

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FIELD OPERATIONS - BUREAU OF AIR QUALITY

OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the rules and regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below:

Permit No.	<u>OP-09-0001A</u>	Source(s)	<u>Facility NOx &amp; VOC RACT</u>
Owner	<u>Avery Dennison Corporation, Fasson Roll North America</u>	Air	<u></u>
Address	<u>35 Penn-Am Drive</u>	Cleaning	<u></u>
	<u>Quakertown, PA 18951</u>	Device	<u></u>
Attention	<u>Mr. Roy R. Getz</u>	Location	<u>35 Penn-Am Drive</u>
	<u>Environmental Coordinator</u>		<u>Richland Township</u>
			<u>Bucks County</u>

This permit is subject to the following conditions:

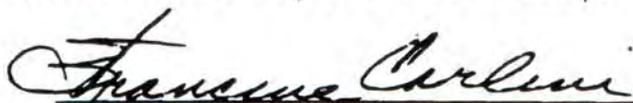
1. That the source(s) and any associated air cleaning devices are to be:
  - a. operated in such a manner as not to cause air pollution;
  - b. in compliance with the specifications and conditions of all applicable plan approvals issued;
  - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.

(SEE ADDITIONAL CONDITIONS ATTACHED)

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued 10/2/1997

Expires 10/2/2002

  
Francine Carlini  
Regional Manager  
Air Quality

cc: Division of Permits, RCSOB  
Administration  
SEFO  
Re (KAL)10.3

**OPERATING PERMIT CONDITIONS,  
 PERMIT NO. OP-09-0001A  
 AVERY DENNISON CORPORATION/  
 FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

3. This permit does not authorize the construction or modification of any source. Construction or modification of a source is subject to the Plan Approval requirements of 25 Pa. Chapter 127 Subchapter B. This permit replaces all existing Plan Approvals and Operating Permits bearing the numbers 09-313-018, 09-318-067A, 09-302-023, PA-09-0001 or CP-09-0001. It does not modify a subsequent Plan Approval or Operating Permit issued for the sources that are the subject of this permit.
  
4. This Reasonably Available Control Technology (RACT) Operating Permit is issued to Avery Dennison Corporation Fasson Roll North America for the operation of their sources located at 35 Penn-Am Drive, Richland Township, Bucks County. This Operating Permit is the Department's determination of RACT for the volatile organic compounds (VOC) and Nitrogen Oxides (NOx) emitting sources at this facility. ~~This Operating Permit is also for the purpose of creating emissions reduction credits (ERC) for VOC emissions from the Fasson facility.~~
  
5. A. In accordance with 25 Pa. Code § 129.52, Fasson shall limit its volatile organic compound (VOC) emissions to the following maximum:

Line	Section	VOC (lbs/hr)
80" Coater (QR-1)	Adhesive	433.0
	Primer	93.2
	Release	102.7
60" Coater (QR-2)	Adhesive	203.0
	Primer	52.0
	Release	57.0

Compliance with these requirements shall be measured as specified in Condition 9.A.

- ~~B. For the purpose of creating ERCs pursuant to 25 Pa. Code Section 127.207, each coating line listed in this condition shall limit its VOC emission to the following maximum as a 12 month rolling sum calculated on a monthly basis.~~

Line	Section	Tons/Year
80" Coater (QR-1)	Adhesive, Primer, Release	355.0
60" Coater (QR-2)	Adhesive, Primer, Release	152.0

Fasson will determine the actual emissions for the QR-1 and QR-2 coaters as set forth in Condition 9.B.

- C. Fasson shall limit its VOC emissions to the following maximum.

**OPERATING PERMIT CONDITIONS  
 PERMIT NO. OP-09-0001A  
 AVERY DENNISON CORPORATION/  
 FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

<u>Line</u>	<u>Sections</u>	<u>lbs/hr</u>	<u>tons/year*</u>
QR-5 Coater	Adhesive, Primer	4.92	<del>21.6</del>

\* Limited to a 12 month rolling sum calculated on a monthly basis

For the QR-5 coating line cleaning operations, Fasson shall use only a non-VOC aqueous solution or cleaning products specifically approved by the Department. Compliance with these requirements shall be measured as specified in Condition 9.C.

