

Commonwealth of Kentucky
Division for Air Quality
STATEMENT OF BASIS / SUMMARY

Conditional Major, Construction/Operating
Permit: F-26-041

Riken Elastomers Corporation
340 Riken Court
Hopkinsville, KY 42240

October 14, 2026
Dylan Buckingham, Reviewer

SOURCE ID:	21-047-00113
AGENCY INTEREST:	83477
ACTIVITY:	APE20260001

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SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 3087, Custom Compounding of Purchased Plastic Resins

Single Source Det. ☐ Yes ☒ No If Yes, Affiliated Source AI:

Source-wide Limit ☒ Yes ☐ No If Yes, See Section 4, Table A

28 Source Category ☐ Yes ☒ No If Yes, Category:

County: Christian

Nonattainment Area ☒ N/A ☐ PM₁₀ ☐ PM_{2.5} ☐ CO ☐ NO_x ☐ SO₂ ☐ Ozone ☐ Lead

If yes, list Classification:

PTE* greater than 100 tpy for any criteria air pollutant ☒ Yes ☐ No

If yes, for what pollutant(s)?

☒ PM₁₀ ☒ PM_{2.5} ☐ CO ☐ NO_x ☐ SO₂ ☐ VOC

PTE* greater than 250 tpy for any criteria air pollutant ☒ Yes ☐ No

If yes, for what pollutant(s)?

☒ PM₁₀ ☒ PM_{2.5} ☐ CO ☐ NO_x ☐ SO₂ ☐ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP) ☐ Yes ☒ No

If yes, list which pollutant(s):

PTE* greater than 25 tpy for combined HAP ☐ Yes ☒ No

*PTE does not include self-imposed emission limitations.

Description of Facility:

Riken Elastomers Corporation (Riken) operates a plastic manufacturing facility in Hopkinsville, Kentucky.

The facility consists of storing, mixing, extruding and packaging of plastic material for the automotive industry.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-26-041

Activity: APE20260001

Application Received: April 20, 2026

Application Complete Date(s): October 7, 2026

Permit Action: ☐ Initial ☒ Renewal ☐ Significant Rev ☐ Minor Rev ☐ Administrative

Construction/Modification Requested? ☐ Yes ☒ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action ☐ Yes ☒ No

Description of Action:

- Renewal of the permit.

F-26-041 Emission Summary		
Pollutant	2025 Actual (tpy)	PTE F-26-041 (tpy)
CO	0.19	6.42
NO _x	0.24	8.12
PT	4.65	90*
Show that there is a 90nPM ₁₀	4.48	90*
PM _{2.5}	4.48	90*
SO ₂	0.0015	0.049
VOC	1.25	11.1
Lead	1.2E-6	4E-05
Greenhouse Gases (GHGs)		
Carbon Dioxide	290.6	9,769
Methane	0.0055	0.18
Nitrous Oxide	0.00055	0.018
CO ₂ Equivalent (CO ₂ e)	290.9	9,779
Hazardous Air Pollutants (HAPs)		
Combined HAPs:	.01	0.076

*Federally enforceable emissions limitation.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Thermoplastic Elastomers Manufacturing (Building 1) Emission Points: UT103, UT203, UT303				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	2.34 lb/hr each	401 KAR 59:010 Section 3(2)	20 lb/ton each – based on material balance	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2007; VAC 4: 2013				
Process Description: UT103: 1 st Floor Central Vacuum System (VAC1) Capacity: 43.8 tons per year (0.005 tons per hour) Controls: Baghouse UT103 Packaging Central Vacuum Line 3 (VAC4) – shared with UT203 Capacity: 43.8 tons per year (0.005 tons per hour) Controls: Baghouses UT103 and UT203 UT203: 2 nd Floor Central Vacuum System (VAC2) Capacity: 43.8 tons per year (0.005 tons per hour) Controls: Baghouse UT203 UT303: Packaging Central Vacuum System (VAC3) Capacity: 43.8 tons per year (0.005 tons per hour) Controls: Baghouse UT303				
Applicable Regulation: 401 KAR 59:010, <i>New process operations.</i> This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emissions factors are based on material balance.				

