



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY VALLEY REGIONAL OFFICE

Douglas W. Domenech
Secretary of Natural Resources

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David K. Paylor
Director

Amy Thatcher Owens
Regional Director

December 28, 2012

Mr. Robert Dragon
VP of Operations
O'Sullivan Films, Inc.
1944 Valley Avenue
Winchester, VA 22601

Location: Winchester City
Registration No.: 80333
Plant ID No.: 51-840-0060

Dear Mr. Dragon:

Attached is a renewal Title V permit to operate your facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the DEQ deemed the application complete on October 7, 2011 and solicited written public comments by placing a newspaper advertisement in Winchester Star on October 25, 2012. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on November 26, 2012.

This approval to operate does not relieve O'Sullivan Films, Inc. of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Mr. David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia, at <http://www.courts.state.va.us/courts/scv/rules.html>, for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

Please be aware that your facility appears to be subject to the source requirements of the Maximum Achievable Control Technology (MACT) Standards of 40 Code of Federal Regulations (CFR) 63, Subparts KK, JJJ, EEEE, and DDDDD. These federal requirements are described in 40 CFR 63, Subpart KK (§63.820-831), Subpart JJJ (§63.3280-3420), Subpart EEEE (§63.2330-2406), Subpart DDDDD (§63.7480-7575), which may be accessed using the electronic code of federal regulations website at <http://www.ecfr.gov>.

If you have any questions concerning this permit, please contact Trevor H. Wallace at (540) 574-7807 or via email at trevor.wallace@deq.virginia.gov.

Sincerely,

B. Keith Fowler (for ATO)

Amy T. Owens
Regional Director

Attachment: Permit

c: DEQ File
Ms. Cathleen Kennedy Van Osten, U.S. EPA Region III (via email)
Ms. Susan Tripp, DEQ OAPP (via email)
Mr. Barry Brandon, Air Compliance Inspector (via email)



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	O'Sullivan Films, Inc.
Facility Name:	O'Sullivan Films, Inc.
Facility Location:	1944 Valley Avenue, Winchester, Virginia
Registration Number:	80333
Permit Number:	VRO80333
Effective Date:	December 21, 2012
Expiration Date:	December 20, 2017

B. Keith Fowler (for ATO)

Regional Director, Valley Region

12/21/12

Signature Date

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Facility Information

Permittee

O'Sullivan Films, Inc.
1944 Valley Avenue
Winchester, Virginia 22604

Responsible Official

Robert Dragon
Vice President of Operations
or
Christopher Hahn
Director, Technical Services and Process Engineering

Facility

O'Sullivan Films, Inc.
1944 Valley Avenue
Winchester, Virginia 22604

Contact person

Kevin Burkett (540) 667-6666, ext. 274
Environmental Manager

County-Plant Identification Number: 51-840-0060

Facility Description: NAICS numbers 326130 (Laminated plastics sheet manufacturing) and 326113 (Polyvinyl film and unlaminated sheet manufacturing)

The O'Sullivan Films, Inc. facility in Winchester conducts calendaring, laminating, printing, and painting of performance polymers and engineered films to produce plastic sheeting used primarily by the automotive industry.

Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	*Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
BLR1a	1a	Bryan Boiler, Model RV 700	7.0 MMBtu/hr	-	-	-	-
BLR1b	1b	Bryan Boiler, Model RV 700	7.0 MMBtu/hr	-	-	-	-
BLR2	2	Cleaver Brooks, Nat. Gas/No. 2 Oil fired Industrial Boiler, installed 1972	16 MMBtu/hr	-	-	-	-
PH1	3	American Hydrotherm Calender No. 3 1966 Hot Oil Generator, installed 1988	16.8 MMBtu/hr	-	-	-	4/21/05 Amended: 3/28/06 12/30/08 12/6/11
GEN21	-	Diesel emergency generator Bldg 2	375 HP (engine), 200 kW (generator)	-	-	-	-
GEN22	-	Diesel emergency generator Bldg 14A	375 HP (engine), 200 kW (generator)	-	-	-	-
GEN23	-	Diesel emergency generator Bldg 54	375 HP (engine), 200 kW (generator)	-	-	-	-
PUMP24	-	Diesel fire control system water pump	267 HP (engine)	-	-	-	-
Painting Operations							
PK	4 or 5	Paint kitchen	-	Smith Engineering Company regenerative thermal oxidizer (RTO)	CNTRL1 or CNTRL2	VOC, HAP	4/21/05 Amended: 3/28/06 12/30/08 12/6/11

Emission Unit ID	Stack ID	Emission Unit Description	*Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
PLAB	49-51	Paint testing laboratory	-				4/21/05 Amended: 3/28/06 12/30/08 12/6/11
PL3	4	Paint Line comprised of spray booths 1 & 2 (airless air assisted spider-arm applicator on continuous vinyl web), gravure station, flash-off zones, and drying ovens	-	Smith Engineering Company regenerative thermal oxidizer (RTO)	CNTRL1	VOC, HAP	4/21/05 Amended: 3/28/06 12/30/08 12/6/11
PL4	5	Paint Line comprised of spray booths 1 & 2 (airless air assisted spider-arm applicator on continuous vinyl web), flash-off zones, and drying ovens	~5000 linear ft vinyl /hr	Smith Engineering Company regenerative thermal oxidizer (RTO)	CNTRL2	VOC, HAP	4/21/05 Amended: 3/28/06 12/30/08 12/6/11
Laminating Operations							
LAM1	11	Lembo Laminator (including embossing and adhesive material mixing) (water-based low-VOC adhesives and primer applied by roller)	-	-	-	-	4/21/05 Amended: 3/28/06 12/30/08 12/6/11
LAM3	4	Kawakami Laminator (including adhesive material mixing) (solvent-based adhesives applied by doctor blade and/or roller with capabilities for using water-based low-VOC adhesives and primer)	20 m vinyl/min	Smith Engineering Company regenerative thermal oxidizer (RTO)	CNTRL1	VOC, HAP	4/21/05 Amended: 3/28/06 12/30/08 12/6/11
LAM4	12 A,B,C	Inta-Rota Laminator (including adhesive material mixing) (solvent-based adhesives applied by roller with capabilities for using water-based low-VOC adhesives and primer)	20 m vinyl/min	-	-	-	4/21/05 Amended: 3/28/06 12/30/08 12/6/11

Emission Unit ID	Stack ID	Emission Unit Description	*Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
Rotogravure Printing Operations							
PNTKTN2	13-15	Paint kitchen for Lembo (printing ink mixing)	-	-	-	VOC, HAP	-
LEMB	16-19	Lembo 4-Station Rotogravure Printing Press (vinyl substrate) with drying ovens	-	-	-	VOC, HAP	-
Calendering Operations							
CAL1	20	Farrel Calender	≥ 100 pounds/hr	-	-	-	-
CALMIX1a	-	Pre-blender for Calender 1 (raw material mixing equipment)	≥ 100 pounds/hr	Osprey baghouse (vents indoors)	CNTRL3	PM, PM-10	-
CALMIX1b	-	Banbury mixer for Calender 1 (raw material mixing equipment)	≥ 100 pounds/hr	Farr baghouse (vents indoors)	CNTRL4	PM, PM-10	-
CAL2	21	Nippon Roll Calender	≥ 100 pounds/hr	-	-	-	3/05/12
CALMIX2a	-	Banbury mixer for Calender 2 (raw materials mixing)	≥ 100 pounds/hr	Osprey fabric filter (2 units) (vents indoors)	CNTRL 5	PM, PM-10	3/05/12
CALMIX2b1	-	Pre-blender for Calender 2 (raw material mixing equipment)	≥ 100 pounds/hr	Bag Dump filter (vents indoors)	CNTRL6	PM, PM-10	3/05/12
CALMIX2b2	-	Pre-blender for Calender 2 (raw material mixing equipment)	≥ 100 pounds/hr	Bag Dump filter (vents indoors)	CNTRL7	PM, PM-10	3/05/12
CAL2RIBBONS	22	Plastic grinding	≥ 100 pounds/hr	Flex-Kleen baghouse	CNTRL7a	PM PM-10	3/05/12
CAL3	24	Kraffanlagen Heidelberg Calender	≥ 100 pounds/hr	-	-	-	-
CALMIX3a	-	Pre-blender for Calender 3 (raw material mixing equipment)	≥ 100 pounds/hr	Osprey baghouse (3 units) (vents indoors)	CNTRL8 A,B,C	PM, PM-10	-

Emission Unit ID	Stack ID	Emission Unit Description	*Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
CALMIX3b	-	Banbury mixer for Calender 3 (raw material mixing equipment)	≥ 100 pounds/hr	Osprey baghouse (vents indoors)	CNTRL9	PM, PM-10	-
CALMIX3c	-	Continuous mixer for Calender 3 (Littleford)	~10,000 lb/hr		CNTRL10	PM, PM-10	-
Post Embossing Operations							
PEMB5	9-10	Post Embosser (includes embosser and optional water-based adhesive back coater and slitter)	-	-	-	VOC, HAP	-
Materials Handling Operations							
RES-CONV1	25 – 40a,b,c	Bulk resin transfer and storage (pneumatic) for Calenders 1 & 2 (includes rail car and tank truck unloading to bulk silos and transfer from bulk silos to day bins and mixing stations)	~10 tons/hr	Flex-Kleen baghouse	CNTRL11 – CNTRL28	PM, PM-10	-
RES-CONV2	41–48	Bulk resin transfer and storage (pneumatic) for Calender 3 (includes rail car and tank truck unloading to bulk silos and transfer from bulk silos to day bins and mixing stations)	~10 tons/hr	Pacific Engineering Company baghouse	CNTRL27 – CNTRL34	PM, PM-10	-
Storage Tanks							
TNK-P21	-	Bulk storage tank for plasticizer	15,000 gal	-	-	-	-
TNK-P22	-	Bulk storage tank for plasticizer	15,000 gal	-	-	-	-
TNK-P23	-	Bulk storage tank for plasticizer	15,000 gal	-	-	-	-
TNK-P24	-	Bulk storage tank for plasticizer	15,000 gal	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	*Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
TNK-P25	-	Bulk storage tank for plasticizer	15,000 gal	-	-	-	-
TNK-P26	-	Bulk storage tank for plasticizer	15,000 gal	-	-	-	-
TNK-TC21	-	Bulk storage tank for topcoat	15,000 gal	-	-	-	-
TNK-TC22	-	Bulk storage tank for topcoat	15,000 gal	-	-	-	-
TNK-TC23	-	Bulk storage tank for topcoat	15,000 gal	-	-	-	-
TNK-TC24	-	Bulk storage tank for topcoat	15,000 gal	-	-	-	-
TNK-TC25	-	Bulk storage tank for topcoat	15,000 gal	-	-	-	-
TNK-TC26	-	Bulk storage tank for topcoat	15,000 gal	-	-	-	-

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Fuel Burning Equipment Requirements – Emission unit ID# BLR1a, BLR1b, BLR2 and PH1

1. **Limitations** – The approved fuels for the boilers and hot oil generator (BLR1a, BLR1b, BLR2 and PH1) are natural gas and distillate oil. Distillate oil shall meet the specifications stated in Condition 8. A change in the fuels may require a permit to modify and operate. (9 VAC 5-80-110 and Condition 16 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
2. **Limitations** – Particulate emissions from the boilers (BLR1a, BLR1b and BLR2) shall not exceed the limit derived as follows:

$$E = 0.39H$$

Where:

E = Particulate emissions in lbs/hr

H = Actual heat input (MMBtu/hr)

(9 VAC 5-40-900 B and 9 VAC 5-80-110)

3. **Limitations** – Total sulfur dioxide emissions from the boilers (BLR1a, BLR1b and BLR2) shall not exceed 79 lbs/hr. (9 VAC 5-40-930 A and 9 VAC 5-80-110)
4. **Limitations** – Emissions from the operation of the hot oil generator (PH1) shall not exceed the limits specified below:

PM-10	0.13 lbs/hr	0.6 tons/yr
Sulfur Dioxide	8.74 lbs/hr	38.3 tons/yr
Carbon Monoxide	1.41 lbs/hr	6.2 tons/yr
Nitrogen Dioxide	2.43 lbs/hr	10.7 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-50-260 and Condition 21 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

5. **Limitations** – Visible emissions from boiler (BLR1a, BLR1b and BLR2) stacks shall not exceed 20 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). Failure to meet the opacity limit due to the presence of water vapor shall not be a violation.
(9 VAC 5-40-940 B and 9 VAC 5-80-110)
6. **Limitations** – Visible emissions from the hot oil generator (PH1) shall not exceed 10 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-80-110 and Condition 23 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
7. **Limitations** – Boiler (BLR1a, BLR1b and BLR2) emissions shall be controlled by proper operation and maintenance. Boiler (BLR1a, BLR1b and BLR2) operators shall be trained in the proper operation of all such equipment. Training shall consist of a review of and familiarization with the manufacturer's operating instructions, at minimum. The permittee shall have available good written operating procedures and a maintenance schedule for boilers (BLR1a, BLR1b and BLR2).
(9 VAC 5-20-180 and 9 VAC 5-80-110)
8. **Limitations** – The distillate oil shall meet ASTM D396 specifications for numbers 1 or 2 fuel oil, with no greater than 0.5 percent sulfur content per shipment.
(9 VAC 5-80-110 and Condition 18 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
9. **Limitations** – The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the distillate oil was received;
 - c. The volume of distillate oil delivered in the shipment; and
 - d. The sulfur content of the distillate oil.