6. In accordance with the requirements of this permit and the Department of Environmental Protection Rules and Regulations, 25 Pa. Code § 129.92, Fasson shall limit VOC emissions from the listed sources to the following maximum:

<u>Sources</u>	<u>lbs/hr</u>	<u>lbs/day</u>	<u>tons/year</u>
18 Underground Storage Tanks (Nos. 16-33)	43.9	59.2	1.2
Wash Tanks	2.9	17.9	0.5
Maintenance/Equipment Cleaning	7.2	43.2	7.9
Graco, Paterson, and Lightning Mixers	0.9	22.4	3.9
Mixing Churn No. 1	11.97	76.49	4.97
Mixing Churn No. 2	11.97	76.49	4.97
Mixing Churn No. 3	4.65	31.00	1.55

7. The following de-minimis source categories shall be operated with VOC emission rates of no greater than 3 pounds per hour, 15 pounds per day and 2.7 tons per year, whichever is more strict: tank No. 1A (silicone storage), emulsion mixing churn Nos. 4 and 6, primer mixing churn No. 5, acrylic mixing churn No. 7, 14 portable churns, drum meters QR3 and QR4, hot melt coaters QR3 and QR4, and the facility's combustion sources.

**OPERATING PERMIT CONDITIONS  
 PERMIT NO. OP-09-0001A  
 AVERY DENNISON CORPORATION/  
 FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

8. A. The following combustion sources shall not emit oxides of nitrogen (NOx) in excess of the emission limitations given below. Compliance with the emission limitations shall be determined on an annual basis.

Source Names	NOx Emission Limitations (tons/year)
Coating Line QR1	16.1
Coating Line QR2	10.2
Coating Line QR5	4.0
Boiler No. 1	7.8
Boiler No. 2	7.8
Boiler No. 3	7.8
Thermal Oxidizer	6.7
Emergency Electric Generator	0.003
Diesel Engine for Fire Pump	0.7
Air Make-Up unit, East	2.1
Air Make-Up Unit, Central	2.1
Air Make-Up Unit, West	2.1

- B. The following sources shall be operated in accordance with the presumptive RACT requirements specified in 25 Pa. Code § 129.93(c)(1). Emissions from these sources shall be determined on an annual basis; north office heater, south office heater, sales/service office heater, small office heater, pump house water heater, pump house space heater, drum storage space heater, compounding room space heater, FAST heater Nos. 1 and 2, FAST heater Nos. 3 and 4, ceramic heater Nos. 1 through 11.
- C. The above sources shall be operated with good control practices.

9. **MONITORING, RECORDKEEPING AND REPORTING PROCEDURES:**

The following monitoring methods are part of the basis for the emission limitations to which the monitoring method applies. A change to the monitoring method is a change to the corresponding emission limitation solely for the sources listed in conditions 6, 7 and 8. If the Department determines that the resulting change to the emission limits is significantly large, it may require a revised RACT determination. Fasson may supplement information or provide more detailed information in appropriate circumstances.

- A. QR-1 and QR-2 coater and drying ovens (from Operating Permit No. 09-313-018).
1. Fasson shall record and maintain the following information for solvent based coatings for a period of five years:

**OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0001A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

- a. coating composition
    - i. percent solids by volume
    - ii. solvent (VOC) by volume
    - iii. percent water by volume
    - iv. pounds of VOC per gallon of coating minus water
    - v. solvent density
  - b. on a daily basis record the following:
    - i. type of coating, quantity applied, and time period of application
    - ii. the portion from b.i above which was vented to the carbon adsorber
    - iii. the VOC content of each coating applied
    - iv. the recovered VOC as measured by the carbon adsorber system flow meter, or equivalent
2. Fasson shall demonstrate compliance with 25 Pa. Code § 129.52 for each of the coating combinations and each new coating combinations using the RACT equivalence calculations in the attached Appendix A.
  3. Fasson shall make the data and calculations in conditions 9.A.1 and 9.A.2 above available to the Department upon request.
  4. When in operation to control solvent-based coating emissions, Fasson's thermal oxidizer must maintain a minimum temperature of 1250°F.
  5. Fasson shall notify the Department within two (2) hours during normal working hours of any malfunction to the carbon adsorber or thermal oxidizer which is expected to last longer than two (2) hours. A written report regarding the malfunction shall be sent to the Department within seven (7) working days.
  6. Fasson shall maintain an overall VOC recovery system efficiency of at least 85.0% for all sources vented to the carbon adsorber. VOC recovery system efficiency shall be determined by either stack testing and conformance with provisions of 25 Pa. Code Chapter 139 or by comparing the volume of VOC applied to the volume of recovered VOC measured for any period of time and which at least 100,000 gallons of VOC had been applied. The volume of VOC applied and the volume of recovered VOC measured for any day for which Fasson

**OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0001A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

has reported a malfunction pursuant to condition 9.A.5 above, shall be excluded from the calculation of VOC recovery system efficiency. However, nothing within this condition shall prevent the Department from requiring additional stack testing as provided for by the Air Pollution Control Act and the rules and regulations promulgated thereunder.