Thermoplastic Elastomers Manufacturing (Building 1) Emission Points: UT104 Lines 1, 2, and 3				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr $E = 2.34$ lb/hr When $P > 0.5, \leq 30$ tons/hr $E = 3.59 \times P^{0.62}$ Where: $E = \text{PM in lb/hr};$ $P = \text{process rate in tons/hr}$	401 KAR 59:010 Section 3(2)	3 lb/ ton each – based on material balance	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: Lines 1 and 2: 2007; Line 3: 2013				
Process Description: Line 1: Main Feed Tank (M-ST1), Main Feeder (MF-1), Sub Feeder (SF-1), and Side Feeder (SF-11) Capacity: 9,636 tons per year (1.1 tons per hour) Controls: Baghouse UT104 Line 2: Main Feed Tank (M-ST2), Main Feeder (MF-2), Sub Feeder (SF-2), and Side Feeder (SF-21) Capacity: 9,636 tons per year (1.1 tons per hour) Controls: Baghouse UT104 Line 3: Main Feed Tank (M-ST3), Main Feeder (MF-3), Sub Feeder (SF-3), and Side Feeder (SF-31) Capacity: 9,636 tons per year (1.1 tons per hour) Controls: Baghouse UT104				
Applicable Regulation: 401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emissions are vented outside through dust collectors (baghouse UT104) located on the first floor. The emission factors account for emissions lost at the main feed tank, main feeder, subfeeder and side feeder and the capacity is determined from the main feed tank.				

Thermoplastic Elastomers Manufacturing (Building 1) Emission Point: UT204, UT404				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	0.083 lb/ ton each – based on material balance	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: UT204: 2007; UT404: 2013				
Process Description:				
UT204:		UT204:	UT404:	
Ribbon Blender Line 1		Ribbon Blender Line 2	Ribbon Blender Line 3	
Capacity 9,636 tpy (1.1 tph)		9,636 tpy (1.1 tph)	9,636 tpy (1.1 tph)	
Controls: Baghouse UT204		Baghouse UT204	Baghouse UT404	
Applicable Regulation:				
401 KAR 59:010, <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments:				
Emissions are vented outside through dust collector (Baghouse UT404) located on the second floor. Emission factors are based on material balance.				

Thermoplastic Elastomers Manufacturing (Building 1) Emission Point: PEF-3				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr $E = 2.34$ lb/hr When $P > 0.5, \leq 30$ tons/hr $E = 3.59 \times P^{0.62}$ Where: $E = \text{PM in lb/hr};$ $P = \text{process rate in tons/hr}$	401 KAR 59:010 Section 3(2)	3 lb/ton each – based on material balance	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2013				
Process Description: PEF-3 Line 3: Buffer Tank (PRH-3) and 2 Pneumatic Blowers (EXPB-3) Capacity: 9,636 tpy (1.1 tph) Controls: Baghouse PEF3				
Applicable Regulation: 401 KAR 59:010, <i>New process operations</i>. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: The emissions factors are based off material balances completed based on the buffer tank and pneumatic blower.				

Thermoplastic Elastomers Manufacturing (Building 1) Emission Point: UT304				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	2.34 lbs/hr	401 KAR 59:010 Section 3(2)	0.364 lb/ton – based on material balance	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2007				
Process Description: Short Weight Scale Capacity 240.9 tpy (0.0275 tph) Controls: Baghouse UT-304				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emission factors are calculated from material balance.				

