

ENVIRONMENTAL AND COMPLIANCE PERMITTING AUTHORITY



Permittee:

Reichhold Chemicals, Inc.
54 Wamsley Road
Jacksonville, FL 32254

Permit No.: 0310125-010-AF

Facility ID No.: 0310125

SIC No(s).: 28

Project: Polyester Resin Production

This Federally Enforceable State Operating Permit (FESOP) is for the operation of a polyester resin production facility. This facility is located at 54 Wamsley Road, Jacksonville, Duval County, FL 32254; UTM Coordinates: Zone 17, 428.20 km East and 3354.95 km North; Latitude: 30° 19' 40" North and Longitude: 81° 44' 50" West.

This permit is issued under the provisions of Chapter 403, Florida Statutes (FS) and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 Florida Administrative Code (FAC). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the Environmental and Compliance Department, Environmental Quality Division (Permitting Authority) in accordance with the terms and conditions of this permit.

Renewal Application Due Date: June 1, 2016

Expiration Date: July 31, 2016

**Environmental and Compliance Department
Environmental Quality Division**

**Robert Steven Pace, P.E., Manager
Air Quality Branch**

RSP/DH

Section I. Facility Information

Subsection A. Facility/Project Description

This FESOP is for the operation of a polyester resin production facility. The facility consists of six (6) batch reactors, eight (8) blending tanks, four (4) thinning tanks, process oil heater, miscellaneous storage tanks, pilot plant and a Cleaver Brooks Model CB 428-250 package boiler. Emissions from the reactors and thinning tanks are controlled by thermal oxidizer No. 1, and are backed up by thermal oxidizer No. 2.

The facility is a synthetic minor source of air pollution because the operational limit assumed by the owner will limit the potential emissions of Hazardous Air Pollutants (HAP) to less than 10 tons per year for a single HAP and less than 25 tons per year for total HAPs pursuant to Rule 62-210.200 (297), FAC, and Rule 2.301, JEPB.

Subsection B. Summary of Emission Unit (EU) ID Nos. and Brief Descriptions

<u>EU No.</u>	<u>EU Description</u>	<u>Control Device</u>
001	Process Oil Heater	
002	Polyester Resin Production	Wet Scrubber Thermal Oxidizer No. 1, John Zink Co. Thermal Oxidizer No. 2, Process Combustion Corp. Model M1189
004	Miscellaneous Storage Tanks (non-NSPS)	
005	NSPS Storage Tanks	
006	Boiler	

Subsection C. Relevant documents

Permit No. 0310125-009-AF
Air operating permit application received June 15, 2011

Section II. Facility Wide Conditions

Subsection A. General Conditions

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Permitting Authority will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific process and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Permitting Authority.
3. As provided in subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Permitting Authority permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, 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 Permitting Authority rules, unless specifically authorized by an order from the Permitting Authority.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Permitting Authority 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 Permitting Authority rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Permitting Authority personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under 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 Permitting Authority rules.Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Permitting Authority with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Permitting Authority for penalties or revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Permitting Authority may be used by the Permitting Authority as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Permitting Authority rules, except where such use is prescribed by Sections 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Permitting Authority 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 Permitting Authority rules.
11. This permit is transferable only upon Permitting Authority approval in accordance with Rules 62-4.120 and 62-730.300, FAC, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Permitting Authority.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
- Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Permitting Authority rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Permitting Authority.
- 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 this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Permitting Authority 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 date(s) analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used;
 - 6. The results of such analyses.

15. When requested by the Permitting Authority, 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 Permitting Authority, such facts or information shall be corrected promptly.

[Rule 62-4.160, FAC, and Rule 2.1301, Jacksonville Environmental Protection Board (JEPB)]

Subsection B. Specific Conditions

- 1. Permittee shall notify the Permitting Authority fifteen (15) days prior to EU testing.
[Rule 62-297.310(7)(a)(9), FAC, and Rule 2.1201, JEPB]
- 2. Copies of the test report(s) shall be submitted to the Permitting Authority within forty-five (45) days of completion of testing.
[Rule 62-297.310(8)(b), FAC, and Rule 2.1201, JEPB]
- 3. Testing of emissions shall be conducted with the EU operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then EU may be tested at less than capacity; in this case subsequent EU operation is limited to 110 percent of the test load until a new test is conducted. Once the EU is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit.
[Rule 62-297.310(2), FAC, and Rule 2.1201, JEPB]
- 4. Any revision(s) to a permit (and application) shall be submitted to and approved by the Permitting Authority prior to implementing.
[Rule 62-4.080(2), FAC, and Rule 2.1401, JEPB]