(9 VAC 5-80-110 and Condition 19 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

10. **Monitoring and Recordkeeping** – The permittee shall perform weekly inspections of the boiler (BLR1a, BLR1b and BLR2) stacks and of the hot oil generator (PH1) stack when burning distillate fuel in the respective unit, to determine the presence of visible emissions. If during the inspection visible emissions are observed, an EPA Method 9 (reference 40 CFR 60, Appendix A) visible emissions evaluation (VEE) shall be conducted. The VEE shall be conducted for a minimum period of six minutes. If the six-minute average opacity exceeds the applicable limit, the observation period shall continue until a total of sixty minutes of observation have been completed.
(9 VAC 5-80-110)

11. **Monitoring and Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
 - a. Fuel purchase records, including type of fuel purchased;
 - b. Fuel supplier certifications for oil shipments purchased, indicating the sulfur content by weight per shipment;
 - c. The monthly and annual throughput of natural gas (in million cubic feet) and distillate oil (in 1000 gallons) for the boilers (BLR1a, BLR1b and BLR2) and the hot oil generator (PH1). The annual throughput shall be calculated monthly as the sum of each consecutive 12-month period;
 - d. Weekly inspection results of the boilers (BLR1a, BLR1b and BLR2) and hot oil generator (PH1) stacks (when burning distillate oil), to include:
 - (1) The date of each inspection and the initials of the inspector;
 - (2) Whether or not visible emissions were observed; and
 - (3) EPA Method 9 (40 CFR 60, Appendix A) observation record, if applicable.
 - e. Boiler (BLR1a, BLR1b and BLR2) and hot oil generator (PH1) operator training records, including the dates of training and names of trainees;
 - f. Records of maintenance performed on the boilers (BLR1a, BLR1b and BLR2) and the hot oil generator (PH1); and
 - g. Monthly emissions calculations for emissions from the hot oil generator (PH1) stack using calculation methods approved by the DEQ to verify compliance with the ton/yr emissions limitations in Condition 4. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 26 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

12. **Monitoring and Recordkeeping** – The permittee shall have available good written operating procedures and a maintenance schedule for the boilers (BLR1a, BLR1b and BLR2) and the hot oil generator (PH1). These procedures shall be based on the manufacturer's recommendations, at minimum. These records shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-80-110)
13. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110 and Condition 13 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
14. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Electrical Generators and Fire Pumps - Emission unit ID# GEN21, 22, 23 and PUMP24

15. **Limitations** - Except where this permit is more restrictive, the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ.
(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)
16. **Limitations** - The emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) must be operated in accordance with the following:
 - a. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this condition, is prohibited.
 - b. There is no time limit on the use of the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) in emergency situations.
 - c. The emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
 - d. The emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when

the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition, as long as the power provided by the financial arrangement is limited to emergency power.
(9 VAC 5-80-110 and 40 CFR 63.6640(f))

17. **Limitations** - By May 3, 2013, the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) shall comply with the maintenance requirements specified in sections 1 (a) through (c) of Table 2c to Subpart ZZZZ:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i);
 - b. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

(9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100, and 40 CFR 63, Subpart ZZZZ)
18. **Limitations** - By May 3, 2013, during the startup period of the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24), the permittee must minimize the time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)
19. **Monitoring** - By May 3, 2013, the facility shall install non-resettable hour meters on the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24). The hour meter shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and 40 CFR 63.6625 (f))
20. **Monitoring** - By May 3, 2013, the permittee shall develop a maintenance plan for the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) that provides for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions, to the extent practicable.
(9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100, and 40 CFR 63.6625 (e))
21. **Recordkeeping** -The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. Annual hours of emergency operation, maintenance and testing, and operation in non-emergency situations for the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24).
- b. Records of the maintenance conducted on the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) after May 3, 2013, in order to demonstrate that each engine is operated and maintained according to the maintenance plan required by Condition 20.
- c. Records of the hours of operation of the emergency generator and fire pump engines (GEN21, 22, 23 and PUMP24) after May 3, 2013, that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation. If an engine is used for demand response operation, the permittee must keep records of the notification of the emergency situation, and the time each engine was operated as part of demand response.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110, 40 CFR 63.6655 (e) and (f))

Painting Operations Requirements - Emission unit ID# PK, PLAB, PL3 and PL4

22. **Limitation** – Volatile organic compound (VOC) emissions from Paint Line 3 (PL3) shall be controlled by a capture system having an efficiency of no less than 80 percent and a regenerative thermal oxidizer (RTO) having a control efficiency of at least 95.0 percent on a mass basis. The RTO shall be provided with adequate access for inspection and shall be in operation when Paint Line 3 is operating.
(9 VAC 5-80-110 and Conditions 4 and 7 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
23. **Limitation** – VOC emissions from the Paint Kitchen (PK) shall be controlled by a permanent total enclosure and a RTO having a control efficiency of at least 95.0 percent on a mass basis. The RTO shall be provided with adequate access for inspection and shall be in operation when the Paint Kitchen (PK) is operating.
(9 VAC 5-80-110 and Condition 6 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
24. **Limitation** – VOC emissions from Paint Line 4 (PL4) shall be controlled by a permanent total enclosure and a RTO having a control efficiency of at least 98.6 percent on a mass basis. The RTO shall be provided with adequate access for inspection and shall be in operation when Paint Line 4 (PL4) is operating.
(9 VAC 5-80-110 and Conditions 5 and 8 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
25. **Limitation** – The total enclosures required in Conditions 23 and 24 shall meet the following criteria:
- a. Any natural draft openings shall be at least four equivalent opening diameters from each VOC emitting point;
 - b. The total area of all natural draft openings shall not exceed five percent of the surface area of the enclosure's four walls, floor, and ceiling;
 - c. The average facial velocity of air through the natural draft openings shall be at least 200 feet per minute and the direction of flow shall be into the enclosure;
 - d. All access doors and windows shall be closed during routine operation of the enclosed equipment; and
 - e. All of the exhaust gases from the enclosure shall be directed to the thermal incinerator.

(9 VAC 5-80-110 and Condition 9 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

26. **Limitation** – The RTO controlling Paint Line 3 (PL3) shall maintain the combustion zone temperature determined during the most recent performance test in which 95.0 percent VOC control efficiency was achieved and a residence time of at least 0.5 second. The combustion zone temperature shall be calculated as a three-hour average as specified in Condition 52.j(1).
(9 VAC 5-80-110 and Condition 10 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
27. **Limitation** – The RTO controlling Paint Line 4 (PL4) shall maintain the combustion zone temperature determined during the most recent performance test in which 98.6 percent VOC control efficiency was achieved and a residence time of at least 1.0 second. The combustion zone temperature shall be calculated as a three-hour average as specified in Condition 52.j(1).
(9 VAC 5-80-110 and Condition 11 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
28. **Limitation** – Paint Line 4 (PL4) shall operate no more than 7,140 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 15 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
29. **Limitation** – The approved fuels for combustion in the RTOs are natural gas and distillate oil. Use of a different fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 17 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
30. **Limitation** – VOC emissions shall not exceed the limits specified below:

Paint Line 3 (PL3) and Paint Kitchen (PK)	998 tpy
Paint Line 4 (PL4)	39 tpy
Paint Laboratory (PLAB)	30 tpy

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance shall be demonstrated by mass balance as specified in Condition 39. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 22 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

31. **Limitation** – Visible emissions from each RTO shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 24 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
32. **Limitation** – The permittee shall develop a Quality Improvement Plan (QIP) for Paint Line 4 (PL4) according to 40 CFR 64.8 if more than six excursions from the indicator range specified in the CAM Plan (Attachment A) occur within a semi-annual period. An excursion shall be defined as any three-hour period of operation during which the average combustion zone temperature is outside of the indicator range specified in the CAM Plan. Semi-annual periods are as indicated by reporting requirements in Condition 171. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
- a. Improved preventative maintenance practices;
 - b. Process operation changes;
 - c. Appropriate improvements to control methods;
 - d. Other steps appropriate to correct control performance; and
 - e. More frequent or improved monitoring.

(9 VAC 5-80-110 and 40 CFR 64.8(a) and (b))

33. **Limitation** – The permittee shall develop a Quality Improvement Plan (QIP) for Paint Line 3 and the Paint Kitchen (PK) according to 40 CFR 64.8 if more than one excursion from the indicator range specified in the CAM Plan (Attachment B) occurs within a semi-annual period. An excursion shall be defined as a monthly static pressure verification that is less than 70 percent of the value determined during initial capture efficiency testing. Semi-annual periods are as indicated by reporting requirements in Condition 171. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:

- a. Improved preventative maintenance practices;
- b. Process operation changes;
- c. Appropriate improvements to control methods;
- d. Other steps appropriate to correct control performance; and
- e. More frequent or improved monitoring.

(9 VAC 5-80-110 and 40 CFR 64.8(a) and (b))

34. **Limitation** – The permittee shall not cause or permit the discharge into the atmosphere from a paint line (PL3 or PL4) any VOC in excess of 3.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator. This standard may be achieved as indicated in Conditions 22 and 24.
(9 VAC 5-80-110 and 9 VAC 5-40-4480A and B)
35. **Limitation** – Determination of compliance with the emission standard in Condition 34 not based on compliant coatings (i.e., coating formulation alone) shall be based on 7.9 lbs VOC per gallon coating solids in coating as used (instead of 3.8 pounds per gallon of coating excluding water), according to 9 VAC 5-20-121 and AQP-2 (Procedures for Determining Compliance with Volatile Organic Compound Emission Standards Covering Surface Coating Operations, July 1, 1991). Compliance may also be based on transfer efficiency greater than the DEQ-accepted baseline transfer efficiency if demonstrated by methods acceptable to DEQ according to the applicable procedure in 9 VAC 5-20-121.
(9 VAC 5-80-110 and 9 VAC 5-40-4540 C)
36. **Limitation** – The emission standards in Conditions 34 and 35 apply coating by coating or to the volume weighted average of coatings where the coatings are used on a single paint line and the coatings are the same type or perform the same function. Such averaging shall not exceed 24 hours.
(9 VAC 5-80-110 and 9 VAC 5-40-4540 B)
37. **Limitation** – The permittee shall not operate a paint line (PL3 or PL4) unless reasonable precautions are taken to minimize the discharge of emissions from cleaning and purging operations. Reasonable precautions may include the following:
 - a. The use of capture or control devices or both;
 - b. The use of detergents, high pressure water, or other nonvolatile cleaning methods;
 - c. The minimization of the quantity of volatile organic compounds (VOCs) used to clean lines of equipment; and

- d. The adjustment of production schedules to minimize coating changes thereby reducing the need for frequent cleaning or purging of a paint line.

(9 VAC 5-80-110 and 9 VAC 5-40-4480 C)

38. **Monitoring** – Each RTO shall be equipped with devices to continuously measure and record oxidizer chamber temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures that shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the RTO is operating.
(9 VAC 5-80-110, Condition 12 of 4/21/05 Permit as amended 3/28/06, 12/30/08 and 12/6/11)
39. **Monitoring** – Annual VOC emissions shall be calculated by mass balance as specified by the formula below:

$$V_{EM} = (V_{TPUT} - V_{REC} - V_{RET}) \times (1 - OCE)$$

Where:

- V_{EM} = annual emissions of VOCs in tons.
 V_{TPUT} = annual throughput of VOCs in tons.
 V_{REC} = annual amount of VOCs recovered or disposed of off-site in tons, calculated as off-site disposal * wastestream solvent percentage.
 V_{RET} = annual amount of VOCs retained in the products in tons, calculated as product weight * solvent retention percentage.
OCE = overall control efficiency (the product of capture efficiency and control device destruction efficiency), expressed as a mass fraction

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. The control device capture and destruction efficiencies used in the equation shall be the efficiencies demonstrated in the most recent performance tests conducted according to 40 CFR 51, Appendix M, Method 204 (capture efficiency) or 40 CFR 60, Appendix A, Method 25 or 25A (destruction efficiency). The capture efficiency value used in calculating emissions for paint lines meeting the criteria for permanent total enclosure (Condition 25) shall be 100 percent.

(9 VAC 5-80-110 and Condition 14 of 4/21/05 Permit as amended 3/28/06, 12/30/08 and 12/6/11)

40. **Monitoring** – Except as indicated in Condition 41, for the purpose of calculating emissions, the VOC content of each coating as supplied shall be based on formulation data as shown on its Material Safety Data Sheet (MSDS). If VOC content is given as a range, the maximum value shall be used.
(9 VAC 5-80-110)

41. **Monitoring** – If the monthly calculation (as required by Condition 39) indicates that annual VOC emissions are equal to or greater than 75 percent of the allowable limits in Condition 30, the VOC content of each coating as supplied shall be determined quarterly using Reference Method 24 (40 CFR 60, Appendix A) and such content shall be used for the purpose of calculating emissions. If a MSDS indicates a material contains 100 percent VOC, it shall be acceptable to use this value and the material density from the MSDS for emissions calculations in lieu of testing. Testing shall be conducted, by the permittee or the supplier, for each product formulation received after such emissions level is determined. Each coating shipment received shall be clearly identified by a product formulation number that may be correlated to Method 24 test results. The most recent test results for each formulation shall be used in emission calculations. Quarterly testing may be discontinued after actual annual emissions are below 75 percent of the allowable limit in Condition 30 for three consecutive months. If quarterly testing is discontinued, the VOC content determined in the latest test for each formulation shall be used in lieu of the MSDS value in emission calculations.
(9 VAC 5-80-110)
42. **Monitoring – CAM** – For Paint Line 3 (PL3), Paint Line 4 (PL4) and the Paint Kitchen (PK), the permittee shall conduct monitoring as specified in the respective CAM Plans (Attachments A and B).
(9 VAC 5-80-110 and 40 CFR 64.6(c))
43. **Monitoring – CAM** – The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E and 40 CFR 64.6 (c))
44. **Monitoring – CAM** – At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E and 40 CFR 64.7 (b))
45. **Monitoring – CAM** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that a paint line (PL3 or PL4) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of CAM, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7 (c))

46. **Monitoring – CAM** – Upon detecting an excursion or exceedance, the permittee shall restore operation of a paint line (PL3 or PL4) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7 (d)(1))
47. **Monitoring – CAM** – Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))
48. **Monitoring – CAM** – If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the DEQ and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E and 40 CFR 64.7(e))
49. **Monitoring** – To convert a coating formulation from pounds of VOC per gallon of coating less water and exempt solvents (lb VOC/GCLW) to pounds of VOC per gallon of coating solids (lb VOC/GCS), the density of the coating solvent (not the density of the coating) shall be determined using the appropriate reference method. For multiple VOCs, a volume-weighted average density shall be used according to the procedures specified in the EPA document “Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings”, EPA-450/3-84-019, December 1984. To calculate a coating formulation in terms of lb VOC/GCS, the following formula shall be used:

$$F_{cs} = \frac{F_{clw}}{1 - F_{clw}/Dc}$$

Where:

- F_{cs} = VOC content of the coating in lb VOC/GCS
- F_{clw} = VOC content of the coating in lb VOC/GCLW
- Dc = density of VOC used (lb VOC/gallon VOC) (note: use a volume-weighted average for multiple VOCs)

The derived value for F_{cs} shall be used in the formula in Condition 50 to determine compliance with the standard in Condition 35.
(9 VAC 5-80-110, 9 VAC 5-40-4540 B, and AQP-2)

50. **Monitoring** – For the purpose of determining compliance with the standard given in Condition 35, the overall control efficiency required for each paint line (PL3 or PL4) to comply with the standard shall be determined by the following formula:

$$OE_{req} = \frac{F_{cs} - 7.9}{F_{cs}}$$

Where:

- F_{cs} = VOC content of coating in lbs VOC/gal coating solids, as defined in Condition 49
- OE_{req} = overall control efficiency required (mass fraction)

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

51. **Monitoring** – For the purpose of determining compliance with the standard given in Condition 35, the overall control efficiency of the add-on control system for each paint line (PL3 – PL4) shall be determined by the following formula:

$$OE = CE \times DRE$$

Where:

- OE = overall control efficiency (mass fraction)
- CE = collection efficiency of the capture device (lb VOC collected/lb VOC used)
- DRE = destruction or removal efficiency of the add-on control device

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

52. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. MSDS or VOC Data Sheet showing VOC content (pounds/gallon) of each coating used;
- b. Reference Method 24 test results, if applicable;
- c. Monthly and annual use (in gallons) of each coating for Paint Lines 3 and 4 (PL3 and PL4). Annual use shall be calculated monthly as the sum of each consecutive 12-month period;
- d. Monthly and annual use (in gallons) of each coating for the Paint Laboratory (PLAB). Annual use shall be calculated monthly as the sum of each consecutive 12-month period;
- e. Monthly and annual VOC (in tons) retained in the recovered coatings and product(s) for Paint Lines 3 and 4 (PL3 and PL4). Annual mass of compounds retained shall be calculated monthly as the sum of each consecutive 12-month period;
- f. Monthly and annual VOC emissions (in tons) from Paint Lines 3 and 4 (PL3 and PL4) and the Paint Kitchen (PK) (as a sum) and from the Paint Laboratory (PLAB). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period;
- g. Monthly and annual hours of operation for Paint Line 4 (PL4). Annual operating hours shall be calculated monthly as the sum of each consecutive 12-month period;
- h. Monthly records of any three-hour period (during actual painting or laminating operations and when the paint kitchen is operating and exhausted to the RTO) during which the average combustion zone temperature of the RTO serving Paint Line 3 (PL3) and Laminator 3 (LAM3) is below the combustion zone temperature determined during the most recent performance test in which 95.0 percent VOC control efficiency was achieved and the total hours of RTO operation;
- i. Monthly records of any three-hour period (during actual painting operations and when the paint kitchen is operating and exhausted to the RTO) during which the average combustion zone temperature of the RTO serving Paint Line 4 (PL4) is below the combustion zone temperature determined during the most recent performance test in which 98.6 percent VOC control efficiency was achieved and the total hours of RTO operation
- j. Documentation of monitoring required by each CAM Plan (Attachments A and B), to include:
 - (1) Average combustion zone temperature (during actual painting operations and when the paint kitchen is operating and exhausted to the RTO) for each RTO, calculated hourly as an average of the temperatures during the previous three hours, including data used to derive the temperature as required in Condition 38;
 - (2) For RTO1, log of daily programmable logic controller (PLC) checks for static pressure sensor (for Paint Line 3 (PL3)) and fan motor operation (for Paint Line 3

(PL3) and the Paint Kitchen (PK)) and log of verifications taken once per 30-day period at each pressure sensor for Paint Line 3 (PL3);

- (3) For each RTO and for capture systems associated with RTO1, number of excursions in each semi-annual period;
 - (4) For each RTO and for capture systems associated with RTO1, corrective actions taken in response to excursions;
 - (5) For each RTO, results of annual check of thermocouple accuracy, if applicable;
 - (6) For the capture systems associated with RTO1, results of monthly pressure sensor verification;
 - (7) For RTO2, results of semi-annual inspections of valves on air lines to each RTO bed;
 - (8) For RTO2, records of repairs or replacements undertaken as a result of semi-annual valve inspections;
 - (9) For each RTO, results of performance testing conducted according to the CAM Plan;
 - (10) For each RTO, if applicable, any written QIP required by Condition 32 and 40 CFR 64.8 and any activities undertaken to implement a QIP;
- k. Results of performance tests and enclosure tests;
- l. Acquisition system printouts showing the combustion zone temperature of each RTO; and
- m. Calculations showing the required overall control efficiency needed to achieve the emission standard in Condition 35, as specified in Condition 50 (and calculation of underlying variables), and showing the overall control efficiency actually achieved for each paint line (PL3 and PL4), as specified in Condition 51.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 26 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

53. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-80-110 and Condition 13 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)
54. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)
55. **Reporting** – The permittee shall submit a semi-annual report as specified in Condition 56 to the DEQ, in accordance with the following schedule:

Time Period Covered by Report	Report Due Date
January 1 – June 30	September 1
July 1 – December 31	March 1

The reports shall be submitted with the semi-annual report required by Condition 171.
(9 VAC 5-80-110 and Condition 27 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

56. **Reporting** – Each semi-annual report shall document the following:
- a. For the RTO serving Paint Line 3 (PL3), any three-hour period (during actual painting operations and when the paint kitchen is operating and exhausted to the RTO) during which the average combustion zone temperature is below the combustion zone temperature determined during the most recent performance test in which 95.0 percent control efficiency was achieved and the total hours of RTO operation;
 - b. For the RTO serving Paint Line 4 (PL4), any three-hour period (during actual painting operations and when the paint kitchen is operating and exhausted to the RTO) during which the average combustion zone temperature is below the combustion zone temperature determined during the most recent performance test in which 98.6 percent control efficiency was achieved and the total hours of RTO operation.

The submission of semi-annual reports may be discontinued at any time upon written notification from the DEQ.
(9 VAC 5-80-110 and Condition 27 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

57. **Reporting** – In addition to the reports required by Condition 171, written reports containing the following information pertaining to each CAM Plan (Attachments A and B) shall be submitted to the DEQ, no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
- a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions and the corrective actions taken;
 - b. Summary information on the number, duration, and cause (including unknown cause, if applicable) of monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks);
 - c. A description of actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the plan has been completed and reduced the likelihood of similar levels of excursions.

The information listed above may be included in the reports required by Condition 171.
(9 VAC 5-80-110 and 40 CFR 64.9(a)(2))

Laminating Operations Requirements - (Emission Unit ID# LAM1, LAM3 & LAM4)

Monitoring, recordkeeping, and reporting requirements for the RTO that controls emissions from Laminator 3 (LAM3) are included with the Painting Operations Requirements and in the attached CAM Plan (Attachment B). RTO1 controls emissions from Paint Line 3 (PL3) and Laminator 3 (LAM3).

58. **Limitations** – The throughput of VOC to Laminator 1 (LAM1) shall not exceed 9.8 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 20 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

59. **Limitations** – VOC emissions from Laminator 1 (LAM1) shall be controlled by use of waterborne coatings only, as defined in EPA Method 24 (40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 2 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

60. **Limitations** – VOC emissions from Laminator 3 (LAM3) shall be controlled by a 95 percent efficient capture system and an RTO. The RTO shall be provided with adequate access for inspection and shall be in operation when Laminator 3 (LAM3) is operating.
(9 VAC 5-80-110 and Condition 3 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

61. **Limitations** – VOC emissions shall not exceed the limits specified below:

Laminator 1 (LAM1)	9.8 tpy
Laminator 3 (LAM3)	100 tpy
Laminator 4 (LAM4)	100 tpy

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance shall be demonstrated by mass balance as specified in Condition 68 and 70. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 22 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

62. **Limitations** – Visible emissions from Laminators 1 and 4 (LAM1 and LAM4) shall not exceed 20 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-50-80 and 9 VAC 5-80-110)
63. **Limitations** – The permittee shall develop a Quality Improvement Plan (QIP) for Laminator 3 (LAM3) according to 40 CFR 64.8 if more than one excursion from the indicator range specified in the CAM Plan (Attachment B) occurs within a semi-annual period. An excursion shall be defined as a monthly static pressure verification that is less than 70 percent of the value determined during initial capture efficiency testing. Semi-annual periods are as indicated by reporting requirements in Condition 171.
(9 VAC 5-80-110 and 40 CFR 64.8)
64. **Limitations** – The permittee shall not cause or permit the discharge into the atmosphere from a laminator (LAM1, LAM3 and LAM4) any VOC in excess of 3.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator. This standard may be achieved by use of the following methods:
- a. Use of waterborne coatings;
 - b. Use of high-solids coatings;
 - c. Carbon adsorption;
 - d. Incineration; or
 - e. Any technology of equal or greater control efficiency when compared to the use of a coating having 3.8 pounds or less VOC per gallon of coating, excluding water, provided such technology is approved by the DEQ.
- (9 VAC 5-80-110, 9 VAC 5-40-4480A and B and 9 VAC 5-40-4490)
65. **Limitations** – Determination of compliance with the emission standard in Condition 64 not based on compliant coatings (i.e., coating formulation alone) shall be based on 7.9 lbs VOC per gallon coating solids in coating as used (instead of 3.8 pounds per gallon of coating excluding water), according to 9 VAC 5-20-121 and AQP-2 (Procedures for Determining Compliance with Volatile Organic Compound Emission Standards Covering Surface Coating Operations (July 1, 1991)). Compliance may also be based on transfer efficiency greater than the DEQ-accepted baseline transfer efficiency if demonstrated by methods acceptable to DEQ according to the applicable procedure in 9 VAC 5-20-121.
(9 VAC 5-80-110 and 9 VAC 5-40-4540 C)

66. **Limitations** – The emission standards in Conditions 64 and 65 apply coating by coating or to the volume weighted average of coatings where the coatings are used on a single laminator and the coatings are the same type or perform the same function. Such averaging shall not exceed 24 hours.

(9 VAC 5-80-110 and 9 VAC 5-40-4540 B)

67. **Limitations** – The permittee shall not operate a laminator (LAM1, LAM3 and LAM4) unless reasonable precautions are taken to minimize the discharge of emissions from cleaning and purging operations. Reasonable precautions may include the following:

- a. The use of capture or control devices or both;
- b. The use of detergents, high pressure water, or other nonvolatile cleaning methods;
- c. The minimization of the quantity of VOCs used to clean lines of equipment; and
- d. The adjustment of production schedules to minimize coating changes thereby reducing the need for frequent cleaning or purging of a laminator.

(9 VAC 5-80-110 and 9 VAC 5-40-4480 C)

68. **Monitoring** – Annual VOC emissions from Laminator 3 (LAM3) shall be calculated by mass balance as specified by the formula below:

$$V_{EM} = (V_{TPUT} - V_{REC} - V_{RET}) \times (1 - OCE)$$

Where:

V_{EM} = Annual emissions of VOCs in tons.

V_{TPUT} = Annual throughput of VOCs in tons.

V_{REC} = Annual amount of VOCs recovered or disposed of off-site in tons, calculated as off-site disposal * wastestream solvent percentage.

V_{RET} = Annual amount of VOCs retained in the products in tons, calculated as product weight * solvent retention percentage.

OCE = overall control efficiency (the product of capture efficiency and control device destruction efficiency), expressed as a mass fraction

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. The control device capture and destruction efficiencies used in the equation shall be the efficiencies demonstrated in the most recent performance tests conducted according to 40 CFR 51, Appendix M, Method 204 (capture efficiency) or 40 CFR 60, Appendix A, Method 25 or 25A (destruction efficiency).

(9 VAC 5-80-110 and Condition 14 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

69. **Monitoring** – Annual VOC emissions from Laminator 1 (LAM1) and Laminator 4 (LAM4) shall be calculated by mass balance as specified by the formula below:

$$V_{EM} = V_{TPUT} - V_{REC} - V_{RET}$$

Where:

- V_{EM} = Annual emissions of VOCs in tons.
 V_{TPUT} = Annual throughput of VOCs in tons.
 V_{REC} = Annual amount of VOCs recovered or disposed of off-site in tons, calculated as off-site disposal * wastestream solvent percentage.
 V_{RET} = Annual amount of VOCs retained in the products in tons, calculated as product weight * solvent retention percentage.

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 14 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

70. **Monitoring** – Except as indicated in Condition 71, for the purpose of calculating emissions, the VOC content of each adhesive or coating as supplied shall be based on formulation data as shown on its MSDS. If VOC content is given as a range, the maximum value shall be used.
(9 VAC 5-80-110)

71. **Monitoring** – If the monthly calculation (as required by Conditions 68 and 69) indicates that annual VOC emissions are equal to or greater than 50 percent of the allowable limits in Condition 61, the VOC content of each adhesive or coating as supplied shall be determined quarterly using Reference Method 24 (40 CFR 60, Appendix A) and such content shall be used for the purpose of calculating emissions. If a MSDS indicates a material contains 100 percent VOC, it shall be acceptable to use this value and the material density from the MSDS for emissions calculations in lieu of testing. Testing shall be conducted, by the permittee or the supplier, for each product formulation received after such emissions level is determined. Each adhesive or coating shipment received shall be clearly identified by a product formulation number that may be correlated to Method 24 test results. The most recent test results for each formulation shall be used in emission calculations. Quarterly testing may be discontinued after actual annual emissions are below 50 percent of the allowable limit in Condition 61 for three consecutive months. If quarterly testing is discontinued, the VOC content determined in the latest test for each formulation shall be used in lieu of the MSDS value in emission calculations.
(9 VAC 5-80-110)

72. **Monitoring** – For Laminator 3 (LAM3), the permittee shall conduct monitoring as specified in the CAM Plan (Attachment B).
(9 VAC 5-80-110 and 40 CFR 64.6(c))

73. **Monitoring** – If a laminator uses compliant coatings, the standard in Condition 64 shall be used to determine compliance. In this case, the applicable standard applies coating by coating or to the volume-weighted average of coatings where the coatings are used on a single laminator and the coatings are of the same type or perform the same function. In cases where use of compliant coatings is the only control technique used, 7.9 pounds VOC per gallon of coating solids (lbs VOC/GCS) may be used at the permittee's option. The VOC content of the coating, and the amount and density of any solvents added, shall be used to determine compliance. The VOC content of the coating as applied shall be determined according to the procedures in EPA Reference Method 24 (40 CFR 60, Appendix A) for inks and coatings (using the one-hour bake time) according to the EPA document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings," EPA-450/3-84-019, December 1984. Compounds exempted from the definition of VOCs shall be treated as water.
(9 VAC 5-80-110, 9 VAC 5-40-4540 B, and AQP-2)
74. **Monitoring** – To convert a coating formulation from pounds of VOC per gallon of coating less water and exempt solvents (lb VOC/GCLW) to pounds of VOC per gallon of coating solids (lb VOC/GCS), the density of the coating solvent (not the density of the coating) shall be determined using the appropriate reference method. For multiple VOCs, a volume-weighted average density shall be used according to the procedures specified in the EPA document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings", EPA-450/3-84-019, December 1984. To calculate a coating formulation in terms of lb VOC/GCS, the following formula shall be used:

$$F_{cs} = \frac{F_{clw}}{1 - F_{clw}/Dc}$$

Where:

- F_{cs} = VOC content of the coating in lb VOC/GCS
 F_{clw} = VOC content of the coating in lb VOC/GCLW
 Dc = density of VOC used (lb VOC/gallon VOC) (note: use a volume-weighted average for multiple VOCs)

The derived value for F_{cs} shall be used in the formula in Condition 76 to determine compliance with the standard in Condition 65 for each laminator served by an add-on control system.