Thermoplastic Elastomers Manufacturing (Building 1) Emission Point: UT105 Lines 1, 2, 3				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	0.1368 lb/ton – based on the Journal of Air and Waste Management Association	Proper operation of control devices and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: Lines 1 and 2: 2007; Line 3: 2013				
Process Description:				
Line 1: Extruder and Vacuum Pump Capacity 9,636 tpy (1.1 tph) Controls: submersion Control Efficiency: 80%				
Line 2: Extruder and Vacuum Pump 9,636 tpy (1.1 tph) submersion 80%				
Line 3: Extruder and Vacuum Pump 9,636 tpy (1.1 tph) submersion 80%				
Applicable Regulation:				
401 KAR 59:010, <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
State Origin Requirements:				
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments:				
There was a change to the control device from a mist collector to a submerged operation. The submerged operation has an assumed control efficiency of 100%, but for PTE calculations 80% was used as a worst case calculation.				
Emission factors are taken from the Journal of Air and Waste Management Association Volume 49, 1999.				

Flexible PVC Manufacturing (Building 2) Emission Points C-2-3, C-2-4, C-2-5, C-2-6				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr $E = 2.34$ lb/hr When $P > 0.5, \leq 30$ tons/hr $E = 3.59 \times P^{0.62}$ Where: $E = \text{PM in lb/hr};$ $P = \text{process rate in tons/hr}$	401 KAR 59:010 Section 3(2)	Silo: 0.73 lb/ton each; Branch Hopper: 0.0048 lb/ton each; based on AP-42 Ch. 11.12-2	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2015				
Process Description:				
C-2-3 PVC Storage Silo with a scale (PVC1) PVC Branch hopper (C-2-7) Capacity: 34,427 tpy Controls: Baghouse C-2-3 Control Efficiency: 99%		C-2-4 PVC Storage Silo with a scale (PVC2) PVC Branch Hopper (C-2-8) Capacity:34,427 tpy Baghouse C-2-4 99%		
C-2-5 PVC Storage Silo with a scale (PVC3) PVC Branch hopper (C-2-9) Capacity: 34,427 tpy Controls: Baghouse C-2-5 Control Efficiency: 99%		C-2-6 PVC Storage Silo with a scale (PVC4) PVC Branch Hopper (C-2-10) Capacity:34,427 tpy Baghouse C-2-6 99%		
Applicable Regulation: 401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emission Factors from AP 42 Ch. 11.12-2.				
Capacity was increased from 17,344.8 to 34,427 for all units in APE20230002.				

Flexible PVC Manufacturing (Building 2) Emission Points C-2-13, C-3-3, C-3-4																								
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method																				
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	0.73 lb/ton each; AP-42 Ch. 11.12	Proper operation of control device and monthly visual observations																				
	20% opacity	401 KAR 59:010 Section 3(1)a	NA																					
Initial Construction: 2015																								
Process Description: <table><tr><td>C-3-3</td><td>C-2-13</td></tr><tr><td>No. 1 Filler Silo (FL1)</td><td>Screw feeder (C-3-5)</td></tr><tr><td>Capacity: 17,213 tpy</td><td>17,213 tpy</td></tr><tr><td>Controls: Baghouse C-3-3</td><td>Baghouse C-2-13</td></tr><tr><td>Control Efficiency: 99%</td><td>99%</td></tr></table> <table><tr><td>C-3-4</td><td>C-2-13</td></tr><tr><td>No. 2 Filler Silo (FL2)</td><td>Screw feeder (C-3-6)</td></tr><tr><td>Capacity: 17,213 tpy</td><td>17,213 tpy</td></tr><tr><td>Controls: Baghouse C-3-4</td><td>Baghouse C-2-13</td></tr><tr><td>Control Efficiency: 99%</td><td>99%</td></tr></table>					C-3-3	C-2-13	No. 1 Filler Silo (FL1)	Screw feeder (C-3-5)	Capacity: 17,213 tpy	17,213 tpy	Controls: Baghouse C-3-3	Baghouse C-2-13	Control Efficiency: 99%	99%	C-3-4	C-2-13	No. 2 Filler Silo (FL2)	Screw feeder (C-3-6)	Capacity: 17,213 tpy	17,213 tpy	Controls: Baghouse C-3-4	Baghouse C-2-13	Control Efficiency: 99%	99%
C-3-3	C-2-13																							
No. 1 Filler Silo (FL1)	Screw feeder (C-3-5)																							
Capacity: 17,213 tpy	17,213 tpy																							
Controls: Baghouse C-3-3	Baghouse C-2-13																							
Control Efficiency: 99%	99%																							
C-3-4	C-2-13																							
No. 2 Filler Silo (FL2)	Screw feeder (C-3-6)																							
Capacity: 17,213 tpy	17,213 tpy																							
Controls: Baghouse C-3-4	Baghouse C-2-13																							
Control Efficiency: 99%	99%																							
Applicable Regulation: 401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.																								
Comments: Emission Factors are from AP-42 Table 11.12-2. Capacity was increased from 8,672.4 to 17,213 with APE20230002.																								