7. Fasson shall evaluate all new coating combinations used on the coating lines to demonstrate that the combinations will comply with Condition 5.A. Fasson shall make such evaluations available to the Department upon request.
8. Fasson shall apply the efficiency measured pursuant to Condition 9.A.6 above to the amount of solvent applied in each of the coating operations and ducted to the solvent recovery system from each coating station during each day. Fasson will divide the resulting daily emissions by hours of operation to determine emissions on an hourly basis.
9. For emissions ducted to the thermal oxidizer, Fasson will apply the most recent test results for overall destruction efficiency to the emissions of the coating stations which are ducted to the thermal oxidizer during each day. Fasson will divide the resulting total emissions by hours of operation to determine emissions on an hourly basis.

**B. ERC MONITORING**

1. To determine compliance with Condition 5.B, Fasson will determine efficiency for the solvent recovery system as specified in Condition 9.A above, based on the most recent period in which 100,000 gallons of solvent is applied.
2. Fasson will take the efficiency as calculated for each day and multiply that efficiency by the amount of solvent applied by each coating line (aggregate of the Adhesive, Primer and Release coating stations) and which was ducted to the solvent recovery system. The result will be the emissions in pounds per day from the solvent recovery system attributable to each coating line.
3. For the thermal oxidizer, Fasson will apply the most recent test results for overall destruction efficiency to the emissions of the coating stations which are ducted to the thermal oxidizer during each day. Fasson will divide the resulting total emissions by hours of operation to determine emissions on an hourly basis. The result will be the emissions in pounds per day from the thermal oxidizer attributable to each coating line.

**OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0001A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

4. Fasson will sum the daily solvent recovery system and thermal oxidizer emissions and emissions not ducted to either the solvent recovery system or the thermal oxidizer to reach the total daily emissions of VOC from the QR-1 and QR-2 coating lines.
5. Once each month, Fasson will sum the daily emissions from the QR-1 and QR-2 coating lines to reach the monthly emissions from each coating line. Fasson shall maintain a rolling twelve-month sum of emissions from each coating line to demonstrate compliance with the annual emission limitations.
6. As an alternative to the method cited in Conditions 9.B.1 through 5 above, Fasson may demonstrate compliance by showing that QR-1 and QR-2 coating line potential emissions based on coating formulations used are below 355 tpy and 152 tpy, (12-month rolling sum), respectively.

**C. ~~QR-5~~ Coating Line Monitoring (from permit No. 09-318-067A)**

1. Fasson shall record the following information:
  - a. Daily coating quantity in gallons and pounds of coating as applied and;
  - b. The coating composition:
    - i. percent solids by volume
    - ii. percent solvent by volume
    - iii. percent water by volume
    - iv. pounds of VOC per gallon minus water
    - v. solvent density
2. Fasson shall calculate compliance with the emission limitations of 4.92 lbs/hour by calculating the total actual emissions for the QR-5 coating line for each calendar month and dividing the resulting total by the hours of operation of the coating line for the month. Fasson shall calculate compliance with the emission limitations of 21.6 tons/year as a twelve-month rolling sum calculated monthly. As an alternative, Fasson may demonstrate compliance by showing that QR-5 coating line potential emissions based on the coating formulations used are below 4.92 lb/hr and 21.6 tons/year.

**D. RACT MONITORING PLAN**

1. For all the sources below, the specified VOC and NOx emissions shall be calculated on an annual basis. Unless specifically listed herein, emissions

OPERATING PERMIT CONDITIONS  
PERMIT NO. OP 99-0061A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA

CONDITIONS (continued):

estimates shall be made using the EPA "Compilation of Air Pollutant Emission Factors", AP-42. Emissions shall be estimated by multiplying throughput by the specified emission factor. Unless otherwise specified, throughput shall be determined annually.

2. For the following sources, hourly and daily emissions, if required, shall be determined annually by dividing the total annual emissions by 8760 hours and 365 days, respectively.

3. Monitoring and Recordkeeping Requirements for VOC sources.

- a. 18 Underground Storage Tanks (nos. 16 through 33)

Record: Throughput for each tank through records of raw material receipts, material transfers and compound production records.