5. Control equipment shall be provided with a method of access that is safe and readily accessible.
[Rule 62-297.310(6), FAC, and Rule 2.1201, JEPB]
6. Stack sampling facilities shall comply with the requirements of Rule 62-297.310(6), FAC, and Rule 2.1201, JEPB.
7. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. 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(2), FAC, and Rule 2.1101, JEPB]
8. Maximum facility wide emissions shall not exceed 9.80 tons per year for any single Hazardous Air Pollutant (HAP) and 24.0 tons per year for total HAP in order to maintain emissions below the major source HAP threshold. All tons per year limits are based on a 12-month rolling total.
[Applicant's request, Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
9. Quarterly reports shall be submitted to the Permitting Authority describing the usage of materials and VOC/HAP contents and emissions. The quarterly reports shall be submitted by the 30th day of the following month after the end of each quarter (January - March, April - June, July - September, and October - December). The final report, which is due by the 30th of January for the quarter of October - December, shall include a synopsis of the preceding year.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
10. The permittee shall submit an "Annual Operating Report for Air Pollutant Emitting Facility" (DEP Form No. 62-210.900(5)) to the Permitting Authority each year. The annual operating report shall be submitted to the Permitting Authority no later than April 1st of the following year.
[Rule 62-210.370(3), FAC, and Rule 2.301, JEPB]
11. The permittee shall apply for a renewal operation permit sixty (60) days prior to the expiration date of this permit.
[Rule 62-4.090, FAC, and Rule 2.1401, JEPB]
12. The permittee shall submit all compliance related notifications and reports required by this permit to:

Environmental and Compliance Department
Environmental Quality Division
407 North Laura Street, Third Floor
Jacksonville, FL 32202
Telephone: (904) 255-7100
Fax: (904) 588-0518

Section III. Emissions Unit(s) and Conditions

Emission Unit No. 001- Process Oil Heater

Emission Unit Description – Oil heating system.

Essential Potential to Emit (PTE) Parameters

1. The maximum heat input shall not exceed 14.0×10^6 Btu per hour of natural gas.
[Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]
2. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

3. Visible Emissions (VE) shall be less than twenty (20) percent opacity.
[Rule 62-296.320(4)(b), FAC, and Rule 2.1101, JEPB]

Test Methods and Procedures

4. Testing for demonstration of compliance shall be performed five (5) years from the date of May 1, 2011 in accordance with Environmental Protection Agency (EPA) Reference Method (RM) 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity.
[Rule 62-296.320(4)(b)4., FAC, and Rule 2.1101, JEPB]

Emission Unit No. 002- Polyester Resin Production

Emission Unit Description – Emission Unit covers 6 reactors, 4 thinning tanks, and 8 blending tanks. The reactors and thinning tank air emissions are controlled by TO # 1 and is backed up by TO #2. The blend tanks vent directly to atmosphere. This unit also covers the pilot plant whose mini-reactor and thin tank are controlled in the same manner. This unit also includes the pipeline components, finished product loading, filter handling, stand-by emergency engine and remedial system air emissions.

Control Device – Wet Scrubber
Thermal Oxidizer No. 1, John Zink Co.
Thermal Oxidizer No. 2, Process Combustion Corp. Model M1189

Essential Potential to Emit (PTE) Parameters

1. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

2. The maximum resin process rate shall not exceed to 110×10^6 pounds per year for the reactors/thinning tanks processes and 120×10^6 pounds per year for blending operations.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
3. The thermal oxidizers shall be operated independently if the waste heat recovery units are not operable.
Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
4. The minimum Volatile Organic Compounds (VOC) destruction efficiency of the Thermal Oxidizer shall be 98%.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]

5. The maximum allowable VOC emissions from the Thermal Oxidizer shall be limited to 1.13 pounds per hour and 4.96 tons per year.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload, or use in any installation, VOC or OS without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Permitting Authority.
[Rule 62-296.320(1)(a), FAC, and Rule 2.1101, JEPB]
7. VE shall not exceed five (5) percent opacity.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
8. Reichhold, Inc. shall not circumvent the thermal oxidizer, or allow the emission of air pollutants without the thermal oxidizer operating properly.
[Rule 62-210.650, FAC, and Rule 2.301, JEPB]

