr. @ $5.00/MMBTU | Zero |
| 10. | Fan Horsepower | 75 |
| 11. | Fan Energy Usage, KW | 56 |
| 12. | Fan Energy Cost/Hr @ $.06/KWH | $3.36 |

**NOTE:** *The above tabulation is for comparison purposes only and does not include casing heat losses.*

Energy requirements for the oxidizer is based on propane gas operation (7,150 CFH required at 5 Psig for one hour cold start-up/high fire condition).

## SCOPE OF SUPPLY:

Type: One (1) Model RETOX® 27.0 RTO95 regenerative oxidizer system with 95 percent thermal efficiency.

| | RETOX® 27.0 RTO95 |
|---|---|
| Weight: | 108,200 pounds |

Dimensions: 35'8" long plus process fan
22'6" wide
12'2" high

## EQUIPMENT INCLUDED:

- Heat transfer media
- Bed casing
- Inlet and outlet plenums
- Casing insulation
- Casing access opening
- Nozzle mix propane gas burner with FM propane gas pipe train and combustion air blower (15 H.P.)
- Propane gas injection system
- Two (2) process flow control valves with pneumatic operators
- System controls including Allen Bradley (SLC) 500 programmable logic controller with an SLC 5/03 processor
- TEL-MAX telemetry system with remote diagnostics capability
- High temperature paint
- Four installation, operation, and maintenance instruction manuals
- Skid-mounted and prewired
- Process fan, motor and optional AC drive
- Compressed air surge tank with controls
- Integral support skid
- Exhaust stack (30') (44" diameter)
- Fan to oxidizer transition

## DESCRIPTION OF EQUIPMENT:

### Heat Transfer Media-95% Heat Recovery

The high temperature heat transfer media supplied will consist of a silica/alumina media, sized and selected to provide the most efficient heat recovery and pressure drops for this application. When shipping limits permit, the heat transfer media will be factory installed to reduce hours for field installation of the unit.

### Bed Casing 3/16" Plate

The bed casing design consists of all-welded construction, externally stiffened to withstand the pressure requirements of the forced draft fan and the lateral loads from the heat transfer surface making up the beds.

### Inlet and Outlet Plenums 3/16" Plate

The inlet and out plenums are designed to provide the most efficient flow distribution into and out of the porous bed and are constructed from externally stiffened carbon steel plates. The plenum walls do not require insulation for the LEL levels specified for this application.

### Bed Casing Insulation

The bed casings are internally insulated with 6-8 inches of ceramic fiber insulation (Carborundum or equal) rated at 2300°F which is factory installed.

### Casing Access Openings

The ceiling structure of the upper plenum is constructed such that access to the heat transfer media and burner is available to perform routine inspections.

### Burner Assembly

The burner is a nozzle mix style by Maxon or equal and is utilized only for unit start-up. An FM designed natural gas piping train is also provided.

### Propane Gas Injection System

A propane gas injection system is utilized to allow the RETOX® to be operated without the use of the main burner. This eliminates the need for combustion air and reduces the fuel consumption by up to 60 percent.

**Heat Exchanger Bypass** (Not required)

In the event of high VOC concentrations, the heat exchanger bypass damper will modulate open to dump the excess heat. The damper consists of a refractory cast lined body with an alloy steel shaft and blade.

**Bake-Out** (Not required)

The oxidizer control logic can include an off-line bake-out mode feature. This feature will allow the cold ends of the heat exchanger bed media to be elevated to a temperature of 600°F-700°F for the purpose of volatilizing (i.e. baking-out) any residual condensed hydrocarbons.

**Two (2) Process Flow Control Valves**

The oxidizer module contains two (2) control valves used to switch the direction of the process stream through the oxidizer. The valves are operated by two pneumatic actuators and are fabricated from carbon steel. Clean, dry compressed air at 360 CFH and 90 psig is required. If the air is not dry, freeze protection may be required and is not included.

## System Controls and Instrumentation

The control panel is prewired, labeled, shop simulation tested, complete and ready for connections to plant power source. The panel will be designed to NEMA 4 standards and suitable for outdoor installation. The panel is 36"W X 42"H X 12"D and will contain the following:

### Door mounted items include the following components:

- Selection switches for mode of operation
- Quartech data readout panel
    1. Text display of unit status, alarms and maintenance prompts.
    2. Selection push buttons for process blower, burner/start/stop and maintenance reset.
- Fault push-button

### Internal mounted items include the following components:

- Main incoming 460v fused disconnect, 3-phase
- Honeywell flame safeguard
- Honeywell Burner management system
- Combustion air motor starter/disconnect
- Allen-Bradley SLC 500 with an SLC 5/03 processor having telemetry capabilities
- Strip chart recorder (one pen)

Other items include flow diversion valves with solenoids, hand valve, filter, and regulator, for the compressed air piping train. Also included is a low compressed air pressure switch, proof of air flow differential pressure switch, high temperature limit switch mounted in the exhaust, and miscellaneous thermocouples. Controls of thermal oxidizer shall be based on Adwest's standard design, programming and P & ID philosophy.

The Allen Bradley computer is supplied with a telemetry system which allows the Adwest/Airex service department to remotely monitor the system operation. A telephone line to the control panel is required to enable Adwest/Airex personnel to communicate and remotely make program changes if required during start-up or future trouble shooting. Software is optional to allow the customer to remotely monitor the system. Software cost is $1,950.

## Fan, Motor and Drive

The oxidizer is equipped with a heavy duty, forced draft Industrial Blower (New York Blower or equal). The fan includes a drive motor and guards. The drive motor is a 100 horsepower operating at 1800 RPM with a 460 volt, three-phase, 60 Hertz power supply. Blower performance is outlined below:

Performance

Maximum Conditions:

**RETOX® 27.0 RTO95**

1. 27,000 Scfm @ 70°F
2. 17" w.c. total
   (-2.0" w.c. @ fan inlet)
3. 98 BHP @ 80°F

## Process Fan to Unit Ductwork

The process fan inlet duct is fabricated from carbon steel. The duct is supplied with a predrilled flange for ease of connecting to the ductwork. External insulation of process fan and fan to unit ductwork is by others if required.

## Paint

All exposed surfaces of the oxidizer will be coated with two (2) coats of our standard high temperature paint (black, brown, silver, and gray). The stack will be manufactured from carbon steel.

## Installation, Operation and Maintenance Instruction Manuals

The Adwest Technologies Technical Services Department will furnish four (4) complete sets of operation and maintenance instruction manuals.

## Purchaser to Supply

The following equipment and services are ***not included in our equipment only pricing and are to be furnished by others:***

a. Air Quality compliance testing.
b. Provisions for obtaining FM or IRI or OSHA approval.
c. Purchaser to perform all testing required to verify the accuracy of the Purchaser design parameters used in selecting the proposed equipment.
d. All required construction, EPA, operator permits and associated costs
e. Sales tax on project.
f. UL Approval if required.
g. Utilities brought to oxidizer location.
h. Process ductwork.
i. Our steel supply is designed for our equipment loadings only. No external loads are to be applied. Please contact Adwest Technologies engineering if additional loads are to be accommodated.
j. Foundations and soil analysis.
k. Personnel protection, security fencing and lighting.
l. Starter/disconnect if AC Drive is not purchased.
m. Freight.
n. Startup and training.
o. All mechanical and electrical installation.
p. All electrical power disconnects.

TURNKEY ERECTION SPECIFICATION

FOR

NAILITE INTERNATIONAL
MIAMI, FLORIDA

A. To Be Furnished By Adwest Technologies, Inc.

The Adwest scope of installation and service will include the following:

A.1 Mechanical and electrical erection of one (1) RETOX® 27.0 RTO95 regenerative oxidizer system, ground-mounted at your plant in Miami, Florida, including filling of heat exchanger media, forced draft oxidizer fan with motor, controls, stack, start-up, training, freight, rigging, and engineering.

A.2 Electrical installation of main control panel at the oxidizer unit, thermocouples, actuators and optional NEMA 12 AC drive for process air blower. (within 20 feet of unit).

A.3 Connection of utilities (electrical power, natural gas, compressed air and telephone line), located by others to the oxidizer location. (within 10 feet of the unit).

B. Services

B.1 Services of an Adwest Technologies field serviceman.

B.2 Erection management services to integrate activities of Adwest for the successful and timely completion of the project.

B.3 Non-union labor, tools and material necessary to unload, store, position and install equipment supplied by Adwest Technologies, Inc.

B.4 All work is based on standard weekday labor and does not include premium time utilized to expedite the installation.

B.5 Inspection of all equipment as it arrives on the jobsite with respect to shipping damage and completeness of shipments in accordance with the bill-of-lading.

B.6 Non-union labor, equipment and material necessary to touch-up marked areas on equipment.

B.7 Training of operating personnel, not to exceed one day.

C. To Be Furnished by Purchaser

The following equipment and services are ***not included in the Turnkey portion and are to be furnished by others:***

C.1 Lighting and convenience outlets.

C.2 Free and unobstructed access to the work site, including maintained storage areas and roadways. Ground conditions shall be suitable for heavy equipment operation.

C.3 Power supply of 460 volt, 60 cycle, three-phase and 120v, 60 cycle, single phase.

C.4 Facilities for erection supervision, equipment staging and storage.

C.5 Natural gas at 5 Psig and clean dry compressed air at 90 Psig. (Please advise Adwest if 5 psig is not available).

C.6 All city, county and EPA permits.

C.7 UL approval if required.

C.8 Sales Tax and duties.

C.9 Air Board Compliance testing.

C.10 All utilities brought to the oxidizer location.

C.11 Process ductwork. (Adwest will quote after jobwalk).

C.12 All electrical power disconnects.

C.13 Concrete foundations and/or support steel for elevated installations.

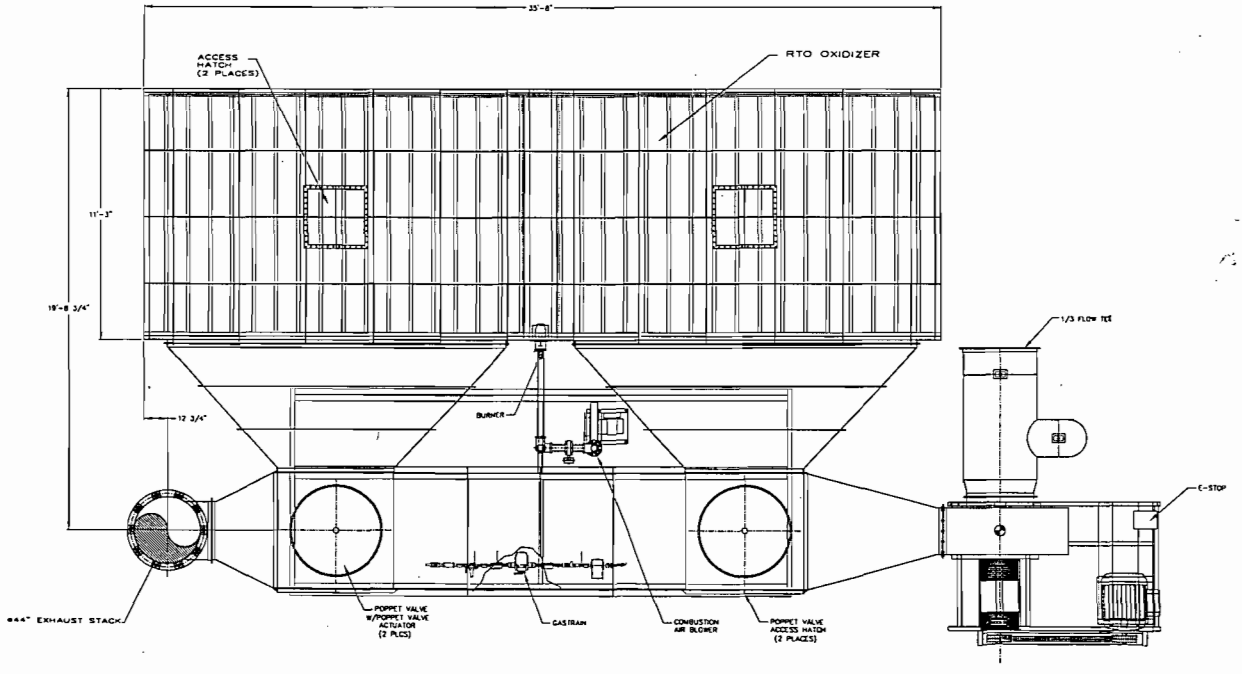
C.14 All other items and services not specifically included by Adwest scope of supply.

D. Commissioning

D.1 Plant operating and start-up personnel to ensure successful operation of the equipment.

D.2 Adwest/Airex start-up personnel to conduct classroom and equipment training sessions with customer operating personnel.

| revisions | | | | |
|---|---|---|---|---|
| △ | zone | description | date | approved |
| △ | | PROPOSAL DRAWING | 24 MAR 00 | |
| | | | | |
| | | | | |




PROPOSAL DRAWING ONLY NOT FOR CONSTRUCTION

NOTES:
1.) THE WEIGHT OF THE MAIN OXIDIZER SKID W/MEDIA = 85,893 LBS.
THE MAX LOAD = 27.8 PSI
2.) THE WEIGHT OF THE POPPET VALVE SKID = 12,467 LBS.
THE MAX LOAD = 3.6 PSI
3.) THE WEIGHT OF THE 40' EXHAUST STACK = 3,328 LBS.
THE MAX CONCENTRATED BEARING STRESS OF THE EXTERIOR EDGE OF THE BASE RING = 370 PSI
4.) THE WEIGHT OF THE PROCESS FAN = 3,095 LBS.