- b. Wash Tank

Record: the average time a tank is open and surface area of the wash tank. Emission factor for cold cleaning tanks: 0.08 lbs/hour/square feet. The emission factor will be multiplied by the estimated time the tank is open and by the surface area of the wash tank to estimate annual emissions.

- c. Maintenance/Equipment Cleaning

Record: coating line VOC throughput to the vapor recovery system and the thermal oxidizer in tons.

Emission factor: 2.25 pounds of VOC/ton of coating line VOC throughput.

- d. Graco, Paterson and Lightning Mixers

Record: total throughput of material from compound production reports. Emission factor: 25 pounds of VOC/ton of throughput.

- e. Emulsion Mixing Churn Nos. 4 and 6

Record: total throughput of material for mixing churn Nos. 4 and 6 from compound production reports.

Emission factor: 10% of VOC throughput.

**OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0001A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA**

**CONDITIONS (continued):**

- f. Primer Mixing Churn No. 5, Acrylic Mixing Churn No. 7, and 14 Portable Churns
- Record: total throughput of material for churn Nos. 5 and 7, and the portable churns from compound production reports.  
Emission factor: 0.84 pounds of VOC/ton of production.
- g. Drum Melters QR-3 and QR-4
- Record: annual throughput from records of raw material receipts.  
Emission factor: 0.01% VOC/ton of adhesive throughput.
- h. Hot Met Coaters QR-3 and QR-4
- Record: annual throughput from records of raw material receipts  
Emission factor: 0.01%
- i. Aboveground Storage Tank No. 1A
- Record: the annual throughput for the tank through records of raw material receipts.
4. **Monitoring and Recordkeeping Requirements for NOx sources:**
- a. **Boiler Nos. 1, 2 and 3, thermal oxidizer, QR-1 coating line, QR-2 lacquer oven, QR-2 adhesive zone No. 1, QR-2 adhesive zone No. 2, QR-2 adhesive zone No. 3, QR-2 primer oven, QR-5 coating line, air make-up east, air make-up west, air make-up compounding, and office heating units.**
- Record: Usage of natural gas from meters on monthly basis. Fasson shall also maintain separate equipment files containing manufacturer's specifications for operation and maintenance for boiler Nos. 1, 2 and 3.
- b. Diesel Engine Fire Pump
- Record: Fuel usage in gallons from purchase records on an annual basis.
- c. Emergency Generator
- Record: the hour meter readings on monthly basis.  
Emission factor: 0.013 pounds per hour of operation.

OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0001A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA

CONDITIONS (continued):

- d. North office heater, south office heater, sales/service heater, small office heater, pump house water heater, pump house space heater, drum storage space heater, compounding room space heater, FAST heater Nos. 1 and 2, FAST heater Nos. 3 and 4, and ceramic heaters 1 through 11.

Emissions shall be calculated once per year by multiplying the aggregate of the hour meter readings by the emission factor.

Record: The aggregate natural gas usage on monthly basis by subtracting natural gas usage by the NOx sources above (9.D.4.a) from the facility's main UGI meter. Fasson shall also establish separate files for each piece of equipment identified in this paragraph. The files shall contain manufacturer's specification for operation and maintenance and service reports from contract service companies. Documentation for cleaning, adjustment and other required maintenance will be maintained in an electronic database. The database will be used to schedule preventative maintenance and record when the maintenance is performed. Reports from the database will be available to the Department upon request. Emissions for these sources shall be determined in the aggregate, not as individual sources.

10. Records required pursuant to this Operating Permit shall be kept for a period of five (5) years and shall be provided to the Department upon request.
11. Fasson is entitled to an Emission Reduction Credit (ERC) of 360.00 tons of VOC per year for the restriction on the potential to emit of coaters QR-1 and QR-2 listed in condition 5.B above. The ERC shall be available upon issuance of this permit and under the terms of 25 Pa. Code Section 127.207.
12. Nothing in this permit precludes application to Fasson of the operational flexibility provisions of 25 Pa. Code § 127.3 and the sections cited therein.
13. The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow the Department to have access at any time to said source(s) and associated air cleaning device(s) with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.
14. The expiration date shown on this RACT operating permit is for state purposes. For Federal enforcement purposes, the conditions of the operating permit which pertains to the

OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0001A  
AVERY DENNISON CORPORATION/  
FASSON ROLL NORTH AMERICA

**CONDITIONS (continued):**

implementation of the RACT regulations shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. Environmental Protection Agency (EPA).

Re 30 (KAL)10.4

