



**LOUISVILLE METRO
AIR POLLUTION CONTROL DISTRICT
850 Barret Ave., Louisville, Kentucky 40204**



**October 22, 2014
FEDOOP Statement of Basis**

Company: Sealed Air Corporation

Plant Location: 7665 National Turnpike, Louisville, Kentucky 40214

Date Application Received: 05/08/2009, 02/13/2014 and 09/26/2014

Date of Public Notice: 10/22/14

District Engineer: Shannon Hosey

Permit No: 27917-12-F (R1)

Plant ID: 1668

SIC Code: 3086

NAICS: 32615

AFS: 001668

Introduction:

This permit will be issued pursuant to District Regulation 2.17, *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); is a non-attainment area for particulate matter less than 2.5 microns (PM_{2.5}); and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

Initial Issuance

Permit Revision

Administrative

Minor

Significant

Permit Renewal

Compliance Summary:

Compliance certification signed

Compliance schedule included

Source is out of compliance

Source is operating in compliance

I. Source Information

1. **Source Description:** Sealed Air Corporation is a polyethylene foam manufacturing facility.
2. **Emission Unit Summary:** Sealed Air Corporation operates three emission units.

Emission Unit	Equipment Description
U1	Four (4) electric extruders for processing polyolefin including one extruder by Davis-Standard (Model Tandem) rated at 4000 lb/hr, one extruder by Bandera (Model 168mm Twin Screw) rated at 2300 lb/hr, one extruder by Moi (Model E150 Twin Screw) rated at 700 lb/hr, one reclaim extruder rated at 1500 lb/hr and associated accumulation system, and a conveyor system with one (1) cross saw, one (1) perforator and one (1) edge trim for plank polyethylene foam to cool and cut the material before winding or stacking the material. One (1) “curing” warehouse for finished goods that is vented to the RTO. One (1) warehouse for storing finished goods that is uncontrolled. All processes are controlled by a thermal oxidizer besides the uncontrolled warehouse for storing finished goods.
U2	Six (6) pneumatically conveyed silos each equipped with a bin vent for the storage of polyethylene.
U3	Three (3) Egan Extruders for manufacturing bubble wrap, rated at 1,000 lb/hr total capacity.

3. **Fugitive Sources:** There are fugitive emissions from storing the Cell-Air and Stratocell foam in the uncontrolled warehouse.
4. **FEDDOOP Permit O-1668-14-F Revisions/Changes:**

Revision	Issue Date	Public Notice Date	Type	Description
27917-12-F	08/30/2012	07/25/2012	Initial	Initial Permit Issuance and Incorporate Construction Permits 285-08-C, 286-08-C, 287-08-C, 288-08-C, 289-08-C, 290-08-C and 177-09-C
O-1668-14-F	Xx/xx/2014	10/22/2014	Revision	Significant revision to allow product to be stored in the uncontrolled warehouse

5. Applicable Requirements:

- PSD 40 CFR 60 SIP 40 CFR 63
 NSR 40 CFR 61 District-Origin Other

6. Future MACT Requirements: NA

7. Referenced Federal Regulations in Permit: None

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: This source does not manufacture, sell, or distribute any of the chemicals listed in title VI of the CAAA. Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The source’s use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): The source does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. Basis of Regulation Applicability

Regulation	Basis for Applicability
2.17	Federally Enforceable District Origin Operating Permits
5.21	Regulation 5.21 establishes the requirements for Environmental Acceptability for Toxic Air Contaminants (TACs).
7.08	Regulation 7.08 establishes emission standards for processes that emit PM which were constructed after September 1, 1976.
7.25	Regulation 7.25 establishes the requirements for VOC emissions, apply to a process not elsewhere regulated in District Regulation 7, and apply to new processes commenced after June 13, 1979

a. Plant-wide major source limits

Regulation 2.17 applies to Sealed Air Corporation since the potential emissions of VOC could exceed the major source threshold levels. Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued shall submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

b. STAR Program

Regulations 5.01, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

c. Equipment:

EU	Emission Process	Description Make/Model	Applicable Regulation	Control Device
U1	E1	Electric Plank Extruder, Davis Standard 4000 lb/hr, with a raw material feed cyclone	7.08 and 7.25	C1 and C2
	E2	Electric Foam Extruder, Bandera 2300 lb/hr	7.25	C1
	E3	Electric Foam Extruder, Moi 700 lb/hr		
	E4	Foam Reprocessing Extruder, Sterling/Davis Standard 1500 lb/hr, with three (3) fluff bins and a Gaylord box loading and unloading station	7.08 and 7.25	C1 and C3
	E5	Cure Warehouse	7.25	C1
	E6	Conveyor system including edge trimming, perforating, stacking, and cutting	7.08	
			7.25	
E7	Warehouse for storing finished goods	7.25	N/A	
U2	E8	Six (6) pneumatically conveyed silos 7000 lb/hr	7.08	N/A
U3	E9	Extruders Egan 1000 lb/hr	7.08	N/A
			7.25	

d. **Standards/Operating Limits**

i. **VOC**

- 1) VOC emissions from the equipment cannot exceed hundred (100) tons, plant-wide, during any consecutive 12-month period per Regulation 2.17.
- 2) Controlled VOC emissions from equipment subject to Regulation 7.25 cannot exceed 27 tons during any calendar year (BACT).
- 3) Uncontrolled VOC emissions from equipment subject to Regulation 7.25 cannot exceed 33 tons during any calendar year.
- 4) The company submitted a BACT analysis on 9/26/14 and the District has determined that controls are not feasible for the uncontrolled warehouse. The original BACT analysis submitted on 05/22/2008 was a thermal oxidizer, resulting in potential (controlled) emissions of 60 tpy. The new product cannot be stored in the controlled warehouse due to product integrity, therefore resulting in (uncontrolled) potential emissions of 33 tpy.

ii. **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

iii. **PM**

For emission processes subject to Regulation 7.08 for PM, the PM emission standards are calculated per section 3.1.2. The equation to calculate the hourly PM emission limit is $E = 3.59 * P^{0.62}$, where E is the allowable lb/hr PM emission limit and P is the process weight rate expressed in tons/hr.

iv. **TAC**

Regulations 5.01, 5.21 and 5.23 (STAR Program) establish requirements for environmental acceptability of TACs and the requirement to comply with all applicable emission standards.

III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Alternative Operating Scenarios:** The source did not request to operate under any alternative operating scenarios.
5. **Compliance Status:** Sealed Air Corporation is currently in compliance.
6. **Compliance History:** The source submitted a signed FEDOOP compliance certification.

There are no records of any violations of the terms of the present or prior construction or operating permits.

7. **Calculation Methodology:** VOC Emissions: The emission calculations are based upon the amount of product processed and the emission factor from Fire (Plastics Production Extruder High-Density Polyethylene Extrusion)
8. **Permit Fees:** The permit fee of \$2542.40 is based on the Schedule of Fees table in Regulation 2.08, section 12 (Significant Permit Revision).
9. **Insignificant Activities**

- 1) Insignificant activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.
- 3) Activities identified in regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential

To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment, since the emissions from the source’s Insignificant Activities are very minor in comparison to the plant wide emissions.

- 6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 7) The owner or operator shall annually submit an updated list of Insignificant Activities, including an identification of the additions and removals of Insignificant Activities that occurred during the preceding year, with the compliance certification due April 15th.

Description	Quantity	Basis
Pressurized VOC storage vessels – 18,000 gallon propane tank and 30,000 gallon butane tank	2	Regulation 2.02, section 2.3.26.