Florida Department of Environmental Protection

South District Office
Post Office Box 2549
Fort Myers, Florida 33902-2549

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

*** DRAFT PERMIT ***

Certified Mail
Received Receipt Requested

PERMITTEE

E-Stone USA Corporation
8041 Haywood Taylor Boulevard
Sebring, Florida 32082

Authorized Representative:
Mr. Livio Magni, Production Manager

Air Permit No. 0550049-005-AC
Permit Expires: **DRAFT**
E-Stone USA Corporation
Minor Source Air Construction Permit
Polymerizing Line 2 RTO

This is the final air construction permit, which authorizes the construction of a regenerative thermal oxidizer (RTO), on polymerizing line 2 for control of hazardous air pollutant emissions, primarily styrene. The proposed work will be conducted at the E-Stone USA Corporation facility, which is a rubber laminated plastics plate, sheet, and profile shapes facility (Standard Industrial Classification No. 3083). The facility is located in Highlands County at 8041 Haywood Taylor Boulevard in Sebring, Florida. The UTM coordinates are Zone 17, 465.16 km East, and 3037.17 km North. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections.

Section 1. General Information
Section 2. Administrative Requirements
Section 3. Emissions Unit Specific Conditions
Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this 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 30 days after this order is filed with the clerk of the Department.

Executed in Fort Myers, Florida

DRAFT

_____ _____

Jon M. Iglehart
Director of
District Management

Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by certified mail and electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

Mr. Livio Magni, E-Stone USA Corporation - pollyma@trendgroup-usa.com
Ms. Sara Greivell, Grove Scientific and Engineering Company – sara@grovescientific.com
Mr. James Show, P.E., Grove Scientific and Engineering Company - j_sshow@bellsouth.net
Ms. Polly Mandrell, E-Stone USA Corporation - pollyma@trendgroup-usa.com

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

_____ _____

(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This existing facility is a cultured granite reinforced plastics manufacturing facility. The facility produces 4′ by 8′ slabs consisting of granite, polymer and limestone. The facility is comprised of two (2) production lines. Each production line consists of three (3) processes: nonmetallic mineral processing, polymerizing and polishing. Granite rock and various aggregates are crushed, dried, then screened during nonmetallic mineral processing. During the polymerizing process, the crushed aggregates are mixed with polyester resin. The mixture is conveyed to an enclosed room that is a permanent total enclosure (PTE), poured into an open mold and heated. The slab gets a thin layer of limestone on the bottom to strengthen the finished product. After the mold is cooled a wet grinder is used to smooth the rough edges and polish the surface. The two production lines are similar with the following differences: 1) Polymerizing Line No. 2 can produce twice as many cultured granite slabs as Polymerizing Line No. 1; and 2) Polishing Line No. 2 is equipped with additional equipment (an epoxy station, two (2) dryers, an oven and a baghouse). Emissions from within the PTE of Polymerizing Line 1 are vented to a Regenerative Thermal Oxidizer (RTO) for control of Hazardous Air Pollutants (HAPs) that are primarily styrene emissions. HAP emissions from the Polymerizing Line 1's PTE are also vented through baghouses to the atmosphere. Cyclones and baghouses throughout the facility control particulate matter (PM) emissions.

The facility is an automated open mold batch process using noncorrosive, high strength mechanical resin. The open molding operation is non-atomized mechanical resin application with non-vapor suppressed resin.

The existing facility consists of the following emissions units.

Facility ID No. 0550049

ID No.	Emission Unit Description
001	Non-Metallic Mineral Processing Line No. 1
002	Non-Metallic Mineral Processing Line No. 2
003	Polymerizing Line No. 1
004	Polymerizing Line No. 2
005	Regenerative Thermal Oxidizer (RTO)
006	Polymerizing Area Wide
007	Polishing Line No. 2/Epoxy Station

Proposed Project

This project is to construct a regenerative thermal oxidizer (RTO) to control HAP emissions from Polymerizing Line 2. This project was required per permit No. 0550049-003-AC before Polymerizing Line 2 is authorized to be placed into operation. There is no increase emissions as a result of this project. Polymerizing Line 2's potential emissions were included in permit No. 0550049-003-AC. This project will add and modify the following emissions units.

Facility ID No. 0550049

ID No.	Emission Unit Description
004	Polymerizing Line No. 2
008	Regenerative thermal oxidizer RTO (Polymerizing Line 2)

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

1. Permitting Authority: The permitting authority for this project is Air Resource Management, South District, Florida Department of Environmental Protection (Department). The Air Resource Management, South District's mailing address is P.O. Box 2549, Fort Myers, Florida 33902-2549. All documents related to applications for permits to operate an emissions unit shall be submitted to the South District Office. All documents related to applications for permits to operate an emissions unit shall be submitted to the South District Office.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the South District Office. The mailing address and phone number of the South District Office is: P.O. Box 2549, Fort Myers, Florida 33902-2549, 239/344-5600.