AIREX CORPORATION

project: NAILITE INTERNATIONAL MIAMI, FL
27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

title: GENERAL ARRANGEMENT

DO NOT SCALE DRAWING

size: D | item no. | dwg no. PROP-02-01 | approved by | rev. -

date: 24 MAR '00 | scale: N.T.S. | drawn by: C.NORTH | checked by | sheet 1 OF 3

T:\23NAILITE-021

| revisions | | | | |
|---|---|---|---|---|
| △ | zone | description | date | approved |
| △ | | PROPOSAL DRAWING | 24 MAR 00 | |
| | | | | |
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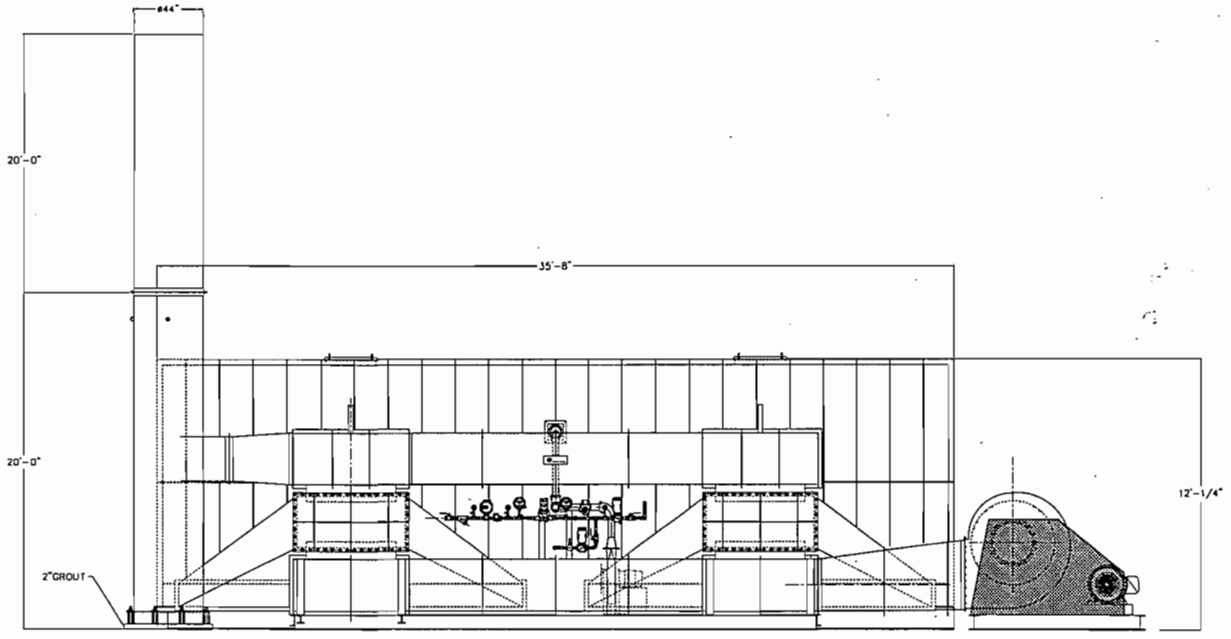


SIDE ELEVATION

PROPOSAL DRAWING ONLY NOT FOR CONSTRUCTION

AIREX CORPORATION

project: NAILITE INTERNATIONAL
MIAMI, FL
27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

title: GENERAL ARRANGEMENT

DO NOT SCALE DRAWING

size: D | dwg no.: PROP-02-01 | approved by: | rev.: —

date: 24 MAR '00 | scale: N.T.S. | drawn by: C.NORTH | checked by: | sheet: 2 OF 3

| revisions | | | | |
|---|---|---|---|---|
| △ | zone | description | date | approved |
| △ | | PROPOSAL DRAWING | 24 MAR 00 | |
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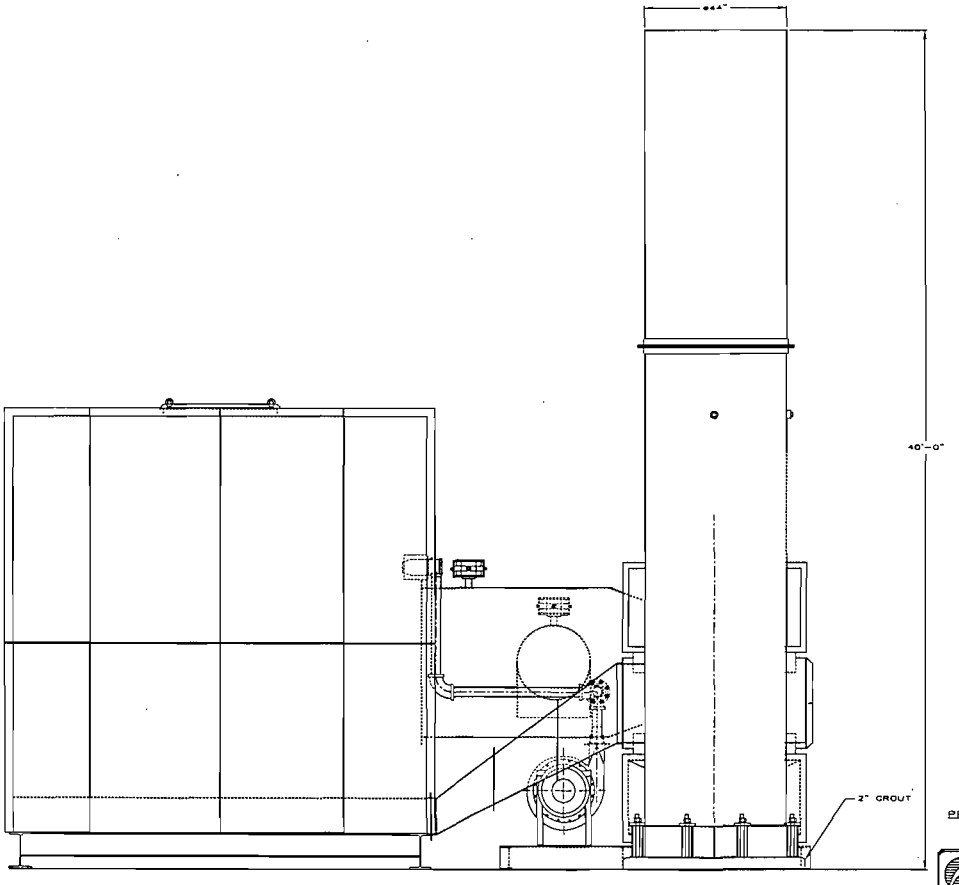
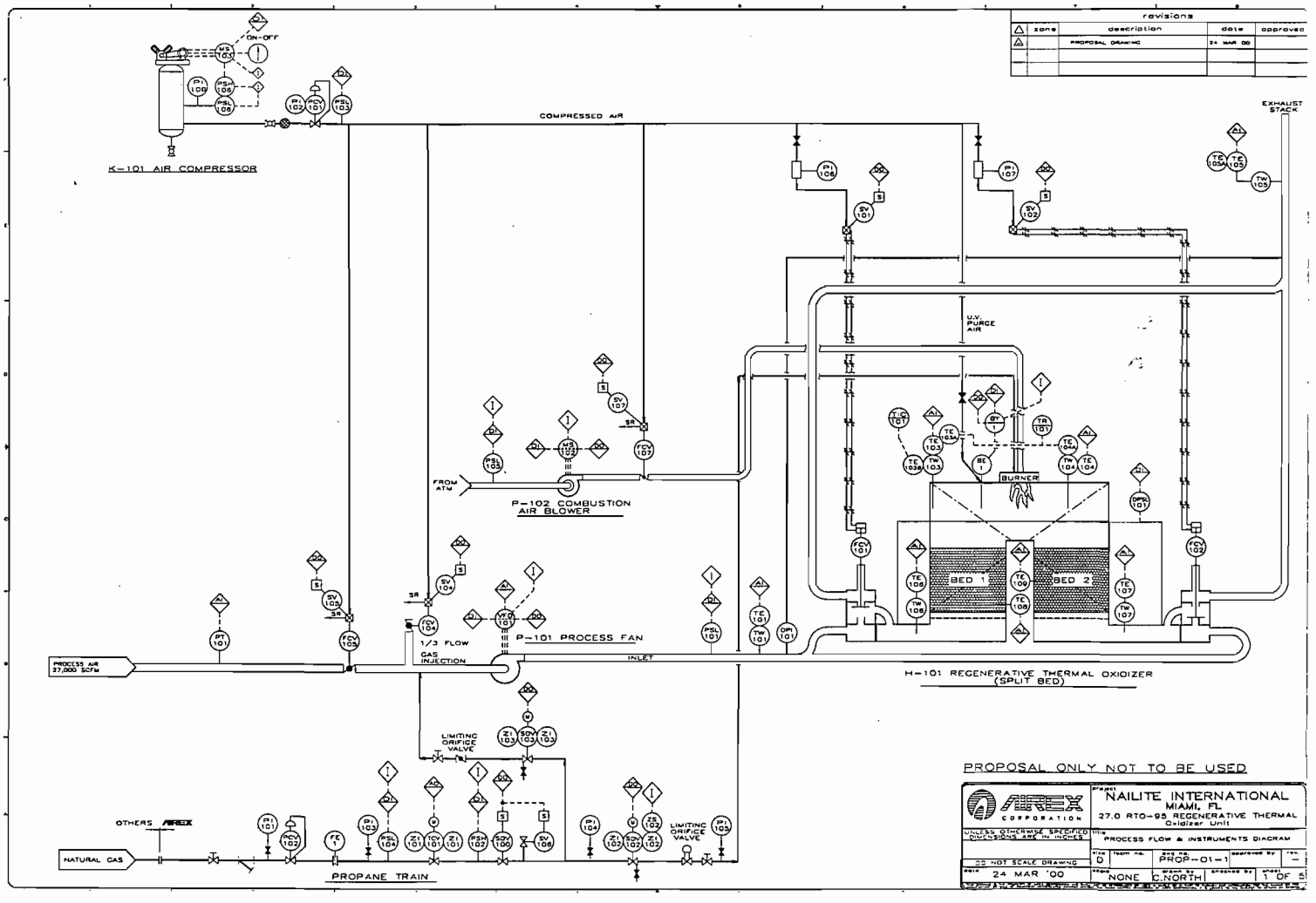
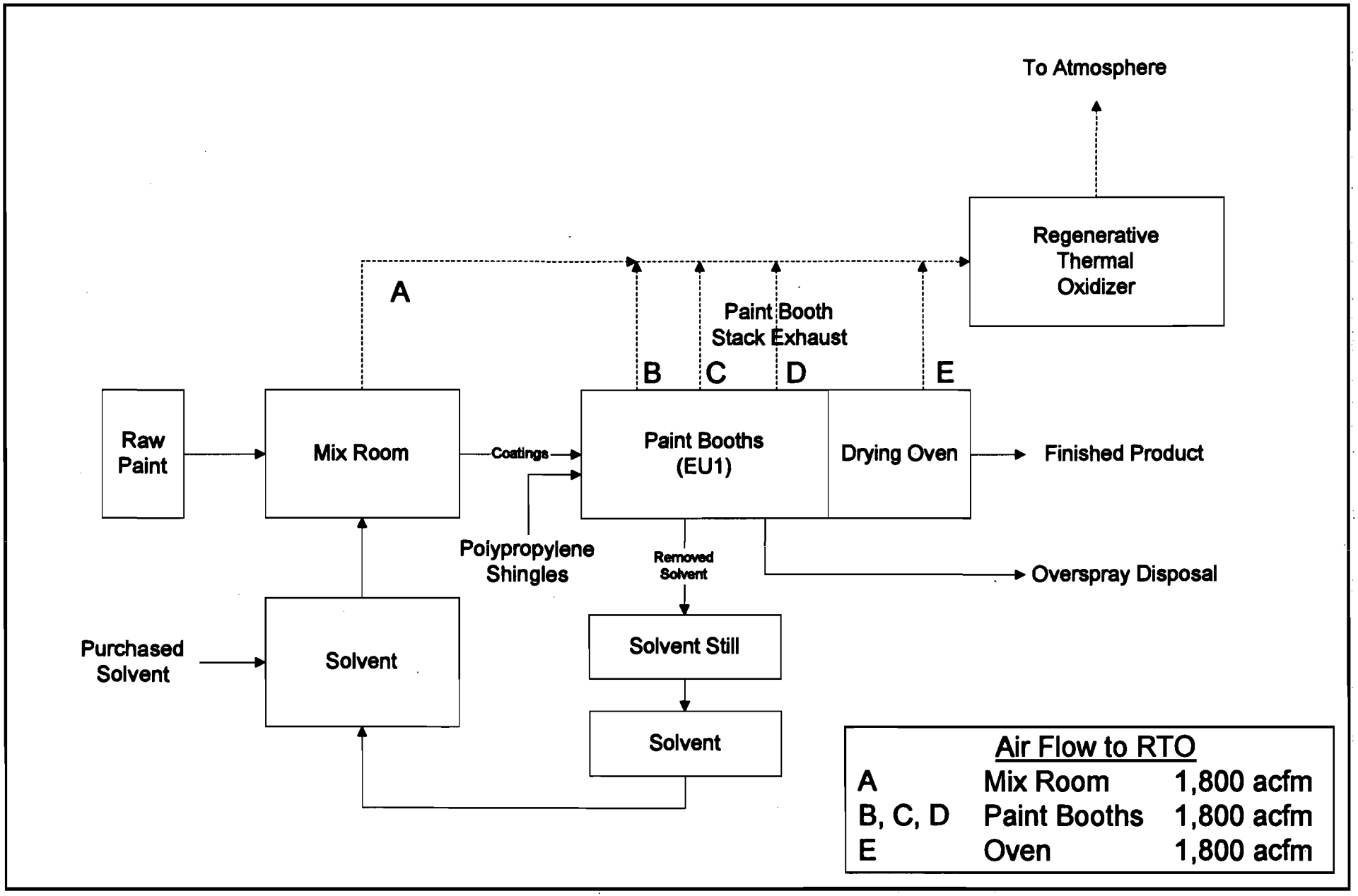



END VIEW

PROPOSAL DRAWING ONLY NOT FOR CONSTRUCTION

| | | | | |
|---|---|---|---|---|
| ANEX CORPORATION | project: NAILITE INTERNATIONAL MIAMI, FL 27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit | | | |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES | title: GENERAL ARRANGEMENT | | | |
| DO NOT SCALE DRAWING | size: D | dwg no.: PROP-02-01 | approved by: | rev: — |
| date: 24 MAR '00 | scale: N.T.S. | drawn by: C.NORTH | checked by: | sheet: 3 OF 3 |


revisions
zone
description
date
approved
PROPOSAL DRAWING
24 MAR 00
ON-OFF
K-101 AIR COMPRESSOR
COMPRESSED AIR
EXHAUST STACK
U.V. PURGE AIR
FROM ATM
P-102 COMBUSTION AIR BLOWER
P-101 PROCESS FAN
1/3 FLOW GAS INJECTION
INLET
BURNER
BED 1
BED 2
H-101 REGENERATIVE THERMAL OXIDIZER (SPLIT BED)
PROCESS AIR 27,000 SCFM
LIMITING ORIFICE VALVE
OTHERS
NATURAL GAS
PROPANE TRAIN
PROPOSAL ONLY NOT TO BE USED
AIREX CORPORATION
project
NAILITE INTERNATIONAL
MIAMI, FL
27.0 RTO-95 REGENERATIVE THERMAL Oxidizer Unit
UNLESS OTHERWISE SPECIFIED dimensions are in inches
title
PROCESS FLOW & INSTRUMENTS DIAGRAM
DO NOT SCALE DRAWING
size
D
dwg no.
PROP-01-1
rev.
date
24 MAR '00
scale
NONE
drawn by
C.NORTH
engineer by
sheet
1 OF 5




Attachment NI-FI-E3
Process Flow Diagram of the New Panel Finishing Spray Line

Nailite International, Inc.

**Process Flow Legend**
Solid/Liquid ——→
Gas ----------→

Filename: 0037523Y/F1/WP/FLOW.VSD (NI-FI-E3)
Date: 05/09/00

Golder Associates

Nailite International, Inc.

COST EFFECTIVENESS OF THE VOC CONTROL SYSTEM

| | |
|---|---|
| Capital Cost of Transfer Technology for Paint Line | $ 225,600 |
| RTO Installed Capital Cost | $ 451, 145 |
| Total capital cost | $ 676,745 |
| Annualized Capital Cost (7% @ 10 yrs) (TCC x 0.1424) | $ 96,400 |
| Yearly Operation Cost | $ 13,230 |
| Total | $ 109,600 |

| | |
|---|---|
| Maximum uncontrolled VOC Emissions from New Paint Line | 900 tons |
| Maximum controlled VOC emissions from New Paint Line | 130 tons |
| Total VOC Destruction | 770 tons |
| VOC Cost Effectiveness | $ 142/ton VOC |

Department of
Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

May 4, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David G. Steedman
Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

Re: DEP File No. 0250407-003-AC (PSD-FL-289)
New Panel Line

Dear Mr. Steedman:

The Bureau of Air Regulation reviewed the referenced application received on April 17 and found that additional information is required. The completeness items are listed below.