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

75. **Monitoring** – For the purpose of determining compliance with the standard given in Condition 65, the overall control efficiency, as applicable, required for each laminator to comply with the standard shall be determined by the following formula:

$$OE_{req} = \frac{F_{cs} - 7.9}{F_{cs}}$$

Where:

F_{cs} = VOC content of coating in lbs VOC/gal coating solids, as defined in Condition 74

OE_{req} = Overall control efficiency required (mass fraction)

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

76. **Monitoring** – For the purpose of determining compliance with the standard given in Condition 65, the overall control efficiency of the add-on control system for each laminator (LAM1, LAM3 and LAM4), as applicable, shall be determined by the following formula:

$$OE = CE \times DRE$$

Where:

OE = Overall control efficiency (mass fraction)

CE = Collection efficiency of the capture device (lb VOC collected/lb VOC used)

DRE = Destruction or removal efficiency of the add-on control device

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

77. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. MSDS or VOC Data Sheet showing VOC content (pounds/gallon) of each adhesive, coating and solvent used;
- b. Results of Reference Method 24 tests, if applicable;
- c. Monthly and annual use (in gallons) of each adhesive and coating for Laminators 1, 3 and 4 (LAM1, LAM3 and LAM4). Annual use shall be calculated monthly as the sum of each consecutive 12-month period;
- d. Monthly and annual VOC (in tons) retained in hazardous waste and laminator product(s) for Laminators 1, 3 and 4 (LAM1, LAM3 and LAM4). Annual amounts shall be calculated monthly as the sum of each consecutive 12-month period;

- e. Monthly and annual throughput (in tons) of VOC to Laminator 1 (LAM1). Annual throughput shall be calculated as the sum of each consecutive 12-month period;
- f. Monthly and annual VOC emissions (in tons) from each Laminator 1, 3 and 4 (LAM1, LAM3 and LAM4). Annual emissions shall be calculated as the sum of each consecutive 12-month period;
- g. Test results verifying the 95 percent capture efficiency required for Laminator 3 (LAM3) by Condition 60;
- h. Calculations of the volume-weighted average of coatings used, if applicable, according to Condition 73;
- i. Calculations showing the required overall control efficiency needed for Laminator 3 (LAM3) to achieve the emission standard in Condition 65, as specified in Condition 75 (and calculation of underlying variables), and calculations showing the overall control efficiency actually achieved for Laminator 3 (LAM3) as specified in Condition 76;
- j. Documentation of monitoring required by the CAM Plan for Laminator 3 (LAM3) (Attachment B), to include:
 - (1) Average combustion zone temperature (during actual laminating operations) for RTO1, calculated hourly as an average of the temperatures during the previous three hours, including data used to derive the temperature as required in Condition 38;
 - (2) Log of daily PLC checks of static pressure sensors and fan motor operation and log of verifications made once per 30-day period at each pressure sensor for Laminator 3 (LAM3);
 - (3) For RTO1 and for the capture system associated with Laminator 3 (LAM3), number of excursions in each semi-annual period;
 - (4) For RTO1 and for the capture system associated with Laminator 3 (LAM3), corrective actions taken in response to excursions;
 - (5) Results of annual check of thermocouple accuracy, if applicable;
 - (6) For the capture systems associated with Laminator 3, results of monthly pressure sensor verification;
 - (7) Results of performance testing conducted according to the CAM Plan; and
 - (8) If applicable, any written QIP required by Condition 63 and 40 CFR 64.8 and any activities undertaken to implement a QIP.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 26 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

78. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.

(9 VAC 5-80-110 and Condition 13 of 4/21/05 Permit as amended 3/28/06, 12/30/08, and 12/6/11)

79. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

80. **Reporting** – In addition to the reports required by Condition 171, written reports containing the following information pertaining to the CAM Plan (Attachment B) shall be submitted to the DEQ, no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions and the corrective actions taken;
- b. Summary information on the number, duration, and cause (including unknown cause, if applicable) of monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks);
- c. A description of actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the plan has been completed and reduced the likelihood of similar levels of excursions.

The information listed above may be included in the reports required by Condition 171.

(9 VAC 5-80-110 and 40 CFR 64.9(a)(2))

Product Rotogravure Printing Requirements - (Emission unit ID# LEMB)

The following terms and conditions include requirements of 40 CFR Part 63 Subpart KK for product and packaging rotogravure facilities, which is applicable to the Lembo printer (LEMB). All terms used in conditions derived from 40 CFR 63 Subpart KK shall have the meanings as defined in 40 CFR 63.2 and 40 CFR 63.822. Please note that, as used in this permit section, "process equipment" means Lembo printer.

81. **Limitations** – Except as specified in this permit, the facility is to be operated in accordance with federal requirements in 40 CFR 63 Subpart KK and relevant terms of 40 CFR 63 Subpart A, as identified in Table 1 of Subpart KK.
(9 VAC 5-80-110)
82. **Limitations** – Visible emissions from the Lembo printer (LEMB) shall not exceed 20 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-40-80 and 9 VAC 5-80-110)
83. **Limitations** – Hazardous air pollutant (HAP) emissions from the Lembo printer (LEMB) shall be limited to no more than four percent of the mass of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month.
(9 VAC 5-80-110 and 40 CFR 63.825(b))
84. **Limitations** – 40 CFR 63 Subpart KK contains various options for compliance with the standards for product rotogravure printing which are enumerated in 40 CFR 63.825(b). If in the future the permittee chooses a different compliance option from that codified herein, a permit modification may be required.
(9 VAC 5-80-110)
85. **Limitations** – The permittee shall not cause or permit the discharge into the atmosphere from the Lembo printer (LEMB) any VOC in excess of 3.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator. This standard may be achieved by use of the following methods:
 - a. Use of waterborne coatings;
 - b. Use of high-solids coatings;
 - c. Carbon adsorption;
 - d. Incineration; or

- e. Any technology of equal or greater control efficiency when compared to the use of a coating having 3.8 pounds or less VOC per gallon of coating, excluding water, provided such technology is approved by the DEQ.

(9 VAC 5-80-110, 9 VAC 5-40-4480A and B and 9 VAC 5-40-4490)

- 86. **Limitations** – The emission standard in Conditions 85 applies coating by coating or to the volume weighted average of coatings where the coatings are the same type or perform the same function. Such averaging shall not exceed 24 hours.

(9 VAC 5-80-110 and 9 VAC 5-40-4540 B)

- 87. **Limitations** – The permittee shall not operate the Lembo printer (LEMB) unless reasonable precautions are taken to minimize the discharge of emissions from cleaning and purging operations. Reasonable precautions may include the following:

- a. The use of capture or control devices or both;
- b. The use of detergents, high pressure water, or other nonvolatile cleaning methods;
- c. The minimization of the quantity of VOCs used to clean lines of equipment, and
- d. The adjustment of production schedules to minimize coating changes thereby reducing the need for frequent cleaning or purging of the Lembo printer (LEMB).

(9 VAC 5-80-110 and 9 VAC 5-40-4480 C)

- 88. **Monitoring** – To demonstrate compliance with the limit in Condition 83, the organic HAP weight fraction of each ink, coating, varnish, adhesive, primer, solvent, thinner, reducer, diluent, and other material applied shall be determined by one of the following procedures:

- a. EPA Reference Method 311: The permittee may test the material in accordance with Method 311 (40 CFR 63 Appendix A). The Method 311 determination may be performed by the manufacturer of the material and the results provided to the permittee. If these values cannot be determined using Method 311, the permittee shall submit to the U. S. Environmental Protection Agency (EPA) for approval an alternative technique for determining their values as specified in 40 CFR 63.827(b)(2).
- b. VOC content: The permittee may determine the volatile matter content of the material in accordance with 40 CFR 63.827(c)(2) and use this value for the organic HAP content.
- c. Certified Product Data Sheet (CPDS) formulation data: The permittee may rely on formulation data provided by the manufacturer of the material on CPDS if:
 - (1) The manufacturer has included in the organic HAP content determination all organic HAP present at a level greater than 0.1 percent in any raw material used, weighted by the mass fraction of each raw material used in the material, and

- (2) The manufacturer has determined the organic HAP content of each raw material present in the formulation by Method 311 (40 CFR 63 Appendix A) or by an alternate method approved by EPA or by reliance on a CPDS from a raw material supplier prepared in accordance with Condition 88.a.

(9 VAC 5-80-110 and 40 CFR 63.827(b)(2))

89. **Monitoring** – In the event of an inconsistency between the Method 311 (40 CFR 63 Appendix A) test data and a facility's formulation data, the Method 311 test data shall govern, unless after consultation, the permittee demonstrates to the satisfaction of DEQ that the formulation data are correct.

(9 VAC 5-80-110 and 40 CFR 63.827(b)(2)(iv))

90. **Monitoring** – Compliance with Condition 83 shall be demonstrated by showing that the monthly average as-applied organic HAP content of all materials applied is less than 0.04 kg HAP per kg material applied, as determined by the following equation:

$$H_L = \frac{\sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_j}$$

Where:

H_L = the monthly average as-applied organic HAP content of all solids-containing materials applied at less than 0.04 kg organic HAP per kg of material applied, in kg/kg

M_i = the mass of ink or other material, i, applied in a month, in kg

C_{hi} = the organic HAP content of ink or other solids-containing material, i, expressed as a weight-fraction, in kg/kg

C_{hj} = the organic HAP content of solvent, j, expressed as a weight-fraction, in kg/kg

M_j = the mass of solvent, thinner, reducer, diluent, or other non-solids containing material, j, applied in a month

(9 VAC 5-80-110 and 40 CFR 63.825(b)(4))

91. **Monitoring** – The amount of organic HAP applied shall be determined using the following equation:

$$H = \sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}$$

Where:

- H = the total monthly organic HAP applied, in kg
M_i = the mass of ink or other material, i, applied in a month, in kg
C_{hi} = the organic HAP content of ink or other solids-containing material, i, expressed as a weight-fraction, in kg/kg
C_{hj} = the organic HAP content of solvent, j, expressed as a weight-fraction, in kg/kg
M_j = the mass of solvent, thinner, reducer, diluent, or other non-solids containing material, j, applied in a month

The organic HAP emitted from the Lembo printer (LEMB) is equal to the organic HAP applied on the printer.

(9 VAC 5-80-110 and 40 CFR 63.825(f)(5))

92. **Monitoring** – If compliant coatings are used on the Lembo printer (LEMB), the standard in Condition 85 shall be used to determine compliance. In this case, the applicable standard applies coating by coating or to the volume-weighted average of coatings where the coatings are of the same type or perform the same function. In cases where use of compliant coatings is the only control technique used, 7.9 pounds VOC per gallon of coating solids (lbs VOC/GCS) may be used at the permittee's option. The VOC content of the coating, and the amount and density of any solvents added, shall be used to determine compliance. The VOC content of the coating as applied shall be determined according to the procedures in EPA Reference Method 24 (40 CFR 60, Appendix A) for inks and coatings (using the one-hour bake time) or EPA Reference Method 24A (40 CFR 60, Appendix A) for solvent-borne printing inks and related coatings according to the EPA document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings," EPA-450/3-84-019, December 1984. Compounds exempted from the definition of VOCs shall be treated as water.

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

93. **Monitoring** – To convert a coating formulation from pounds of VOC per gallon of coating less water and exempt solvents (lb VOC/GCLW) to pounds of VOC per gallon of coating solids (lb VOC/GCS), the density of the coating solvent (not the density of the coating) shall be determined using the appropriate reference method. For multiple VOCs, a volume-weighted average density shall be used according to the procedures specified in the EPA document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings", EPA-450/3-84-019, December 1984. To calculate a coating formulation in terms of lb VOC/GCS, the following formula shall be used:

$$F_{cs} = \frac{F_{clw}}{1 - F_{clw}/Dc}$$

Where:

F_{cs} = VOC content of the coating in lb VOC/GCS

F_{clw} = VOC content of the coating in lb VOC/GCLW

Dc = Density of VOC used (lb VOC/gallon VOC) (note: use a volume-weighted average for multiple VOCs)

The derived value for F_{cs} shall be used to determine compliance with the alternative standard in Condition 92, if the permittee chooses to comply with the alternative standard in lieu of the standard in Condition 85 (according to Condition 92).

(9 VAC 5-80-110, 9 VAC 5-40-4540 B and AQP-2)

94. **Monitoring** – The permittee shall perform weekly inspections of the Lembo printer (LEMB) stacks to determine the presence of visible emissions. If during the inspection, or at any other time, visible emissions are observed, an EPA Method 9 (40 CFR 60, Appendix A) visible emission evaluation (VEE) shall be conducted by a certified observer. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the standard, the observation period shall continue until sixty minutes of observation have been completed. If the sixty-minute VEE indicates a violation of the standard, corrective action shall be taken.
(9 VAC 5-80-110)
95. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- Annual throughput of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, and other material used in the Lembo printer (LEMB), calculated monthly as the sum of each consecutive 12-month period;
 - HAP content of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, and other material used in the Lembo printer (LEMB), as determined according to Condition 88;
 - HAP emissions from the Lembo printer (LEMB), calculated monthly as the sum of each consecutive 12-month period. Emissions shall be calculated in accordance with Condition 91;
 - Monthly average as-applied organic HAP content of all materials applied at the Lembo printer (LEMB), calculated according to the equation in Condition 90;
 - Results from weekly inspections of the Lembo printer (LEMB) stacks, to include:

- (1) The date, time, and name of person performing each inspection;
 - (2) Whether or not visible emissions were observed;
 - (3) EPA Method 9 (40 CFR 60, Appendix A) observation record, if applicable;
 - (4) If an exceedance of the 20 percent opacity standard is determined by a sixty-minute EPA Method 9 (40 CFR 60, Appendix A) observation, a description of the corrective action taken.
- f. MSDS showing VOC content of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, and other material used in the Lembo printer (LEMB);
- g. Calculations of the volume-weighted average of coatings used, if applicable, according to Condition 86;
- h. Calculations showing the VOC content of coatings in lbs VOC per gallon coating solids, if applicable, according to Condition 93, if applicable.

Such records shall be maintained in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years may be retained off site. Such files may be maintained on microfilm, computer, computer floppy disks, magnetic tape disks, or microfiche.