Flexible PVC Manufacturing (Building 2) Emission Points C-11-1, C-11-3 and C-11-9				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	2.34 lbs/hr each	401 KAR 59:010 Section 3(2)	2000 lb/ton each; Engineering estimate	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2015				
Process Description:				
C-11-1 Central Vacuum System for Blending area Capacity: 86.9 tpy Controls: Baghouse C-11-1 Control Efficiency: 99%		C-11-3 Central Vacuum System for Mixing Area 86.9 tpy Baghouse C-11-3 99%		
C-11-9 Central Vacuum System for P2 Warehouse Capacity: 9.1 tpy Controls: Baghouse C-11-9 Control Efficiency: 99%				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emission factors are based off engineering estimates for central vacuums.				
Capacity was increased from 43.8 to 86.9 with APE20230002 for C-11-1 and C-11-3.				

Flexible PVC Manufacturing (Building 2) Emission Points C-11-5 & C-11-6				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	MA and MB Blenders: 3 lb/ton each C-11-6: 0.364 lb/ton; based on emissions from a similar facility	Proper operation of control device and monthly visual observations
	20% opacity		401 KAR 59:010 Section 3(1)a	
Initial Construction: 2015				
Process Description: C-11-5 MA Blender Capacity: 19,272 tpy (2.2 tph) Controls: Dust Collector Control Efficiency: 99% MC Blender A (MC-6-1) Capacity: 28,470 tpy Controls: Dust Collector Control Efficiency: 99%				
MB Blender 9,636 tpy (1.1 tph) Dust Collector 99% MC Blender B (MC-7-1) 28,470 tpy Dust Collector 99%				
C-11-6 Short Weight Scale/Room Capacity: 481.8 tpy (0.055 tph) Controls: Dust Collector Control Efficiency: 99%				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emission factors are based on a stack test at a similar Riken facility. APE20230002 gives the capacity for MC-6-1 and MC-7-1 combined together at 28,470 tpy.				

Flexible PVC Manufacturing (Building 2) Emission Point C-11-7				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr $E = 2.34$ lb/hr When $P > 0.5, \leq 30$ tons/hr $E = 3.59 \times P^{0.62}$ Where: $E = \text{PM in lb/hr};$ $P = \text{process rate in tons/hr}$	401 KAR 59:010 Section 3(2)	MA-9-1, MB-9-1, MB-10-1, MC-8-1, MC-9-1: 0.083 lb/ton; MA-10-1, MB-9-7, B-10-10, MC8-6: 0.0048 lb/ton; AP-42 Ch 11.12	Proper operation of control device and monthly visual observations
	20% Opacity		401 KAR 59:010 Section 3(1)a	
Initial Construction: 2015				
Process Description: (All processes below are part of emission unit C-11-7)				
MA-9-1 MA Raw Material Mixing Tank Capacity 19,272 tpy (2.2 tph) Controls: Dust Collector C-11-7 Control Efficiency: 99%		MB-9-1 MB Raw Material Mixing Tank 9,636 tpy (1.1 tph) Dust Collector C-11-7 99%	B-10-10 Dust Collection Box Dropdoor 67.45 tpy (0.0077 tph) Dust Collector C-11-7 99%	
MA-10-1 Feed Hopper for Kneader Capacity 19,272 tpy (2.2 tph) Controls: Dust Collector C-11-7 Control Efficiency: 99%		MB-9-7 Feed Hopper for MB-7-6 Mixer 9,636 tpy (1.1 tph) Dust Collector C-11-7 99%	MB-10-1 MB-7-6 Mixer 9,636 tpy (1.1 tph) Dust Collector C-11-7 99%	
MC-8-1 MC Raw Material Tank Capacity 28,470 tpy Controls: Dust Collector C-11-7 Control Efficiency: 99%		MC-8-6 Raw Material Hopper Scale 28,470 tpy Dust Collector C-11-7 99%	MC-9-1 MC Mixer 28,470 tpy Dust Collector C-11-7 99%	
MC-9-10 Dust Collection Box Dropdoor Capacity: 201 tpy Controls: Dust Collector C-11-7 Control Efficiency: 99%				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
Comments: Emission factors are from AP-42 Chapter 11.12 Table 2.				