Test Methods and Procedures

9. Testing for demonstration of compliance shall be performed annually from the date of May 1, 2011 while operating Thermal Oxidizer No. 1 in accordance with EPA RM 25 or 25A (as described in 40 CFR 60, Appendix A) for VOC.
[Rule 62-297.401(25), FAC, and Rule 2.1201, JEPB]
10. Testing of Thermal Oxidizer No.2 for demonstration of compliance shall be performed within 60 days of the date that it was placed into service, in accordance with EPA RM 25 or 25A (as described in 40 CFR 60, Appendix A) for VOC.
[Rule 62-297.401(25), FAC, and Rule 2.1201, JEPB]
11. VOC mass flow rate and VOC concentrations at the inlet and outlet of the primary control device (Thermal Oxidizer Nos. 1 and 2) shall be measured simultaneously to determine the percent reduction.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]

Recordkeeping and Reporting Requirements

12. An Operation and Maintenance Plan shall be attached to and shall be part of this permit. All activities shall be performed as scheduled and recorded. Data shall be made available to the Permitting Authority upon request. Records shall be maintained on file for a minimum period of five (5) years.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]
13. Records of raw material usage shall be maintained for a minimum of five (5) years and made available to the Permitting Authority upon request.
[Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]

Emission Unit No. 004- Miscellaneous Storage Tanks (non-NSPS)

Emission Unit Description – 15 Storage Tanks

Essential Potential to Emit (PTE) Parameters

- 1. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

- 2. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload, or use in any installation, VOC or OS without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Permitting Authority. [Rule 62-296.320(1)(a), FAC, and Rule 2.1101, JEPB]

Emission Unit No. 005- NSPS Tanks

Emission Unit Description – 12 storage tanks

Essential Potential to Emit (PTE) Parameters

- 1. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

- 2. The following tanks shall comply with all applicable provisions or 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels), for which construction, reconstruction, or modification commenced after July 23, 1984, and Subpart A - General Provisions.

<u>Tank No.</u>	<u>Tank size</u>	<u>Materials stored</u>
B-2	13,000 Gal (49.2m ³)	Styrene
B-4	20,000 Gal (75.7m ³)	Styrene
B-6	20,000 Gal (75.7m ³)	Styrene
B-7	20,000 Gal (75.7m ³)	Styrene
B-12	20,000 Gal (75.7m ³)	Styrene
B-5	30,000 Gal (113m ³)	Styrene
B-8	30,000 Gal (113m ³)	Styrene
B-9	30,000 Gal (113m ³)	Styrene
B-10	30,000 Gal (113m ³)	Styrene
B-11	30,000 Gal (113m ³)	Styrene
ST-5	30,000 Gal (113m ³)	Phthalic Anhydride
ST-6	30,000 Gal (113m ³)	Maleic Anhydride

Recordkeeping and Reporting Requirements

- 3. Records for all storage tanks shall be maintained in accordance with the provisions of 40 CFR 60.116 b(b), Rule 62-204.800(7)(b) 15, FAC, and Rule 2.201, JEPB, which includes documents showing the dimension of the storage tank and an analysis showing the capacity of the storage vessel. Records shall be maintained for the life of the storage tank in accordance with 40 CFR 60.116 b(a), Rule 62-204.800(7)(b) 15, FAC, and Rule 2.201, JEPB, and shall be made available to the Permitting Authority upon request. [Rule 62-4.070(3), FAC, and Rule 2.1401, JEPB]

Emission Unit No. 006 - Cleaver Brooks Boiler

Emission Unit Description – Cleaver Brooks Model CB 428-250 package boiler

Essential Potential to Emit (PTE) Parameters

1. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]
2. The maximum heat input shall not exceed 10.5×10^6 Btu per hour of natural gas.
[Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

3. VE shall not exceed 20% opacity except for one two-minute period per hour during which opacity shall not exceed 40%.
[Rule 62-296.406(1), FAC and Rule 2.1101, JEPB]
4. Particulate Matter and Sulfur Dioxide Emissions shall be limited by the firing of natural gas in accordance with the attached BACT Determination.
[Rule 62-296.406(2) & (3), FAC and Rule 2.1101, JEPB]

Test Methods and Procedures

5. Testing for demonstration of compliance shall be performed five (5) years from the date of May 1, 2011 in accordance with EPA RM 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity.
[Rule 62-297.310(4)(a) 2., FAC, and Rule 2.1201, JEPB]