

30 January 2013

Suzanne Custons, EHS Leader
Covalence Specialty Adhesives, LLC
51 Ballou Blvd
Bristol, RI

Dear Ms. Custons:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of a recuperative thermal oxidizer at your 51 Ballou Boulevard, Bristol, RI facility.

Enclosed are permit conditions and emission limitations for the revised minor source permit (Approval Nos. 1116 and 2194).

Be advised that the Office of Air Resources has determined that Covalence Specialty Adhesives LLC is subject to the requirements of 40 CFR 60.1-19, Subpart A, "General Provisions" and 40 CFR 60 Subpart RR, "Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations". Rhode Island has not been delegated authority for implementing and enforcing these standards as they apply to Covalence Specialty Adhesives LLC. The United States Environmental Protection Agency implements and enforces these standards. Any required notifications or reports under these standards must be sent to USEPA Region 1. Any questions concerning these standards, such as applicability determinations, compliance schedule extensions, or alternatives to testing or monitoring requirements must be directed to USEPA Region 1 as well.

If you have any questions concerning this permit, I can be reached at 222-2808, extension 7028 .

Sincerely,

Aleida M. Whitney
Senior Air Quality Specialist
Office of Air Resources

cc: Bristol Building Official

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

COVALENCE SPECIALTY ADHESIVES, LLC

APPROVAL NOs. 1116 and 2194

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Covalence Specialty Adhesives, LLC

For the following:

Installation of a Catalytic Products International, Quadrant SRS-10,000 scfm Silicone Series

recuperative thermal oxidizer (Approval No. 2194). The Catalytic Products oxidizer will replace

the existing Wolverine Corporation 5,000 scfm thermal oxidizer (Approval No 1117) and will treat

emissions from the pressure sensitive tape and label surface coating line (Approval No. 1116).

Located at: 51 Ballou Boulevard, Bristol

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Covalence Specialty Adhesives, LLC* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

**Douglas L. McVay, Chief
Office of Air Resources**

Date of issuance

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

COVALENCE SPECIALTY ADHESIVES, LLC

Approval Nos. 1116 and 2194
(revised January 2013)

A. Emission Limitations

1. Volatile Organic Compounds (VOCs)

- a. VOC emissions generated from the pressure sensitive tape and label surface coating line shall be captured and contained for discharge to the Catalytic Products recuperative thermal oxidizer.
- b. VOC emissions generated from the pressure sensitive tape and label surface coating line shall be reduced by 99 percent or greater. This is to be achieved through a combination of 100 percent capture of the VOC generated by the coating line and a 99 percent destruction of this VOC.
- c. The destruction efficiency of the recuperative thermal oxidizer for VOC shall be at least 99 percent.
- d. The total quantity of VOC emissions discharged to the atmosphere from the entire facility shall not exceed 4167 pounds of VOC per calendar month based upon a 12 month rolling average.

2. Hazardous Air Pollutants (HAPs)

- a. The total quantity of HAP emissions discharged to the atmosphere from the entire facility shall not exceed 1500 pounds of any one (1) HAP or 4000 pounds of any combination of HAPs per calendar month based upon a 12 month rolling average. Hazardous Air Pollutant shall mean an air pollutant which has been listed pursuant to Section 112(b) of the Clean Air Act Amendments of 1990.

3. Listed Toxic Air Contaminants

- a. The total quantity of isopropanol, methyl ethyl ketone, toluene, vinyl acetate and xylene discharged to the atmosphere from the entire facility shall not exceed the limitations in Table 1. The limitations in Table 1 were established to ensure that emissions from this facility do not exceed any of the Acceptable Ambient Levels (AALs) listed in Air Pollution Control Regulation No. 22. The limitations shown in pounds per year are

calculated on a 12-month rolling basis. Emissions from activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation.

- b. The total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant, with the exception of those in Table 1 of this permit, shall not exceed the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9, based upon a 12-month rolling average. Emissions from activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation.