(9 VAC 5-80-110, 40 CFR 63.829(b)(1), 40 CFR 63.6(e)(3) and 40 CFR 63.10(b)(2))

96. **Testing** – The facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110)
97. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)
98. **Reporting** – As required under 40 CFR 63.10(e)(3)(vii) and (e)(3)(viii), one summary report shall be submitted to the DEQ, semi-annually for the hazardous air pollutants (HAPs) monitored at the Lembo printer (LEMB). The summary report shall be entitled "Summary Report - Gaseous Excess Emissions" and shall contain the following information:
- a. The company name and address;
 - b. An identification of each HAP monitored at the Lembo printer (LEMB);

- c. The beginning and ending dates of the reporting period;
- d. A brief description of the process unit(s);
- e. The emission limitations specified in 40 CFR 63 Subpart KK;
- f. The total operating time of the Lembo printer (LEMB) during the reporting period;
- g. An emission data summary, including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during the reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- h. A description of any changes in the process since the last reporting period;
- i. Exceedances of the standards in 40 CFR 63.825;
- j. The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- k. The date of the report.

Once excess emissions are reported, the summary report shall be submitted quarterly. Quarterly reporting shall be continued until a request to reduce reporting frequency according to 40 CFR 63.10(e)(3)(ii) is approved by the DEQ. A copy of the request shall be sent to EPA at the following address:

U. S. EPA, Region III
Air Protection Division (3AP00)
ATTN: Printing and Publishing NESHAP Coordinator
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Semi-annual reports shall be submitted no later than March 1 and September 1 and may be combined with the report required by Condition 171. A copy of the report shall be sent to EPA at the above address.

(9 VAC 5-80-110, 40 CFR 63.830(b)(6)(i), 40 CFR 63.10(d)(5) and 40 CFR 63.10(e)(3)(vi))

Calendering Operations Requirements - (Emission Unit ID# CAL1 - CAL3, CAL2RIBBONS, CALMIX1a, 1b, 2a, 2b1, 2b2, 3a, 3b, and 3c)

99. **Limitations** – Visible emissions from Calenders 1 and 3 (CAL1 and CAL3) and associated mixing units (CALMIX1a,b and CALMIX3a,b, and c) shall not exceed 20 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-40-80 and 9 VAC 5-80-110)
100. **Limitations** – Visible emissions from the Calender 2 (CAL2) shall not exceed 20 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-80-110 and Condition 12 of 3/5/12 Permit)
101. **Limitations** – Visible emissions from each fabric filter serving the pre-blenders (CALMIX 2b1 and CALMIX 2b2) and Banbury mixer (CALMIX 2a) shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-80-110 and Condition 13 of 3/5/12 Permit)
102. **Limitations** – Visible emissions from the Calender 2 Ribbon Grinder (CAL2RIBBONS) baghouse shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and Condition 14 of 3/5/12 Permit)
103. **Limitations** – Particulate emissions from pre-blenders (CALMIX 2b1 and CAMIX 2b2) shall be controlled by fabric filters. Each fabric filter shall be provided with adequate access for inspection and shall be operating when Calmix 2b1 and 2b2 are operating.
(9 VAC 5-80-110 and Condition 2 of 3/5/12 Permit)
104. **Limitations** – Particulate emissions from the Banbury mixer (CALMIX 2a) shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating.
(9 VAC 5-80-110 and Condition 3 of 3/5/12 Permit)
105. **Limitations** – Particulate emissions from the Calender 2 Ribbon Grinder (CAL2RIBBONS) shall be controlled by a baghouse. The baghouse shall be provided with adequate access for inspection and shall be in operation when CAL2RIBBONS is operating.
(9 VAC 5-80-110 and Condition 4 of 3/5/12 Permit)

106. **Limitations** – Particulate emissions from the Calenders 1 and 3 (CAL1 and CAL3) and the associated calender mixing units (CALMIX1a,b and CALMIX3a,b, and c) shall not exceed the rate derived from the following equation:

$$E = 4.10P^{0.67}$$

Where:

E = emission rate in lbs/hr

P = process weight rate in tons/hr

(9 VAC 5-40-260 C and 9 VAC 5-80-110)

107. **Limitations** – Particulate emissions from the mixing units for Calenders 1 and 3 (CALMIX1a, b and CALMIX3a, b, and c) shall be controlled by a fabric filter. Each fabric filter shall be provided with adequate access for inspection.

(9 VAC 5-80-110)

108. **Limitations** – The throughput of raw materials processed by Calender 2 (CAL2) shall not exceed 24,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 7 of 3/5/12 Permit)

109. **Limitations** – Emissions from the operation of two pre-blenders (CALMIX 2b1 and CALMIX 2b2) shall not exceed the limits specified below:

PM	0.38	lbs/hr	1.3	tons/yr
PM-10	0.38	lbs/hr	1.3	tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 103 and 115.

(9 VAC 5-80-110 and Condition 8 of 3/5/12 Permit)

110. **Limitations** – Emissions from the operation of Banbury mixer (CALMIX 2a) shall not exceed the limits specified below:

PM	0.56	lbs/hr	1.9	tons/yr
PM-10	0.56	lbs/hr	1.9	tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 104 and 115.

(9 VAC 5-80-110 and Condition 9 of 3/5/12 Permit)

111. **Limitations** – Emissions from the operation of the Calender 2 Ribbon Grinder (CAL2RIBBONS) shall not exceed the limits specified below:

PM	0.37	lbs/hr	1.6	tons/yr
PM-10	0.37	lbs/hr	1.6	tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 105.

(9 VAC 5-80-110 and Condition 10 of 3/5/12 Permit)

112. **Limitations** – Emissions from the operation of Nippon Roll Calender (CAL2) shall not exceed the limits specified below:

PM	4.53	lbs/hr	15.5	tons/yr
PM-10	4.53	lbs/hr	15.5	tons/yr
VOC	8.38	lbs/hr	28.6	tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 108.

(9 VAC 5-80-110 and Condition 11 of 3/5/12 Permit)

113. **Limitations – Maintenance/Operating Procedures** - At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions from Calender 2 (CAL2), with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
- b. Maintain an inventory of spare parts;
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum;
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

(9 VAC 5-80-110 and Condition 23 of 3/5/12 Permit)

114. **Monitoring** – If in the future the calender mixing units (CALMIX 1a,b – CALMIX3a,b, and c) are vented to the atmosphere, the permittee shall thereafter perform weekly inspections of each calender mixing unit (CALMIX1a – CALMIX3c) stack to determine the presence of visible emissions. If during the inspection visible emissions are observed, an EPA Method 9 (40 CFR 60, Appendix A) visible emission evaluation (VEE) shall be conducted by a certified observer. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the standard, the observation period shall continue until sixty minutes of observation have been completed. If the sixty-minute VEE indicates a violation of the standard, timely corrective action shall be taken. All observations and corrective action shall be recorded.

(9 VAC 5-80-110 and Condition 18 of 3/5/12 Permit)

115. **Monitoring** – Each fabric filter serving the pre-blenders (CALMIX 2b1 and CALMIX 2b2) and Banbury mixer (CALMIX 2a) shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.

(9 VAC 5-80-110 and Condition 5 of 3/5/12 Permit)

116. **Monitoring** – The permittee shall perform weekly inspections of the calender (CAL1 – CAL3) stacks to determine the presence of visible emissions. If during the inspection visible emissions are observed, an EPA Method 9 (40 CFR 60, Appendix A) visible emission evaluation (VEE) shall be conducted by a certified observer. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the standard, the observation period shall continue until sixty minutes of observation have been completed. If the sixty-minute VEE indicates a violation of the standard, timely corrective action shall be taken. All observations and corrective action shall be recorded.

(9 VAC 5-80-110 and Condition 17 of 3/5/12 Permit)

117. **Monitoring** – The permittee shall perform periodic monitoring of the Calendar 2 Ribbon Grinder (CAL2RIBBONS) baghouse as follows:

- a. At a minimum of once per week during source operation, the permittee shall determine the presence of visible emissions from the CAL2 Ribbon Grinder baghouse. If during the inspection, visible emissions are observed, a visible emissions evaluation shall be conducted in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A). The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the applicable opacity limit of five percent, the observation period shall continue until sixty minutes of observations have been completed.
- b. If visible emissions inspections conducted during 12 consecutive weeks show no visible emissions from the baghouse stack, the permittee may reduce the visible emissions monitoring frequency to once per month. Anytime the monthly visible emission inspections show visible emissions, or when requested by the DEQ, the monitoring frequency shall be increased to once per week for that stack.
- c. If the permittee is required to conduct a VEE in accordance with EPA Method 9 more than once per calendar year, a pressure drop monitoring device shall be installed on the baghouse within thirty days of the VEE. The monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the baghouse is operating. To ensure good performance, the pressure drop gauge shall be observed by the permittee with a frequency of not less than once per day.

(9 VAC 5-80-110 and Condition 19 of 3/5/12 Permit)

118. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. Monthly and annual throughput of raw materials processed by each of the calendars (CAL1 – CAL3), in tons; annual throughput calculated monthly as the sum of each consecutive 12-month period;
- b. Annual hours of operation of the calendars (CAL1 – CAL3), calculated monthly as the sum of each consecutive 12-month period;
- c. Hourly, monthly, and annual emissions of PM, PM-10, and VOC from Calendar 2 (CAL2). Hourly emissions shall be calculated as a monthly average (monthly emissions divided by hours of Calendar 2 (CAL2) operation for the month). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period;

- d. Hourly, monthly, and annual emissions of PM and PM-10 from the Calender 2 pre-blenders (CALMIX 2b1 and CALMIX 2b2) and from the Calender 2 Banbury mixer (CALMIX 2a). Hourly emissions shall be calculated as a monthly average (monthly emissions divided by hours of Calender 2 (CAL2) operation for the month). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period;
- e. Hourly, monthly, and annual emissions of PM and PM-10 from the Calender 2 Ribbon Grinder (CAL2RIBBONS). Hourly emissions shall be calculated as a monthly average (monthly emissions divided by hours of Calender 2 Ribbon Grinder (CAL2RIBBONS) operation for the month). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period;
- f. Weekly visible emission stack inspection results of the calenders (CAL1 – CAL3) and Calender 2 Ribbon Grinder (CAL2RIBBONS) and, if applicable, calender mixing unit (CALMIX1a,b – CALMIX3a,b, and c) including:
 - (1) The date, time, and name of person performing each inspection;
 - (2) Whether or not there were visible emissions; and
 - (3) Results of EPA Method 9 (40 CFR 60, Appendix A) testing.
 - (4) Any maintenance or repairs performed as a result of the inspections required by Condition 116;
- g. Emission factors calculated for particulate and VOC emissions according to most recent DEQ-approved testing;
- h. Manufacturer's requirements or recommendations for proper installation, maintenance, calibration and operation for each fabric filter as required by Condition 115;
- i. Documentation of Calender 2 (CAL2) capture efficiency;
- j. Results of all stack tests and visible emission evaluations;
- k. Scheduled and unscheduled maintenance, and operator training, as required by Condition 113;
- l. Records of malfunctions, as required by Condition 122; and
- m. The date that the pressure drop monitoring device is installed on the Calender 2 Ribbon Grinder (CAL2RIBBONS) baghouse, if applicable, as required by Condition 117.c.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 15 of 3/5/12 Permit)

119. **Testing** – The facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110)
120. **Testing** – Calender 2 (CAL2) shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-80-110 and Condition 6 of 3/5/12 Permit)
121. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)
122. **Reporting** – The permittee shall furnish notification to the DEQ, of malfunctions of the Calender 2 (CAL2) or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of discovery of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of its discovery. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the DEQ, in writing.
(9 VAC 5-80-110 and Condition 25 of 3/5/12 Permit)

Materials Handling Operations Requirements - (Emission unit ID# RESCONV1 and RESCONV2)

123. **Limitations** – Visible emissions from the materials handling operations (RESCONV1 and RESCONV2) shall not exceed 20 percent opacity except during one six-minute period in any hour, during which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).
(9 VAC 5-40-80 and 9 VAC 5-80-110)

124. **Limitations** – Particulate emissions from each of the resin conveyors (RESCONV1 and RESCONV2) shall not exceed the rate derived from the following equation:

$$E = 4.10P^{0.67}$$

Where:

E = emission rate in lbs/hr

P = process weight rate in tons/hr

(9 VAC 5-40-260 C and 9 VAC 5-80-110)

125. **Limitations** – Particulate emissions from each resin conveyor (RESCONV1 and RESCONV2) shall be controlled by a fabric filter. Each fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-110)

126. **Monitoring** – The permittee shall perform weekly inspections of the resin conveyor (RESCONV1 and RESCONV2) stacks to determine the presence of visible emissions. If during the inspection, or at any other time, visible emissions are observed, an EPA Method 9 (40 CFR 60, Appendix A) visible emission evaluation (VEE) shall be conducted by a certified observer. If the sixty-minute VEE indicates a violation of the standard, corrective action shall be taken.
(9 VAC 5-80-110)

127. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. Annual throughput of resin to each resin conveyor (RESCONV1 and RESCONV2), calculated monthly as the sum of each consecutive 12-month period.
- b. Annual hours of operation of each resin conveyor (RESCONV1 and RESCONV2), calculated monthly as the sum of each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current or the most recent five years.
(9 VAC 5-80-110)

128. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110)

129. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Storage Tanks (Emission unit ID# TNK-P21 through TNK-P26 and TNK-TC21 through TNK-TC26)

Limitations – The following limitations do not apply to a tank if it is storing VOCs having a vapor pressure less than 1.5 pounds per square inch absolute under actual storage conditions or, in the case of filling, under actual filling conditions.