Flexible PVC Manufacturing (Building 2) Emission Point MA-12-8				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	MA-10-5: 0.096 lb/ton; MA-11-8, Michigan DEQ Fact Sheet	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2015				
Process Description: <div><div>MA-10-5 MA Kneader Capacity: 19,272 tpy (2.2 tph) Controls: Mist Collector MA-12-8 Control Efficiency: 90% Pollutants Controlled: PM only</div><div>MA-11-8 Pellet Transportation Cyclone System Cyclone #1 19,272 tpy (2.2 tph) ESP MA-12-8 90% PM only</div></div> <div>MA-12-1 Pellet Transportation Cyclone System Cyclone #2 Capacity: 19,272 tpy (2.2 tph) Controls: Mist Collector MA-12-8 Control Efficiency: 90% Pollutants Controlled: PM only</div>				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
State Origin Requirements: 401 KAR 63:020 , <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments: Emission factors are from Michigan DEQ Fact Sheet #9847 for PM and the VOC emission factors are from mass balances using stack testing data from a similar Riken facility.				

Flexible PVC Manufacturing (Building 2) Emission Point MB-11-17				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	0.096 lb/ton; Michigan DEQ Fact Sheet	Proper operation of control device and monthly visual observations
	20% opacity		401 KAR 59:010 Section 3(1)a	
<p>Initial Construction: 2015</p> <p>Process Description: MB Mixing Roll (MB-11-1) Capacity: 9,636 tpy (1.1 tph) Controls: Mist Collector MB-11-17 Control Efficiency: 90% Pollutants Controlled: PM only</p> <p>Applicable Regulation: 401 KAR 59:010, <i>New process operations</i>. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.</p> <p>State Origin Requirements: 401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i>, is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.</p> <p>Comments: Emission factors are from Michigan DEQ Fact Sheet #9847 for PM and the VOC emission factors are from mass balances using stack testing data from a similar Riken facility.</p>				

Flexible PVC Manufacturing (Building 2) Emission Points MB-15-8				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	MB-13-1: 0.096 lb/ton; MB-14-8, MB-15-1: 200 lb/ton Michigan DEQ Fact Sheet	Proper operation of control device and monthly visual observations
	20% opacity	401 KAR 59:010 Section 3(1)a	NA	
Initial Construction: 2015				
Process Description: <div><div><div>MB-13-1 MB Extruder Capacity: 9,636 tpy (1.1 tph) Controls: Mist Collector (MB-15-8) Control Efficiency: 90% Pollutants Controlled: PM only</div><div>MB-14-8 Pellet transportation Cyclone system Cyclone #1 9,636 tpy (1.1 tph) Mist Collector (MB-15-8) 90% PM only</div></div><div><div>MB-15-1 Pellet transportation cyclone system Cyclone #2 Capacity: 9,636 tpy (1.1 tph) Controls: Mist Collector MB-15-8 Control Efficiency: 90% Pollutants Controlled: PM only</div></div></div>				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
State Origin Requirements: 401 KAR 63:020 , <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments: Emission factors for PM are from Michigan DEQ Fact Sheet #9847. Emission factors for VOC and HAPs are based on stack testing at a similar Riken facility.				