1. Identify the specific chemical compounds comprising the VOCs (28% of total vapor emissions) that will be emitted in addition to the toluene and xylene emissions specified (78% of total VOCs). (Rule 62-212.400, F.A.C.).
2. Show emission calculations for the existing equipment after it is relocated to the new building following startup of the new line. (Rule 62-212.400, F.A.C.).
3. The application states that since "MACT exceeds BACT by definition" and that "MACT is more stringent than BACT", "MACT will be considered as satisfying BACT requirements." To the contrary, there are cases where BACT can be considerably more stringent than MACT (e.g., fluoride limits for the phosphate industry). In the absence of a separate case-by-case MACT Determination, please change the language at the end of Section 3.1.2 (page 3-4) of the application as indicated below:

   - *"~~MACT~~ BACT is ~~more stringent than~~ equivalent to ~~BACT~~ MACT in this instance. Therefore, for the purposes of this application, ~~MACT~~ BACT will be considered as satisfying ~~BACT~~ MACT requirements."*

   (Rule 62-204.800(10)(d)2., F.A.C.).
4. Submit a diagram or picture of the internals of the specific RTO proposed along with the manufacturer's equipment description and range of performance specifications and indicate if a concentrator will be utilized. Provide a diagram showing air circulation/ventilation rates for the building and process equipment and show calculations for the estimated cost effectiveness of the control device. (Rule 62-212.400, F.A.C.)

If there are any questions regarding the above, please call John Reynolds at 850/921-9536.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/JR

cc: Gregg Worley, EPA
John Bunyak, NPS
Isidore Goldman, SED
Patrick Wong, DCDERM
Benny Susi, Golder Assoc.

Z 341 355 280

US Postal Service
**Receipt for Certified Mail**
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

| | |
|---|---|
| Sent to | David Steedman |
| Street & Number | Naulite Int'l |
| Post Office, State, & ZIP Code | Miami FL |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| **TOTAL** Postage & Fees | $ 5 |
| Postmark or Date | 5-00 |

0250407-003-AC
PSO-FL-289

PS Form **3800**, April 1995

**SENDER:** ***COMPLETE THIS SECTION***

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
David G. Steedman
Vice President of Operations
Naulite Int'l
1111 NW 165th St.
Miami, FL
33169

***COMPLETE THIS SECTION ON DELIVERY***

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 280

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

# Department of
# Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary


April 19, 2000

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS-Air Quality Division
Post Office Box 25287
Denver, CO 80225

Re: Nailite International, Inc.
New Panel Finishing Spray Line
0250407-003-AC, PSD-FL-289

Dear Mr. Bunyak:

Enclosed for your review and comment is an application for the above mentioned project.

Your comments can be forwarded to my attention at the letterhead address or faxed to the Bureau at (850)922-6979. If you have any questions, please contact John Reynolds at (850)921-9536.

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/kt

Enclosures

cc: J. Reynolds, BAR

# Department of
# Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary


April 19, 2000

Mr. Gregg Worley, Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA – Region IV
61 Forsyth Street
Atlanta, Georgia 30303

Re: Nailite International, Inc.
New Panel Finishing Spray Line
0250407-003-AC, PSD-FL-289

Dear Mr. Worley:

Enclosed for your review and comment is an application for the above mentioned project.

Your comments can be forwarded to my attention at the letterhead address or faxed to me at (850)922-6979. If you have any questions, please contact John Reynolds at (850)921-9536.

Sincerely,

A. A. Linero, P.E. for
Administrator
New Source Review Section

AAL/kt

Enclosures

cc: J. Reynolds, BAR

RECEIVED

APR 17 2000

BUREAU OF AIR REGULATION

# PSD PERMIT APPLICATION
# FOR
# NEW PANEL FINISHING SPRAY LINE
# NAILITE INTERNATIONAL, INC.

**Prepared For:**
**Nailite International, Inc.**
**1111 NW 165th Street**
**Miami, Florida 33169**

**Prepared By:**
**Golder Associates Inc.**
**1801 Clint Moore Road, Suite 200**
**Boca Raton, Florida 33487**
**and**
**Golder Associates Inc.**
**6241 NW 23rd Street, Suite 500**
**Gainesville, Florida, 32653-1500**

**April 2000**
***0037523Y/F1***

**DISTRIBUTION:**
**7 Copies - Florida Department of Environmental Protection**
**2 Copies – Nailite International, Inc.**
**2 Copies – Golder Associates Inc.**

# PART A

# AIR PERMIT APPLICATION

# Department of Environmental Protection

## Division of Air Resources Management

## APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

### I. APPLICATION INFORMATION

**Identification of Facility**

| | |
|---|---|
| 1. Facility Owner/Company Name: **Nailite International, Inc.** | |
| 2. Site Name: **Nailite International, Inc.** | |
| 3. Facility Identification Number: **025047** | [ ] Unknown |
| 4. Facility Location: Street Address or Other Locator: **1111 NW 165th Street** City: **Miami** County: **Dade** Zip Code: **33169** | |
| 5. Relocatable Facility? [ ] Yes [ X ] No | 6. Existing Permitted Facility? [ X ] Yes [ ] No |

**Application Contact**

| |
|---|
| 1. Name and Title of Application Contact: **Howard F. Wasserman, President and CEO** |
| 2. Application Contact Mailing Address: Organization/Firm: **Nailite International, Inc.** Street Address: **1111 NW 165th Street** City: **Miami** State: **FL** Zip Code: **33169** |
| 3. Application Contact Telephone Numbers: Telephone: ( **305** ) **620-6200** Fax: ( **305** ) **623-8227** |

**Application Processing Information (DEP Use)**

| | |
|---|---|
| 1. Date of Receipt of Application: | April 17, 2000 |
| 2. Permit Number: | 0250407-003-AC |
| 3. PSD Number (if applicable): | PSD-FL-289 |
| 4. Siting Number (if applicable): | |

**Purpose of Application**

**Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:_____

Operation permit number to be revised:_____

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

**Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

[ X ] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

## Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   **David G Steedman, Vice President of Operations**
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Nailite International, Inc.**
   Street Address: **1111 NW 165th Street**
   City: **Miami** State: **FL** Zip Code: **33169**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: ( **305** ) **620 - 6200** Fax: ( **305** ) **623 - 8227**
4. Owner/Authorized Representative or Responsible Official Statement:

   *I, the undersigned, am the owner or authorized representative*(check here [ **X**], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   Signature Date: 4-12-00

* Attach letter of authorization if not currently on file.

## Professional Engineer Certification

1. Professional Engineer Name: **Benny Susi**
   Registration Number: **35042**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.**
   Street Address: **1801 Clint Moore Rd, Suite 105**
   City: **Boca Raton** State: **FL** Zip Code: **33487**
3. Professional Engineer Telephone Numbers:
   Telephone: ( **561** ) **994 - 9910** Fax: ( **561** ) **994 - 9393**

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

April 11, 2000
Date

(seal)

* Attach any exception to certification statement.

**Scope of Application**

| Emissions Unit ID | Description of Emissions Unit | Permit Type | Processing Fee |
|---|---|---|---|
| -- | No. 2 Panel Finishing Spray Line | AC1A | 7,500 |
| | | | |
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**Application Processing Fee**

Check one: [ X ] Attached - Amount: $: 7,500 [ ] Not Applicable

## Construction/Modification Information

1. Description of Proposed Project or Alterations:

   **Addition of a new panel finishing spray line consisting of 3 spray coating booths, an electric oven, and a thermal oxidizer.**

2. Projected or Actual Date of Commencement of Construction: **1 May 00**

3. Projected Date of Completion of Construction: **31 Mar 01**

## Application Comment

## II. FACILITY INFORMATION

## A. GENERAL FACILITY INFORMATION

**Facility Location and Type**

| | | | |
|---|---|---|---|
| 1. Facility UTM Coordinates:<br>Zone: **17** East (km): **578.4** North (km): **2867.2** | | | |
| 2. Facility Latitude/Longitude:<br>Latitude (DD/MM/SS): **25 / 55 / 25** Longitude (DD/MM/SS): **80 / 13 / 9** | | | |
| 3. Governmental Facility Code:<br>**0** | 4. Facility Status Code:<br>**A** | 5. Facility Major Group SIC Code:<br>**30** | 6. Facility SIC(s):<br>**3089** |
| 7. Facility Comment (limit to 500 characters):<br>**See Attachment A** | | | |

**Facility Contact**

| | | |
|---|---|---|
| 1. Name and Title of Facility Contact:<br>**David G. Steedman, Vice President of Operations** | | |
| 2. Facility Contact Mailing Address:<br>Organization/Firm: **Nailite International, Inc.**<br>Street Address: **1111 NW 165th Street**<br>City: **Miami** State: **FL** Zip Code: **33169** | | |
| 3. Facility Contact Telephone Numbers:<br>Telephone: ( **305** ) **620 – 6200** Fax: ( **305** ) **620 - 8227** | | |

## Facility Regulatory Classifications

**Check all that apply:**

| | |
|---|---|
| 1. [ ] Small Business Stationary Source? | [ ] Unknown |
| 2. [ X ] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? | |
| 3. [ ] Synthetic Minor Source of Pollutants Other than HAPs? | |
| 4. [ X ] Major Source of Hazardous Air Pollutants (HAPs)? | |
| 5. [ ] Synthetic Minor Source of HAPs? | |
| 6. [ ] One or More Emissions Units Subject to NSPS? | |
| 7. [ X ] One or More Emission Units Subject to NESHAP? | |
| 8. [ ] Title V Source by EPA Designation? | |
| 9. Facility Regulatory Classifications Comment (limit to 200 characters): **The case-by-case MACT requirements under NESHAP applies to the No. 2 Panel Finishing Spray Line.** | |

## List of Applicable Regulations

| | |
|---|---|
| **Not Applicable** | |
| | |
| | |
| | |
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| | |

## B. FACILITY POLLUTANTS

**List of Pollutants Emitted**

| 1. Pollutant Emitted | 2. Pollutant Classif. | 3. Requested Emissions Cap lb/hour | tons/year | 4. Basis for Emissions Cap | 5. Pollutant Comment |
|---|---|---|---|---|---|
| VOC | A | | | | Volatile Organic Compounds |
| H169 | A | | | | Toluene |
| PM | B | | | | Particulate Matter - Total |
| $PM_{10}$ | B | | | | Particulate Matter - $PM_{10}$ |
| H186 | A | | | | Xylene |
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## C. FACILITY SUPPLEMENTAL INFORMATION

**Supplemental Requirements**

1. Area Map Showing Facility Location:
   [ X ] Attached, Document ID: NI-FI-E1 [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [ X ] Attached, Document ID: NI-FI-E2 [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [ X ] Attached, Document ID: NI-FI-E3 [ ] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [ X ] Attached, Document ID: Attachment A [ ] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [ X ] Attached, Document ID: Attachment A [ ] Not Applicable

7. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities:
   [ ] Attached, Document ID:_____ [ ] Not Applicable

9. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID:_____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [ ] Not Applicable

10. Alternative Methods of Operation:
    [ ] Attached, Document ID:_____ [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID:_____ [ ] Not Applicable

12. Identification of Additional Applicable Requirements:
    [ ] Attached, Document ID:_____ [ ] Not Applicable

13. Risk Management Plan Verification:
    [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:_____) or previously submitted to DEP (Date and DEP Office:_____)
    [ ] Plan to be submitted to CEPPO (Date required:_____)
    [ ] Not Applicable