130. **Limitations** – Each storage tank (TNK-P21 through TNK-P26 and TNK-TC21 through TNK-TC26) shall be equipped with a control method that will remove, destroy, or prevent the discharge into the atmosphere of at least 60 percent by weight of VOC emissions during the filling of the tanks. This standard may be achieved as indicated in Condition 131. (9 VAC 5-80-110 and 9 VAC 5-40-3430 A)

131. **Limitations** – Each storage tank (TNK-P21 through TNK-P26 and TNK-TC21 through TNK-TC26) shall be designed and equipped to accommodate filling through the use of a submerged fill pipe. (9 VAC 5-80-110 and 9 VAC 5-40-3440 A.1)

132. **Monitoring and Recordkeeping** – The permittee shall maintain records necessary to demonstrate compliance with the permit. The content and format of the records shall be arranged with the DEQ. The records shall include but are not limited to:

- a. List showing the name of the VOC stored in each tank and its vapor pressure in pounds per square inch under absolute actual storage and filling conditions; and
- b. For each tank storing a VOC having a vapor pressure equal to or greater than 1.5 pounds per square inch absolute under actual storage or filling conditions, certification of submerged fill pipe.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years. (9 VAC 5-80-110)

Hazardous Air Pollutants from Paper and Other Web Coating (Emission unit ID# PL3, PL4, LAM1, LAM3, LAM4, and PEMB5)

The following requirements are derived from 40 CFR 63 Subpart JJJJ (National Emission Standards for Hazardous Air Pollutants from Paper and Other Web Coating). All terms used in conditions derived from 40 CFR 63 Subpart JJJJ shall have the meanings as defined in 40 CFR 63.2 and 40 CFR 63.3310. The affected source is the collection of all web coating lines at the facility: specifically, the paint lines, laminators, and post-embosser. Although a web coating line, the Lembo printer (LEMB) is not part of the affected source under Subpart JJJJ because it is subject to 40 CFR 63 Subpart KK.

133. **Limitations** – Organic HAP emissions shall be limited to no more than four percent of the mass of coating materials applied for each month.
(9 VAC 5-80-110 and 40 CFR 63.3320(b)(2))
134. **Limitations** – For any web coating line for which an add-on control device is used to meet the standard in Condition 133, the following operating limits shall be met:
- a. Thermal oxidizer: The average combustion temperature for the oxidizer in any three-hour period shall not fall below the combustion temperature limit established during the most recent performance test as required by 40 CFR 63.3321.
 - b. Emission capture system: The permittee shall submit a monitoring plan to the DEQ that identifies operating parameters to be monitored according to Condition 142.

After establishing the operating limits through performance testing and the monitoring plan, the operating limits shall be met at all times.
(9 VAC 5-80-110 and 40 CFR 63.3321(a))

135. **Limitations** – 40 CFR 63 Subpart JJJJ contains other options for compliance with the standards for paper and other web coating, which are enumerated in 40 CFR 63.3320. If in the future the permittee chooses a different compliance option from that approved herein, a permit modification may be required.
(9 VAC 5-80-110)

136. **Limitations** – In accordance with 40 CFR 63.6(e)(3), the permittee shall develop, implement, and maintain a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the affected source during periods of SSM. During periods of SSM, the permittee shall operate and maintain the affected source (including associated air pollution control equipment) in accordance with the procedures specified in the current SSM plan.
- a. When actions taken by the permittee during periods of SSM (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM plan, the

permittee shall keep records for that event which demonstrate that the procedures specified in the plan were followed and as described in 40 CFR 63.6(e)(3)(iii).

- b. If an action taken by the permittee during a SSM (including an action taken to correct a malfunction) is not consistent with the procedures specified in the SSM plan, and the permittee exceeds the emission standard in 40 CFR 63 Subpart JJJJ, the permittee shall record the actions taken for that event and shall report such actions within two working days after commencing actions not consistent with the plan, followed by a letter within seven working days after the end of the event, in accordance with 40 CFR 63.10(d)(5).

(9 VAC 5-80-110, 40 CFR 63.6(e)(3), and 40 CFR 63.10(d)(5))

137. **Monitoring** – The permittee shall demonstrate continuous compliance with the operating limit in Condition 134.a by the following procedures:

- a. Collecting the combustion temperature data according to Condition 141;
- b. Reducing the data to three-hour block averages; and
- c. Maintaining the three-hour average combustion temperature at or above the temperature limit.

(9 VAC 5-80-110 and 40 CFR 63.3321(a))

138. **Monitoring** – Following the date on which a performance test of a control device is completed to demonstrate continuing compliance with the standards in 40 CFR 63 Subpart JJJJ, the permittee shall operate a continuous parameter monitoring system (CPMS) and monitor a capture system operating parameter.

(9 VAC 5-80-110 and 40 CFR 63.3350(a) and (b))

139. **Monitoring** – The permittee shall demonstrate that any coating material applied on a never-controlled work station is allowed in the compliance demonstration according to Conditions 145 through 148.

(9 VAC 5-80-110 and 40 CFR 63.3350(c))

140. **Monitoring** – For each oxidizer used to comply with Condition 133, the permittee shall install, calibrate, maintain, and operate a temperature monitoring device equipped with a continuous recorder, according to the manufacturer's specifications and meeting the following requirements:

- a. The calibration of each RTO chart recorder, data logger, or temperature indicator shall be verified at minimum every three months or the chart recorder, data logger, or temperature indicator shall be replaced. The equipment shall be replaced whether the permittee chooses not to perform the calibration or the equipment cannot be calibrated properly.

- b. The temperature monitoring device for each RTO shall have an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1° Celsius, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(9 VAC 5-80-110, 40 CFR 63.3350(e)(9)(i) and (ii), 40 CFR 63.3370(k)(1)(iii) and 40 CFR 63.3370(n)(3)(i))

141. **Monitoring** – Each CPMS required by Condition 140 shall be installed, operated, and maintained in accordance with the following requirements:

- a. Each CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period. The permittee shall have a minimum of four equally-spaced successive cycles of CPMS operation to have a valid hour of data;
- b. The permittee shall have valid data from at least 90 percent of the hours during which the process operated;
- c. The permittee shall determine the hourly average of all recorded readings as follows:
 - (1) To calculate a valid hourly value, you must have at least three of four equally-spaced data values from that hour from a CPMS that is not out-of-control; and
 - (2) Provided all of the readings recorded in accordance with Condition 141.c(1) clearly demonstrate continuous compliance, the permittee is not required to determine the hourly average of all recorded readings.
- d. The permittee shall determine the rolling three-hour average of all recorded readings for each operating period. To calculate the average for each three-hour averaging period, the permittee shall have at least two of three of the hourly averages for that period using only average values that are based on valid data (i.e., not from out-of-control periods);
- e. The results of each inspection, calibration, and validation check of each CPMS shall be recorded;
- f. The permittee shall maintain each CPMS in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment;
- g. Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), the permittee shall conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in Condition 143. The permittee shall use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring

malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions;

- h. Any averaging period for which the permittee does not have valid monitoring data, and such data are required, constitutes a deviation, and the permittee shall notify DEQ as required by Condition 154;
- i. Each CPMS shall be maintained and operated in a manner consistent with safety and good air pollution control practices for minimizing emissions as specified in 40 CFR 63.6(e)(1);
- j. Each CPMS shall be installed such that representative measures of process parameters are obtained;
- k. The permittee shall ensure that the read-out (that portion of the CPMS that provides a visual display or record), or other indication of operation, from each required CPMS is readily accessible on site for operational control or inspection by the operator of the equipment;
- l. Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, each CPMS shall be in continuous operation; and
- m. Each CPMS shall be checked daily for indication that the system is responding. If the CPMS includes an internal system check, results shall be recorded and checked daily for proper operation.

(9 VAC 5-80-110, 40 CFR 63.3350(e)(1) through (8), 40 CFR 63.8(c))

142. **Monitoring** – The permittee shall develop and implement a site-specific monitoring plan for each capture system. For each capture system, the monitoring plan shall:

- a. Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained;
- b. Explain why the parameter is appropriate for demonstrating ongoing compliance;
- c. Identify the specific monitoring procedures; and
- d. Specify the operating parameter values that demonstrate compliance with the emission standard in Condition 133. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.

The permittee shall conduct all capture system monitoring in accordance with the plan. Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit. The permittee shall review and update the capture system monitoring plan at least annually. The monitoring plan shall be available for inspection by DEQ upon request.
 (9 VAC 5-80-110, 40 CFR 63.3321(a), 40 CFR 63.3370(n)(3)(ii), 40 CFR 63.3370(k)(1)(iii) and 40 CFR 63.3350(f))

143. **Monitoring** – Organic HAP emissions for web coating lines served by each capture system delivering emissions to an oxidizer shall be determined as follows:

- a. The destruction efficiency of each RTO shall be determined using the procedure in 40 CFR 63.3360;
- b. The capture system capture efficiency shall be determined in accordance with 40 CFR 63.3360;
- c. The operating parameters established in accordance with 40 CFR 63.3360 to ensure capture and control efficiency shall be continuously monitored whenever a controlled coating line is operating;
- d. The overall organic HAP control efficiency achieved for each month for each coating line shall be calculated as follows:

$$R = \frac{(E)(CE)}{100}$$

Where:

- R = overall organic HAP control efficiency, percent
- E = organic volatile matter control efficiency of the control device, percent
- CE = organic volatile matter capture efficiency of the capture system, percent

- e. The mass of each coating material applied on the web coating line(s) controlled by each RTO during the month; and
- f. The organic HAP content of each coating material “as-applied” during the month shall be determined according to Condition 151.b.

(9 VAC 5-80-110 and 40 CFR 63.3370(k)(1) and (2)(i), and 40 CFR 63.3370(n)(3)(iii)(A))

144. **Monitoring** – Organic HAP emissions for the month from each coating line controlled by RTO shall be calculated using the following equation:

$$H_e = (1 - R) \left(\sum_{i=1}^p C_{ahi} M_i \right) - M_{vret}$$

Where:

- H_e = total monthly organic HAP emitted, lbs
- R = overall organic HAP control efficiency, percent
- p = number of different coating materials applied in a month
- C_{ahi} = monthly average, as-applied, organic HAP content of coating material, i , expressed as a mass fraction, lb/lb
- M_i = mass of as-purchased coating material, i , applied in a month, lbs
- M_{vret} = mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, lbs. The value of this term will be zero in all cases except where the permittee chooses to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for compliance demonstration.

(9 VAC 5-80-110, 40 CFR 63.3370(n)(3)(iii)(A) and 40 CFR 63.3370(k)(2)(ii))

145. **Monitoring** – Organic HAP applied for the month on uncontrolled web coating lines shall be determined using the following equation:

$$H_m = \sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} - M_{vret}$$

Where:

- H_m = total monthly organic HAP applied, lbs
- p = number of different coating materials applied in a month
- C_{hi} = organic HAP content of coating material, i , as-purchased, expressed as a mass fraction, lb/lb
- M_i = mass of as-purchased coating material, i , applied in a month, lbs
- q = number of different materials added to the coating material
- C_{hij} = organic HAP content of material, j , added to as-purchased coating material, i , expressed as a mass fraction, lb/lb
- M_{ij} = mass of material, j , added to as-purchased coating material, i , in a month, kg
- M_{vret} = mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, lbs. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration

The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.

(9 VAC 5-80-110, 40 CFR 63.3370(n)(4), and 40 CFR 63.3370(d))

146. **Monitoring** – Total organic HAP emissions for the month shall be derived by summing all organic HAP emissions calculated according to Conditions 144 and 145.
(9 VAC 5-80-110 and 40 CFR 63.3370(n)(5)(i))

147. **Monitoring** – The permittee shall calculate the organic HAP emission rate based on coating material applied using the following equation:

$$S = \frac{H_{et}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_{ij}}$$

Where:

S = mass of organic HAP emitted per mass of material applied, lb/lb

H_{et} = total monthly organic HAP emitted, lbs, as calculated according to Condition 146

p = number of different coating materials applied in a month

M_i = mass of as-purchased coating material, i, applied in a month, lbs

q = number of different materials added to the coating material

M_{ij} = mass of material, j, added to as purchased coating material, i, in a month, lbs

(9 VAC 5-80-110, 40 CFR 63.3370(n)(5)(iv), 40 CFR 63.3370(k)(2)(iv))

148. **Monitoring** – The affected source shall be considered in compliance with the emission standard in Condition 133 for the month if all operating parameters required to be monitored by Conditions 140, 142, and 143 were maintained at the values established in performance testing as required by 40 CFR 63.3360 and the total mass of organic HAP emitted by the affected source (as determined according to Condition 147) is no more than 0.04 lb organic HAP per lb material applied.

(9 VAC 5-80-110 and 40 CFR 63.3370(n)(6)(ii))

149. **Monitoring** – The permittee shall develop and implement a CPMS quality control program in accordance with 40 CFR 63.8(d)(2).

(9 VAC 5-80-110 and 40 CFR 63.8(d)(2))

150. **Recordkeeping** – The permittee shall maintain the following records on a monthly basis:

a. Capture system parameter monitoring;

b. Data related to the CPMS, as follows:

(1) All required CPMS measurements (including monitoring data recorded during unavoidable CPMS breakdowns and out-of-control periods);

(2) The date and time identifying each period during which the CPMS was inoperative except for zero (low-level) and high-level checks;

- (3) The date and time identifying each period during which the CPMS was out of control, as defined in 40 CFR 63.8(c)(7);
 - (4) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in 40 CFR 63 Subpart JJJJ, that occurs during startups, shutdowns, and malfunctions of the affected source;
 - (5) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in 40 CFR 63 Subpart JJJJ, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
 - (6) The nature and cause of any malfunction (if known);
 - (7) The corrective action taken or preventive measures adopted;
 - (8) The nature of the repairs or adjustments to the CPMS that was inoperative or out of control;
 - (9) The total process operating time during the reporting period;
 - (10) All procedures that are part of a quality control program developed and implemented for CPMS under 40 CFR 63.8(d);
 - (11) All CPMS calibration checks; and
 - (12) All adjustments and maintenance performed on CPMS.
- c. The occurrence and duration of each startup, shutdown, or malfunction of the affected source or of required pollution control and monitoring equipment;
 - d. All required maintenance performed on the air pollution control and monitoring equipment;
 - e. Actions taken during periods of SSM (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the SSM plan required by Condition 136;
 - f. All information necessary to demonstrate conformance with the SSM plan when all actions taken during periods of SSM (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in the SSM plan required by Condition 136;

- g. Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods);
- h. All required measurements needed to demonstrate compliance with 40 CFR 63 Subpart JJJJ, including, but not limited to, 15-minute averages of CPMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the permittee is required to report;
- i. Control device and capture system operating parameter data in accordance with Conditions 140, 141, and 142;
- j. Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with 40 CFR 63.3360;
- k. Organic HAP content data for the purpose of demonstrating compliance in accordance with Condition 151;
- l. Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with Condition 152; and
- m. Material usage and organic HAP usage on the affected source.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110, 40 CFR 63.3410(a)(1)(ii) through (vi), and 40 CFR 63.10(c))

151. **Testing** – If compliance with Condition 133 is determined by means other than determining the overall organic HAP control efficiency of a control device:

- a. The organic HAP mass fraction of each coating material “as purchased” shall be determined by one of the following procedures:
 - (1) *Method 311*. The coating material may be tested in accordance with Method 311 of 40 CFR 63, Appendix A. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the permittee. The organic HAP content shall be calculated according to the criteria and procedures below.
 - (a) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.
 - (b) Express the mass fraction of each organic HAP included according to Condition 151.a as a value truncated to four places after the decimal point (for example, 0.3791).