Flexible PVC Manufacturing (Building 2) Emission Point MC-11-17				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	0.096 lb/ton; Michigan DEQ Fact Sheet	Proper operation of control device and monthly visual observations
	20% opacity		401 KAR 59:010 Section 3(1)a	
Initial Construction: 2023				
Process Description: Mill Roll (MC-11-1) Capacity: 28,470 tpy Controls: Mist Collector MC-11-17 Control Efficiency: 90% Pollutants Controlled: PM only				
Applicable Regulation: 401 KAR 59:010 , <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
State Origin Requirements: 401 KAR 63:020 , <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments: Emission factors are from Michigan DEQ Fact Sheet #9847 for PM and the VOC emission factors are from mass balances using stack testing data from a similar Riken facility.				

Flexible PVC Manufacturing (Building 2) Emission Points MC-15-8				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	When $P \leq 0.5$ tons/hr E = 2.34 lb/hr When $P > 0.5, \leq 30$ tons/hr E = $3.59 \times P^{0.62}$ Where: E = PM in lb/hr; P = process rate in tons/hr	401 KAR 59:010 Section 3(2)	MC-13-1: 0.096 lb/ton; MC-14-9, MC-15-1: 2000 lb/ton Michigan DEQ Fact Sheet, Material Balance	Proper operation of control device and monthly visual observations
	20% opacity		401 KAR 59:010 Section 3(1)a	
Initial Construction: 2023				
Process Description:				
MC-13-1 MB Extruder Capacity: 28,470 tpy Controls: Mist Collector (MC-15-8) Control Efficiency: 90% Pollutants Controlled: PM only		MC-14-9 Pellet transportation Cyclone system Cyclone #1 28,470 tpy Mist Collector (MC-15-8) 99.96%/90% PM only		
MC-15-1 Pellet transportation cyclone system Cyclone #2 Capacity: 28,470 tpy Controls: Mist Collector MC-15-8 Control Efficiency: 99.96%/90% Pollutants Controlled: PM only				
Applicable Regulation: 401 KAR 59:010, <i>New process operations</i> . This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
State Origin Requirements: 401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments: Emission factors for PM are from Michigan DEQ Fact Sheet #9847 and from material balance. Emission factors for VOC and HAPs are based on stack testing at a similar Riken facility.				

Emission Points C-7-3 (EU C-7-3) and C-7-5 (EU C-7-5)				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	0.52 lb/MMBtu	401 KAR 59:015, Section 4(1)(c)	7.6 lb/ MMscf AP-42 Chapter 1.4	Compliance with the 401 KAR 59:015 emission standards is assumed. [401 KAR 50:045, Section 4(3)(c)1.]
	20% opacity	401 KAR 59:015, Section 4(2)	NA	
SO ₂	2.59 lbs/MMBtu	401 KAR 59:015, Section 5(1)(c)	0.6 lb/MMscf AP-42 Chapter 1.4	
Initial Construction: 2015				
Process Description: Model: Cleaver Brooks 36 HP FLX Steam Boilers Heat Capacity: 1.5 MMBtu/hr each Fuel Input: 0.0015 MMscf/hr Fuel: Natural Gas Controls: none				
Applicable Regulation: 401 KAR 59:015 , <i>New indirect heat exchangers</i> , applicable to indirect heat exchangers having a heat input capacity greater than one (1) million BTU per hour (MMBtu/hr) commenced on or after April 9, 1972.				
State Origin Requirements: 401 KAR 63:020 , <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments: Emission factors are based on AP-42, Chapter 1.4 for the combustion of natural gas.				