B. Operating Requirements

1. The operating temperature of the recuperative thermal oxidizer shall be maintained at or above 1400°F whenever VOC is being discharged to the recuperative thermal oxidizer, or at a lower temperature that has been demonstrated in the most recent compliance test to achieve the required destruction efficiency.
2. The pressure sensitive tape and label surface coating line shall be equipped with an interlock to prevent operation of the coating equipment if the operating temperature of the recuperative thermal oxidizer is less than the temperature specified in Condition B.1.
3. Pressure Sensitive Tape and Label Surface Coating Line Enclosure
 - a. To ensure 100 percent capture of the VOC generated, the coating line must be equipped with a total enclosure. The total enclosure must meet the criteria for a permanent total enclosure contained in 40 CFR Part 51, Appendix M, Method 204 – “Criteria For and Verification of a Permanent or Temporary Total Enclosure”.
 - b. All access doors and windows in the total enclosure for the coating line shall be closed during routine operation of the coating equipment. Brief, occasional openings of doors to allow for access and inspection are acceptable.
 - c. Air passing through any natural draft opening in the total enclosure for the coating line shall flow into the enclosure continuously.
4. The recuperative thermal oxidizer shall be operated according to its design specifications whenever the pressure sensitive tape and label surface coating line is in operation or is emitting air contaminants.

5. The total volume of air discharged to the recuperative thermal oxidizer from the pressure sensitive tape and label surface coating line shall not exceed 11,000 scfm, 110% of the design capacity of the thermal oxidizer.
6. All cleaning of the pressure sensitive tape and label surface coating line with VOC-containing material shall be conducted with the air pollution control system operating. VOC emissions generating during cleaning shall be captured and contained and discharged through the recuperative thermal oxidizer for destruction.

C. Continuous Monitoring

1. The operating temperature of the recuperative thermal oxidizer shall be continuously monitored and recorded. The equipment to continuously monitor the operating temperature of the oxidizer must have an accuracy of +/-1 percent of the temperature being monitored in degrees Celsius or +/-1 degree Celsius, whichever is greater.
2. The equipment to continuously monitor the operating temperature of the oxidizer must be calibrated and maintained according to the manufacturer's specifications. The calibration of the chart recorder, data logger or temperature indicator must be verified once per year or the chart recorder, data logger or temperature indicator must be replaced.
3. Pressure Sensitive Tape and Label Surface Coating Line Enclosure
 - a. The owner/operator shall install, calibrate maintain and operate a monitoring device which continuously indicates that the permanent total enclosure is operating. No continuous monitor shall be required if the owner/operator can demonstrate that the permanent total enclosure is interlocked with the oven recirculation air system.
 - b. The permanent total enclosure shall be inspected semi-annually and should include all the items required to demonstrate that the permanent total enclosure criteria as established in 40 CFR 51, Appendix M, and Method 204 "Criteria for Verification of a Permanent or Temporary Total Enclosure" are maintained.

D. Emissions Testing

1. Within 180 days of start up of the recuperative thermal oxidizer, emissions testing shall be conducted to demonstrate compliance with Conditions A.1.b and A.1.c of this permit.
2. An emissions testing protocol shall be submitted to the Office of Air Resources and the USEPA for review at least 60 days prior to the performance of any

emissions tests. The owner/operator shall provide the Office of Air Resources and the USEPA at least 60 days prior notice of any emissions test.

3. All test procedures used for emissions testing shall be in accordance with the procedures specified in 40 CFR 60, Appendix A or other test methods approved by the Office of Air Resources and USEPA.
4. The owner/operator shall install any and all test ports or platforms necessary to conduct the required emissions testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment.
5. All emissions testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitations or air quality standards.
6. A final report of the results of emissions testing shall be submitted to the Office of Air Resources and the USEPA no later than 60 days following completion of the testing.
7. All emissions testing must be observed by the Office of Resources or its authorized representatives to be considered acceptable, unless the Office of Air Resources provides authorization to the owner/operator to conduct the testing without an observer present.