14. Compliance Report and Plan:
    [ ] Attached, Document ID:_____ [ ] Not Applicable

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID:_____ [ ] Not Applicable

**ATTACHMENT NI-FI-E1**

**AREA MAP**

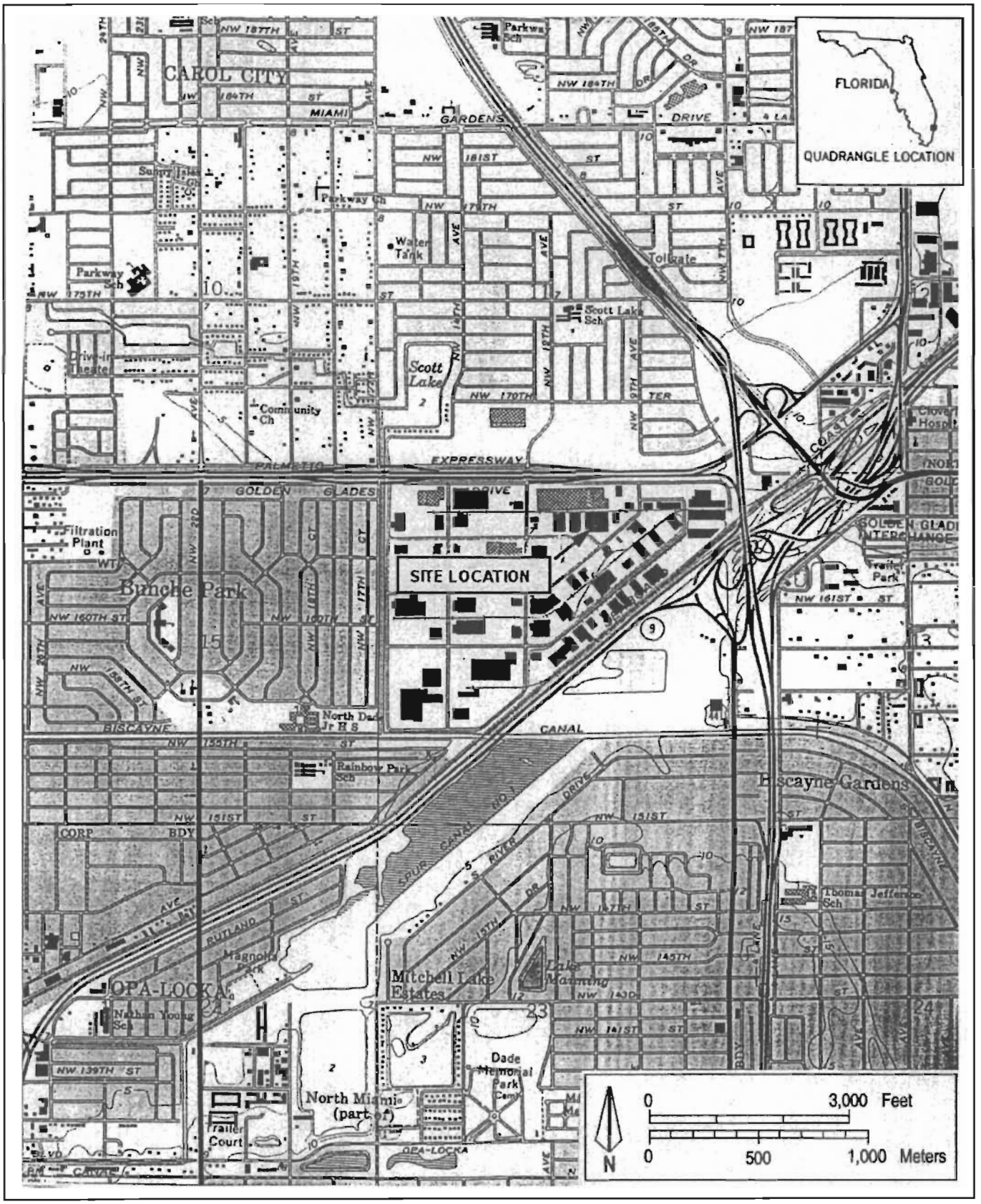


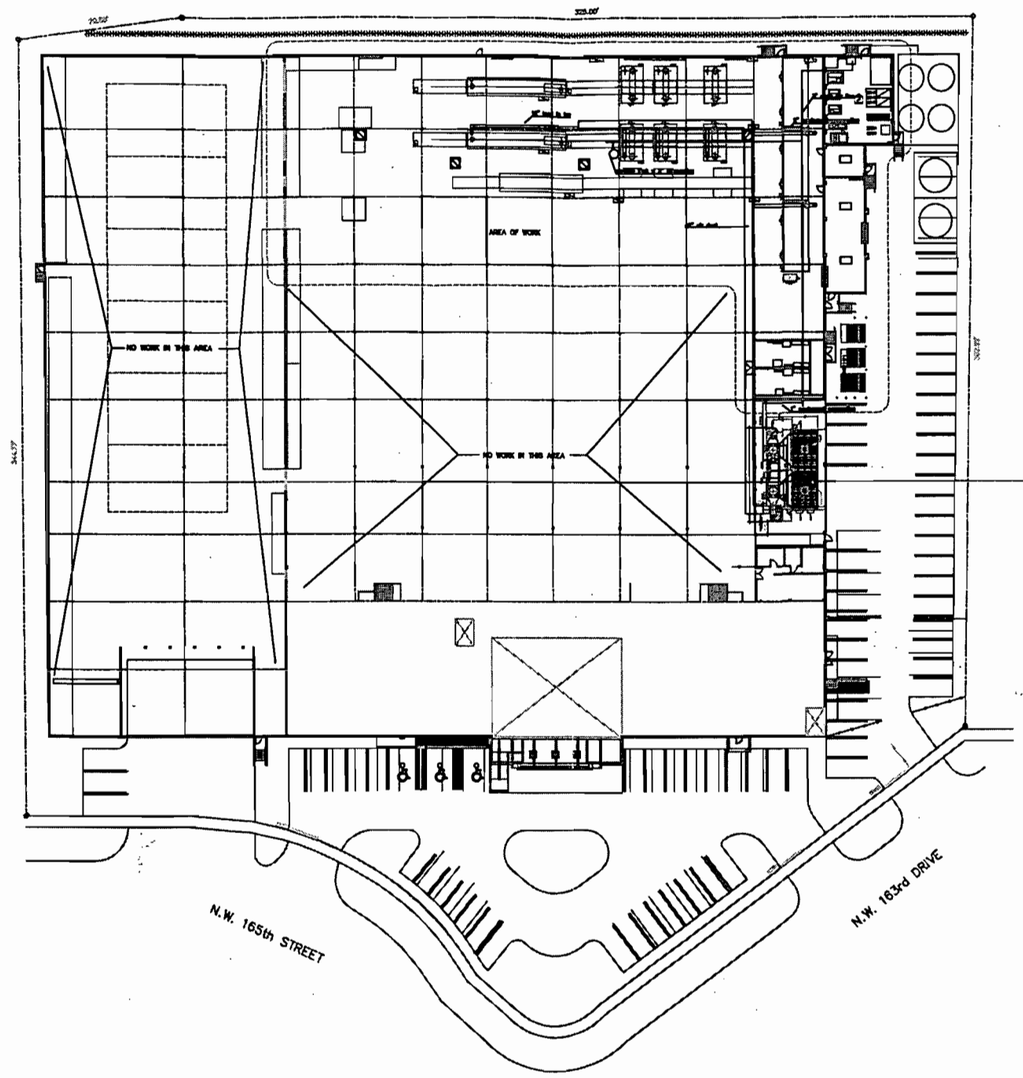

Figure NI-Fi-E1
Location of Nailite International

Sources: USGS, 1972; Golder, 2000.

Golder Associates

# ATTACHMENT NI-FI-E2

# FACILITY PLOT PLAN




Process Flow Legend

Gas

Steam

Covered Conveyor

Enclosed Conveyor

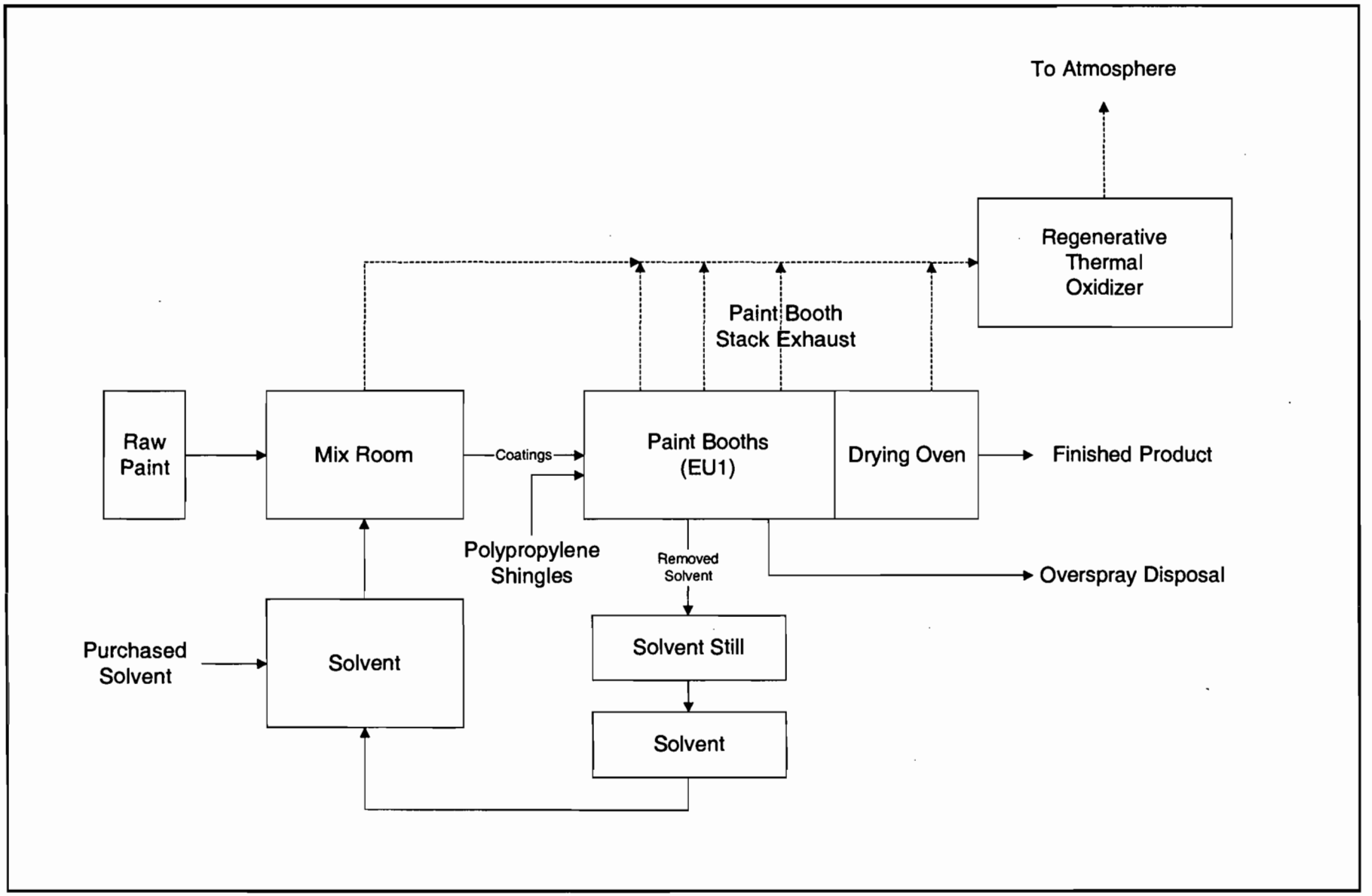
Figure 2-1. Nailite Facility Drawing

0037523Y/F1/WP/site.dwg

Golder Associates

# ATTACHMENT NI-FI-E3

# PROCESS FLOW DIAGRAM




Attachment NI-FI-E3
Process Flow Diagram of the New Panel Finishing Spray Line

**Process Flow Legend**
Solid/Liquid ——→
Gas ----------→

Filename: 0037523Y/F1/WP/FLOW.VSD (NI-FI-E3)
Date: 04/11/00

Golder Associates

## III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

### A. GENERAL EMISSIONS UNIT INFORMATION
### (All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ X ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[ X ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):

**New Spray Booths, Oven and Thermal Oxidizer**

4. Emissions Unit Identification Number: [ X ] No ID
ID: [ ] ID Unknown

| 5. Emissions Unit Status Code: | 6. Initial Startup Date: | 7. Emissions Unit Major Group SIC Code: | 8. Acid Rain Unit? |
|---|---|---|---|
| C | | 30 | [ ] |

9. Emissions Unit Comment: (Limit to 500 Characters)

**The emission unit consists of three spray paint booths exhausting through a thermal oxidizer. Other sources which are considered part of this process and which the emissions are accounted for in this emission unit are fugitive emissions from the product conveyers and an electric curing oven to dry the shingles after the painting process.**

## Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**Panel Filter**

**Thermal Oxidizer**

**Low Solvent Coating**

2. Control Device or Method Code(s): **58, 21, 102**

## Emissions Unit Details

| | | |
|---|---|---|
| 1. Package Unit: Manufacturer: | Model Number: | |
| 2. Generator Nameplate Rating: | MW | |
| 3. Incinerator Information: | | |
| Dwell Temperature: | | °F |
| Dwell Time: | | seconds |
| Incinerator Afterburner Temperature: | **1,600** | °F |

## B. EMISSIONS UNIT CAPACITY INFORMATION
## (Regulated Emissions Units Only)

**Emissions Unit Operating Capacity and Schedule**

| | | | |
|---|---|---|---|
| 1. Maximum Heat Input Rate: | | **7.15** | mmBtu/hr |
| 2. Maximum Incineration Rate: | lb/hr | | tons/day |
| 3. Maximum Process or Throughput Rate: | | **300,000** | **gal/yr** |
| 4. Maximum Production Rate: | | | |
| 5. Requested Maximum Operating Schedule: | | | |
| | **24** hours/day | **7** | days/week |
| | **52** weeks/year | **8,760** | hours/year |

6. Operating Capacity/Schedule Comment (limit to 200 characters):

**Supplemental propane usage during startup or high fire conditions only. Throughput rate relates to gallons of coating per year used on the spray line.**

## C. EMISSIONS UNIT REGULATIONS
## (Regulated Emissions Units Only)

List of Applicable Regulations

| |
|---|
| 62-210.300 (1) – Air Construction Permits |
| 62-296.320 (1)(a) – Volatile organic compounds emissions |
| 62-296.500 (1) – Applicability – RACT |
| 62-296.500 (2)(a) 1 and 2 – Permits – special consideration |
| 62-296.500 (2)(b) – Recordkeeping |
| 62-296.500 (4) – Consideration of exempt solvents |
| 62-296.500 (6) – Specific Emission Limitations |
| 62-296.570 (1) – Applicability |
| 62-296.570 (2) – Compliance |
| 62-296.570 (3) – Operation Permit Requirements |
| 62-296.570 (4) – RACT emissions limiting standards |
| 62-296.570 – RACT Requirements for major VOC and $NO_X$-emitting facilities |
| |
| |
| |
| |
| |

## D. EMISSION POINT (STACK/VENT) INFORMATION
## (Regulated Emissions Units Only)

**Emission Point Description and Type**

| | | |
|---|---|---|
| 1. Identification of Point on Plot Plan or Flow Diagram? **EU1** | 2. Emission Point Type Code: **1** | |
| 3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): | | |
| 4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: | | |
| 5. Discharge Type Code: **V** | 6. Stack Height: **30** feet | 7. Exit Diameter: **3.67** feet |
| 8. Exit Temperature: **229** °F | 9. Actual Volumetric Flow Rate: **27,000`** acfm | 10. Water Vapor: % |
| 11. Maximum Dry Standard Flow Rate: dscfm | 12. Nonstack Emission Point Height: feet | |
| 13. Emission Point UTM Coordinates: Zone: East (km): North (km): | | |
| 14. Emission Point Comment (limit to 200 characters): **Emissions associated with the three spray booths are individually vented through a single thermal oxidizer. Stack parameters are for the thermal oxidizer.** | | |

## E. SEGMENT (PROCESS/FUEL) INFORMATION
## (All Emissions Units)

**Segment Description and Rate:** Segment 1 of 2

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type) (limit to 500 characters):<br>**Surface coating application general – solvent base paint** | | |
| 2. Source Classification Code (SCC):<br>**4-02-001-10** | 3. SCC Units:<br>**gallons of coating** | |
| 4. Maximum Hourly Rate:<br>**61** | 5. Maximum Annual Rate:<br>**300,000** | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: |
| 10. Segment Comment (limit to 200 characters):<br>**Maximum hourly rate is based on all three paint booths operating at a maximum throughput.** | | |

**Segment Description and Rate:** Segment 2 of 2

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type ) (limit to 500 characters):<br>**Miscellaneous Manufacturing Industries-In Process Fuel Use – Liquefied Petroleum Gas** | | |
| 2. Source Classification Code (SCC):<br>**3-90-010-99** | 3. SCC Units:<br>**Million Cubic Feet Burned** | |
| 4. Maximum Hourly Rate:<br>**0.00715** | 5. Maximum Annual Rate:<br>**2.86** | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: | 8. Maximum % Ash: | 9. Million Btu per SCC Unit:<br>**1,000** |
| 10. Segment Comment (limit to 200 characters):<br>**Liquefied petroleum gas (propane) is used as a supplemental fuel, based on 400 hr/yr for start-up and 7.15 MMBtu/hr.** | | |

## F. EMISSIONS UNIT POLLUTANTS
**(All Emissions Units)**

| 1. Pollutant Emitted | 2. Primary Control Device Code | 3. Secondary Control Device Code | 4. Pollutant Regulatory Code |
|---|---|---|---|
| VOC | | | EL |
| PM | | | NS |
| PM10 | | | NS |
| H169 | | | NS |
| H186 | | | NS |
| SO2 | | | NS |
| CO | | | NS |
| SO2 | | | NS |
| NOX | | | NS |
| HAPS | | | NS |
| | | | |
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## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **VOC** | 2. Total Percent Efficiency of Control: **%** |

| | |
|---|---|
| 3. Potential Emissions: **53.1** lb/hour **130.5** tons/year | 4. Synthetically Limited? [X] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **See Attachment NI-EU1-H8** Reference: **Proposed MACT** | 7. Emissions Method Code: **2** |

8. Calculation of Emissions (limit to 600 characters):

**See Attachment NI-EU1-H8. Includes fugitive emissions from coating line plus thermal oxidizer emissions.**

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

**Potential emissions based on a throughput of 300,000 gal/yr of paints and solvents.**

**Allowable Emissions** Allowable Emissions 1 of 1

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: **OTHER** | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: **6 lb VOC/gal coat/ 95% destroyed** | 4. Equivalent Allowable Emissions: **53.1** lb/hour **130.5** tons/year |

5. Method of Compliance (limit to 60 characters):

**monthly recordkeeping**

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

**Proposed MACT**

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
### (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **PM** | 2. Total Percent Efficiency of Control: **%** |

| | |
|---|---|
| 3. Potential Emissions: **1.94** lb/hour **4.66** tons/year | 4. Synthetically Limited? [ **X** ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **See Attachment NI-EU1-H8** Reference: **Manufacturer's Info** | 7. Emissions Method Code: **2** |

8. Calculation of Emissions (limit to 600 characters):

**See Attachment NI-EU1-H8. Includes emissions from spraying of coating and from fuel burning in thermal oxidizer.**

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

**Assume 25% overspray. Filter pads removal efficiency is 95%.**

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |

5. Method of Compliance (limit to 60 characters):

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **$PM_{10}$** | 2. Total Percent Efficiency of Control: **%** |

| | |
|---|---|
| 3. Potential Emissions: **1.94** lb/hour **4.66** tons/year | 4. Synthetically Limited? [ X ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **100% PM** Reference: **Conservative Assumption** | 7. Emissions Method Code: **2** |