Emission Points MAU-1 and MAU-5				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	0.56 lb/MMBtu	401 KAR 59:015, Section 4(1)(a)	7.6 lb/MMscf AP-42 Chapter 1.4	Compliance with the 401 KAR 59:015 emission standards is assumed. [401 KAR 50:045, Section 4(3)(c)1.]
	20% opacity	401 KAR 59:015, Section 4(2)	NA	
SO ₂	3.0 lbs/MMBtu	401 KAR 59:015, Section 5(1)(a)	0.6 lb/MMscf AP-42 Chapter 1.4	
Initial Construction: 2006				
Process Description:				
MAU-1		MAU-5		
Manufacturer: Greenheck		Greenheck		
Model no.: DGX-118-H32		DGX-112-H22		
Main access unit (HVAC unit)		Main access unit (HVAC unit)		
Capacity: 1.3 MMBtu/hr		Capacity: 1.88 MMBtu/hr		
Applicable Regulation:				
401 KAR 59:015, <i>New indirect heat exchangers</i> , applicable to indirect heat exchangers having a heat input capacity greater than one (1) million BTU per hour (MMBtu/hr) commenced on or after April 9, 1972.				
State Origin Requirements:				
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments:				
Emission factors are based on AP-42 Chapter 1.4 for natural gas combustion.				

Emission Points MAU-6 through MAU-9				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	0.52 lb/MMBtu	401 KAR 59:015, Section 4(1)(c)	7.6 lb/MMscf AP-42 Chapter 1.4	Compliance with the 401 KAR 59:015 emission standards is assumed. [401 KAR 50:045, Section 4(3)(c)1.]
	20% opacity	401 KAR 59:015, Section 4(2)	NA	
SO ₂	2.59 lbs/MMBtu	401 KAR 59:015, Section 5(1)(c)	0.6 lb/MMscf AP-42 Chapter 1.4	
Initial Construction: 2015				
Process Description:				
MAU-6		MAU-7		
Manufacturer: Greenheck		Greenheck		
Model no.: DGX-125-H35		DGX-125-H35		
Main access unit (HVAC unit)		Main access unit (HVAC unit)		
Capacity: 2.0 MMBtu/hr		Capacity: 2.0 MMBtu/hr		
MAU-8		MAU-9		
Manufacturer: Greenheck		Greenheck		
Model no.: DGX-125-H35		DGX-125-H35		
Main access unit (HVAC unit)		Main access unit (HVAC unit)		
Capacity: 2.0 MMBtu/hr		Capacity: 2.0 MMBtu/hr		
Applicable Regulation:				
401 KAR 59:015, <i>New indirect heat exchangers</i> , applicable to indirect heat exchangers having a heat input capacity greater than one (1) million BTU per hour (MMBtu/hr) commenced on or after April 9, 1972.				
State Origin Requirements:				
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i> , is applicable to an emission unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.				
Comments:				
Emission factors are based on AP-42 Chapter 1.4 for natural gas combustion.				

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)

Testing Requirements\Results

N/A

Footnotes:

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

Emission and Operating Limit	Regulation	Emission Unit
PM, PM ₁₀ , and PM _{2.5} emissions shall not exceed 90.0 tons per year on a twelve (12) consecutive month basis.	40 KAR 52:030 (To preclude 401 KAR 52:020)	Source-wide

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 59:010, <i>New process operations.</i>	Building 1 and Building 2
401 KAR 59:015, <i>New indirect heat exchangers.</i>	C-7-3, C-7-5, MAU-1, MAU-5, MAU-6 to MAU-9
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances.</i>	UT105, MB-11-17, MB-15-8, C-7-3, MA-10-5, MA-12-8, MC-11-17, MC-15-8, C-7-5, MAU-1, MAU-5, MAU-6 through MAU-9

Table C - Summary of Precluded Regulations:

Precluded Regulations	Emission Unit
401 KAR 52:020, <i>Title V Permits</i>	Source-wide

Table D - Summary of Non Applicable Regulations:

N/A

Air Toxic Analysis

401 KAR 63:020, *Potentially Hazardous Matter or Toxic Substances*

The Division for Air Quality (Division) has performed SCREEN View on July 9, 2026 of potentially hazardous matter for toxic substances (acetaldehyde, acrolein, formaldehyde, propionaldehyde and vinyl chloride) that may be emitted by the facility based upon the process rates, material formulations, stack heights and other pertinent information provided by the applicant. Based upon this information, the Division has determined that the conditions outlined in this permit will assure compliance with the requirements of 401 KAR 63:020.