- (c) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).
- (2) *Method 24.* The volatile organic content of coatings as mass fraction of nonaqueous volatile matter may be determined using Method 24 of 40 CFR 60, Appendix A and used as a substitute for organic HAP. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to the permittee.
- (3) *Formulation data.* Formulation data may be used to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the permittee by the manufacturer of the material. In the event of an inconsistency between Method 311 (40 CFR 63, Appendix A) test data and the permittee's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.
- b. The organic HAP mass fraction of each coating material "as applied" shall be determined as follows.
- (1) If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction.
- (2) If solvents or other materials are added to the as-purchased coating before application to the web, the as-applied organic HAP mass fraction shall be calculated using the following equation:

$$C_{ahi} = \frac{C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij}}{M_i + \sum_{j=1}^q M_{ij}}$$

Where:

C_{ahi} = monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, lb/lb

C_{hi} = organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, lb/lb

M_i = mass of as-purchased coating material, i, applied in a month, lb

q = number of different materials added to the coating material

C_{hij} = organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb

M_{ij} = mass of material, j, added to as-purchased coating material, i, in a month, lb

M_i = mass of as-purchased coating material, i, applied in a month, lb

(9 VAC 5-80-110, 40 CFR 63.3370(n)(3) and 40 CFR 63.3360(c))

152. **Testing** – If compliance with Condition 133 is determined by means other than determining the overall organic HAP control efficiency of a control device and the permittee chooses to use the volatile organic content as a surrogate for the organic HAP content of coatings:

- a. The as-purchased volatile organic content and coating solids content of each coating material applied shall be determined by the following procedures.
 - (1) *Method 24.* The volatile organic and coating solids mass fraction of each coating applied may be determined using Method 24 (40 CFR 60, Appendix A). The Method 24 determination may be performed by the manufacturer of the material and the results provided to O'Sullivan Films, Inc. If these values cannot be determined using Method 24, an alternative technique for determining the values shall be submitted to U.S. EPA for approval.
 - (2) *Formulation data.* The volatile organic content and the coating solids content of a coating material may be determined based on formulation data and the volatile organic content data provided by the manufacturer of the material may be relied upon. In the event of any inconsistency between the formulation data and the results of Method 24 of 40 CFR 60, Appendix A, and the Method 24 results are higher, the results of Method 24 will govern.
- b. The as-applied volatile organic content and coating solids content of each coating material applied shall be determined by the following procedures.
 - (1) If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile organic content and the as-applied coating solids content is equal to the as-purchased coating solids content.
 - (2) If solvents or other materials are added to the as-purchased coating before application to the web, the as-applied volatile organic content shall be calculated using the following equation:

$$C_{avi} = \frac{C_{vi}M_i + \sum_{j=1}^q C_{vij}M_{ij}}{M_i + \sum_{j=1}^q M_{ij}}$$

Where:

C_{avi} = monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, lb/lb

C_{vi} = volatile organic content of coating material, i, as-purchased, expressed as a mass fraction, lb/lb

M_i = mass of as-purchased coating material, i, applied in a month, lb

q = number of different materials added to the coating material

C_{vij} = volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb

M_{ij} = mass of material, j, added to as-purchased coating material, i, in a month, lb

M_i = mass of as-purchased coating material, i, applied in a month, lb

- (3) If solvents or other materials are added to the as-purchased coating before application to the web, the as-applied coating solids content shall be calculated using the following equation:

$$C_{asi} = \frac{C_{si}M_i + \sum_{j=1}^q C_{sij}M_{ij}}{M_i + \sum_{j=1}^q M_{ij}}$$

Where:

C_{asi} = monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, lb/lb

C_{si} = coating solids content of coating material, i, expressed as a mass fraction, lb/lb

M_i = mass of as-purchased coating material, i, applied in a month, lbs

Q = number of different materials added to the coating material

C_{sij} = coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, lb/lb

M_{ij} = mass of material, j, added to as-purchased coating material, i, in a month, lb

M_i = mass of as-purchased coating material, i, applied in a month, lb

(9 VAC 5-80-110, 40 CFR 63.3370(n)(3), 40 CFR 63.3370(k)(1)(v) and 40 CFR 63.3360(d))

153. **Testing** – If the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere is taken into account when determining compliance with Condition 133, the permittee shall develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit the protocol to the DEQ, for approval. If the permittee intends to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere and demonstrate compliance according to Condition 145, then the test protocol submitted shall determine the mass of organic HAP retained in the coated web

or otherwise not emitted to the atmosphere. Otherwise, compliance shall be shown using the volatile organic matter content as a surrogate for the HAP content of the coatings. (9 VAC 5-80-110 and 40 CFR 63.3360(g))

154. **Reporting** – The permittee shall submit to the DEQ, a semiannual compliance report that includes the following information:

- a. Company name and address;
- b. Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report;
- c. Date of report and beginning and ending dates of the reporting period;
- d. If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CPMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted; and
- e. For each deviation from an emission limitation (emission limit or operating limit), the report must contain the following information:
 - (1) The total operating time of each affected source during the reporting period;
 - (2) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken; and
 - (3) Information on the number, duration, and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.

A copy of the report shall be provided to the U.S. EPA at the following address:

U.S. EPA Region III
Air Enforcement Branch
3AP12
1650 Arch Street
Philadelphia, PA 19103

The first and subsequent compliance reports may be submitted according to the dates established for reporting in Condition 171. The compliance report may be combined with reporting required by Condition 171 to form a single submittal. (9 VAC 5-80-110 and 40 CFR 63.3400(c))

155. **Reporting – Periodic Startup, Shutdown, and Malfunction Reporting** - If actions taken by the permittee during startup, shutdown, or malfunction (SSM) of the affected source are consistent with the procedures specified in the permittee's SSM plan as required by 40 CFR 63.6(e)(3) (Condition 136), the permittee shall state such information in a SSM report. If actions taken by the permittee during a SSM of the affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the permittee's SSM plan, the permittee shall state such information in the report. Reports shall only be required if a SSM occurred during the reporting period, and they must include the number, duration, and a brief description of each malfunction which caused or may have caused the emission limitation in Condition 133 to be exceeded. The report shall also include notice of any revisions made to the SSM plan within the reporting period. The SSM report shall consist of a letter, containing the name, title, and signature of a responsible official who is certifying its accuracy that shall be submitted to the DEQ, semiannually. A copy of the report shall be provided to the U.S. EPA at the address in Condition 154. The SSM report shall be delivered or postmarked by the 30th day following the end of each calendar half. Alternatively, the SSM report may be combined with reporting required by Condition 154 to form a single submittal.
(9 VAC 5-80-110, 40 CFR 63.6(e)(3), 40 CFR 63.10(d)(5), and 40 CFR 63.3400(g))

156. **Reporting – Immediate Startup, Shutdown, and Malfunction Reports** – Any time an action taken by the permittee during a SSM (including actions taken to correct a malfunction) is not consistent with the procedures specified in the SSM plan required by Condition 136, the permittee shall report the actions taken for that event within two working days after commencing actions inconsistent with the plan followed by a letter within seven working days after the end of the event. The immediate report shall consist of a telephone call (or facsimile (FAX) transmission) to the DEQ, within two working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within seven working days after the end of the event, that contains the name, title, and signature of a responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSM plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. A copy of the letter shall be provided to the U.S. EPA at the address in Condition 154
(9 VAC 5-80-110 and 40 CFR 63.10(d)(5))

Hazardous Air Pollutants from Organic Liquids Distribution (Facility-wide)

The following requirements are derived from 40 CFR 63 Subpart EEEE (National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)). All terms used in conditions derived from 40 CFR 63 Subpart EEEE shall have the meanings as defined in 40 CFR 63.2 and 40 CFR 63.2406. The affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within the facility and is composed of: storage tanks storing organic liquids, transfer racks at which organic liquids are loaded into or unloaded out of transport vehicles or containers, equipment leak components in organic liquid service associated with pipelines (except as provided in 40 CFR 63.2338(c)(2)), storage tanks, and transfer racks, and transport vehicles while loading or unloading organic liquids at transfer racks. The requirements in this section have an effective date of February 3, 2007. "Requirements" include all control, operational, work practice, monitoring, recordkeeping, reporting, and testing requirements, as applicable.

157. **Limitations** – Except where this permit is more restrictive, the facility shall comply with the requirements of 40 CFR Part 63 Subpart EEEE (National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)).
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 Subpart EEEE)
158. **Reporting** – The permittee shall submit compliance reports containing the information specified in 40 CFR 63.2386(c) and, where applicable, the information specified in 40 CFR 63.2386(d). Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report must be postmarked no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

Alternatively, the first and subsequent compliance reports may be submitted according to the dates indicated in Condition 171. A copy of each report shall be provided to the U.S. EPA at the address in Condition 154.
(9 VAC 5-80-110 and 40 CFR 63.2386)

Hazardous Air Pollutants from Industrial, Commercial and Institutional Boilers and Process Heaters

159. Except where this permit is more restrictive, the permittee shall comply with 40 CFR Part 63 Subpart DDDDD (Industrial/Commercial/Institutional Boilers and Process Heater NESHAP) no later than the compliance date specified in the final rule. The permittee shall record and retain all information necessary to determine compliance with 40 CFR Part 63 Subpart DDDDD, as specified in the final rule. Notifications required by 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) and 40 CFR Part 63 Subpart DDDDD shall be provided by the dates specified. Notifications shall be submitted to the DEQ. A copy of each notification shall be provided to EPA Region III, to the attention of the Industrial/Commercial/Institutional Boilers and Process Heater NESHAP Coordinator, at the following address:

EPA Region III
Air Enforcement Branch
3AP12
1650 Arch Street
Philadelphia PA 19103

(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

Insignificant Emission Units

160. The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
PHTR4	Natural-gas-fired burner, Lembo oven	9 VAC 5-80-720 C		2.4 MMBtu/hr
PHTR5	Natural-gas-fired burner, Laminator 3 oven	9 VAC 5-80-720 C		1.2 MMBtu/hr
PHTR6 – 9	Four natural-gas-fired burners, Paint Line 3 oven Zones 1 – 4	9 VAC 5-80-720 C		2.0 MMBtu/hr each
PHTR10	Natural-gas-fired burner, Paint Line 3 oven preheat	9 VAC 5-80-720 C		0.8 MMBtu/hr
PHTR12-15	Four natural-gas-fired burners, Paint Line 4 oven Zones 1 – 4	9 VAC 5-80-720 C		2.0 MMBtu/hr each
PHTR11	Natural-gas-fired burner, Paint Line 4 oven preheat	9 VAC 5-80-720 C		0.8 MMBtu/hr
ICENG1	Gas IC engine powered equipment (portable cement mixer, two portable welders, saw, port. generator, etc.)	9 VAC 5-80-720 C		~ < 20 HP
PPLSH	Press polish (presses)	9 VAC 5-80-720 B	VOC	N/A
SLTBLK	Slitter and blanker operations	9 VAC 5-80-720 A	PM	N/A
CLNR1-3	Three parts cleaners	9 VAC 5-80-720 B	VOC	N/A
HWC1	Hazardous waste compactor	9 VAC 5-80-720 B	VOC, HAP	N/A
APNCT	Two aerosol can puncturing systems	9 VAC 5-80-720 B	VOC, HAP	N/A
PPRMV	One propane can pin remover	9 VAC 5-80-720 B	VOC, HAP	N/A
FBCRSH	One fluorescent bulb crusher	9 VAC 5-80-720 B	PM, HAP	N/A
BRCHRG	Battery recharge areas	9 VAC 5-80-720 A	N/A	N/A
WCHL	Five water chillers	9 VAC 5-80-720 A	N/A	N/A
CMPRS	Eight air compressors	9 VAC 5-80-720 A	N/A	N/A
DDTBL	Micro air draw down tables (dry mix areas)	9 VAC 5-80-720 B	PM	5HP

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
SPRCS	Two super sac weigh hoppers	9 VAC 5-80-720 B	PM	800 cfm
ABLST	Abrasive blast system (embossing roll cleaning) three portable, one stationary	9 VAC 5-80-720 B	PM	72 cfm @ 100 psi
ORCYCL	150 oil recycling unit (two 275 gallon tanks)	9 VAC 5-80-720 B	VOC	Two 275 gal
TNK-P1	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	10,000 gal
TNK-P2	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	10,000 gal
TNK-P3	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	11,732 gal
TNK-P4N	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	7614 gal
TNK-P4S	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	7614 gal
TNK-P5	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC, HAP	14,500 gal
TNK-P8	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	7500 gal
TNK-P9	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	9964 gal
TNK-G13a	Bulk storage tank, solvent	9 VAC 5-80-720 B	VOC, HAP	250 gal
TNK-TC14	Bulk storage tank, solvent	9 VAC 5-80-720 B	VOC, HAP	8000 gal
TNK-P16	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	8000 gal
TNK-P17	Bulk storage tank, plasticizer	9 VAC 5-80-720 B	VOC	8000 gal
TNK-TC18	Bulk storage tank, solvent	9 VAC 5-80-720 B	VOC, HAP	10,000 gal
TNK-TC19	Bulk storage tank, solvent	9 VAC 5-80-720 B	VOC, HAP	10,000 gal
TNK-P30	Storage tank, plasticizer	9 VAC 5-80-720 B	VOC	275 gal
TNK-S31	Storage tank, plasticizer	9 VAC 5-80-720 B	VOC	8000 gal
TNK-S32	Storage tank, stabilizer	9 VAC 5-80-720 B	VOC	8000 gal
TNK-HO41b	Storage tank, hot oil expansion	9 VAC 5-80-720 B	VOC	275 gal
HO33	Storage tank, oil	9 VAC 5-80-720 B	VOC	275 gal
HO36	Storage tank, oil	9 VAC 5-80-720 B	VOC	275 gal
P34	Storage tank, plasticizer	9 VAC 5-80-720 B	VOC, HAP	275 gal
P35	Storage tank, plasticizer	9 VAC 5-80-720 B	VOC	275 gal
TNK-FO27	Storage tank, diesel fuel	9 VAC 5-80-720 B	VOC	275 gal
TNK-FO28A	Storage tank, diesel fuel	9 VAC 5-80-720 B	VOC	275 gal