8. Calculation of Emissions (limit to 600 characters):

**See Attachment NI-EU1-H8. Includes emissions from spraying of coating and from fuel burning in thermal oxidizer.**

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

**Assume 25% overspray. Filter pad removal efficiency is 95%.**

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |

5. Method of Compliance (limit to 60 characters):

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **H169** Toluene | 2. Total Percent Efficiency of Control: **%** |
| 3. Potential Emissions: **37.2** lb/hour **91.35** tons/year | 4. Synthetically Limited? [ **X** ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **70% of VOC emissions** Reference: **MSDS (See Comment)** | 7. Emissions Method Code: **3** |
| 8. Calculation of Emissions (limit to 600 characters): **53.1lb VOC/hr x 70% = 37.2 lb H169/hr** **130.5 tons VOC/yr x 70% = 91.35 TPY** | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): | |

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance (limit to 60 characters): | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **H186** Xylene | 2. Total Percent Efficiency of Control: **%** |
| 3. Potential Emissions: **1.0** lb/hour **2.6** tons/year | 4. Synthetically Limited? [ X ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **2% of VOC emissions** Reference: **MSDS (See Comment)** | 7. Emissions Method Code: **3** |
| 8. Calculation of Emissions (limit to 600 characters): **53.1 lb VOC/hr x 2% = 1.0 lb/hr** **130.5 tons VOC/yr x 2% = 2.6 TPY** | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): | |

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance (limit to 60 characters): | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **$SO_2$** | 2. Total Percent Efficiency of Control: **%** |
| 3. Potential Emissions: **0.004** lb/hour **0.0009** tons/year | 4. Synthetically Limited? [ ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **0.6 lb/MMscf** Reference: **AP-42** | 7. Emissions Method Code: **2** |
| 8. Calculation of Emissions (limit to 600 characters): **See Attachment NI-EU1-H8** | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): | |

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance (limit to 60 characters): | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units -**
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **CO** | 2. Total Percent Efficiency of Control: **%** |

| | |
|---|---|
| 3. Potential Emissions: **0.60** lb/hour **0.12** tons/year | 4. Synthetically Limited? [ ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **84 lb/MMscf** Reference: **AP-42** | 7. Emissions Method Code: **2** |

8. Calculation of Emissions (limit to 600 characters):

**See Attachment NI-EU1-H8**

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |

5. Method of Compliance (limit to 60 characters):

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
### (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **$NO_X$** | 2. Total Percent Efficiency of Control: |
| 3. Potential Emissions: **2.0** lb/hour **0.4** tons/year | 4. Synthetically Limited? [ ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **280 lb/MMbtu** Reference: **AP-42** | 7. Emissions Method Code: **2** |
| 8. Calculation of Emissions (limit to 600 characters): **See Attachment NI-EU1-H8** | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): | |

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance (limit to 60 characters): | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
**(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: **HAPS** | 2. Total Percent Efficiency of Control: |
| 3. Potential Emissions: **38.2** lb/hour **93.96** tons/year | 4. Synthetically Limited? [X] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: **2 % of VOC emissions** Reference: **MSDS (See Comment)** | 7. Emissions Method Code: **3** |
| 8. Calculation of Emissions (limit to 600 characters): **53.1 lb VOC/hr x 72% = 38.2 lb/hr** **130.5 tons VOC/yr x 72% = 93.96 TPY** | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Based on toluene plus xylene content of paints.** | |

91.35 H169
2.6 H186
93.95

**Allowable Emissions** Allowable Emissions _____ of _____

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance (limit to 60 characters): | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

## H. VISIBLE EMISSIONS INFORMATION
## (Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

| | |
|---|---|
| 1. Visible Emissions Subtype: **VE5** | 2. Basis for Allowable Opacity: [X] Rule [ ] Other |
| 3. Requested Allowable Opacity: Normal Conditions: **5** % Exceptional Conditions: **20** % Maximum Period of Excess Opacity Allowed: **3** min/hour | |
| 4. Method of Compliance: **EPA Method 9** | |
| 5. Visible Emissions Comment (limit to 200 characters): **62-296.401(1)(a).** | |

## I. CONTINUOUS MONITOR INFORMATION
## (Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor _____ of _____

| | |
|---|---|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | [ ] Rule [ ] Other |
| 4. Monitor Information: Manufacturer: Model Number: Serial Number: | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment (limit to 200 characters): | |

## J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
## (Regulated Emissions Units Only)

**Supplemental Requirements**

| |
|---|
| 1. Process Flow Diagram<br>[ X ] Attached, Document ID: NI-FI-E3 [ ] Not Applicable [ ] Waiver Requested |
| 2. Fuel Analysis or Specification<br>[ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested |
| 3. Detailed Description of Control Equipment<br>[ X ] Attached, Document ID: NI-EU1-J3 [ ] Not Applicable [ ] Waiver Requested |
| 4. Description of Stack Sampling Facilities<br>[ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested |
| 5. Compliance Test Report<br>[ ] Attached, Document ID:_____<br>[ ] Previously submitted, Date:_____<br>[ X ] Not Applicable |
| 6. Procedures for Startup and Shutdown<br>[ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested |
| 7. Operation and Maintenance Plan<br>[ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested |
| 8. Supplemental Information for Construction Permit Application<br>[ X ] Attached, Document ID: Attachment A [ ] Not Applicable |
| 9. Other Information Required by Rule or Statute<br>[ ] Attached, Document ID:_____ [ X ] Not Applicable |
| 10. Supplemental Requirements Comment: |

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ X ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ X ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ X ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ X ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ X ] Not Applicable

ATTACHMENT NI-EU1-H8

CALCULATIONS OF EMISSIONS

Attachment NI-EU1-H8a. Maximum Potential VOC Emissions for No. 2 Spray Line, Nailite

| Product | Maximum Paint Usage | | Maximum VOC Content | Potential Uncontrolled VOC | | Fugitive Emissions (a) | | VOC to Thermal Oxidizer (b) | | VOC from Thermal Oxidizer (c) | | Total VOC Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | gal/hr | gal/yr | (lb/gal) | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | Maximum Hourly Emissions (lb/hr) | Maximum Annual Emissions (TPY) | lb/hr | TPY |
| Coatings | | | | | | | | | | | | | |
| Maximum Hourly | 61 | -- | 6.0 | 366.0 | -- | 36.6 | -- | 329.4 | -- | 16.47 | -- | 53.1 | -- |
| Maximum Annual | -- | 300,000<br>4918 hrs/yr | 6.0 | -- | 900.0 | -- | 90.0 | -- | 810.0 | -- | 40.5 | -- | 130.5 |

Notes:
VOC = volatile organic compounds
TPY = tons per year

(a) Based on estimated 90% capture of VOC in paint booths, and 10% fugitive emissions.
(b) Based on 90% capture of VOC in paint booths.
(c) Based on 95% VOC destruction in thermal oxidizer.

Attachment NI-EU1-H8b. Maximum Potential PM and Combustion Related Emissions, Nailite

| Parameter | Paint Booths | Thermal Oxidizer | Total |
|---|---|---|---|
| OPERATING DATA | | | |
| Operating Time (hr/yr) | 8,760 | 8,760 | |
| Paint Usage Rate (gal/hr) | 61 | -- | |
| Paint Usage Rate (gal/yr) | 300,000 | -- | |
| Heat Input Rate (MMscf/hr) | -- | 0.00715 (d) | |
| Heat Input Rate (MMscf/yr) | -- | 2.860 (d) | |

| Pollutant | Emission Factor | Paint/Solvent lb/hr | Paint/Solvent TPY | Natural Gas Emission Factor (c) | Natural Gas lb/hr | Natural Gas TPY | Total Emissions lb/hr | Total Emissions TPY |
|---|---|---|---|---|---|---|---|---|
| PM | Footnote (a) | 1.89 | 4.65 | 7.6 lb/MMscf | 0.054 | 0.0109 | 1.94 | 4.66 |
| PM10 | 100% of PM (b) | 1.89 | 4.65 | 100% of PM | 0.054 | 0.0109 | 1.94 | 4.66 |
| SO2 | -- | -- | -- | 0.6 lb/MMscf | 0.0043 | 0.00086 | 0.004 | 0.00086 |
| $NO_x$ | -- | -- | -- | 280 lb/MMscf | 2.00 | 0.40 | 2.00 | 0.40 |
| CO | -- | -- | -- | 84 lb/MMscf | 0.60 | 0.120 | 0.60 | 0.120 |

Note: NA = not applicable.
(a) Based on 25% solids, maximum density of 9.91 lb/gal, 25% overspray, and 95% filter efficiency.
(b) Conservative assumption.
(c) AP-42 factors for natural gas firing (Section 1.4).
(d) Based on 400 hrs.of start-up per year at 7.15 MMBtu/hr.

ATTACHMENT NI-EU1-J3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

**SYSTEM ENERGY CALCULATION:**

These calculations are based on design process flow and solvent composition rates as provided by Nailite International.

| | | RETOX® 27.0 RTO95 |
|---|---|---|
| 1. | Process Flow Rate, Scfm | 27,000 |
| 2. | Oxidizer Inlet Temp, °F | 80 |
| 3. | Oxidizer Outlet Temp., °F | 229 |
| 4. | Oxidation Temperature, °F | 1,600 |
| 5. | Solvent Composition Rate, #/Hr. | 367.5 |
| 6. | Heating Value of Solvent, Btu/# | 12,000 |
| 7. | Net Energy from Solvent, BTU/Hr | 4,410,000 |
| 8. | Energy Required, MMBTU/Hr | Zero |
| 9. | Energy Cost/Hr. @ $5.00/MMBTU | Zero |
| 10. | Fan Horsepower | 75 |
| 11. | Fan Energy Usage, KW | 56 |
| 12. | Fan Energy Cost/Hr @ $.06/KWH | $3.36 |

**NOTE:** *The above tabulation is for comparison purposes only and does not include casing heat losses.*

Energy requirements for the oxidizer is based on propane gas operation (7,150 CFH required at 5 Psig for one hour cold start-up/high fire condition).

# PART B

## ATTACHMENT A
## PSD ANALYSIS

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## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AAQS | ambient air quality standards |
| acfm | actual cubic feet per minute |
| AIRS | Aerometric Information Retrieval System |
| BACT | best available control technology |
| CAA | Clean Air Act |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEP | Department of Environmental Protection |
| EPA | U.S. Environmental Protection Agency |
| F.A.C. | Florida Administrative Code |
| ft | foot |
| GEP | good engineering practice |
| Golder | Golder Associates Inc. |
| HAP | hazardous air pollutant |
| HSH | highest, second-highest |
| km | kilometer |
| kV | kilovolt |
| LEL | lower explosive limit |
| MACT | maximum available control technology |
| $m^3$ | cubic meters |
| MW | megawatt |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NET | National Emission Trends |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | nitrogen oxide |
| NP | National Park |
| NSPS | new source performance standards |
| NSR | new source review |

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## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| $O_3$ | ozone |
| PM | particulate matter |
| $PM_{10}$ | particulate matter with aerodynamic diameter of 10 microns or less |
| ppm | parts per million |
| PSD | prevention of significant deterioration |
| RTO | regenerative thermal oxidizer |
| SIP | Florida's State Implementation Plan |
| $SO_2$ | sulfur dioxide |
| TPY | tons per year |
| TSP | total suspended particulate matter |
| TTN | Technology Transfer Network |
| $\mu g/m^3$ | micrograms per cubic meter |
| USC | United States Code |
| VOC | volatile organic compound |

# 1.0 INTRODUCTION

Nailite International, Inc, (Nailite) located at 1251 NW 165th Street in Miami, Dade County, Florida, is proposing to construct and operate a new panel finishing spray line. The new line will be located at a new warehouse facility located at 1111 NW 165th Street in Miami, approximately 500 feet west of Nailite's existing operations (see Attachment NI-FI-E1). Nailite is engaged in the manufacturing of polypropylene shingles. The new facility will operate in a non-contiguous manner with their existing operations until after the proposed spray line is constructed. Subsequently, the existing operations will be relocated to the new building location. The facility will receive polypropylene pellets by rail cars, which will be stored in two on-site silos. Ten molding machines will be used to form the polypropylene pellets into the shingles. The shingles will then be coated on the proposed finishing spray line with acrylic lacquers.

This project requires an air construction permit and prevention of significant deterioration (PSD) review. To assist in performing the necessary licensing activities, Nailite contracted Golder Associates Inc. (Golder) to perform the necessary air quality assessments for determining the project's compliance with state and federal new source review (NSR) regulation. The critical aspect of this assessment was the best available control technology (BACT) and maximum available control technology (MACT) analyses performed to evaluate the selected emission control technology.

The proposed project is located at a major emitting facility and will be an air pollution source that will result in increases in potential air emissions. The U.S. Environmental Protection Agency (EPA) has implemented regulations for facilities requiring a PSD review. The PSD regulations are promulgated under 40 Code of Federal Regulations (CFR) Part 52.21 and implemented through delegation to the Florida Department of Environmental Protection (DEP). Florida's PSD regulations are codified in Rules 62-212.400, Florida Administrative Code (F.A.C.). Florida's regulations incorporate the EPA PSD regulations.

Based on the emissions from the proposed project, a PSD review is required for volatile organic compounds (VOC), a regulated pollutant. A case-by case MACT determination for toluene, a hazardous air pollutant (HAP). is also required under 40 CFR Part 63.

Dade County has been designated as an attainment or unclassifiable area for all criteria pollutants [i.e., attainment: ozone ($O_3$), $PM_{10}$, $SO_2$, CO, and $NO_2$; unclassifiable: lead] and is classified as a PSD Class II area for $PM_{10}$, $SO_2$, and $NO_2$; therefore, the PSD review will follow the regulations pertaining to such designations.

The air permit application is divided into seven major sections.

- Section 2.0 presents a description of the new panel finishing spray line, including exhaust characteristics and stack parameters.
- Section 3.0 summarizes and reviews the PSD requirements applicable to the proposed project.
- Section 4.0 discusses the ambient air monitoring analysis (pre-construction monitoring) required by PSD regulations.
- Section 5.0 includes the control technology review with discussions on BACT/MACT.
- Section 6.0 provides the additional impact analyses for soils, vegetation, and visibility.

# 2.0 PROJECT DESCRIPTION

## 2.1 SITE AND PROJECT DESCRIPTION

Nailite manufactures polypropylene shingles used in the construction industry. Nailite is currently operating at 1251 NW 165th Street in Miami, Florida and is proposing to construct and operate a new panel finishing spray line at an existing warehouse located at 1111 NW 165th Street, approximately 500 feet west of their existing operations. After the new spray line is constructed, the existing spray line will be relocated to this same warehouse.

The project site, consists of an existing 120,000 square foot warehouse building that will house the new spray line, molding machines, shipping, distribution, and administrative offices (see Attahment NI-FI-E2 for site plan). The project elevation will be approximately 5 ft above sea level. The terrain surrounding the site is flat.

The proposed panel finishing spray line will consist of three spray booths operating in one continuous spray line, with a curing oven at the end of the spray line. The spray line has been designed to finish approximately 1,400 panels per hour. The panel sizes range from 20 inches by 40 inches to 20 inches by 60 inches. The finish system will be designed with three parallel conveyor, which form a 60-inch flat line conveyor system. The conveyor system will have an adjustable speed ranging from 10 to 30 feet per minute. The various components of the finishing spray line are listed below and discussed individually in more detail below:

- Fluid Handling System
- Application System
- Spray Booth
- System Controls
- Oven System
- Conveyor

### 2.1.1 FLUID HANDLING SYSTEM

The proposed coating delivery system for each spray booth consists of a ten-second color change system. Paint will be pumped from 55-gallon drums located in the paint mixing room. Each loop will be equipped with an "air pig" paint loop purge system. This will allow old paint

to be returned to a 55-gallon drum for reuse with little paint waste. The air pig is designed to recover 90 percent of the old paint from the circulation loop. The loop system must be flushed when new colors are changed. The fluid management system and spray guns will utilize an advance Secondary Heat Transfer System to provide heat control at the spray gun.