Single Source Determination

N/A

SECTION 5 – PERMITTING HISTORY

Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
F-15-019	Initial	APE20150001	5/29/2015	7/31/2015	Initial Construction/ Operating Permit	--
F-15-019 R1	Minor Revision	APE20180001	3/22/2018	5/20/2018	Changes to unit names, removal of emission units not constructed	--
F-20-003	Renewal	APE20190003	8/13/2021	10/18/2021	Renewal	--
F-20-003 R1	Minor Revision	APE20230002	4/16/2024	9/3/2024	Addition of the new “MC” line to the Flexible PVC Manufacturing Facility	--

SECTION 6 – PERMIT APPLICATION HISTORY

None

APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS	– Ambient Air Quality Standards
BACT	– Best Available Control Technology
Btu	– British thermal unit
CAM	– Compliance Assurance Monitoring
CO	– Carbon Monoxide
Division	– Kentucky Division for Air Quality
ESP	– Electrostatic Precipitator
GHG	– Greenhouse Gas
HAP	– Hazardous Air Pollutant
HF	– Hydrogen Fluoride (Gaseous)
MSDS	– Material Safety Data Sheets
mmHg	– Millimeter of mercury column height
NAAQS	– National Ambient Air Quality Standards
NESHAP	– National Emissions Standards for Hazardous Air Pollutants
NO _x	– Nitrogen Oxides
NSR	– New Source Review
PM	– Particulate Matter
PM ₁₀	– Particulate Matter equal to or smaller than 10 micrometers
PM _{2.5}	– Particulate Matter equal to or smaller than 2.5 micrometers
PSD	– Prevention of Significant Deterioration
PTE	– Potential to Emit
SO ₂	– Sulfur Dioxide
TF	– Total Fluoride (Particulate & Gaseous)
VOC	– Volatile Organic Compounds

APPENDIX B – INDIRECT HEAT EXCHANGER EMISSIONS LIMITATIONS

EU	Fuel	Capacity (MMBtu/hr)	Construction Date	Notes/ Removal Date	Basis for PM Limit	Total Heat Input Capacity for PM Limit (MMBtu/hr)	Basis for SO₂ Limit	Total Heat Input Capacity for SO₂ Limit (MMBtu/hr)
MAU-1	Natural Gas	1.3	2006	NA	Section 4(1)(a)	3.18	Section 5(1)(a)	3.18
MAU-5	Natural Gas	1.88	2006	NA	Section 4(1)(a)	3.18	Section 5(1)(a)	3.18
C-7-3	Natural Gas	1.5	2015	NA	Section 4(1)(c)	14.18	Section 5(1)(c)2.b.	14.18
C-7-5	Natural Gas	1.5	2015	NA	Section 4(1)(c)	14.18	Section 5(1)(c)2.b.	14.18
MAU-6	Natural Gas	2.0	2015	NA	Section 4(1)(c)	14.18	Section 5(1)(c)2.b.	14.18
MAU-7	Natural Gas	2.0	2015	NA	Section 4(1)(c)	14.18	Section 5(1)(c)2.b.	14.18
MAU-8	Natural Gas	2.0	2015	NA	Section 4(1)(c)	14.18	Section 5(1)(c)2.b.	14.18
MAU-9	Natural Gas	2.0	2015	NA	Section 4(1)(c)	14.18	Section 5(1)(c)2.b.	14.18