

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

In the Matter of an
Application for Permit by:

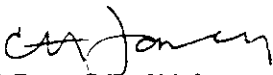
Mr. David G. Steedman
Nailite International, Inc.
1111 NW 165th Street
Miami, Florida 33169

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

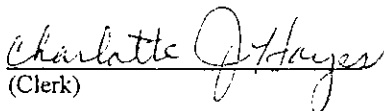
CERTIFICATE OF SERVICE

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.


(Clerk) 9/26/00
(Date)

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

7099 3400 0000 1453 1828

Article Sent To:
David Steedman

Postage \$ *Nailite*

Certified Fee

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees \$

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

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

C. Signature *O. Rivera* Agent Addressee

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

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

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.

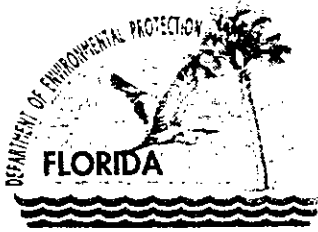
The Public Notice of Intent to Issue Air Construction Permit was published in the Miami Herald on August 11, 2000. Copies of the draft construction permit and related documents were available for public inspection at the Department's offices in Tallahassee and West Palm Beach and at the Miami-Dade County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



Jeb Bush
Governor

Department of Environmental Protection

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

AIR CONSTRUCTION PERMIT
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 |

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

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

AIR CONSTRUCTION PERMIT
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 Blainstone 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.]

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

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 of 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.

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

(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

AIR CONSTRUCTION PERMIT
SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

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.]

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

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.]

**AIR CONSTRUCTION PERMIT
SECTION III. EMISSIONS UNITS SPECIFICS CONDITIONS**

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]

AIR CONSTRUCTION PERMIT
SECTION III. EMISSIONS UNITS SPECIFICS CONDITIONS

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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

AIR CONSTRUCTION PERMIT
SECTION III. EMISSIONS UNITS SPECIFICS CONDITIONS

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

APPENDIX BD - 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 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

APPENDIX BD - BACT/MACT DETERMINATION

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."

APPENDIX BD - BACT/MACT DETERMINATION

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.

APPENDIX BD - BACT/MACT DETERMINATION

| PROJECT LOCATION | INSTALLATION DATE | TECHNOLOGY | PROCESS TYPE | COMMENTS |
|-------------------------------------|-------------------|-----------------------|-----------------------------------|---|
| Evert 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.

APPENDIX BD - BACT/MACT DETERMINATION

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.

APPENDIX BD - BACT/MACT DETERMINATION

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/PM₁₀ 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 SO₂, 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.

APPENDIX BD - BACT/MACT DETERMINATION

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.

APPENDIX BD - BACT/MACT DETERMINATION

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:

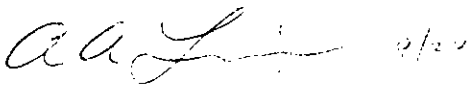
| | |
|-------------------------------|---------------------------------------|
| New Paint Line Capture System | \$225,600 |
| RTO Installed Capital Cost | \$451,145 |
| Total Capital Cost | \$676,745 |
| Annualized Capital Cost | \$96,400 (7% @ 10 yrs, TCC x. 0.1424) |
| Annual Operation Cost | \$13,230 |
| 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.

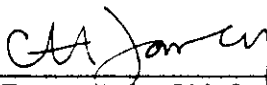
MACT DETERMINATION:

The BACT determination above is adopted as the MACT determination.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

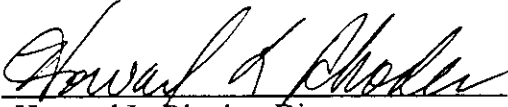
John Reynolds, Permit Engineer
A. A. Linero, P.E. Administrator 
Bureau of Air Regulation
2600 Blair Stone Road, MS # 5505
Tallahassee, Florida 32399-2400
850/488-0114

Recommended By:


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

9/21/00
Date:

Approved By:


Howard L. Rhodes, Director
Division of Air Resources Management

9/22/00
Date:

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

- 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.

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

- 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 extent 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.

Florida Department of
Environmental Protection

Memorandum

BAR

TO: Howard L. Rhodes

THROUGH: Clair Fancy *CAF*
Al Linero *alinero 9/20*

FROM: John Reynolds *JR*

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