Each of the first two spray booths will be equipped with a Static Heat Stripping HP60 in-line paint heater. The heater is used to control the coating temperature to provide repeatable finishing results regardless of ambient temperature conditions. Maintaining the coating temperature at the spray guns at the viscosity flat line temperature will reduce the solvent usage by approximately 15 percent compared to Nailite's existing operations.

The third spray booth in the spray line will be utilized for shading. This booth will have six different colors supporting the application system. Each color will be pumped directly from 55-gallon drums. Each drum will have a wall mounted pump, requited air controls, a siphon assembly, circulation control valve, a 55 gallon cover with air-powered agitator and cover lift assembly to keep pigmented colors in constant suspension through the loop. The fluid pressure will be regulated all the way to the spray gun and the six circulation loops will be equipped with a secondary heat transfer system to provide constant controlled heat transfer.

### 2.1.2 APPLICATION SYSTEM

Eight spray guns will be used in Spray Booth Nos. 1 and 2. Each spray booth is equipped with a constant speed gun mover with a stroke travel of seven feet. The guns are automatically toed away from the direction of the gun mover travel to allow the atomized velocity of 2 feet per second to work with the gun tip speed of 150 feet per minute. This allows for a higher application transfer efficiency and minimizes the overspray in the spray booth. Spray Booth No. 3 will be identical to Spray Booth Nos. 1 and 2; however, it will be equipped with HVLP guns.

The proposed spray line will reduce the amount of solvent usage by approximately 29 percent as compared to Nailite's existing spray line. This improved transfer efficiency will result in a significant reduction in VOC and HAP emissions.

### 2.1.3 SPRAY BOOTHS

The proposed spray booths are designed with a closed-faced side draft booth with built in air-circulation. The only opening in the spray booth will be the conveyor slot which will be 6-ft wide and one foot tall. Air movement within the booth will be maintained at 100 feet per minute. A circulation fan will circulate the air in the spray booth into the exhaust filters at the rear of the spray booth. The filtered air is then repressurized and ducted back to the inlet plenum mounted in front of the spray booth on the roof. The plenum will uniformly reintroduce the circulation air back into the spray booth. This process will maintain a uniform 100 feet per minute airflow without interference from outside air flows.

The spray booths will be 10 ft wide, 16 ft 4 inch deep and 8 ft tall. The working depth of the booths will be 12 ft. Each booth will be equipped with a 9,200 cfm recirculation fan at 1/4 inch static pressure. The VOC build up (in the booth) will be maintained under the lower explosive limit (LEL) level by a bleed air duct. The bleed air will be controlled to 1,200 cfm by dampers. The bleed air duct from each booth will be directed to a regenerative thermal oxidizer (RTO) for VOC/HAP destruction (see Section 2.1.6).

Paint filters will be used to control particulate emissions from the spray booth operations. Accordion-type filters with a 95% percent minimum efficiency are proposed for the project.

### 2.1.4 SYSTEM CONTROLLER

The controls for the finishing system will be contained in a system controller panel located at each of the three spray booths. Each panel provides remote fluid pressure control to the fluid pressure controls in each spray booth. Spray Booth Nos. 1 and 2 have two remote fluid pressure regulators, while Spray Booth No. 3 has six controls. The guns are interlocked into the system controller. If the spray booth exhaust fan is not operating, the guns will not spray in either automatic or manual modes.

### 2.1.5 OVEN SYSTEM

The electric oven will be designed to heat the coated panels with hot air impinged onto the top surfaces of the panels near the oven entrance, in order to begin rapid evaporation of the solvents and create a flow of air to the return duct near the oven exit. The oven will be 45 ft long, 6 ft 10 inches wide, and 3 ft high. A circulation blower will be utilized rated at 8,000 cfm at 2.5 static pressure with a 10 hp motor. The exhaust from the oven will be vented to the RTO.

### 2.1.6 THERMAL OXIDIZER

Emissions from the panel finishing operations will be controlled using a twin bed RTO. The RTO will be designed for a process gas flow rate of 27,000 acfm and 95 percent destruction efficiency. Propane will be used at start-up as a secondary fuel, while the captured solvent will be the primary fuel. A simplified process flow diagram for the new panel finishing spray line is presented in Attachment NI-FI-E3.

## 2.2 FUTURE MAXIMUM AIR EMISSIONS

The maximum potential emissions from the new finishing spray line are presented in Attachments NI-EU1-H8a and H8b. VOC emissions are quantified in Attachment NI-EU1-H8a and other pollutants are quantified in Attachment NI-EU1-H8b. Based on design of the new spray line, as well as operating experience on the existing spray line, approximately 90 percent of the VOC/HAP in the coating will be released in the paint booths. It is therefore assumed that 10 percent of the VOC/HAPs are emitted into the building as fugitive emissions. Emissions of particulate matter are based on 25 percent overspray of coating in the booths, and 95 percent removal from the paint filter pads.

Total maximum emissions from the proposed spray line are as follows:

- $SO_2$ – 0.00086 TPY
- $NO_x$ – 0.40 TPY
- PM – 4.66 TPY
- $PM_{10}$ – 4.66 TPY
- CO – 0.120 TPY
- VOC – 130.5 TPY

# 3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to the federal and state air regulatory requirements and their applicability to the proposed project.

## 3.1 PSD REQUIREMENTS

### 3.1.1 GENERAL REQUIREMENTS

Federal PSD requirements are contained in the CFR, Title 40, Part 52.21, and PSD of air quality. The state of Florida has adopted PSD regulations (Rule 62-212.400) that are essentially identical to the federal regulations. Florida's State Implementation Plan (SIP), which contains PSD regulations, has been approved by EPA; therefore, PSD approval authority has been granted to DEP. PSD regulations require that all new major stationary facilities or major modifications to existing major facilities, which emit air pollutants regulated under the Clean Air Act (CAA), must be reviewed and a permit issued before the commencement of construction.

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 tons per year (TPY) or more, or any other stationary facility that has the potential to emit 250 TPY or more, of any pollutant regulated under CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment.

Subject to certain exceptions, a "major modification" is defined under PSD regulations as a physical or operational change at an existing major facility that increases the facility's emissions by an amount that is greater than the defined significant emission rates. PSD significant emission rates are shown in Table 3-1.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in 40 CFR 52.21, *Prevention of Significant Deterioration of Air Quality.* The State of Florida has adopted PSD regulations which have been approved by EPA [Rule 62-212.400 F.A.C.]. Major facilities and major modifications are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts:

1. Control technology review,
2. Source impact analysis,
3. Air quality analysis (monitoring),
4. Source information, and
5. Additional impact analyses.

### 3.1.2 CONTROL TECHNOLOGY REVIEW

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that BACT be applied to control emissions from the source (Rule 62-212.410, F.A.C.). The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate (see Table 3-1).

BACT is defined in 52.21 (b)(12) and Rule 62-210.200(40), F.A.C., as:

> An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.

BACT was promulgated within the framework of the PSD requirements in the 1977 amendments of the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (EPA, 1978;

1980). Guidelines for the evaluation of BACT can be found in EPA's *Guidelines for Determining Best Available Control Technology (BACT)* (EPA, 1978) and in the *PSD Workshop Manual* (EPA, 1980). These guidelines were promulgated by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area may not be identical to BACT in another area. According to EPA (1980), "BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis."

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with new source performance standards (NSPS) for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

Historically, a "bottom-up" approach consistent with the BACT Guidelines and PSD Workshop Manual has been used. With this approach, an initial control level, which is usually NSPS, is evaluated against successively more stringent controls until a BACT level is selected. However, EPA became concerned that the bottom-up approach was not providing the level of BACT decisions originally intended. As a result, in December 1987, the EPA Assistant Administrator for Air and Radiation mandated changes in the implementation of the PSD program, including the adoption of a new "top-down" approach to BACT decision making.

The top-down BACT approach essentially starts with the most stringent (or top) technology and emissions limit that have been applied elsewhere to the same or a similar source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose to use it. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (e.g., fuel type), locational differences (e.g., availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility on which the control technique was applied previously must be justified. EPA has issued a draft guidance document on the top-down approach entitled *Top-Down Best Available Control Technology Guidance Document* (EPA, 1990).

MACT requirements apply to all new major sources of HAPs (i.e., greater than 10 TPY of any single HAP, or greater than 25 TPY of total HAPs). MACT is defined in Rule 62-204.800(10)(d)2., F.A.C., as:

> An emissions limitation not less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the permitting authority. Based on the available information, ...the maximum degree of reduction in emissions of HAP which can be achieved by utilizing those controls technologies that can be identified from available information, taking into consideration costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.

MACT is more stringent than BACT. Therefore, for the purposes of this application, MACT will be considered as satisfying BACT requirements.

### 3.1.3 AIR QUALITY MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m) and Rule 62-212.400(5)(f), F.A.C., any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-1).

Ambient air monitoring for a period of up to 1 year generally is appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing data from the vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration* (EPA, 1987a).

The regulations include an exemption that excludes or limits the pollutants for which an air quality analysis must be conducted. This exemption states that Florida DEP exempts a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts less than the *de minimis* levels presented in Table 3-1 (Rule 62-212.400-3, F.A.C.).

### 3.1.4 SOURCE INFORMATION/GOOD ENGINEERING PRACTICE STACK HEIGHT

Source information must be provided to adequately describe the proposed project. The general type of information required for this project is presented in Section 2.0.

### 3.1.5 ADDITIONAL IMPACT ANALYSIS

In addition to air quality impact analyses, federal and State of Florida PSD regulations require analyses of the impairment to visibility and the impacts on soils and vegetation that would occur as a result of the proposed source [40 CFR 52.21(o); Rule 62-212.400(5)(e), F.A.C.]. These analyses are to be conducted primarily for PSD Class I areas. Impacts as a result of general commercial, residential, industrial, and other growth associated with the source also must be addressed. These analyses are required for each pollutant emitted in significant amounts (Table 3-1).

## 3.2 NONATTAINMENT RULES

Based on the current nonattainment provisions (Rule 62-212.500, F.A.C.), all major new facilities and modifications to existing major facilities located in a nonattainment area must undergo nonattainment review. A new major facility is required to undergo this review if the proposed

pieces of equipment have the potential to emit 100 TPY or more of the nonattainment pollutant. A major modification at a major facility is required to undergo review if it results in a significant net emission increase of 40 TPY or more of the nonattainment pollutant or if the modification is major (i.e., 100 TPY or more).

For major facilities or major modifications that locate in an attainment or unclassifiable area, the nonattainment review procedures apply if the source or modification is located within the area of influence of a nonattainment area. The area of influence is defined as an area that is outside the boundary of a nonattainment area but within the locus of all points that are 50 kilometers (km) outside the boundary of the nonattainment area. Based on Rule 62-2.500(2)(c)2.a., F.A.C., all VOC sources that are located within an area of influence are exempt from the provisions of NSR for nonattainment areas. Sources that emit other nonattainment pollutants and are located within the area of influence are subject to nonattainment review unless the maximum allowable emissions from the proposed source do not have a significant impact within the nonattainment area.

## 3.3 EMISSION STANDARDS

### 3.3.1 NEW SOURCE PERFORMANCE STANDARDS

The NSPS are a set of national emission standards that apply to specific categories of new sources. As stated in the CAA Amendments of 1977, these standards "shall reflect the degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction the Administrator determines has been adequately demonstrated."

### 3.3.2 REASONABLY AVAILABLE CONTROL TECHNOLOGIES

Nailite is subject to the Rule 62-296.500, Reasonably Available Control Technology (RACT) for Volatile Organic Compounds (VOC) Emitting Facilities. This rule provides applies to existing VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas. In addition, the emission limiting standards of the rules apply to new and modified VOC emission limiting facilities in all designated ozone nonattainment and air quality maintenance area....

The emission-limiting standard as set forth in Rule 62-296.500 for Nailite provides a limiting standard of 6 pound of VOC per gallon of coating applied. All volatile organic compounds emissions from solvent washings shall be considered in the emission limitations in Rule 62-296.500, F.A.C.

## 3.4 FLORIDA AIR PERMITTING REQUIREMENTS

The Florida DEP regulations require any new source to obtain an air permit prior to construction. Major new sources must meet the appropriate PSD and nonattainment requirements as discussed previously. Required permits and approvals for air pollution sources include NSR for nonattainment areas, PSD, NSPS, National Emission Standards for Hazardous Air Pollutants (NESHAP), Permit to Construct, and Permit to Operate. The requirements for construction permits and approvals are contained in Rules 62-4.030, 62-4.050, 62-4.052, 62-4.210, and 62-210.300(1), F.A.C. Specific emission standards are set forth in Chapter 62-296, F.A.C.

## 3.5 SOURCE APPLICABILITY

### 3.5.1 AREA CLASSIFICATION

The project site is located in Dade County, which has been designated by EPA and DEP as a maintenance area for all criteria pollutants. Dade County and surrounding counties are designated as PSD Class II areas for $SO_2$, PM (TSP), and $NO_2$. The nearest Class I areas to the site is the Everglades National Park (NP) which is about 35 km (22 miles) from the site.

### 3.5.2 PSD REVIEW

**Pollutant Applicability**

The proposed project is considered to be a major modification to an existing major facility because the potential emissions for the existing facility exceed the PSD major threshold of 250 TPY of any regulated pollutant. The potential increase in emissions due to the proposed project is estimated to exceed the significant emission rate for a regulated pollutant (VOC). The emissions increases are compared to PSD significant emission rates in Table 3-2. PSD review is required for each pollutant for which the emissions are considered major or exceed the PSD

significant emission rates (see Table 3-1). Therefore, the proposed finish spray line is subject to PSD review for VOC only.

Ambient Monitoring

Based on the estimated pollutant emissions from the proposed project, a pre-construction ambient air quality monitoring analysis is required for VOC emissions only.

In such a case, air quality monitoring analysis for ozone is required. The pre-construction ambient monitoring analysis is presented in Section 4.0.

### 3.5.3 NONATTAINMENT REVIEW

The project site is located in Dade County, which is classified as a maintenance area for all criteria pollutants. Therefore, nonattainment requirements are not applicable.

### 3.5.4 NSPS/RACT REQUIREMENTS

The RACT emission-limiting standard as set forth in Rule 62-296.500 for Nailite provides a limiting standard of 6 pound of VOC per gallon of coating applied. All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in Rule 62-296.500, F.A.C.