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
TNK-FO28B	Storage tank, diesel fuel	9 VAC 5-80-720 B	VOC	275 gal
TNK-FO29	Storage tank, diesel fuel	9 VAC 5-80-720 B	VOC	275 gal
TNK-FO1	Storage tank, fuel oil	9 VAC 5-80-720 B	VOC	14,100 gal
TNK-FO2	Storage tank, fuel oil	9 VAC 5-80-720 B	VOC	14,933 gal
TNK-FO3	Storage tank, fuel oil	9 VAC 5-80-720 B	VOC	19,108 gal
TNK-FO4	Storage tank, fuel oil	9 VAC 5-80-720 B	VOC	19,391 gal
TNK-FO33	Storage tank, fuel oil	9 VAC 5-80-720 B	VOC	15,000 gal
TNK-FO40	Storage tank, diesel fuel	9 VAC 5-80-720 B	VOC	275 gal
TNK-FO60	Storage tank, diesel fuel	9 VAC 5-80-720 B	VOC	250 gal
TNK-K42	Storage tank, kerosene	9 VAC 5-80-720 B	VOC	250 gal
TNK-V43	Storage tank, Varsol	9 VAC 5-80-720 B	VOC	275 gal
LP-1	Storage tank, propane	9 VAC 5-80-720 B	VOC	500 gal
LP-2	Storage tank, propane	9 VAC 5-80-720 B	VOC	500 gal
LP-3	Storage tank, propane	9 VAC 5-80-720 B	VOC	1000 gal
T-1 through T-13	Storage tank, transformers	9 VAC 5-80-720 B	VOC	500 gal each
VAC1	Large portable vacuum cleaners	9 VAC 5-80-720 B	PM, PM-10	N/A
VAC2	Central vacuum system (CAL3)	9 VAC 5-80-720 B	PM, PM-10	30 HP, 1300 cfm
VAC3	Central vacuum system (CAL2)	9 VAC 5-80-720 B	PM, PM-10	625 cfm
CROTRT1	Corona treaters, laminators	9 VAC 5-80-720 A	Ozone (as VOC)	See emission unit
CROTRT2	Corona treaters, paint lines	9 VAC 5-80-720 A	Ozone (as VOC)	See emission unit
CROTRT3	Corona treaters, post embosser	9 VAC 5-80-720 A	Ozone (as VOC)	See emission unit
CROTRT4	Corona treaters, calenders	9 VAC 5-80-720 A	Ozone (as VOC)	See emission unit
RCYCL1	Vinyl recycling systems	9 VAC 5-80-720 A	PM, PM-10	N/A
R & D -001	Research and Development building (R & D is not the primary function of the facility but rather serves as a support function)	9 VAC 5-80-720 A	N/A	N/A
PRDLB	Production lab (support to calender production areas: four small mills, one small banbury, R/D ovens)	9 VAC 5-80-720 A	N/A	N/A

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

161. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	O'Sullivan's boilers were installed prior to June 9, 1989 or are rated less than 10 MMBtu/hr, and are therefore not subject to the standard. Also, the standard does not apply to process heaters, so the Calender 3 hot oil generator is not subject to it.
40 CFR 60 Subpart FFF	Standards of Performance for Flexible Vinyl and Urethane Coating and Printing	Applies to rotogravure printing operations installed, modified, or reconstructed after January 18, 1983; O'Sullivan's Lembo printer was installed before the effective date and has not been modified or reconstructed so as to trigger applicability.
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels	Applies to VOC storage tanks having capacities greater than or equal to 19,812.9 gallons; O'Sullivan's tanks are below the applicability threshold.
9 VAC 5 Chapter 40, Part II, Article 36	Emission Standards for Flexographic, Packaging Rotogravure, and Publication Rotogravure Printing Lines (Rule 4-36)	O'Sullivan's Lembo printer (LEMB) is neither a packaging nor a publication rotogravure unit, so is not subject to Rule 4-36.
40 CFR 63 Subpart HHHHH	National Emission Standards for Hazardous Air Pollutants for Miscellaneous Coating Manufacturing	O'Sullivan's coating mixing operations are "affiliated operations" under 40 CFR 63 Subpart JJJJ (POWC MACT) or 40 CFR 63 Subpart KK (Printing and Publishing MACT) and are therefore exempt from Subpart HHHHH.
40 CFR 51 Subpart P	Protection of Visibility	O'Sullivan is not a "BART-eligible source" because the plant operations are not one of the 26 listed existing stationary source facility categories defined at 40 CFR 51.301.
9 VAC 5 Chapter 140, Part I	NO _x Budget Trading Program	O'Sullivan's combined fuel combustion equipment capacity is less than 250 MMBtu/hr and therefore O'Sullivan does not meet the definition of "NO _x Budget Unit" or "NO _x Budget Source" and is therefore not subject to the rule.

<p>40 CFR 98</p>	<p>Mandatory Greenhouse Gas Reporting</p>	<p>The provisions of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting require owners and operators of general stationary fuel combustion sources that emit 25,000 metric tons CO₂e or more per year in combined emissions from such units, to report greenhouse gas (GHG) emissions, annually. The definition of “applicable requirement” in 40 CFR 70.2 and 71.2 does not include requirements such as those included in Part 98, promulgated under Clean Air Act (CAA) section 114(a)(1) and 208. Therefore, the requirements of 40 CFR Part 98 are not applicable under the Title V permitting program.</p> <p>However, as a result of several EPA actions regarding GHG under the CAA, emissions of GHG must be addressed for a Title V permit renewed after January 1, 2011. The current state minor NSR (or PSD) permit for O'Sullivan's facility contains no GHG-specific applicable requirements and there have been no modifications at the facility requiring a PSD permit. Therefore, there are no applicable requirements for the facility specific to GHG.</p>
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Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.
 (9 VAC 5-80-140)

General Conditions

162. **Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)
163. **Permit Expiration** – This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
164. **Permit Expiration** – The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
165. **Permit Expiration** – If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
166. **Permit Expiration** – No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
167. **Permit Expiration** – If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
168. **Permit Expiration** – The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

169. **Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

170. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

171. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or CAM which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

172. Annual Compliance Certification – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address: R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

173. Permit Deviation Reporting – The permittee shall notify the DEQ within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or

preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 171 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

174. **Failure/Malfunction Reporting** – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ, by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.

(9 VAC 5-20-180 C)

175. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

176. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

177. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

178. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)
179. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)
180. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
181. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)
182. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)
183. **Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

184. **Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

185. **Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

186. **Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

187. **Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

188. **Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

189. **Transfer of Permits** – No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

(9 VAC 5-80-160)

190. **Transfer of Permits** – In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

191. **Transfer of Permits** – In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

192. **Malfunction as an Affirmative Defense** – A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of Condition 193 are met.

193. **Malfunction as an Affirmative Defense** – The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

- a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
- b. The permitted facility was at the time being properly operated.
- c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
- d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

(9 VAC 5-80-250)

194. **Malfunction as an Affirmative Defense** – In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

(9 VAC 5-80-250)

195. **Malfunction as an Affirmative Defense** – The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

196. **Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or

refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

197. Duty to Supplement or Correct Application – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

198. Stratospheric Ozone Protection – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

199. Asbestos Requirements – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

200. Accidental Release Prevention – If the permittee has more, or will have more, than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

201. Changes to Permits for Emissions Trading – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

202. Emissions Trading – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance;

- b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions; and
- c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

203. **Limitations** – Bis(2-ethylhexyl) phthalate (DEHP) (CAS 117-81-7) emissions from each calender (CAL1, CAL2 and CAL 3) shall not exceed 4.52 lbs/hr and 12.88 tons/yr with total annual emissions from all calendars not exceeding 20 tons.

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 2 of 12/30/08 Permit)

204. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. Hourly, monthly and annual DEHP emissions to verify compliance with the emission limitations in Condition 203. Hourly emissions shall be calculated as a monthly average (monthly emissions divided by hours of particular Calender operation for the month). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. Emission factors used to calculate emissions shall be approved by the DEQ;
- b. Monthly and annual throughput processed by each calender (CAL1 – CAL3), in tons. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period;
- c. Monthly hours of operation of each calender (CAL1 – CAL3); and
- d. Results of all stack tests.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 4 of 12/30/08 Permit)

PAINT LINE 4 and PAINT KITCHEN (PL4 and PK) – CAM Plan

	Indicator 1	Indicator 2	Indicator 3
Indicator	Combustion zone temperature	Work practice: periodic check of butterfly valve seal integrity	Periodic destruction efficiency testing
Measurement approach	The chamber temperature is monitored by a type-K-thermocouple.	Semi-annually, the seal integrity of the butterfly valves on the air lines leading to each of the regenerative beds shall be verified by authorized technicians to ensure no leakage.	At least once every five years, testing according to reference method 25 or 25A (40 CFR 60, Appendix A) shall be conducted to verify destruction efficiency. The integrity of the permanent total enclosure shall also be verified.
Indicator range	Greater than or equal to the combustion zone temperature determined during the most recent performance test in which 98.6 percent VOC control efficiency was achieved.	The seals and/or associated ductwork shall be repaired or replaced as needed.	Greater than or equal to 98.6 percent VOC destruction efficiency.
QIP Threshold	No more than six excursions below the indicator range in any semi-annual reporting period.	N/A	N/A
Performance criteria:			
Data representativeness	The sensor is installed in the incinerator chamber as an integral part of the incinerator design. The sensor measures temperatures from 32 to 2100 °F and has a standard tolerance of ± 0.75 percent of the temperature reading. The chart recorder range is 0 to 2000 °F, with minor divisions of 20 °F.	Each valve and associated ductwork is inspected for any warping, splits, or other degradation that may affect the tightness of seal when valve is closed.	Testing shall be conducted during painting operations representative of normal operating conditions.
Verification of operational status	N/A	N/A	N/A
QA/QC practices and criteria	A second (redundant) thermocouple probe inserted into the incinerator chamber via a hand-held meter will verify accuracy of the thermocouple. The accuracy check will be conducted at least annually. No accuracy check is required if a thermocouple has been installed within the previous 12 months. The acceptance criterion is +/- 30 °F.	The RTO manufacturer or other authorized technician familiar with the operating principles of regenerative thermal oxidation units shall conduct inspection.	Test procedures shall be as required by reference method 25 (40 CFR 60, Appendix A). Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. A test protocol shall be submitted to and approved by the DEQ, prior to testing.

Monitoring frequency and data collection procedure	Measured and recorded continuously to an acquisition system. Temperature is measured at 15-second intervals to determine an hourly average. Three-hour averages shall be calculated hourly as the average of the previous three hours' average.	The valve seals shall be inspected and repaired (if needed) semi-annually.	At least once every five years.
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PAINT LINE 3, PAINT KITCHEN, and LAMINATOR 3 (PL3, PK, and LAM3) – CAM Plan

	Indicator 1	Indicator 2	Indicator 3
Indicator	Combustion zone temperature	Work practice: capture efficiency monitoring (continuous pressure and/or fan motor monitoring and monthly verification)	Periodic control efficiency testing
Measurement approach	The chamber temperature is monitored by a type-K-thermocouple.	As will be detailed in O'Sullivan's capture efficiency monitoring plan developed in accordance with Condition X.B.6, static pressure and exhaust fan motor operation are continuously monitored by sensors that are interlocked with paint applicators on the paint lines to prevent paint application if pressure conditions are such that adequate capture efficiency is compromised. Static pressure values are verified at least once every month. PK exhaust fan motor operation is continuously monitored by auxiliary contacts that are interlocked with the PK automatic dispensing system to prevent creating a new paint batch if exhaust fan motors are inoperable.	At least once every five years, testing according to reference method 25 or 25A (40 CFR 60, Appendix A) shall be conducted to verify destruction efficiency. Testing to verify capture efficiency according to appropriate subsections of 40 CFR 51, Appendix M, Reference Method 204 (or as approved by DEQ) from each of the emission unit PL3, PK, and LAM3 shall also be conducted at least once every five years.
Indicator range	Greater than or equal to the combustion zone temperature determined during the most recent performance test in which 95.0 percent VOC control efficiency was achieved.	Static pressure: 70 percent of the value determined during initial capture efficiency testing.	Greater than or equal to 95.0 percent VOC destruction efficiency achieved by RTO1. Greater than or equal to: (1) 80 percent capture efficiency for PL3; (2) 100 percent capture for the PK; and (3) 95 percent capture for LAM3.
QIP Threshold	No more than six excursions below the indicator range in any semi-annual reporting period.	No more than one excursion in any semi-annual reporting period in which a monthly pressure verification result is below the pressure level determined in initial testing.	N/A

<p><u>Performance criteria:</u></p> <p>Data representativeness</p>	<p>The sensor is installed in the incinerator chamber as an integral part of the incinerator design. The sensor measures temperatures from 32 °F to 2100 °F and has a standard tolerance of ± 0.75 percent of the temperature reading. The chart recorder range is 0 to 2000 °F, with minor divisions of 20 °F.</p>	<p>Pressure differential switches are installed at various points on paint lines and associated ductwork to measure static pressure. Auxiliary contacts are installed on each exhaust fan motor for paint lines, PK, and associated ductwork. The differential pressure gauges measure pressures from 0.00 to 0.25 inches water .</p>	<p>Testing shall be conducted during painting representative of normal operating conditions.</p>
<p>Verification of operational status</p> <p>QA/QC practices and criteria</p>	<p>N/A</p> <p>A second (redundant) thermocouple probe inserted into the incinerator chamber via a hand-held meter will verify accuracy of the thermocouple. The accuracy check will be conducted at least annually. No accuracy check is required if a thermocouple has been installed within the previous 12 months. The acceptance criterion is ± 30 °F.</p>	<p>N/A</p> <p>Ports are provided beside each static pressure sensor to allow manual verification of the static pressure at each sensor location. Testing shall be conducted at least once every month during operations that are similar to conditions during the initial compliance test. All measured values greater or equal to 70% of the value determined during initial capture efficiency testing will be considered in compliance. Measured values less than 70% shall require inspections and repair to restore the pressure level to that measured during initial testing or shall require retesting to demonstrate that the required capture efficiency is met at the lower pressure value.</p>	<p>N/A</p> <p>Destruction efficiency test procedures shall be as required by reference method 25 (40 CFR 60, Appendix A). Capture efficiency test procedures shall be as required by appropriate subsections of reference method 204 (40 CFR 51, Appendix M), or as approved by the DEQ. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. Test protocols shall be submitted to and approved by the DEQ, at least 30 days prior to destruction or capture efficiency testing.</p>
<p>Monitoring frequency and data collection procedure</p>	<p>Measured and recorded continuously by an acquisition system. Temperature is measured at 15-second intervals to determine an hourly average. Three-hour averages shall be calculated hourly as the average of the previous three hours' average.</p>	<p>Static pressures measured and exhaust fan motor operation verified continuously and static pressures verified and recorded once every month.</p>	<p>At least once every five years.</p>