3. Appendices: The following Appendices are attached as part of this permit:

   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions; and
   d. Appendix D. Common Testing Requirements.
   e. Appendix E. 40 CFR 63 Subpart WWWW, National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production
   f. Appendix F. CFR Part 63 Subpart SS, National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process
   g. Appendix G. 40 CFR 63 Subpart A, General Provisions

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units 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 Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: 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. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

8. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. 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 appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

B. EU004 and EU008

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
004	Polymerizing Line No. 2 Polymerizing Line 2 consists of a mixing area, an enclosed room [a permanent total enclosure (PTE)] equipped with a polymerizing oven, a slab take off area, and a calibration area. Polymerizing Line No. 2 is able to produce twice as much product as Polymerizing Line No. 1. Polymerizing Line No. 2's particulate matter (PM) emissions are controlled by baghouse (DC6) and cyclone/baghouse (DC4). Baghouse (DC6) controls PM emissions from Polymerizing Line No. 2's aggregate dosing area and the polymerizing area within the PTE. Cyclone/baghouse (DC4) controls PM emissions from Polymerizing Line No. 2's slab take off #2 and calibration #2 areas. A RTO (EU008) controls HAP and VOC emissions from inside the PTE on Polymerizing Line 2.
EU008	Regenerative Thermal Oxidzer (RTO) The variable speed RTO (EU008) is an Advantage Energy Group (AEG) Premier Series 15.0 regenerative thermal oxidizer (model number 7-RTO-95). The RTO controls HAP and VOC emissions inside the PTE on Polymerizing Line 2. HAP emissions not captured or destroyed by the RTO are emitted through cyclones and baghouses, specifically DC6, to the atmosphere.

EQUIPMENT

A.1. Regenerative Thermal Oxidizer (RTO). EU008 (RTO) is an Advantage Energy Group (AEG) Premier Series 15.0 regenerative thermal oxidizer (model number 7-RTO-95) with the design criteria described in the table below. The RTO shall be operated and maintained according to its manufacturer's specifications including the manufacturer's written operation and maintenance instructions.

Parameter	Operating Parameter
Process Flow	15,000 SCFM*
Gas Exhaust Exit Temperature	150-200°F
Combustion Chamber Oxidation Temperature (Minimum)	1500°F
Thermal efficiency	95%

*The RTO is variable speed thus the SCFM may vary.
[Permit No. 0550049-005-AC]

PERFORMANCE RESTRICTIONS

A.2. Restricted Operation: The hours of operation of are not limited (8760 hours per year). [Rule 62-210.200(PTE), F.A.C.; Permit No. 0550049-005-AC]

A.3. Authorized Fuel. The RTO (EU008) is authorized to burn natural gas. [Rule 62-210.200(202), F.A.C.; Permit No. 0550049-005-AC]

A.4. Operation/Maintenance/Malfunction Manual. The permittee shall maintain an Operation and Maintenance (O & M) and Malfunction Manual. The manual shall address the two RTOs (EU005 and EU008) and all cyclones and baghouses. The O & M and Malfunction Manual shall be kept on site of the facility. [Rule 62-4.070(3), F.A.C.; Permit No. 0550049-005-AC]

EMISSIONS STANDARDS

A.5. HAP Emission Limits**.** The facility's HAP emissions shall be limited in accordance with the applicable requirements in 40 CFR 63 Subpart WWWW, National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production. [Permit No. 0550049-005-AC]

TESTING REQUIREMENTS

A.6. Initial Performance/Compliance Tests:

a. The owner or operator shall conduct an initial compliance/performance test on and encompassing EU004 (Polymerizing Line 2) and EU008 (RTO).
b. The owner or operator shall conduct all required compliance/performance tests that demonstrate compliance with the emission limits in 40 CFR 63 Subpart WWWW prior to obtaining an operation permit.
c. All testing shall be conducted in accordance the requirements in 40 CFR 63 Subpart WWWW, 40 CFR 63 Subpart SS, and 40 CFR 63 Subpart A.
d. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit.

[Rules 62-297.310(7)(a)1, and 62-4.070(3)F.A.C., 40 CFR 63 Subparts A, WWWW, and SS]

A.7. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.; Permit No. 0550049-005-AC]

A.8. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources (The method shall be based on a continuous sampling train.)
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

A.9. RTO Performance Testing. Any changes or modifications to EU008 may require additional performance testing that may be more frequent than required by 40 CFR 63 Subpart WWWW. [Rules 62-4.070(3); 62-213.400 and 62-210.300, F.A.C.; Permit No. 0550049-005-AC]

A.10. Magnehelic Pressure Gauge Reading During Testing. The reading of each magnehelic pressure gauge shall be recorded during the initial performance test, periodic performance tests and annual compliance tests. [Permit No. 0550049-005-AC]

RECORDS AND REPORTS

A.11. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

A.12. Reporting and Recordkeeping**.** All reporting and recordkeeping shall meet the applicable requirements in 40 CFR 63, Subpart WWWW, 40 CFR 63 Subpart SS and 40 CFR 63 Subpart A. **[**40 CFR 63 Subparts A, SS, and WWWW; Permit No. 0550049-005-AC]

A.13. Initial Start-Up Notification**.** The owner or operator shall notify, in writing, the Department's South District office of the date the RTO (EU008) and Polymerizing Line 2 (EU004) are placed into operation. [Permit No. 0550049-005-AC]

OTHER REQUIREMENTS

A.14. Federal Regulations. The permittee shall comply with all applicable requirements of the following documents which are attached and are made part of this permit. These attached documents are an enforceable part of this permit unless otherwise indicated.

a. 40 CFR 63 Subpart WWWW, National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production;
b. 40 CFR Part 63 Subpart SS, National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process; and
c. 40 CFR 63 Subpart A, General Provisions.

[Permit No. 0550049-005-AC]

A.15. All other specific conditions in Permit No. 0550049-003-AC pertaining to EU004 remain unchanged. [Permit No. 0550049-005-AC]