Table 3-1. PSD Significant Emission Rates and *De Minimis* Monitoring Concentrations

| Pollutant | Regulated Under | Significant Emission Rate (TPY) | *De Minimis* Monitoring Concentration[a] (µg/m3) |
|---|---|---|---|
| Sulfur Dioxide | NAAQS, NSPS | 40 | 13, 24-hour |
| Particulate Matter [PM (TSP)] | NSPS | 25 | 10, 24-hour |
| Particulate Matter ($PM_{10}$) | NAAQS | 15 | 10, 24-hour |
| Nitrogen Dioxide | NAAQS, NSPS | 40 | 14, annual |
| Carbon Monoxide | NAAQS, NSPS | 100 | 575, 8-hour |
| Volatile Organic Compounds (Ozone) | NAAQS, NSPS | 40 | 100 TPY[b] |
| Lead | NAAQS | 0.6 | 0.1, 3-month |
| Sulfuric Acid Mist | NSPS | 7 | NM |
| Total Fluorides | NSPS | 3 | 0.25, 24-hour |
| Total Reduced Sulfur | NSPS | 10 | 10, 1-hour |
| Reduced Sulfur Compounds | NSPS | 10 | 10, 1-hour |
| Hydrogen Sulfide | NSPS | 10 | 0.2, 1-hour |
| Mercury | NESHAP | 0.1 | 0.25, 24-hour |
| MWC Organics | NSPS | $3.5 \times 10^{-6}$ | NM |
| MWC Metals | NSPS | 15 | NM |
| MWC Acid Gases | NSPS | 40 | NM |
| MSW Landfill Gases | NSPS | 50 | NM |

Note: Ambient monitoring requirements for any pollutant may be exempted if the impact of the increase in emissions is below *de minimis* monitoring concentrations.

NAAQS = National Ambient Air Quality Standards.
NM = No ambient measurement method established; therefore, no *de minimis* concentration has been established.
NSPS = New Source Performance Standards.
NESHAP = National Emission Standards for Hazardous Air Pollutants.
$g/m^3$ = micrograms per cubic meter.
MWC = Municipal waste combustor
MSW = Municipal solid waste

[a] Short-term concentrations are not to be exceeded.
[b] No *de minimis* concentration; an increase in VOC emissions of 100 TPY or more will require monitoring analysis for ozone.
[c] Any emission rate of these pollutants.

Sources: 40 CFR 52.21.
Rule 62-212.400

Table 3-2. Maximum Emissions Due to the Proposed Finish Spray Line Compared to the PSD Significant Emission Rates

| Pollutant | Pollutant Emissions (TPY) | | PSD Review |
|---|---|---|---|
| | Potential Emissions from Proposed Facility | Significant Emission Rate | |
| Volatile Organic Compounds | 130.5 | 40 | Yes |
| Particulate Matter [PM (TSP)] | 4.66 | 25 | No |
| Particulate Matter ($PM_{10}$) | 4.66 | 15 | No |
| Nitrogen Dioxide | 0.40 | 40 | No |
| Carbon Monoxide | 0.12 | 100 | No |
| Sulfur Dioxide | 0.00086 | 40 | No |

Note: NEG = Negligible.

# 4.0 AMBIENT MONITORING ANALYSIS

## 4.1 INTRODUCTION

In accordance with requirements of 40 CFR 52.21(m) and Rule 62-212.400(5)(f), F.A.C., any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate.

Ambient air monitoring for a period of up to 1 year is generally appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing data from the vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration* (EPA, 1987).

An exemption from the preconstruction ambient monitoring requirements is also available if certain criteria are met. If the predicted increase in ambient concentrations due to the proposed modification is less than the specified *de minimis* concentration for a particulate pollutant, the modification can be exempted from the preconstruction air monitoring requirements for that pollutant.

As described in Section 3.5.2, a preconstruction air monitoring analysis is required for ozone. This analysis is presented in the following section. In addition, existing ambient air quality data for the Everglades National Park Class I area, is presented to support the AQRV analysis presented in Section 6.0.

The existing air quality data in Dade County is sufficient to satisfy the pre-construction monitoring requirements for ozone, therefore Nailite requests an exemption from pre-construction monitoring. Since ozone is a regional pollutant, existing data collected at the

monitoring stations in Dade County will measure trends and compliance with ambient standards for the county.

## 4.2 AMBIENT OZONE CONCENTRATIONS

The PSD ambient monitoring guidelines allow the use of existing data to satisfy preconstruction review requirements and to develop background concentrations. Presented in Table 4-1 is a summary of existing continuous ambient ozone data for monitors located in the vicinity of Miami. Data are presented for the last 2 years of record, 1998 to 1999. The ozone monitors show that ambient ozone concentrations were within the ambient air quality standards of: 0.12 ppm, maximum 1-hour average allowed to be exceeded on average one day per year; and 0.08 ppm, average annual fourth highest 8-hour average.

Table 4-1. Summary of Ozone Ambient Monitoring Data from Miami

| Year | County | Station ID | Monitor Location | Number of Observations | Concentration (ppm) Maximum 1-Hour | 2nd-High 1-Hour | 3rd-High 1-Hour |
|---|---|---|---|---|---|---|---|
| 1998 | Dade | 12-025-0021 | Krome Ave. | 337 | 0.12 | 0.11 | 0.11 |
| 1999 | Dade | 12-025-0021 | Krome Ave. | 170 | 0.10 | 0.10 | 0.09 |
| 1998 | Dade | 12-025-0027 | Rosenstiel School | 336 | 0.11 | 0.09 | 0.09 |
| 1999 | Dade | 12-025-0027 | Rosenstiel School | 173 | 0.09 | 0.08 | 0.08 |
| 1998 | Dade | 12-025-0029 | 19590 Old Cutler | 343 | 0.11 | 0.10 | 0.10 |
| 1999 | Dade | 12-025-0029 | 19591 Old Cutler | 179 | 0.09 | 0.09 | 0.08 |

Note: ppm = parts per million.

# 5.0 CONTROL TECHNOLOGY REVIEW

## 5.1 APPLICABILITY

The PSD regulations require new major stationary sources to undergo a control technology review for each pollutant that may potentially be emitted in amounts that are greater than the PSD significant emission rates shown in Table 3-1. In this case, the control technology review requirements of the PSD regulations are applicable to emissions of VOC (see Section 3.0). The maximum potential VOC emissions from the proposed panel finishing spray line and the emissions from the control device are 130.5 TPY, of which 90.0 TPY are due to fugitive emissions and 40.5 TPY from the RTO control device.

This section presents the proposed BACT for VOC. The approach to the BACT analysis is based on the regulatory definitions of BACT, as well as EPA's current policy guidelines requiring a top-down approach. A BACT determination requires an analysis of the economic, environmental, and energy impacts of the proposed and alternative control technologies [see 40 CFR 52.21(b)(12); and Rule 62-210.200(42), and Rule 62-214.410, F.A.C.]. The analysis must, by definition, be specific to the project (i.e., case-by-case).

In addition to BACT, a case-by-case MACT determination is required for HAPs emission because EPA has not yet promulgated a MACT standard applicable to Nailite.

## 5.2 MAXIMUM AVAILABLE CONTROL TECHNOLOGY

VOCs and HAPs will be emitted by the panel spray finishing line as a result of the coating operations. Based on review of available information, the applicant is proposing a RTO to control VOC/HAP emissions. The proposed MACT for VOC/HAP emissions will be the use of a RTO to control the VOC/HAP emissions from the spray booths and curing oven by 95 percent. Considering fugitive VOC/HAP emissions, the overall control efficiency is 86 percent.

The proposed MACT exceeds the 76 percent reduction required by a similar MACT evaluation for Ball Metal Container, a can coating operation in Hillsborough County. The proposed MACT also provides the maximum degree of control of HAP emissions. Since an RTO represents the

control technology capable of the maximum emission reduction for this proposed spray line, no other control technologies were evaluated.

## 5.3 BEST AVAILABLE CONTROL TECHNOLOGY

Since by definition MACT exceeds BACT requirements, the proposed RTO also satisfies BACT for the proposed project.

# 6.0 ADDITIONAL IMPACT ANALYSIS

The additional impact analysis addresses the potential ozone concentrations due to the VOC emissions of the new paint line on vegetation, soils, and wildlife on the surrounding area and PSD Class I areas. The nearest Class I area to the facility is the Everglades National Park located approximately 35 km south of the project site. Facilities whose pollutant emissions are subject to the PSD regulations are required to evaluate the additional impacts associated with the proposed emissions for the project.

Ozone is not emitted directly into the atmosphere but is formed from the emissions of several pollutants including VOC. The formation of ozone occurs over large distances (several hundred miles) and is considered to be a regional pollutant. Because of the extensive data requirements needed in estimating ozone concentrations, air dispersion modeling is not typically performed in evaluating the potential impact of VOC emissions from a single project on ozone formation in a region. Rather, the project's potential impact can be evaluated by comparing the project's VOC emissions to those of the county or region in which the project is located.

The proposed new paint line has the potential to emit 130.5 TPY of VOC after emission controls. These potential VOC emissions represent 0.2 percent of the 59,800 TPY of VOC emissions estimated for Palm Beach County for 1996 by the EPA. In the region consisting of Palm Beach, Broward, and Dade Counties, the project's emissions represent less than 0.1 percent of the 228,000 TPY estimated for these counties. The VOC emissions for these counties were obtained from EPA's National Emission Trends (NET) database available through the Aerometric Information Retrieval System (AIRS) on EPA's Technology Transfer Network (TTN) internet site.

Because the project's emissions represent a minimal change in VOC emissions for Palm Beach County and the region, the project's impacts on ozone concentrations are anticipated to be negligible. As a result, the project's impacts to soil, vegetation and wildlife on the surrounding area and PSD Class I areas are also expected to be minimal.

# APPENDIX A

# MSDS SHEETS

# MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

Date of Prep
3/12/99

## SECTION I

Manufacturer's Name: STRATHMORE PRODUCTS INC
Address: 1970 WEST FAYETTE STREET
City, State and Zip Code: SYRACUSE, NEW YORK 13201

Emergency Telephone Nos. Day: 315/488-5401
Night: For Health - Poison Control Center 315/476-4766
For Spills - Chem-Tel 1-800/255-3924

Manufacturers Code Identification: B35-0082 Rev. 12/05/96
Product Class: ACRYLIC COATING
Trade Name: PLASTICEL BLACK COATING

## SECTION II - HAZARDOUS INGREDIENTS

| Ingredient / Material Description | CAS Number | % By Weight | TLV ACGIH | PEL OSHA | Units | LEL % | VP MM HG | Comment |
|---|---|---|---|---|---|---|---|---|
| TOLUENE | 108-88-3 | 68.96 | 50.0000 | 200.0000 | PPM | 1.20 | 38.00 | |
| XYLENE | 1330-20-7 | 1.50 | 100.0000 | 100.0000 | PPM | 1.00 | 9.50 | |
| CARBON BLACK | 1333-86-4 | | 3.5000 | 3.5000 | MG/M3 | N.EST | N.EST | |
| *See MSDS Section X | | | | | | | | |
| AMORPHOUS SILICA | 61790-53-2 | | 10.0000 | 6.0000 | MG/M3 | N.EST | N.EST | |
| #SARA Sec.313 Supplier Notif. See MSDS Section X | | | | | | | | |

## SECTION III - PHYSICAL DATA

Boiling Range: 230 - 284 DEG F | Weight per Gallon: 7.99
Vapor Density: Heavier than Air | % Volatile by Volume: 77.67
Evaporation Rate: Slower than Ether

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT Category: RED LABEL, FLAMMABLE LESS THAN 100 DEG F
Flash Point: 46 DEG F SETA Flash | LEL: See SECTION II

EXTINGUISHING MEDIA: FOAM, DRY CHEMICAL OR CARBON DIOXIDE EXTINGUISHERS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE OR RUPTURE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY TO HOT SURFACES. AVOID BREATHING GASES, VAPORS, FUMES OR DECOMPOSITION PRODUCTS DURING A FIRE. OVEREXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE A HEALTH HAZARD. SYMPTOMS MAY NOT BE IMMEDIATELY

APPARENT. OBTAIN MEDICAL ATTENTION.

SPECIAL FIREFIGHTING PROCEDURES: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAME. AVOID BREATHING GASES, VAPORS, FUMES OR DECOMPOSITION PRODUCTS DURING A FIRE. PERSONNEL INVOLVED IN A FIRE SHOULD WEAR FULL PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED RESPIRATORY EQUIPMENT. WATER SPRAY MAY BE USED TO COOL UNRUPTURED CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTO-IGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE.

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF ACUTE (SHORT TERM) OVEREXPOSURE:
INHALATION OF VAPORS OR SPRAY MISTS CAN CAUSE IRRITATION OF THE RESPIRATORY TRACT OR ACUTE NERVOUS SYSTEM DEPRESSION CHARACTERIZED BY HEADACHE, DIZZINESS, STAGGERING GAIT, CONFUSION, UNCONSCIOUSNESS OR COMA. OVEREXPOSURE TO VAPORS OR SPRAY MISTS CAN CAUSE EYE AND SKIN IRRITATION.

EYE CONTACT WITH LIQUID MAY CAUSE SEVERE IRRITATION.

SKIN CONTACT: BRIEF CONTACT WITH SKIN MAY CAUSE SLIGHT TO MODERATE IRRITATION AND POSSIBLY DRYING OF THE SKIN.

INGESTION: MAY BE HARMFUL IF SWALLOWED. SWALLOWING MAY CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, DIARRHEA, VOMITING, AND POSSIBLY NARCOSIS. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE PNEUMONITIS, WHICH CAN BE FATAL.

EFFECTS OF CHRONIC (LONG TERM) OCCUPATIONAL OVEREXPOSURE:
REPEATED OR PROLONGED OCCUPATIONAL OVEREXPOSURE TO VAPORS MAY AFFECT THE CENTRAL NERVOUS SYSTEM AND CAUSE RESPIRATORY IRRITATION, RESULTING IN POSSIBLE LUNG DAMAGE, AND MAY CAUSE LIVER AND KIDNEY DAMAGE.

NOTE: A CASE EFFECT SHOWED ACTIVE LIVER & KIDNEY DYSFUNCTION AT EXTREMELY HIGH LEVELS OF EXPOSURE TO XYLENE AND TOLUENE.

NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVER-EXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

REPEATED OR PROLONGED SKIN CONTACT MAY CAUSE DRYING AND DEFATTING OF THE SKIN, WHICH MAY LEAD TO DERMATITIS.