E. Record Keeping and Reporting

1. The owner/operator shall collect, record and maintain all of the following information each month for the pressure sensitive tape and label surface coating line and recuperative thermal oxidizer:
 - a. The name and identification number of each coating used on the coating line;
 - b. The mass of VOC per unit volume of coating solids, as applied, the volume solids content, as applied, and the volume, as applied, of each coating used each month on the coating line;
 - c. The type and amount of solvent used for diluents and clean up operations;
 - d. A log of operating time for the capture system, recuperative thermal oxidizer, monitoring equipment, and the associated coating line or operation;
 - e. A maintenance log for the capture system, thermal oxidizer, and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages;

- f. The operating temperature of the thermal oxidizer; and
 - g. All 3-hour periods of operation in which the operating temperature of the thermal oxidizer was more than 28°C (50°F) below the average operating temperature during the most recent performance test that demonstrated that the facility was in compliance.
2. The owner/operator shall, on a monthly basis, no later than 30 days after the first of the month, determine the total quantity of VOCs and the total quantity of HAPs discharged to the atmosphere from the entire facility. Monthly and 12-month rolling averages shall be calculated. The 12-month rolling average shall be used for comparison with emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
 3. The owner/operator shall notify the Office of Air Resources in writing, within 15 days, whenever the quantity of VOCs discharged to the atmosphere from all operations at this facility exceeds 4167 pounds per calendar month (12-month rolling average).
 4. The owner/operator shall notify the Office of Air Resources in writing, within 15 days, whenever the quantity of HAPs discharged to the atmosphere from all operations at this facility exceeds 1500 pounds of any one (1) HAP or 4000 pounds of any combination of HAPs per calendar month (12-month rolling average).
 5. The owner/operator shall, on a monthly basis, no later than 30 days after the first of the month, determine the total quantity of each listed toxic air contaminant in Appendix A of Air Pollution Control Regulation No. 9 discharged to the atmosphere from all operations at the entire facility. Monthly and 12-month rolling averages shall be calculated. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
 6. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of emissions of isopropanol, methyl ethyl ketone, toluene, vinyl acetate and xylenes discharged to the atmosphere from the entire facility exceeds the emission limitations in Table 1 of this permit.
 7. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant, with the exception of isopropanol, methyl ethyl ketone, toluene, vinyl acetate and xylene, exceeds the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9.

8. The owner/operator shall record the date of the inspection of the permanent total enclosure and maintain the check list that is used to verify PTE configuration and maintenance status and exhaust system conditions.
9. The owner/operator shall notify the Office of Air Resources in writing of the date of actual start-up of the Catalytic Products International recuperative thermal oxidizer, no later than 15 days after such date.
10. The owner/operator shall maintain a record of all measurements, performance evaluations, calibration checks and maintenance or adjustments for each continuous monitor.
11. The owner/operator shall notify the Office of Air Resources of all 3-hour periods of operation in which the operating temperature of the thermal oxidizer was more than 28°C (50°F) below the average operating temperature during the most recent performance test that demonstrated that the facility was in compliance.
12. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
13. The owner/operator shall notify the Office of Air Resources in writing, of any planned physical or operational change to any equipment covered under this approval that would:
 - a. Change the representation of the facility in the application.
 - b. Alter the applicability of any state or federal air pollution rules or regulations.
 - c. Result in the violation of any terms or conditions of this permit.
 - d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

14. The owner/operator shall notify the Office of Air Resources of any record showing noncompliance with the terms of this permit or any other air pollution

control rule or regulation applicable to the coating operation by sending a copy of the record to the Office of Air Resources within 30 days following the occurrence.

15. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
 - a. The name and location of the facility;
 - b. The subject source(s) that caused the noncompliance with the permit term;
 - c. The time and date of first observation of the incident of noncompliance;
 - d. The cause and expected duration of the incident of noncompliance;
 - e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.
 - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

16. The owner/operator, before changing the method of compliance from control devices to daily-weighted averaging or complying coatings, shall submit a Compliance Certification Plan to the Office of Air Resources for review and approval. Such plan shall include:
 - a. The name and location of the facility;
 - b. The name, address and telephone number of the person responsible for the facility;
 - c. The name and identification number of the emission units which will comply by means of daily weighted averaging or complying coatings;
 - d. For daily-weighted averaging:
 - (1) The instrument or method by which the permittee will accurately measure or calculate the volume of each coating (excluding water), as applied, used each day on each emission unit;
 - (2) The method by which the permittee will create and maintain records each day as required by Subsection 19.5.2(c) of APC Regulation No. 19;

- (3) The time at which the facility's day begins if a time other than midnight local time is used to define a day.
 - e. For complying coatings:
 - (1) The name and identification number of each coating, as applied, on each coating line or operation;
 - (2) The mass of VOC per volume coating (excluding water) and the volume of each coating (excluding water), as applied;
 - (3) The time at which the facility's day begins if a time other than midnight local time is used to define a day.
 - f. Information describing the effect of the change on the emissions of any air contaminant.
 - g. A demonstration that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by APC Regulation No. 22.
17. All records required in this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

F. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the equipment shall be designed, constructed and operated in accordance with the representation of the equipment in the permit application dated 23 April 2012.
2. The owner/operator shall shut down the pressure sensitive tape and label surface coating equipment in the event of a malfunction of the emission capture system and/or recuperative thermal oxidizer that results in or that could result in emissions in excess of the permit limits. The coating equipment shall remain shutdown until the malfunction has been identified and corrected.
3. There shall be no bypassing of the recuperative thermal oxidizer during times when VOC is being discharged to the control device.
4. The emission and dispersion characteristics of all sources of any listed toxic air contaminant at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions do not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may

reopen this minor source permit if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to this permit to ensure compliance with Air Pollution Control Regulation No. 22.

5. Approval No. 1117, issued for the installation of the Wolverine Corporation 5,000 scfm thermal oxidizer is revoked. This revocation will become effective upon startup of the Catalytic Products International, Quadrant SRS-10,000 recuperative thermal oxidizer.
6. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.
7. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
8. This facility is subject to the requirements of 40 CFR 60.1-19, Subpart A, "General Provisions" and 40 CFR 60 Subpart RR, "Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations". Compliance with all applicable provisions therein is required.

G. Malfunctions

1. Malfunction means a sudden and unavoidable breakdown of process or control equipment. In the case of a malfunction of any air pollution control system, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of an air pollution control system is expected or may reasonably be expected to continue for longer than 24 hours and if the owner/operator wishes to operate the source on which it is installed at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following:
 - a. Identification of the specific air pollution control system and source on which it is installed;
 - b. The expected period of time that the air pollution control system will be malfunctioning or out of service;

- c. The nature and quantity of air contaminants likely to be emitted during said period;
 - d. Measures that will be taken to minimize the length of said period;
 - e. The reasons that it would be impossible or impractical to cease the source operation during said period.
2. The owner/operator may seek to establish that a malfunction of any air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the owner/operator must demonstrate to the Office of Air Resources that:
- a. The malfunction was not attributable to improperly designed equipment, lack of preventative maintenance, careless or improper operation or operator error;
 - b. The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance;
 - c. Repairs were performed in an expeditious fashion.
 - d. All reasonable steps were taken to minimize emissions during the period of time that repairs were performed.
 - e. Emissions during the period of time that the repairs were performed will not:
 - (1) Cause and increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and
 - (2) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.
 - f. The reasons that it would be impossible or impractical to cease the source operation during said period.
 - g. The owner/operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The owner/operator shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

TABLE 1: Emission Limitations

Pollutant	lbs/hr	lbs/day	lbs/yr
isopropanol	5		
methyl ethyl ketone	5	120	
toluene	5		18,000
vinyl acetate		84	18,000
xylenes	5	120	18,000