CARCINOGENICITY: THIS MATERIAL CONTAINS CARBON BLACK. EPIDEMIOLOGICAL STUDIES OF WORKERS IN THE CARBON BLACK PRODUCING INDUSTRIES OF NORTH AMERICA AND WESTERN EUROPE SHOW NO EVIDENCE OF CLINICALLY SIGNIFICANT ADVERSE HEALTH EFFECTS DUE TO OCCUPATIONAL EXPOSURE TO CARBON BLACK. IN ITS MONOGRAM VOLUME 65, ISSUED APRIL, 1996, THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) REEVALUATED CARBON BLACK AND CONCLUDED THAT "THERE IS INADEQUATE EVIDENCE IN HUMANS FOR THE CARCINOGENICITY OF CARBON

BLACK".
CARBON BLACKS SUPPLIED BY OUR DOMESTIC SUPPLIERS CONTAIN LESS THAN 0.1% OF ADSORBED PAH'S (POLYNUCLEAR AROMATIC HYDROCARBONS). IN NON-ADSORBED FORM, SOME PAH'S HAVE BEEN FOUND TO BE CARCINOGENS IN ANIMAL STUDIES. NO CARCINOGENIC EFFECT, HOWEVER, HAS BEEN OBSERVED IN HUMANS DUE TO CARBON BLACK. CHRONIC INFLAMMATION, LUNG FIBROSIS AND LUNG TUMORS HAVE BEEN OBSERVED IN SOME RATS EXPERIMENTALLY EXPOSED, FOR LONG PERIODS OF TIME, TO EXCESSIVE CONCENTRATIONS OF CARBON BLACK AND SEVERAL OTHER INSOLUBLE FINE DUST PARTICLES. TUMORS HAVE NOT BEEN OBSERVED IN OTHER ANIMAL SPECIES (I.E., MOUSE AND HAMSTER) UNDER SIMILAR CIRCUMSTANCES & STUDY CONDITIONS. MANY RESEARCHERS CONDUCTING RAT INHALATION STUDIES BELIEVE THAT THESE EFFECTS MOST LIKELY RESULT FROM THE MASSIVE ACCUMULATION OF SMALL DUST PARTICLES IN THE LUNG WHICH OVERWHELM THE NATURAL LUNG CLEARANCE MECHANISMS, KNOWN AS "LUNG OVERLOAD" PHENOMENON, RATHER THAN FROM A SPECIFIC CHEMICAL EFFECT OF THE DUST PARTICLES IN THE LUNG.
MANY INHALATION TOXICOLOGISTS BELIEVE THAT THE TUMOR RESPONSE OBSERVED IN THE REFERENCED RAT STUDIES IS SPECIES SPECIFIC AND DOES NOT RELATE TO HUMAN EXPOSURE. HOWEVER, THE IARC EVALUATION IN MONOGRAPH 65 CONCLUDED THAT "THERE IS SUFFICIENT EVIDENCE IN EXPERIMENTAL ANIMALS FOR THE CARCINOGENICITY OF CARBON BLACK". BASED ON THIS EVALUATION, ALONG WITH THEIR EVALUATION OF INADEQUATE CARCINOGENICITY IN HUMANS, IARC'S OVERALL EVALUATION IS THAT "CARBON BLACK IS POSSIBLY CARCINOGENIC TO HUMANS (GROUP 2B)".
CARBON BLACK HAS NOT BEEN LISTED AS A CARCINOGEN BY NTP (NATIONAL TOXICOLOGY PROGRAM) OR OSHA (OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION). NIOSH (NATIONAL INSTITUTE OF SAFETY & HEALTH) CRITERIA DOCUMENT ON CARBON BLACK RECOMMENDS THAT ONLY CARBON BLACKS WITH PAH LEVELS GREATER THAN 0.1% BE CONSIDERED SUSPECT CARCINOGENS.

EMERGENCY AND FIRST AID PRODEDURES: INHALATION: REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE MOUTH-TO-MOUTH RESUSCITATION AND KEEP WARM AND QUIET. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL HELP IMMEDIATELY. SPLASH (EYES): FLUSH IMMEDIATELY WITH COPIOUS QUANTITIES OF WATER FOR 15 MINUTES AND TAKE TO A PHYSICIAN FOR DEFINITIVE MEDICAL TREATMENT. SPLASH (SKIN): REMOVE CONTAMINATED CLOTHING AND WASH AFFECTED AREA WITH SOAP AND WATER. IF IRRITATION PERSISTS, SEE A PHYSICIAN.

WARNING: IF SWALLOWED, DO NOT INDUCE VOMITING. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY OVEREXPOSURE:
EXPOSURE MAY AGGRAVATE PREEXISTING SKIN, EYE AND RESPIRATORY DISORDERS.

## SECTION VI - REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: EXCESSIVE HEAT, SPARKS, OPEN FLAME.

INCOMPATABILITY (MATERIALS TO AVOID): AVOID STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG ALKALINE MATERIALS AND BASES.

HAZARDOUS DECOMPOSITION PRODUCTS: SMOKE, ACRID FUMES, CARBON DIOXIDE AND/OR CARBON MONOXIDE, HYDROGEN CHLORIDE, AND POSSIBLY OTHER TOXIC

VAPORS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES AND ELECTRICAL, STATIC OR FRICTION SPARKS). AVOID BREATHING VAPORS. WEAR APPROPRIATE PROTECTIVE EQUIPMENT. VENTILATE AREA. ADD INERT ABSORBENT AND REMOVE TO APPROPRIATE CONTAINER FOR DISPOSAL WITH NON-SPARKING TOOLS. KEEP OUT OF SEWERS, STORM DRAINS, SURFACE WATER AND SOIL.

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. INCINERATE IN APPROVED FACILITY. DO NOT INCINERATE CLOSED CONTAINERS.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: FOR MATERIALS THAT CAN BE APPLIED BY BRUSH OR ROLLERCOAT, NO RESPIRATORY EQUIPMENT MAY BE NECESSARY IN OUTDOOR OR OPEN AREAS WITH UNRESTRICTED VENTILATION, WHERE THE TLV'S DO NOT EXCEED THOSE SHOWN IN SECTION II.
FOR MATERIALS THAT ARE APPLIED BY SPRAY - IN OUTDOOR OR OPEN AREAS WITH UNRESTRICTED VENTILATION, USE NIOSH APPROVED MECHANICAL FILTER RESPIRATORS DESIGNED TO REMOVE SOLID AIRBORNE PARTICLES OF OVERSPRAY DURING SPRAY APPLICATION. IN RESTRICTED VENTILATION AREAS, USE NIOSH APPROVED CHEMICAL/MECHANICAL FILTERS DESIGNED TO REMOVE A COMBINATION OF PARTICULATES AND VAPOR. IN CONFINED AREAS USE NIOSH AIRLINE TYPE RESPIRATORS OR HOODS.

VENTILATION: PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP TLV OF MOST HAZARDOUS INGREDIENT IN SECTION II BELOW ACCEPTABLE LIMIT, LEL IN SECTION IV BELOW STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

PROTECTIVE GLOVES: SOLVENT RESISTANT GLOVES ARE REQUIRED FOR PROLONGED OR REPEATED CONTACT WITH LIQUID.

EYE PROTECTION: IN SPLASH SITUATIONS, SUCH AS TRANSFER OF LIQUIDS, THE USE OF SAFETY EYEWEAR INCLUDING SPLASH GUARDS OR SIDE SHIELDS, CHEMICAL GOGGLES OR FACE SHIELDS IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT: WEAR APPROPRIATE PROTECTIVE OUTERWEAR TO PROTECT AGAINST CLOTHING CONTAMINATION AND PROLONGED SKIN CONTACT. WHEN NECESSARY, WEAR CHEMICAL AND/OR SOLVENT RESISTANT BOOTS TO PROTECT FEET AND SHOES FROM CONTAMINATION. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. DISCARD CONTAMINATED SHOES THAT CANNOT BE THOROUGHLY CLEANED BEFORE REUSE. WASH HANDS BEFORE EATING, SMOKING OR USING RESTROOM.

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: DO NOT STORE ABOVE 120 DEG F. DO NOT STORE OR USE NEAR HEAT, SPARKS OR OPEN FLAME. KEEP CONTAINERS TIGHTLY COVERED AND UPRIGHT TO PREVENT LEAKAGE. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NFPA CLASS 1B FLAMMABLE LIQUIDS.

OTHER PRECAUTIONS: WARNING - FLAMMABLE. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. VAPORS MAY CAUSE FLASH FIRE. CONTAINERS SHOULD BE GROUNDED WHEN POURING TO AVOID STATIC CHARGE BUILDUP WHICH CAN CAUSE A FLASH FIRE. VAPORS HARMFUL. MAY CAUSE IRRITATION TO EYES, NOSE, THROAT, SKIN AND RESPIRATORY TRACT. PROLONGED OR REPEATED CONTACT OF LIQUID, OR BREATHING OF VAPORS OR MISTS, MAY CAUSE DELAYED AND SERIOUS INJURY. USE ONLY WITH ADEQUATE VENTILATION. AVOID BREATHING VAPORS OR SPRAY MIST. AVOID CONTACT WITH EYES AND SKIN. DO NOT TAKE INTERNALLY. DO NOT SAND, FLAME CUT, BRAZE OR WELD DRY COATING WITHOUT A NIOSH APPROVED RESPIRATOR OR SUFFICIENT VENTILATION. NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING CONTENTS MAY BE HARMFUL OR FATAL.

MISCELLANEOUS PRECAUTIONS: WARNING - EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE, INCLUDING FLAMMABLE OR EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR CONTAINER. ALL LABEL WARNINGS MUST BE OBSERVED UNTIL THE CONTAINER HAS BEEN CLEANED OR RECONDITIONED.

## SECTION X - MISCELLANEOUS

*FOOTNOTES TO SECTION II:
THE PIGMENTS FOLLOWING THE * IN SECTION II ARE CONSIDERED NUISANCE DUSTS IN THEIR DRY FORM.

#SECTION 313 SUPPLIER NOTIFICATION: THE ITEMS SHOWN IN SECTION II OF THIS MSDS THAT ARE PRECEDED WITH # ARE TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT OF 1986 AND OF 40 CFR 372.
ALSO, ITEMS IN SECTION II PRECEDED BY AN @ CONTAIN COMPONENTS WHICH ARE SUBJECT TO REPORTING REQUIREMENTS UNDER SARA 313 AND ARE EXPLAINED BELOW.

@ THIS PRODUCT CONTAINS XYLENE, WHICH CONTAINS THE FOLLOWING COMPONENTS REPORTABLE UNDER SARA 313:
83% XYLENE, CAS# 1330-20-7
17% ETHYL BENZENE, CAS# 100-41-4

USER'S RESPONSIBILITY: THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE REMAINS WITH THE USER. THE USER SHOULD CONSIDER THE HEALTH HAZARDS AND SAFETY INFORMATION CONTAINED HEREIN AS A GUIDE AND SHOULD TAKE THOSE PRECAUTIONS REQUIRED IN AN INDIVIDUAL OPERATION TO INSTRUCT EMPLOYEES AND DEVELOP WORK PRACTICE PROCEDURES FOR A SAFE WORK ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.

TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE. HOWEVER, STRATHMORE PRODUCTS, INC., ASSUMES NO LIABILITY WHATSOEVER FOR THE ACCURACY, RELIABILITY OR COMPLETENESS OF THE

INFORMATION CONTAINED HEREIN. FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. SINCE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR DAMAGES INCURRED BY USE OF THIS MATERIAL. ALL MATERIALS MAY PRESENT UNKNOWN HEALTH AND SAFETY HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS WHICH EXIST.

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

DERM

ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954



May 17, 2002

**CERTIFIED MAIL No. 7000 0600 0025 3506 4345**
**RETURN RECEIPT REQUESTED**



Mr. John Perry
Vice President of Operations
Nailite International, Inc.
1111 NW 165th Street
Miami, Fl 33169

Re: Required Capture Efficiency and Destruction Efficiency Test for Nailite International, Inc. located at, near, or in the vicinity of 1111 NW 165th Street, Miami, Florida 33169 (FDEP Permit No. 0250407-003-AC/PSD-FL-289)



**NOTICE OF VIOLATION**
**AND**
**ORDERS FOR CORRECTIVE ACTIONS**

Dear Mr. Perry:

A review of department records reveals that you have failed to conduct testing and submit test results for Emissions Unit No. 001 (start-up date at new location was July 2, 2001), as required in your facility's referenced Florida Department of Environmental Protection (FDEP) Air Permit. Additionally, you have failed to test and submit test results on an annual basis for the facility's Regenerative Thermal Oxidizer (RTO). According to DERM records, the most recent RTO testing occurred on April 10, 2001.

Be advised that the above constitutes violation of your facility's FDEP Permit No. 0250407-003-AC/PSD-FL-289, Section III, 4.0, which states in pertinent part:

> **... A capture efficiency and destruction efficiency test shall also be performed for Emissions Unit 001 within 45 days after startup of the relocated line. A destruction efficiency test shall be performed annually on the RTO.** Within 45 days following test completion, results of the above test shall be submitted along with a complete test report to the Bureau of Air Regulation in Tallahassee, the Department's Southeast District and the Miami-Dade County Environmental Resources Management Department. [Rule 62-4.070(3), 62-204.800(10)(d)2, and 62-212.400, F.A.C., and MACT/BACT],

and Chapter 24, Miami-Dade County Environmental Protection Ordinance (MDCEPO), specifically:

**Section 24-54,** of said Ordinance, inasmuch as all rules and regulations promulgated by the State of Florida Department of Environmental Regulation...are hereby adopted and are made part of this Chapter by reference. Any person who commits a violation of any rules and regulations adopted pursuant to this section shall be deemed guilty of committing a violation of this Chapter.

Based on the above, and pursuant to the authority granted to me under Section 24-5(15)(a) of the aforementioned Ordinance, I am ordering you to:

1. Conduct a capture efficiency and destruction efficiency test on Emissions Unit 001, and a destruction efficiency test on the RTO, and submit the test results with a complete test report to the Bureau of Air Regulation in Tallahassee, the FDEP Southeast District Office and the Miami-Dade County DERM's Air Facilities Section before June 30, 2002.

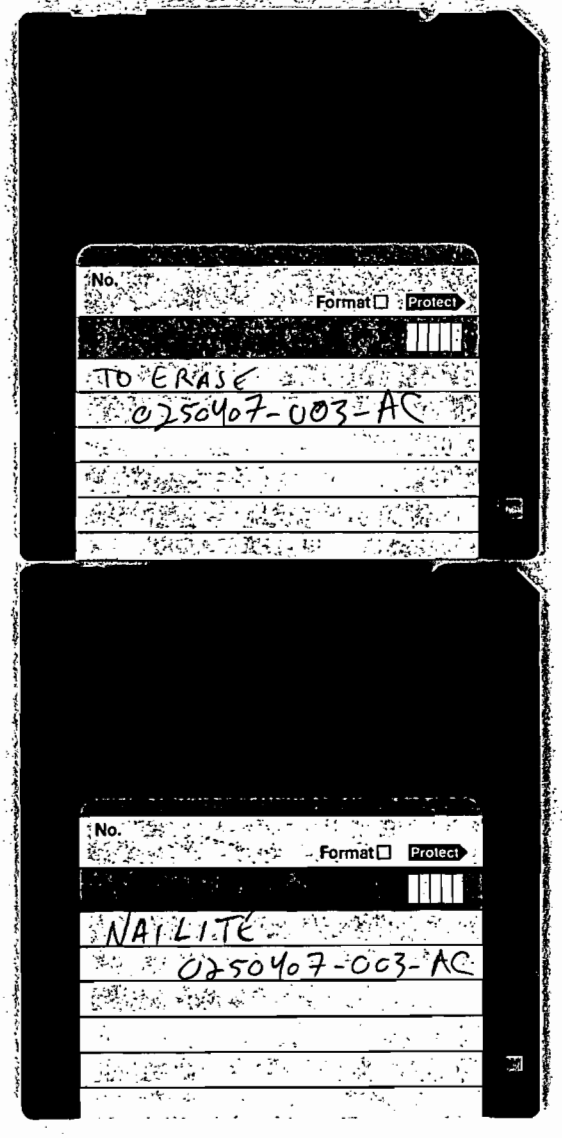
**BE ADVISED THAT FAILURE TO COMPLY WITH THE ABOVE MAY RESULT, AT A MINIMUM, IN CIVIL PENALTIES AND THE PAYMENT OF ALL DEPARTMENTAL COSTS INCURRED IN THE INVESTIGATION AND SETTLEMENT OF THIS CASE. IN ADDITION, FAILURE TO COMPLY MAY RESULT IN YOUR CASE BEING PREPARED FOR FORMAL ENFORCEMENT ACTION IN A COURT OF COMPETENT JURISDICTION PURSUANT TO THE ENFORCEMENT AND PENALTY PROVISIONS OF SECTION 24-55 AND 24-56, MIAMI-DADE COUNTY ENVIRONMENTAL PROTECTION ORDINANCE.**

If you have any questions regarding this letter, please contact me at (305) 372-6925.

Sincerely,

Sharon Crabtree
Code Enforcement Officer
Air Quality Management Division

Copy: Renee Weaver, CRB Geological and Environmental Services
John Reynolds, FDEP, Tallahassee ✓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